# Appendix 23d: 2009 Psychological clinical evidence forest plots[1]

Adherence therapy .....2

Arts therapies .....10

Arts therapies – subgroup analyses.....19

CBT .....21

CBT - subgroup analyses .....78

Cognitive remediation .....136

Counselling and supportive therapy .....153

Counselling and supportive therapy - subgroup analyses .....175

Family intervention .....183

Family intervention - subgroup analyses .....242

Psychodynamic and psychoanalytic therapies .....285

Psychoeducation .....294

Psychoeducation (subgroup analyses) .....323

Social skills training .....347

Social skills training (subgroup analyses) .....377

[1] Each study included in this appendix is referred to by a study ID, with studies included in the previous guideline in lower case and new studies in upper case (primary author and date or study number for unpublished trials). Study IDs marked with an asterisk used a multimodal intervention.

**Table 1: Studies included in the adherence therapy review**

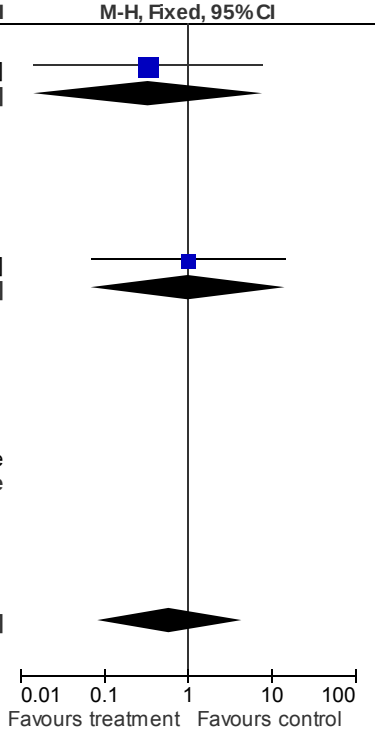
| Intervention | versus Comparator |
|---|---|
| | **Any control** |
| **Adherence therapy** | GRAY2006<br>KEMP1996<br>MANEESAKORN2007<br>ODONNELL2003<br>TSANG2005 |

# Psychological clinical evidence: Adherence therapy

**1 Adherence therapy versus any control**

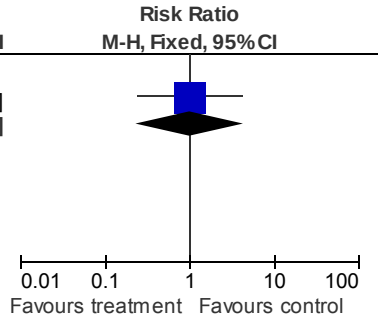
**1.1 Mortality**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.1.1 Death - reason not specified (up to 1 yr FU)** | | | | | | |
| ODONNELL2005 | 0 | 28 | 1 | 28 | 60.0% | 0.33 [0.01, 7.85] |
| **Subtotal (95% CI)** | | **28** | | **28** | **60.0%** | **0.33 [0.01, 7.85]** |
| Total events | 0 | | 1 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.68 (P = 0.50) | | | | | | |
| **1.1.2 Death - due to natural causes/ accidents** | | | | | | |
| TSANG2005 | 1 | 16 | 1 | 16 | 40.0% | 1.00 [0.07, 14.64] |
| **Subtotal (95% CI)** | | **16** | | **16** | **40.0%** | **1.00 [0.07, 14.64]** |
| Total events | 1 | | 1 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.00 (P = 1.00) | | | | | | |
| **1.1.3 Suicide: at FU (Up to 18 months after end of treatment)** | | | | | | |
| KEMP1996 | 0 | 39 | 0 | 35 | | Not estimable |
| **Subtotal (95% CI)** | | **39** | | **35** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **Total (95% CI)** | | **83** | | **79** | **100.0%** | **0.60 [0.08, 4.34]** |
| Total events | 1 | | 2 | | | |
| Heterogeneity: Chi² = 0.27, df = 1 (P = 0.60); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.51 (P = 0.61) | | | | | | |



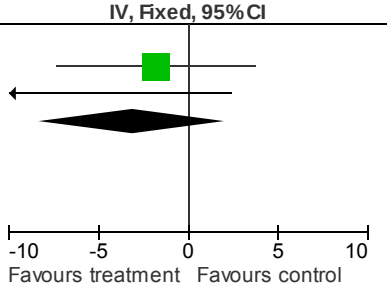

**1.2 Global state: 1. Relapse / psychotic deterioration**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.2.1 At end of treatment** | | | | | | |
| TSANG2005 | 3 | 16 | 3 | 16 | 100.0% | 1.00 [0.24, 4.23] |
| **Subtotal (95% CI)** | | **16** | | **16** | **100.0%** | **1.00 [0.24, 4.23]** |
| Total events | 3 | | 3 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.00 (P = 1.00) | | | | | | |




**1.3 Global State: 2. Global functioning, GAF (signs reversed)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.3.1 At end of treatment (change scores and Endpt)** | | | | | | | | |
| KEMP1996 | -49.7 | 13.2 | 39 | -47.9 | 11.2 | 35 | 87.1% | -1.80 [-7.36, 3.76] |
| MANEESAKORN2007 | -17.25 | 14.55 | 14 | -5.19 | 23.45 | 14 | 12.9% | -12.06 [-26.52, 2.40] |
| **Subtotal (95% CI)** | | | **53** | | | **49** | **100.0%** | **-3.12 [-8.31, 2.07]** |
| Heterogeneity: Chi² = 1.69, df = 1 (P = 0.19); I² = 41% | | | | | | | | |
| Test for overall effect: Z = 1.18 (P = 0.24) | | | | | | | | |

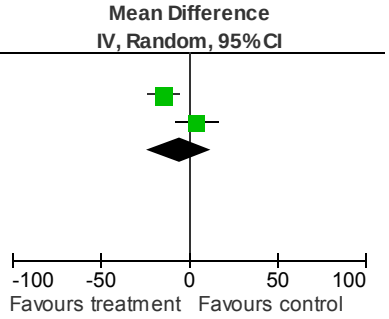



Test for subgroup differences: Not applicable

**1.4 Global State: 2. Global functioning, GAF (signs reversed)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.4.2 Up to 18 mths FU** | | | | | | | | |
| KEMP1996 | -62.8 | 18.4 | 25 | -48.3 | 14.5 | 23 | 52.3% | -14.50 [-23.83, -5.17] |
| ODONNELL2005 | -52.7 | 17.8 | 26 | -56.9 | 25.3 | 24 | 47.7% | 4.20 [-8.02, 16.42] |
| **Subtotal (95% CI)** | | | **51** | | | **47** | **100.0%** | **-5.58 [-23.89, 12.72]** |

Heterogeneity: Tau² = 144.07; Chi² = 5.68, df = 1 (P = 0.02); I² = 82%
Test for overall effect: Z = 0.60 (P = 0.55)



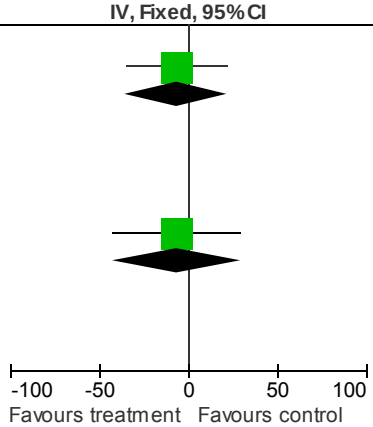

**1.5 Service outcome: 1. Mean number of bed days**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.5.1 Up to 1 yr FU** | | | | | | | | |
| ODONNELL2005 | 26 | 45 | 26 | 33 | 57 | 24 | 100.0% | -7.00 [-35.62, 21.62] |
| **Subtotal (95% CI)** | | | **26** | | | **24** | **100.0%** | **-7.00 [-35.62, 21.62]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 0.48 (P = 0.63)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **1.5.2 Up to 2 yr FU** | | | | | | | | |
| ODONNELL2005 | 43 | 60 | 26 | 50 | 70 | 24 | 100.0% | -7.00 [-43.28, 29.28] |
| **Subtotal (95% CI)** | | | **26** | | | **24** | **100.0%** | **-7.00 [-43.28, 29.28]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 0.38 (P = 0.71)

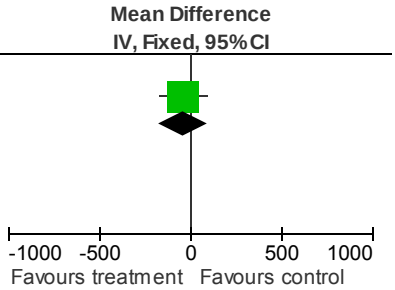



Test for subgroup differences: Chi² = -0.00, df = 1 (Not estimable), I² = 0%

**1.6 Service outcome: 2. Days to hospitalisation**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.6.1 Up to 2 yr FU** | | | | | | | | |
| ODONNELL2005 | 440 | 232.73 | 26 | 482 | 246.29 | 24 | 100.0% | -42.00 [-175.09, 91.09] |
| **Subtotal (95% CI)** | | | **26** | | | **24** | **100.0%** | **-42.00 [-175.09, 91.09]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 0.62 (P = 0.54)

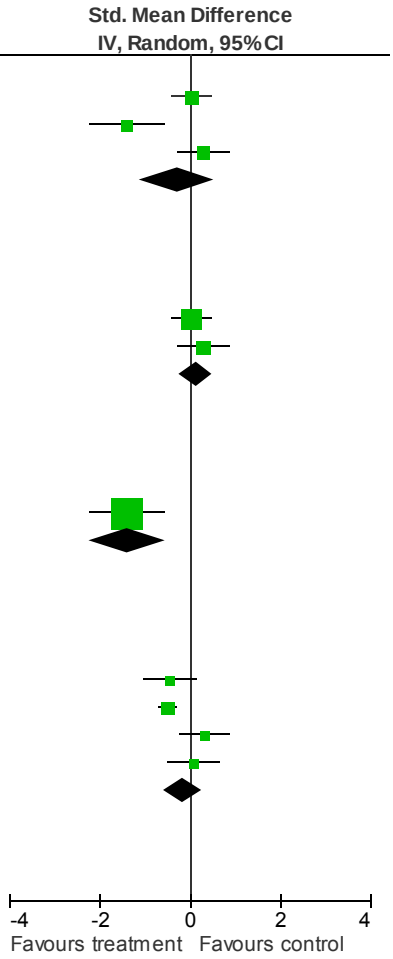



Test for subgroup differences: Not applicable

# Psychological clinical evidence: Adherence therapy

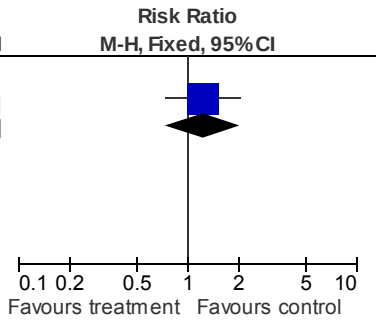
**1.10 Mental state: 1. Continuous measures - Total symptom score (lower = better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.10.1 Total symptom score (BPRS, PANSS) at end of treatment (all data)** | | | | | | | | |
| KEMP1996 | 37.6 | 10.1 | 39 | 37.4 | 8.5 | 35 | 36.7% | 0.02 [-0.44, 0.48] |
| MANEESAKORN2007 | -15.19 | 9.21 | 14 | -1.19 | 10.01 | 14 | 29.1% | -1.41 [-2.25, -0.57] |
| TSANG2005 | 32.54 | 4.57 | 28 | 31.11 | 5.57 | 19 | 34.3% | 0.28 [-0.30, 0.87] |
| **Subtotal (95% CI)** | | | **81** | | | **68** | **100.0%** | **-0.31 [-1.14, 0.53]** |
| Heterogeneity: Tau² = 0.44; Chi² = 11.24, df = 2 (P = 0.004); I² = 82% | | | | | | | | |
| Test for overall effect: Z = 0.72 (P = 0.47) | | | | | | | | |
| **1.10.2 Total symptom score (BPRS, PANSS) at end of treatment (change scores removed)** | | | | | | | | |
| KEMP1996 | 37.6 | 10.1 | 39 | 37.4 | 8.5 | 35 | 62.2% | 0.02 [-0.44, 0.48] |
| TSANG2005 | 32.54 | 4.57 | 28 | 31.11 | 5.57 | 19 | 37.8% | 0.28 [-0.30, 0.87] |
| **Subtotal (95% CI)** | | | **67** | | | **54** | **100.0%** | **0.12 [-0.24, 0.48]** |
| Heterogeneity: Tau² = 0.00; Chi² = 0.47, df = 1 (P = 0.49); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.65 (P = 0.52) | | | | | | | | |
| **1.10.3 Total symptom score (BPRS, PANSS) at end of treatment (change scores)** | | | | | | | | |
| MANEESAKORN2007 | -15.19 | 9.21 | 14 | -1.19 | 10.01 | 14 | 100.0% | -1.41 [-2.25, -0.57] |
| **Subtotal (95% CI)** | | | **14** | | | **14** | **100.0%** | **-1.41 [-2.25, -0.57]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.29 (P = 0.0010) | | | | | | | | |
| **1.10.4 Total symptom score (BPRS, PANSS) up to 2 yrs FU** | | | | | | | | |
| KEMP1996 | 12.5 | 5.6 | 25 | 14.8 | 4.1 | 20 | 21.3% | -0.45 [-1.05, 0.14] |
| GRAY2006 | 38.11 | 11.33 | 175 | 44.31 | 12.79 | 196 | 34.4% | -0.51 [-0.72, -0.30] |
| ODONNELL2005 | 58.2 | 17 | 26 | 52.1 | 21 | 24 | 22.5% | 0.32 [-0.24, 0.87] |
| TSANG2005 | 32.36 | 4.4 | 28 | 32 | 6.2 | 19 | 21.7% | 0.07 [-0.51, 0.65] |
| **Subtotal (95% CI)** | | | **254** | | | **259** | **100.0%** | **-0.19 [-0.60, 0.23]** |
| Heterogeneity: Tau² = 0.12; Chi² = 9.80, df = 3 (P = 0.02); I² = 69% | | | | | | | | |
| Test for overall effect: Z = 0.87 (P = 0.38) | | | | | | | | |




**1.13 Adherence: 1. Non-adherent (as measured in clinical interview)**

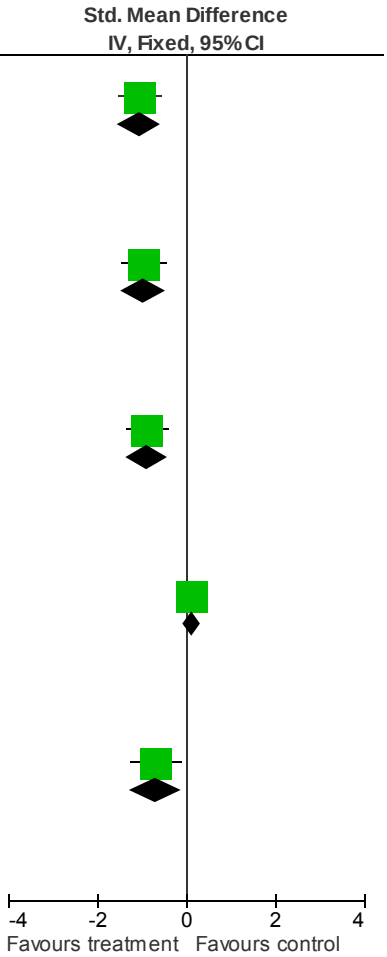
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.13.2 Up to 1 yr FU** | | | | | | |
| ODONNELL2005 | 16 | 28 | 13 | 28 | 100.0% | 1.23 [0.74, 2.05] |
| **Subtotal (95% CI)** | | **28** | | **28** | **100.0%** | **1.23 [0.74, 2.05]** |
| Total events | 16 | | 13 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.80 (P = 0.43) | | | | | | |



# Psychological clinical evidence: Adherence therapy

**1.14 Adherence: 2. MAQ, Kemp rating scale (signs reversed)**

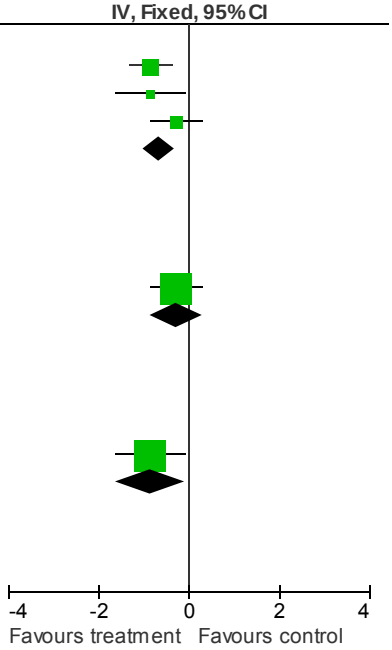
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.14.1 Compliance: compliance rating scales: at end of treatment** | | | | | | | | |
| KEMP1996 | -5.5 | 0.8 | 39 | -4.3 | 1.4 | 35 | 100.0% | -1.06 [-1.55, -0.57] |
| **Subtotal (95% CI)** | | | **39** | | | **35** | **100.0%** | **-1.06 [-1.55, -0.57]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 4.24 (P < 0.0001) | | | | | | | | |
| **1.14.2 Compliance: compliance rating scale: 6- 12 month FU** | | | | | | | | |
| KEMP1996 | -5.5 | 1.8 | 35 | -3.6 | 2.1 | 31 | 100.0% | -0.96 [-1.48, -0.45] |
| **Subtotal (95% CI)** | | | **35** | | | **31** | **100.0%** | **-0.96 [-1.48, -0.45]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.69 (P = 0.0002) | | | | | | | | |
| **1.14.3 Attitudes to Medication Questionnaire: at end of treatment** | | | | | | | | |
| KEMP1996 | -19.4 | 3.7 | 39 | -14.9 | 6.1 | 35 | 100.0% | -0.89 [-1.37, -0.41] |
| **Subtotal (95% CI)** | | | **39** | | | **35** | **100.0%** | **-0.89 [-1.37, -0.41]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.65 (P = 0.0003) | | | | | | | | |
| **1.14.4 MAQ, - up to 1 yr FU** | | | | | | | | |
| GRAY2006 | -3.2 | 1.07 | 172 | -3.33 | 1.02 | 194 | 100.0% | 0.12 [-0.08, 0.33] |
| **Subtotal (95% CI)** | | | **172** | | | **194** | **100.0%** | **0.12 [-0.08, 0.33]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.19 (P = 0.24) | | | | | | | | |
| **1.14.5 Compliance: compliance rating scale: 18 month FU** | | | | | | | | |
| KEMP1996 | -5.6 | 1.7 | 25 | -4.2 | 2.3 | 23 | 100.0% | -0.69 [-1.27, -0.10] |
| **Subtotal (95% CI)** | | | **25** | | | **23** | **100.0%** | **-0.69 [-1.27, -0.10]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.30 (P = 0.02) | | | | | | | | |




Test for subgroup differences: Chi² = 39.57, df = 4 (P < 0.00001), I² = 89.9%

**1.15 Attitudes to treatment (DAI) (signs reversed)**

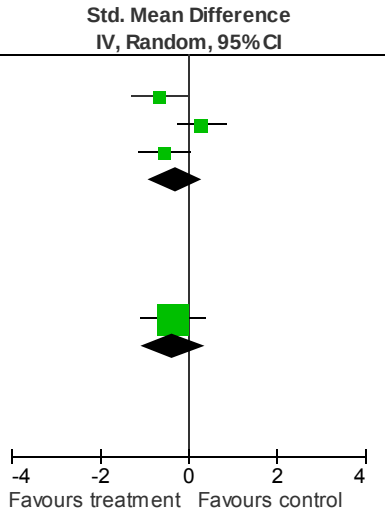
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.15.1 DAI - at end of treatment (all data)** | | | | | | | | |
| KEMP1996 | -52 | 5.9 | 39 | -45.7 | 8.5 | 35 | 49.0% | -0.86 [-1.34, -0.38] |
| MANEESAKORN2007 | -2.44 | 5.45 | 14 | 1.88 | 4.06 | 14 | 18.4% | -0.87 [-1.65, -0.09] |
| TSANG2005 | -1.36 | 3.9 | 28 | -0.21 | 3.7 | 19 | 32.6% | -0.30 [-0.88, 0.29] |
| **Subtotal (95% CI)** | | | **81** | | | **68** | **100.0%** | **-0.68 [-1.01, -0.34]** |
| Heterogeneity: Chi² = 2.43, df = 2 (P = 0.30); I² = 18% | | | | | | | | |
| Test for overall effect: Z = 3.97 (P < 0.0001) | | | | | | | | |
| **1.15.2 DAI - at end of treatment (Change score removed)** | | | | | | | | |
| TSANG2005 | -1.36 | 3.9 | 28 | -0.21 | 3.7 | 19 | 100.0% | -0.30 [-0.88, 0.29] |
| **Subtotal (95% CI)** | | | **28** | | | **19** | **100.0%** | **-0.30 [-0.88, 0.29]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.99 (P = 0.32) | | | | | | | | |
| **1.15.3 DAI - at end of treatment (change scores)** | | | | | | | | |
| MANEESAKORN2007 | -2.44 | 5.45 | 14 | 1.88 | 4.06 | 14 | 100.0% | -0.87 [-1.65, -0.09] |
| **Subtotal (95% CI)** | | | **14** | | | **14** | **100.0%** | **-0.87 [-1.65, -0.09]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.19 (P = 0.03) | | | | | | | | |




Test for subgroup differences: Chi² = 1.70, df = 2 (P = 0.43), I² = 0%

**1.16 Attitudes to treatment (DAI) (signs reversed**

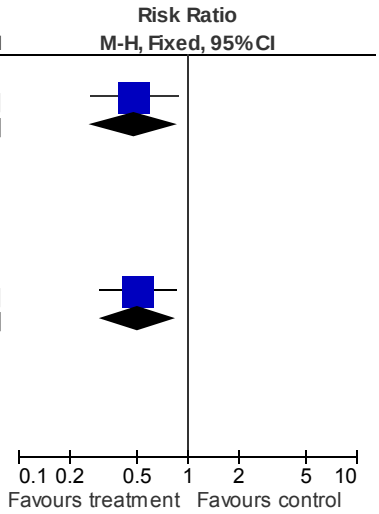
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.16.1 DAI - up to 1 yr FU** | | | | | | | | |
| KEMP1996 | -49.5 | 6.9 | 28 | -44.6 | 7.5 | 16 | 32.0% | -0.68 [-1.31, -0.04] |
| ODONNELL2005 | -51.3 | 8.2 | 26 | -53.4 | 6.2 | 24 | 34.7% | 0.28 [-0.28, 0.84] |
| TSANG2005 | -1.36 | 3.9 | 28 | 0.84 | 4.02 | 19 | 33.3% | -0.55 [-1.14, 0.05] |
| **Subtotal (95% CI)** | | | **82** | | | **59** | **100.0%** | **-0.30 [-0.90, 0.30]** |
| Heterogeneity: Tau² = 0.19; Chi² = 6.20, df = 2 (P = 0.05); I² = 68% | | | | | | | | |
| Test for overall effect: Z = 0.98 (P = 0.33) | | | | | | | | |
| **1.16.2 Drug Attitudes Inventory: 18 month FU** | | | | | | | | |
| KEMP1996 | -50.9 | 6.2 | 16 | -48.2 | 8.5 | 13 | 100.0% | -0.36 [-1.10, 0.38] |
| **Subtotal (95% CI)** | | | **16** | | | **13** | **100.0%** | **-0.36 [-1.10, 0.38]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.95 (P = 0.34) | | | | | | | | |



# Psychological clinical evidence: Adherence therapy

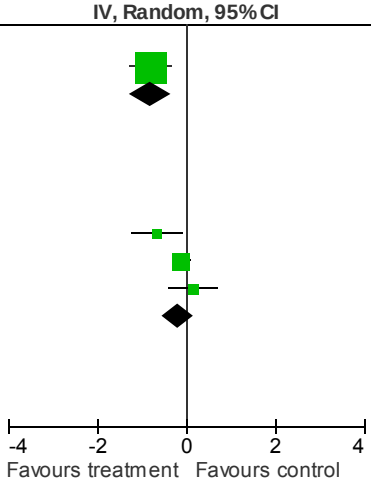
**1.17 Non-compliance with follow up appointments (worst case scenario)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.17.1 Total non-compliance** | | | | | | |
| TSANG2005 | 10 | 38 | 22 | 40 | 100.0% | 0.48 [0.26, 0.87] |
| **Subtotal (95% CI)** | | **38** | | **40** | **100.0%** | **0.48 [0.26, 0.87]** |
| Total events | 10 | | 22 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 2.40 (P = 0.02) | | | | | | |
| **1.17.2 Attended less than 50% of appointments** | | | | | | |
| TSANG2005 | 12 | 38 | 25 | 40 | 100.0% | 0.51 [0.30, 0.85] |
| **Subtotal (95% CI)** | | **38** | | **40** | **100.0%** | **0.51 [0.30, 0.85]** |
| Total events | 12 | | 25 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 2.54 (P = 0.01) | | | | | | |



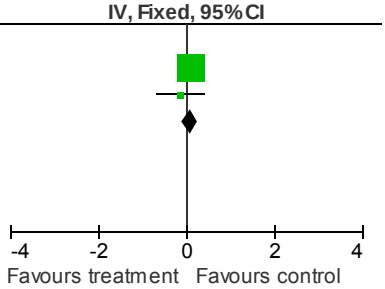

**1.18 Insight: 1. SAI-C, SAI, Expanded SAI (signs reversed)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.18.2 Expanded Schedule for Assessment of Insight, Insight Scale: at end of treatment** | | | | | | | | |
| KEMP1996 | -63 | 23.6 | 39 | -40.6 | 31.2 | 35 | 100.0% | -0.81 [-1.28, -0.33] |
| **Subtotal (95% CI)** | | | **39** | | | **35** | **100.0%** | **-0.81 [-1.28, -0.33]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.33 (P = 0.0009) | | | | | | | | |
| **1.18.3 Expanded Schedule for Assessment of Insight, Insight scale: 12 month FU** | | | | | | | | |
| KEMP1996 | -63.4 | 25.5 | 30 | -42.6 | 36.5 | 20 | 23.7% | -0.67 [-1.26, -0.09] |
| GRAY2006 | -5.22 | 1.57 | 173 | -5.03 | 1.55 | 189 | 51.2% | -0.12 [-0.33, 0.08] |
| ODONNELL2005 | -9.9 | 4.1 | 26 | -10.4 | 2.8 | 24 | 25.1% | 0.14 [-0.42, 0.69] |
| **Subtotal (95% CI)** | | | **229** | | | **233** | **100.0%** | **-0.19 [-0.55, 0.17]** |
| Heterogeneity: Tau² = 0.06; Chi² = 4.23, df = 2 (P = 0.12); I² = 53% | | | | | | | | |
| Test for overall effect: Z = 1.01 (P = 0.31) | | | | | | | | |




**1.20 Quality of Life: 1. SF36, QLS (signs reversed where appropriate)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.20.1 up to 1 yr FU** | | | | | | | | |
| GRAY2006 | -40.24 | 11.97 | 175 | -41.32 | 11.49 | 192 | 88.0% | 0.09 [-0.11, 0.30] |
| ODONNELL2005 | 71.8 | 21 | 26 | 75.2 | 25 | 24 | 12.0% | -0.15 [-0.70, 0.41] |
| **Subtotal (95% CI)** | | | **201** | | | **216** | **100.0%** | **0.06 [-0.13, 0.26]** |
| Heterogeneity: Chi² = 0.62, df = 1 (P = 0.43); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.65 (P = 0.52) | | | | | | | | |

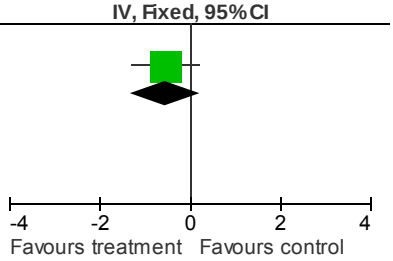



Test for subgroup differences: Not applicable

**1.21 Satisfaction with antipsychotic medication - SWAM (signs reversed)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.21.1 At end of treatment (change scores)** | | | | | | | | |
| MANEESAKORN2007 | -9.69 | 27.48 | 14 | 1.94 | 9.09 | 14 | 100.0% | -0.55 [-1.31, 0.21] |
| **Subtotal (95% CI)** | | | **14** | | | **14** | **100.0%** | **-0.55 [-1.31, 0.21]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 1.43 (P = 0.15)

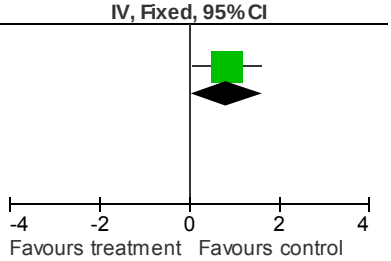



Test for subgroup differences: Not applicable

**1.22 Side effect rating scale - LUNSERS (lower = better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.22.1 At end of treatment (change scores)** | | | | | | | | |
| MANEESAKORN2007 | -4.25 | 16 | 14 | -17.63 | 15.27 | 14 | 100.0% | 0.83 [0.05, 1.61] |
| **Subtotal (95% CI)** | | | **14** | | | **14** | **100.0%** | **0.83 [0.05, 1.61]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 2.09 (P = 0.04)




Test for subgroup differences: Not applicable

**1.25 Treatment acceptability: 1. Leaving the study early for any reason**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **1.25.1 At end of treatment** | | | | | | |
| MANEESAKORN2007 | 2 | 16 | 2 | 16 | 5.1% | 1.00 [0.16, 6.25] |
| TSANG2005 | 8 | 38 | 10 | 40 | 25.5% | 0.84 [0.37, 1.91] |
| GRAY2006 | 22 | 204 | 32 | 205 | 66.3% | 0.69 [0.42, 1.15] |
| ODONNELL2005 | 1 | 28 | 2 | 28 | 3.1% | 0.50 [0.05, 5.20] |
| **Subtotal (95% CI)** | | **286** | | **289** | **100.0%** | **0.73 [0.49, 1.11]** |
| Total events | 33 | | 46 | | | |

Heterogeneity: Tau² = 0.00; Chi² = 0.38, df = 3 (P = 0.94); I² = 0%
Test for overall effect: Z = 1.47 (P = 0.14)

| | | | | | | |
|---|---|---|---|---|---|---|
| **1.25.2 Up to 1 yr FU** | | | | | | |
| KEMP1996 | 5 | 39 | 5 | 35 | 22.7% | 0.90 [0.28, 2.84] |
| GRAY2006 | 26 | 204 | 11 | 205 | 29.7% | 2.38 [1.21, 4.68] |
| TSANG2005 | 10 | 38 | 21 | 40 | 30.7% | 0.50 [0.27, 0.92] |
| ODONNELL2005 | 2 | 28 | 4 | 28 | 16.9% | 0.50 [0.10, 2.51] |
| **Subtotal (95% CI)** | | **309** | | **308** | **100.0%** | **0.91 [0.36, 2.27]** |
| Total events | 43 | | 41 | | | |

Heterogeneity: Tau² = 0.61; Chi² = 12.17, df = 3 (P = 0.007); I² = 75%
Test for overall effect: Z = 0.21 (P = 0.84)

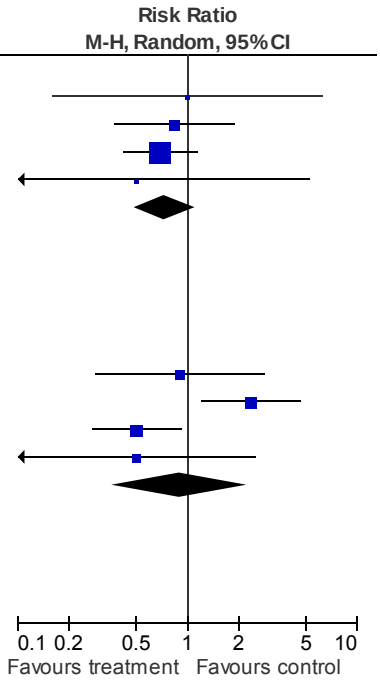


**Table 2: Studies included in the arts therapies review**

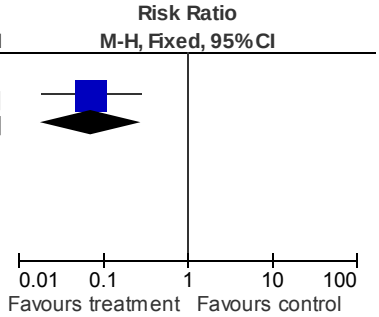
| Intervention | versus Comparator |
|---|---|
| | **Any control** |
| **Arts therapies** | GREEN1987<br>RICHARDSON2007<br>ROHRICHT2006<br>TALWAR2006<br>ULRICH2007<br>YANG1998 |

# Psychological clinical evidence: Arts therapies

**1 Arts therapies versus any control**

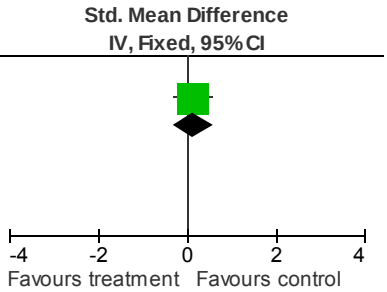
**1.1 Global State: No overall improvement (less than 30% reduction in scores)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.1.1 No overall improvement - at end of treatment** | | | | | | |
| YANG1998 | 2 | 40 | 21 | 30 | 100.0% | 0.07 [0.02, 0.28] |
| **Subtotal (95% CI)** | | **40** | | **30** | **100.0%** | **0.07 [0.02, 0.28]** |
| Total events | 2 | | 21 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 3.77 (P = 0.0002) | | | | | | |




**1.5 Global state: GAF; GAS (signs reversed)**

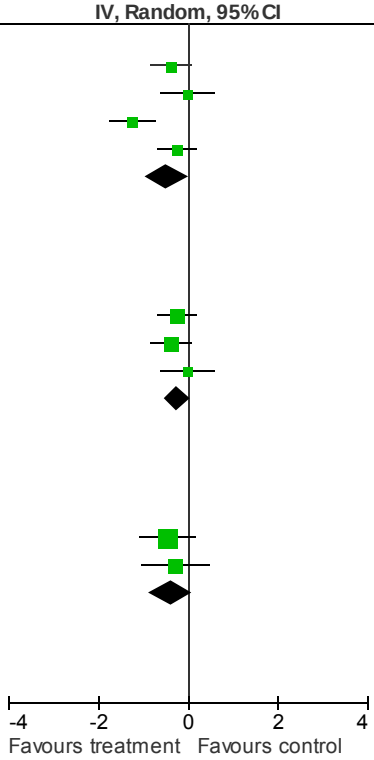
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.5.1 GAS; GAF (at end of treatment)** | | | | | | | | |
| TALWAR2006 | -58.92 | 10.9 | 33 | -60.25 | 9.27 | 48 | 100.0% | 0.13 [-0.31, 0.58] |
| **Subtotal (95% CI)** | | | **33** | | | **48** | **100.0%** | **0.13 [-0.31, 0.58]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.58 (P = 0.56) | | | | | | | | |




Test for subgroup differences: Not applicable

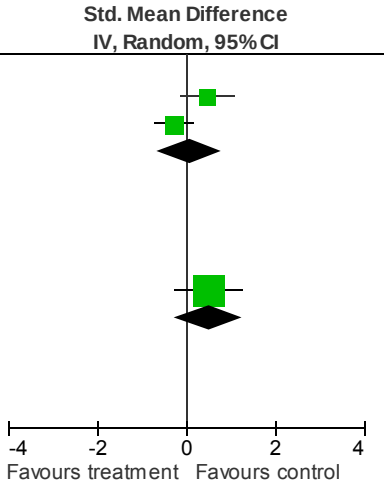
**1.10 Mental state: 1. Continuous measures - total symptom score (lower=better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.10.1 total symptom score (PANSS; BPRS) - At end of treatment (all data)** | | | | | | | | |
| RICHARDSON2007 | 13.5 | 6.5 | 35 | 16.5 | 8.6 | 38 | 26.1% | -0.39 [-0.85, 0.08] |
| ROHRICHT2006 | 71.4 | 15.7 | 24 | 71.9 | 20.9 | 19 | 22.6% | -0.03 [-0.63, 0.57] |
| YANG1998 | 29.35 | 6.95 | 40 | 39.26 | 8.85 | 30 | 24.7% | -1.25 [-1.77, -0.73] |
| TALWAR2006 | 64.09 | 13.78 | 33 | 67.81 | 14.56 | 48 | 26.6% | -0.26 [-0.70, 0.19] |
| **Subtotal (95% CI)** | | | **132** | | | **135** | **100.0%** | **-0.49 [-0.98, 0.01]** |
| Heterogeneity: Tau² = 0.19; Chi² = 11.80, df = 3 (P = 0.008); I² = 75% | | | | | | | | |
| Test for overall effect: Z = 1.91 (P = 0.06) | | | | | | | | |
| **1.10.2 At end of treatment - Sensitivity analysis (YANG removed)** | | | | | | | | |
| TALWAR2006 | 64.09 | 13.78 | 33 | 67.81 | 14.56 | 48 | 40.5% | -0.26 [-0.70, 0.19] |
| RICHARDSON2007 | 13.5 | 6.5 | 35 | 16.5 | 8.6 | 38 | 37.3% | -0.39 [-0.85, 0.08] |
| ROHRICHT2006 | 71.4 | 15.7 | 24 | 71.9 | 20.9 | 19 | 22.2% | -0.03 [-0.63, 0.57] |
| **Subtotal (95% CI)** | | | **92** | | | **105** | **100.0%** | **-0.26 [-0.54, 0.03]** |
| Heterogeneity: Tau² = 0.00; Chi² = 0.86, df = 2 (P = 0.65); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.77 (P = 0.08) | | | | | | | | |
| **1.10.3 total symptom score (PANSS; BPRS) - up to 6 months FU** | | | | | | | | |
| RICHARDSON2007 | 13.2 | 7.1 | 18 | 17.2 | 9.3 | 22 | 59.3% | -0.47 [-1.10, 0.16] |
| ROHRICHT2006 | 70.3 | 10 | 15 | 74.4 | 17.1 | 12 | 40.7% | -0.29 [-1.06, 0.47] |
| **Subtotal (95% CI)** | | | **33** | | | **34** | **100.0%** | **-0.40 [-0.88, 0.09]** |
| Heterogeneity: Tau² = 0.00; Chi² = 0.12, df = 1 (P = 0.73); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.60 (P = 0.11) | | | | | | | | |



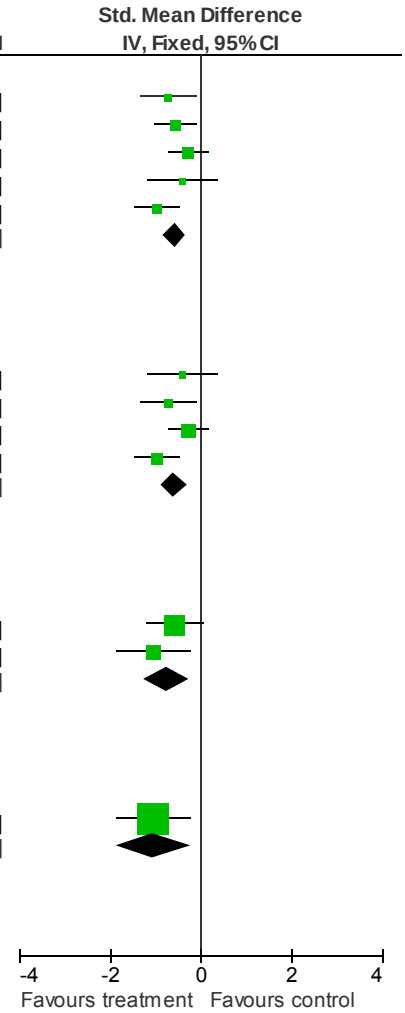

**1.11 Mental state: 2. Continuous measures - positive symptoms (lower=better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.11.1 positive symptoms (PANSS; SAPS) - At end of treatment** | | | | | | | | |
| ROHRICHT2006 | 15.3 | 5.1 | 24 | 12.8 | 5.4 | 19 | 45.9% | 0.47 [-0.14, 1.08] |
| TALWAR2006 | 13.61 | 3.42 | 33 | 14.57 | 3.41 | 48 | 54.1% | -0.28 [-0.72, 0.17] |
| **Subtotal (95% CI)** | | | **57** | | | **67** | **100.0%** | **0.06 [-0.67, 0.79]** |
| Heterogeneity: Tau² = 0.20; Chi² = 3.76, df = 1 (P = 0.05); I² = 73% | | | | | | | | |
| Test for overall effect: Z = 0.17 (P = 0.86) | | | | | | | | |
| **1.11.2 positive symptoms (PANSS) - up to 6 mth FU** | | | | | | | | |
| ROHRICHT2006 | 14.8 | 5.5 | 15 | 12.3 | 4 | 12 | 100.0% | 0.50 [-0.28, 1.27] |
| **Subtotal (95% CI)** | | | **15** | | | **12** | **100.0%** | **0.50 [-0.28, 1.27]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.26 (P = 0.21) | | | | | | | | |



**1.12 Mental state: 3. Continuous measures - negative symptoms (lower=better)**

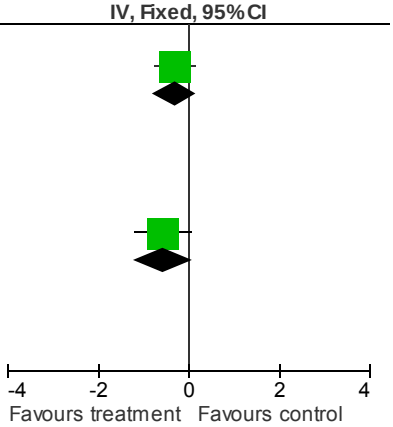
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.12.1 negative symptoms (PANSS; SANS) - At end of treatment (all end pt data)** | | | | | | | | |
| ROHRICHT2006 | 18.9 | 4.3 | 24 | 23.3 | 7.4 | 19 | 14.5% | -0.74 [-1.36, -0.11] |
| RICHARDSON2007 | 7.6 | 3.4 | 35 | 9.9 | 4.4 | 38 | 25.6% | -0.58 [-1.04, -0.11] |
| TALWAR2006 | 17.04 | 4.81 | 33 | 18.51 | 5 | 48 | 28.3% | -0.30 [-0.74, 0.15] |
| ULRICH2007 | 0.72 | 0.74 | 16 | 1.08 | 0.99 | 11 | 9.3% | -0.41 [-1.19, 0.37] |
| YANG1998 | 37.95 | 17 | 40 | 56.76 | 21.63 | 30 | 22.3% | -0.97 [-1.47, -0.47] |
| **Subtotal (95% CI)** | | | **148** | | | **146** | **100.0%** | **-0.59 [-0.83, -0.36]** |
| Heterogeneity: Chi² = 4.34, df = 4 (P = 0.36); I² = 8% | | | | | | | | |
| Test for overall effect: Z = 4.90 (P < 0.00001) | | | | | | | | |
| **1.12.2 Sensitivity analysis (RICHARDSON removed)** | | | | | | | | |
| ULRICH2007 | 0.72 | 0.74 | 16 | 1.08 | 0.99 | 11 | 12.5% | -0.41 [-1.19, 0.37] |
| ROHRICHT2006 | 18.9 | 4.3 | 24 | 23.3 | 7.4 | 19 | 19.4% | -0.74 [-1.36, -0.11] |
| TALWAR2006 | 17.04 | 4.81 | 33 | 18.51 | 5 | 48 | 38.0% | -0.30 [-0.74, 0.15] |
| YANG1998 | 37.95 | 17 | 40 | 56.76 | 21.63 | 30 | 30.0% | -0.97 [-1.47, -0.47] |
| **Subtotal (95% CI)** | | | **113** | | | **108** | **100.0%** | **-0.60 [-0.87, -0.32]** |
| Heterogeneity: Chi² = 4.33, df = 3 (P = 0.23); I² = 31% | | | | | | | | |
| Test for overall effect: Z = 4.27 (P < 0.0001) | | | | | | | | |
| **1.12.3 negative symptoms (SANS) (all end pt data) - up to 6 mths FU** | | | | | | | | |
| RICHARDSON2007 | 7.7 | 4.3 | 18 | 10.6 | 5.2 | 22 | 62.2% | -0.59 [-1.23, 0.05] |
| ROHRICHT2006 | 18.2 | 2.5 | 15 | 23.2 | 6.3 | 12 | 37.8% | -1.06 [-1.88, -0.24] |
| **Subtotal (95% CI)** | | | **33** | | | **34** | **100.0%** | **-0.77 [-1.27, -0.26]** |
| Heterogeneity: Chi² = 0.79, df = 1 (P = 0.38); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 2.99 (P = 0.003) | | | | | | | | |
| **1.12.4 Sensitivity analysis (RICHARDSON removed)** | | | | | | | | |
| ROHRICHT2006 | 18.2 | 2.5 | 15 | 23.2 | 6.3 | 12 | 100.0% | -1.06 [-1.88, -0.24] |
| **Subtotal (95% CI)** | | | **15** | | | **12** | **100.0%** | **-1.06 [-1.88, -0.24]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.54 (P = 0.01) | | | | | | | | |




Test for subgroup differences: Chi² = 1.48, df = 3 (P = 0.69), I² = 0%

**1.13 Mental state: 3. Continuous measures - negative symptoms (change scores)**

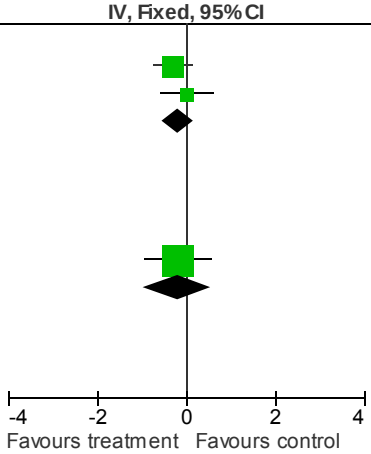
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.13.1 negative symptoms (SANS) (Change score) - At end of treatment** | | | | | | | | |
| RICHARDSON2007 | -0.05 | 3.06 | 35 | 1 | 3.35 | 38 | 100.0% | -0.32 [-0.79, 0.14] |
| **Subtotal (95% CI)** | | | **35** | | | **38** | **100.0%** | **-0.32 [-0.79, 0.14]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.37 (P = 0.17) | | | | | | | | |
| **1.13.2 negative symptoms (SANS) (Change score) - Up to 6 months FU** | | | | | | | | |
| RICHARDSON2007 | 0.3 | 3.42 | 18 | 2.55 | 4.17 | 22 | 100.0% | -0.57 [-1.21, 0.06] |
| **Subtotal (95% CI)** | | | **18** | | | **22** | **100.0%** | **-0.57 [-1.21, 0.06]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.76 (P = 0.08) | | | | | | | | |




Test for subgroup differences: Chi² = 0.39, df = 1 (P = 0.53), I² = 0%

**1.14 Mental state: 4. Continuous measures - general symptoms (lower=better)**

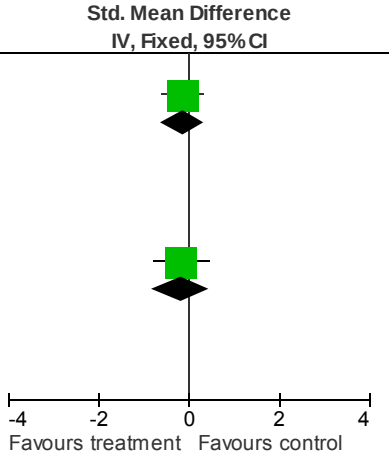
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.14.1 General symptom score (PANSS general subscale) - At end of treatment** | | | | | | | | |
| TALWAR2006 | 32.35 | 6.57 | 33 | 34.54 | 7.09 | 48 | 64.6% | -0.32 [-0.76, 0.13] |
| ROHRICHT2006 | 37.2 | 8.7 | 24 | 37.2 | 9.9 | 19 | 35.4% | 0.00 [-0.60, 0.60] |
| **Subtotal (95% CI)** | | | **57** | | | **67** | **100.0%** | **-0.20 [-0.56, 0.15]** |
| Heterogeneity: Chi² = 0.68, df = 1 (P = 0.41); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.11 (P = 0.27) | | | | | | | | |
| **1.14.2 General symptom score (PANSS general subscale) - up to 4 mths FU** | | | | | | | | |
| ROHRICHT2006 | 37.3 | 5.4 | 15 | 38.9 | 9.6 | 12 | 100.0% | -0.21 [-0.97, 0.56] |
| **Subtotal (95% CI)** | | | **15** | | | **12** | **100.0%** | **-0.21 [-0.97, 0.56]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.53 (P = 0.60) | | | | | | | | |




Test for subgroup differences: Chi² = 0.00, df = 1 (P = 1.00), I² = 0%

**1.15 Mental state: 5. Continuous measures - Brief Symptom Inventory (lower = better)**

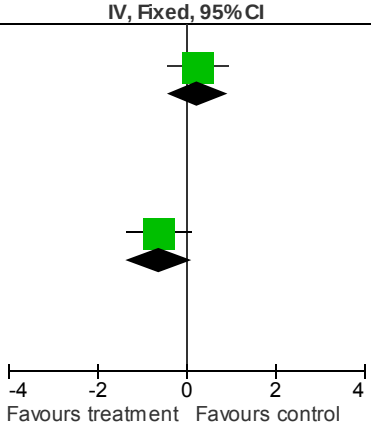
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.15.1 BSI - At end of treatment** | | | | | | | | |
| RICHARDSON2007 | 0.8 | 0.5 | 34 | 0.9 | 0.8 | 36 | 100.0% | -0.15 [-0.62, 0.32] |
| **Subtotal (95% CI)** | | | **34** | | | **36** | **100.0%** | **-0.15 [-0.62, 0.32]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.62 (P = 0.54) | | | | | | | | |
| **1.15.2 BSI - Up to 6 months FU** | | | | | | | | |
| RICHARDSON2007 | 0.7 | 0.5 | 17 | 0.8 | 0.6 | 22 | 100.0% | -0.18 [-0.81, 0.46] |
| **Subtotal (95% CI)** | | | **17** | | | **22** | **100.0%** | **-0.18 [-0.81, 0.46]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.54 (P = 0.59) | | | | | | | | |




Test for subgroup differences: Chi² = 0.00, df = 1 (P = 0.94), I² = 0%

**1.16 Mental state: 6. Other - GTFm total (signs reversed)**

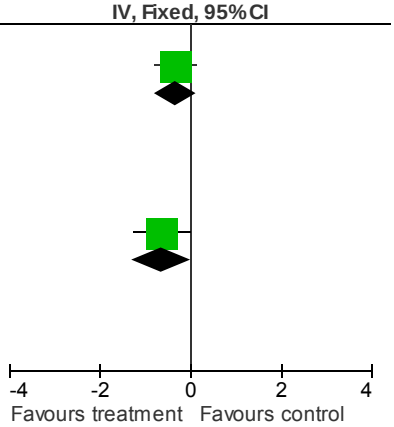
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.16.1 GieBentest (GTFm) total observer scale - end of treatment** | | | | | | | | |
| ULRICH2007 | -0.05 | 0.81 | 21 | -0.26 | 0.85 | 13 | 100.0% | 0.25 [-0.45, 0.94] |
| **Subtotal (95% CI)** | | | **21** | | | **13** | **100.0%** | **0.25 [-0.45, 0.94]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.70 (P = 0.48) | | | | | | | | |
| **1.16.2 GieBentest (GTFm) total self-assessment scale - end of treatment** | | | | | | | | |
| ULRICH2007 | -0.7 | 0.93 | 17 | -0.07 | 1.04 | 13 | 100.0% | -0.63 [-1.37, 0.12] |
| **Subtotal (95% CI)** | | | **17** | | | **13** | **100.0%** | **-0.63 [-1.37, 0.12]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.65 (P = 0.10) | | | | | | | | |




Test for subgroup differences: Chi² = 2.85, df = 1 (P = 0.09), I² = 64.9%

**1.20 Psychosocial functioning: 1. Social functioning Scale (Signs reversed)**

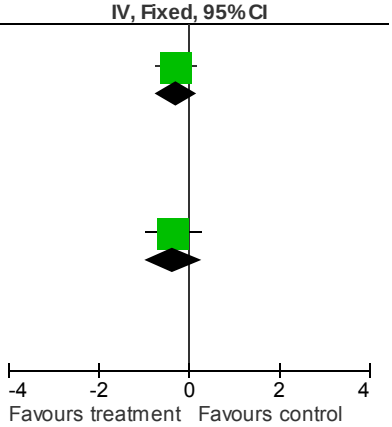
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.20.1 SFS - at end of treatment** | | | | | | | | |
| RICHARDSON2007 | -117.9 | 21.2 | 33 | -110.7 | 20.2 | 37 | 100.0% | -0.34 [-0.82, 0.13] |
| **Subtotal (95% CI)** | | | **33** | | | **37** | **100.0%** | **-0.34 [-0.82, 0.13]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.43 (P = 0.15) | | | | | | | | |
| **1.20.2 SFS - up to 6 months FU** | | | | | | | | |
| RICHARDSON2007 | -124.6 | 26.4 | 18 | -109.9 | 18.6 | 22 | 100.0% | -0.64 [-1.28, -0.00] |
| **Subtotal (95% CI)** | | | **18** | | | **22** | **100.0%** | **-0.64 [-1.28, -0.00]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.97 (P = 0.05) | | | | | | | | |




Test for subgroup differences: Chi² = 0.54, df = 1 (P = 0.46), I² = 0%

**1.21 Psychosocial functioning: 2. HoNOS (lower=better)**

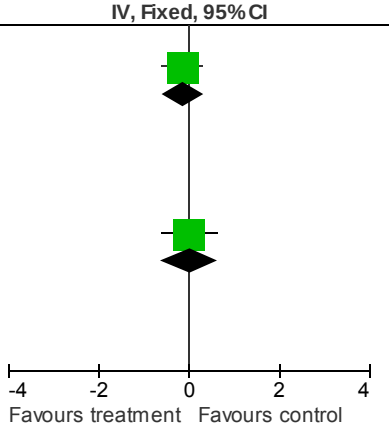
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.21.1 HoNOS - at end of treatment** | | | | | | | | |
| RICHARDSON2007 | 8.1 | 4.6 | 35 | 9.6 | 5.1 | 38 | 100.0% | -0.30 [-0.77, 0.16] |
| **Subtotal (95% CI)** | | | **35** | | | **38** | **100.0%** | **-0.30 [-0.77, 0.16]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.29 (P = 0.20) | | | | | | | | |
| **1.21.2 HoNOS - up to 6 months FU** | | | | | | | | |
| RICHARDSON2007 | 7.7 | 4.3 | 18 | 9.5 | 5.5 | 22 | 100.0% | -0.35 [-0.98, 0.28] |
| **Subtotal (95% CI)** | | | **18** | | | **22** | **100.0%** | **-0.35 [-0.98, 0.28]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.10 (P = 0.27) | | | | | | | | |




Test for subgroup differences: Chi² = 0.01, df = 1 (P = 0.90), I² = 0%

**1.22 Psychosocial functioning: 3. IIP (lower=better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.22.1 IIP - at end of treatment** | | | | | | | | |
| RICHARDSON2007 | 0.9 | 0.6 | 35 | 1 | 0.7 | 37 | 100.0% | -0.15 [-0.61, 0.31] |
| **Subtotal (95% CI)** | | | **35** | | | **37** | **100.0%** | **-0.15 [-0.61, 0.31]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.64 (P = 0.52) | | | | | | | | |
| **1.22.2 IIP - up to 6 months FU** | | | | | | | | |
| RICHARDSON2007 | 0.9 | 0.7 | 18 | 0.9 | 0.6 | 22 | 100.0% | 0.00 [-0.62, 0.62] |
| **Subtotal (95% CI)** | | | **18** | | | **22** | **100.0%** | **0.00 [-0.62, 0.62]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.00 (P = 1.00) | | | | | | | | |

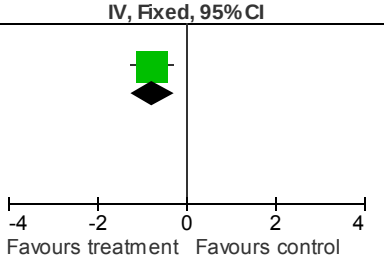



Test for subgroup differences: Chi² = 0.15, df = 1 (P = 0.70), I² = 0%

**1.23 Psychosocial functioning: 4. Social Disability Schedule for In-patients (lower=better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.23.1 SDSI - at end of treatment** | | | | | | | | |
| YANG1998 | 4.95 | 2.83 | 40 | 7.43 | 3.56 | 30 | 100.0% | -0.78 [-1.27, -0.28] |
| **Subtotal (95% CI)** | | | **40** | | | **30** | **100.0%** | **-0.78 [-1.27, -0.28]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 3.09 (P = 0.002)

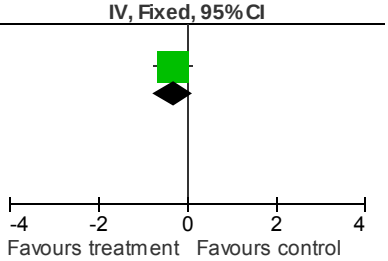



Test for subgroup differences: Not applicable

**1.30 Satisfaction with Treatment: 1. Service user satisfaction (signs reversed)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.30.1 Client Satisfaction Questionnaire - (at end of treatment)** | | | | | | | | |
| TALWAR2006 | -22 | 5.05 | 33 | -20.51 | 4.19 | 48 | 100.0% | -0.32 [-0.77, 0.12] |
| **Subtotal (95% CI)** | | | **33** | | | **48** | **100.0%** | **-0.32 [-0.77, 0.12]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 1.42 (P = 0.15)




Test for subgroup differences: Not applicable

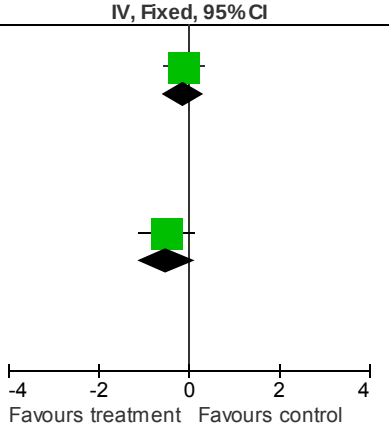
**1.60 Quality of Life: 1. Perc QoL (signs reversed)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.60.1 Perc QoL - at end of treatment** | | | | | | | | |
| RICHARDSON2007 | -4.6 | 0.7 | 35 | -4.5 | 0.9 | 39 | 100.0% | -0.12 [-0.58, 0.33] |
| **Subtotal (95% CI)** | | | **35** | | | **39** | **100.0%** | **-0.12 [-0.58, 0.33]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 0.52 (P = 0.60)

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.60.2 Perc Qol - up to 6 months FU** | | | | | | | | |
| RICHARDSON2007 | -4.8 | 0.6 | 18 | -4.4 | 0.9 | 22 | 100.0% | -0.50 [-1.14, 0.13] |
| **Subtotal (95% CI)** | | | **18** | | | **22** | **100.0%** | **-0.50 [-1.14, 0.13]** |

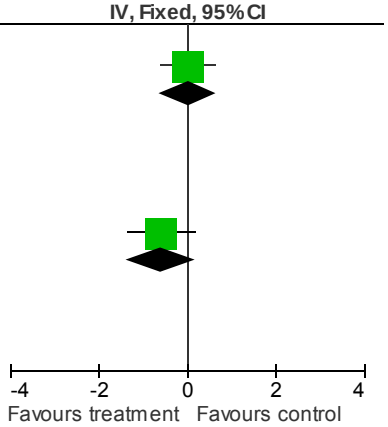
Heterogeneity: Not applicable
Test for overall effect: Z = 1.55 (P = 0.12)




Test for subgroup differences: Chi² = 0.91, df = 1 (P = 0.34), I² = 0%

**1.61 Quality of Life: 2. MANSA (signs reversed)**

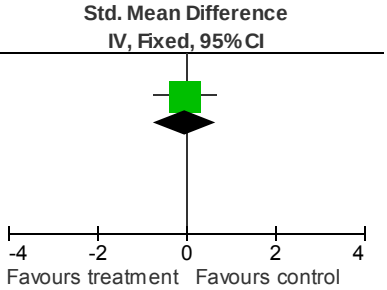
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.61.1 MANSA - at end of treatment** | | | | | | | | |
| ROHRICHT2006 | -4.1 | 0.7 | 21 | -4.1 | 0.8 | 18 | 100.0% | 0.00 [-0.63, 0.63] |
| **Subtotal (95% CI)** | | | **21** | | | **18** | **100.0%** | **0.00 [-0.63, 0.63]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.00 (P = 1.00) | | | | | | | | |
| **1.61.2 MANSA - up to 4 mths FU** | | | | | | | | |
| ROHRICHT2006 | -4.3 | 0.5 | 15 | -3.9 | 0.8 | 12 | 100.0% | -0.60 [-1.38, 0.18] |
| **Subtotal (95% CI)** | | | **15** | | | **12** | **100.0%** | **-0.60 [-1.38, 0.18]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.50 (P = 0.13) | | | | | | | | |




Test for subgroup differences: Chi² = 1.37, df = 1 (P = 0.24), I² = 26.9%

**1.70 Other: Scales for Mental Health (SPG) (signs reversed)**

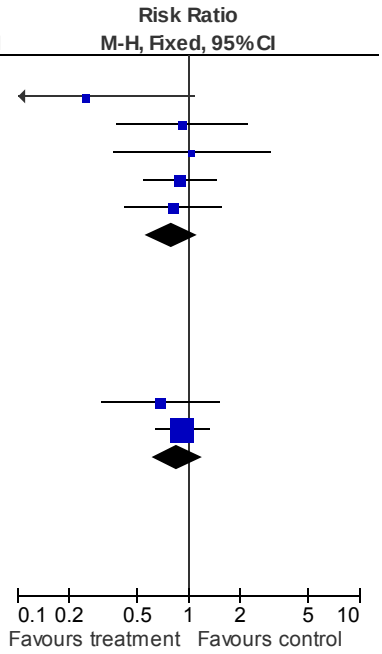
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.70.1 SPG - at end of treatment** | | | | | | | | |
| ULRICH2007 | -3.01 | 0.44 | 17 | -2.99 | 0.37 | 14 | 100.0% | -0.05 [-0.75, 0.66] |
| **Subtotal (95% CI)** | | | **17** | | | **14** | **100.0%** | **-0.05 [-0.75, 0.66]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.13 (P = 0.90) | | | | | | | | |




Test for subgroup differences: Not applicable

**1.80 Treatment acceptability: 1. Leaving the study early**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.80.1 at end of treatment** | | | | | | |
| ROHRICHT2006 | 2 | 24 | 7 | 21 | 15.9% | 0.25 [0.06, 1.07] |
| RICHARDSON2007 | 8 | 47 | 8 | 43 | 17.8% | 0.91 [0.38, 2.22] |
| TALWAR2006 | 5 | 33 | 7 | 48 | 12.2% | 1.04 [0.36, 2.99] |
| GREEN1987 | 13 | 24 | 14 | 23 | 30.5% | 0.89 [0.54, 1.46] |
| ULRICH2007 | 10 | 26 | 10 | 21 | 23.6% | 0.81 [0.42, 1.57] |
| **Subtotal (95% CI)** | | **154** | | **156** | **100.0%** | **0.79 [0.56, 1.12]** |
| Total events | 38 | | 46 | | | |
| Heterogeneity: Chi² = 2.98, df = 4 (P = 0.56); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.34 (P = 0.18) | | | | | | |
| **1.80.2 up to 6 months FU** | | | | | | |
| ROHRICHT2006 | 7 | 24 | 9 | 21 | 26.9% | 0.68 [0.31, 1.51] |
| RICHARDSON2007 | 25 | 47 | 25 | 43 | 73.1% | 0.91 [0.63, 1.32] |
| **Subtotal (95% CI)** | | **71** | | **64** | **100.0%** | **0.85 [0.61, 1.20]** |
| Total events | 32 | | 34 | | | |
| Heterogeneity: Chi² = 0.45, df = 1 (P = 0.50); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.93 (P = 0.35) | | | | | | |

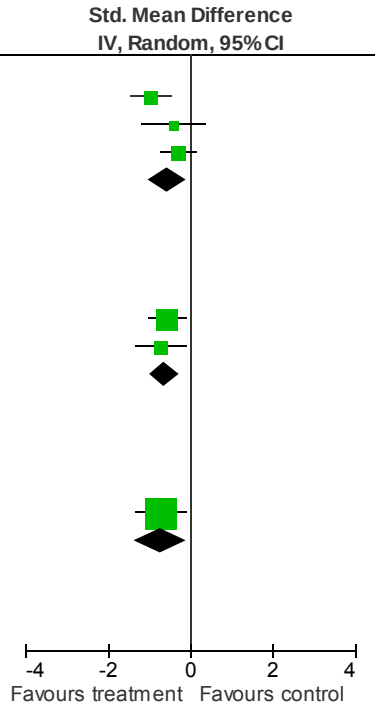


# Psychological clinical evidence: Arts therapies (subgroup analyses)

**1 Arts therapies versus any control - subgroup analysis by setting**

**1.12 Mental state: 3. Continuous measures - negative symptoms (lower = better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.12.1 negative symptoms (PANSS; SANS) - At end of treatment (all end pt data) INPATIENT** | | | | | | | | |
| YANG1998 | 37.95 | 17 | 40 | 56.76 | 21.63 | 30 | 36.7% | -0.97 [-1.47, -0.47] |
| ULRICH2007 | 0.72 | 0.74 | 16 | 1.08 | 0.99 | 11 | 22.8% | -0.41 [-1.19, 0.37] |
| TALWAR2006 | 17.04 | 4.81 | 33 | 18.51 | 5 | 48 | 40.5% | -0.30 [-0.74, 0.15] |
| **Subtotal (95% CI)** | | | **89** | | | **89** | **100.0%** | **-0.57 [-1.03, -0.11]** |
| Heterogeneity: Tau² = 0.08; Chi² = 4.10, df = 2 (P = 0.13); I² = 51% | | | | | | | | |
| Test for overall effect: Z = 2.44 (P = 0.01) | | | | | | | | |
| **1.12.2 negative symptoms (PANSS; SANS) - At end of treatment (all end pt data) OUTPATIENT** | | | | | | | | |
| RICHARDSON2007 | 7.6 | 3.4 | 35 | 9.9 | 4.4 | 38 | 63.9% | -0.58 [-1.04, -0.11] |
| ROHRICHT2006 | 18.9 | 4.3 | 24 | 23.3 | 7.4 | 19 | 36.1% | -0.74 [-1.36, -0.11] |
| **Subtotal (95% CI)** | | | **59** | | | **57** | **100.0%** | **-0.63 [-1.01, -0.26]** |
| Heterogeneity: Tau² = 0.00; Chi² = 0.16, df = 1 (P = 0.69); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 3.31 (P = 0.0009) | | | | | | | | |
| **1.12.3 OUTPATIENT - sensitivity analysis (RICHARDSON removed)** | | | | | | | | |
| ROHRICHT2006 | 18.9 | 4.3 | 24 | 23.3 | 7.4 | 19 | 100.0% | -0.74 [-1.36, -0.11] |
| **Subtotal (95% CI)** | | | **24** | | | **19** | **100.0%** | **-0.74 [-1.36, -0.11]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.31 (P = 0.02) | | | | | | | | |




**2 Arts therapies versus any control - subgroup analysis by treatment modality**

# Psychological clinical evidence: Arts therapies (subgroup analyses)

**2.12 Mental state: 3. Continuous measures - negative symptoms (lower = better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.12.1 negative symptoms (PANSS; SANS) - At end of treatment (all end pt data) MUSIC** | | | | | | | | |
| YANG1998 | 37.95 | 17 | 40 | 56.76 | 21.63 | 30 | 36.7% | -0.97 [-1.47, -0.47] |
| ULRICH2007 | 0.72 | 0.74 | 16 | 1.08 | 0.99 | 11 | 22.8% | -0.41 [-1.19, 0.37] |
| TALWAR2006 | 17.04 | 4.81 | 33 | 18.51 | 5 | 48 | 40.5% | -0.30 [-0.74, 0.15] |
| **Subtotal (95% CI)** | | | **89** | | | **89** | **100.0%** | **-0.57 [-1.03, -0.11]** |
| Heterogeneity: Tau² = 0.08; Chi² = 4.10, df = 2 (P = 0.13); I² = 51% | | | | | | | | |
| Test for overall effect: Z = 2.44 (P = 0.01) | | | | | | | | |
| **2.12.2 negative symptoms (PANSS; SANS) - At end of treatment (all end pt data) OTHER** | | | | | | | | |
| RICHARDSON2007 | 7.6 | 3.4 | 35 | 9.9 | 4.4 | 38 | 63.9% | -0.58 [-1.04, -0.11] |
| ROHRICHT2006 | 18.9 | 4.3 | 24 | 23.3 | 7.4 | 19 | 36.1% | -0.74 [-1.36, -0.11] |
| **Subtotal (95% CI)** | | | **59** | | | **57** | **100.0%** | **-0.63 [-1.01, -0.26]** |
| Heterogeneity: Tau² = 0.00; Chi² = 0.16, df = 1 (P = 0.69); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 3.31 (P = 0.0009) | | | | | | | | |
| **2.12.3 OTHER - sensitivity analysis (RICHARDSON removed)** | | | | | | | | |
| ROHRICHT2006 | 18.9 | 4.3 | 24 | 23.3 | 7.4 | 19 | 100.0% | -0.74 [-1.36, -0.11] |
| **Subtotal (95% CI)** | | | **24** | | | **19** | **100.0%** | **-0.74 [-1.36, -0.11]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.31 (P = 0.02) | | | | | | | | |

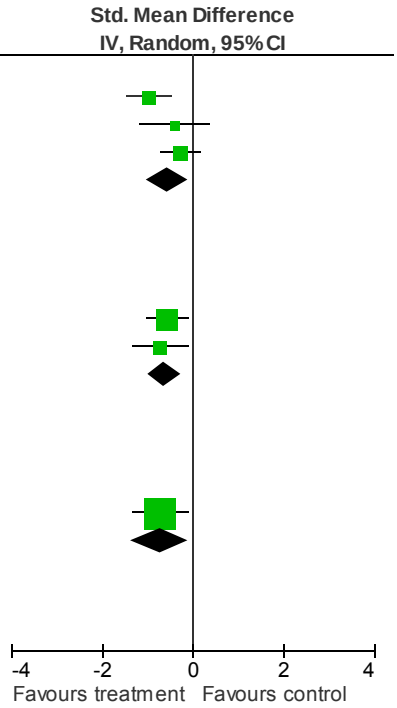


**Table 3: Studies included in the CBT review**

| Intervention | versus Comparator |
|---|---|
| | **Standard care** |
| **CBT** | BACH2002<br>BARROWCLOUGH2006<br>DURHAM2003<br>ENGLAND2007<br>GARETY2008<br>GRANHOLM2005 *<br>GUMLEY2003<br>JACKSON2005<br>JENNER2004 *<br>Kuipers1997<br>LECLERC2000<br>LECOMTE2008<br>Lewis2002<br>MCLEOD2007<br>STARTUP2004<br>Tarrier1998<br>TROWER2004<br>Turkington2002<br>WYKES2005 |
| | **Other active treatments** |
| **CBT** | BECHDOLF2004<br>CATHER2005<br>DURHAM2003<br>GARETY2008<br>Haddock1999<br>Hogarty1997<br>JACKSON2007<br>LECOMTE2008<br>Lewis2002<br>PENADES2006<br>PINTO1999 *<br>Sensky2000<br>Tarrier1998<br>VALMAGGIA2005 |
| | **Non standard care** |
| **CBT + non-standard care** | Drury1996<br>Bradshaw2000<br>RECTOR2003 |

# Psychological clinical evidence: CBT

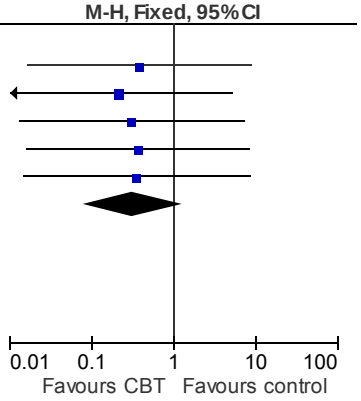
**1 CBT versus standard care**

**1.1 Mortality (at end of treatment)**

| Study or Subgroup | CBT Events | CBT Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.1.1 Suicide: at end of treatment** | | | | | | |
| Kuipers1997 | 0 | 28 | 1 | 32 | 18.3% | 0.38 [0.02, 8.95] |
| Turkington2002 | 0 | 257 | 1 | 165 | 23.8% | 0.21 [0.01, 5.23] |
| STARTUP2004 | 0 | 47 | 1 | 43 | 20.4% | 0.31 [0.01, 7.31] |
| TROWER2004 | 0 | 18 | 1 | 20 | 18.6% | 0.37 [0.02, 8.51] |
| GARETY2007 | 0 | 133 | 1 | 140 | 19.0% | 0.35 [0.01, 8.53] |
| **Subtotal (95% CI)** | | **483** | | **400** | **100.0%** | **0.32 [0.08, 1.30]** |
| Total events | 0 | | 5 | | | |

Heterogeneity: Chi² = 0.08, df = 4 (P = 1.00); I² = 0%

Test for overall effect: Z = 1.59 (P = 0.11)




**1.2 Mortality (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.2.1 Suicide: at FU (6-9 months after end of treatment)** | | | | | | |
| Kuipers1997 | 0 | 28 | 1 | 32 | 31.9% | 0.38 [0.02, 8.95] |
| TROWER2004 | 0 | 18 | 1 | 20 | 32.4% | 0.37 [0.02, 8.51] |
| STARTUP2004 | 0 | 47 | 1 | 43 | 35.6% | 0.31 [0.01, 7.31] |
| **Subtotal (95% CI)** | | **93** | | **95** | **100.0%** | **0.35 [0.06, 2.16]** |
| Total events | 0 | | 3 | | | |

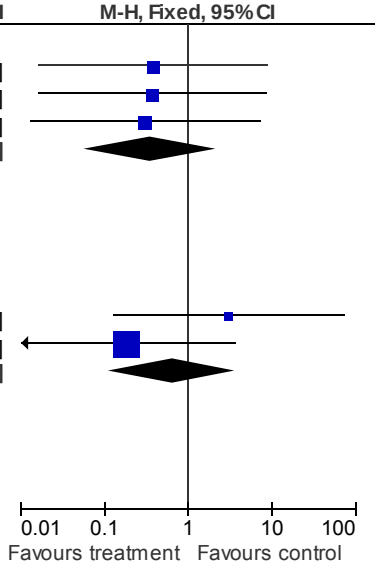
Heterogeneity: Chi² = 0.01, df = 2 (P = 0.99); I² = 0%

Test for overall effect: Z = 1.13 (P = 0.26)

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.2.2 Suicide: at FU (18 months)** | | | | | | |
| Lewis2002 | 1 | 101 | 0 | 102 | 16.0% | 3.03 [0.12, 73.50] |
| STARTUP2004 | 0 | 47 | 2 | 43 | 84.0% | 0.18 [0.01, 3.71] |
| **Subtotal (95% CI)** | | **148** | | **145** | **100.0%** | **0.64 [0.11, 3.68]** |
| Total events | 1 | | 2 | | | |

Heterogeneity: Chi² = 1.58, df = 1 (P = 0.21); I² = 37%

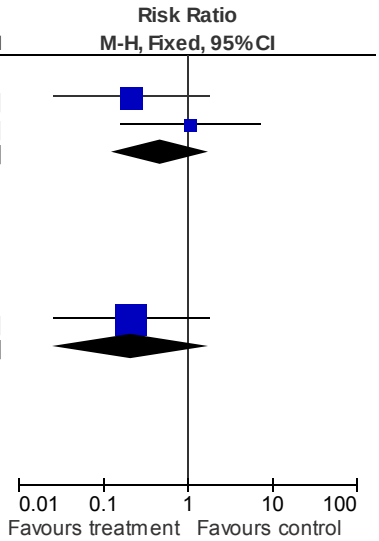
Test for overall effect: Z = 0.50 (P = 0.62)



# Psychological clinical evidence: CBT

**1.3 Service outcome: 1. Rehospitalisation (at end of treament)**

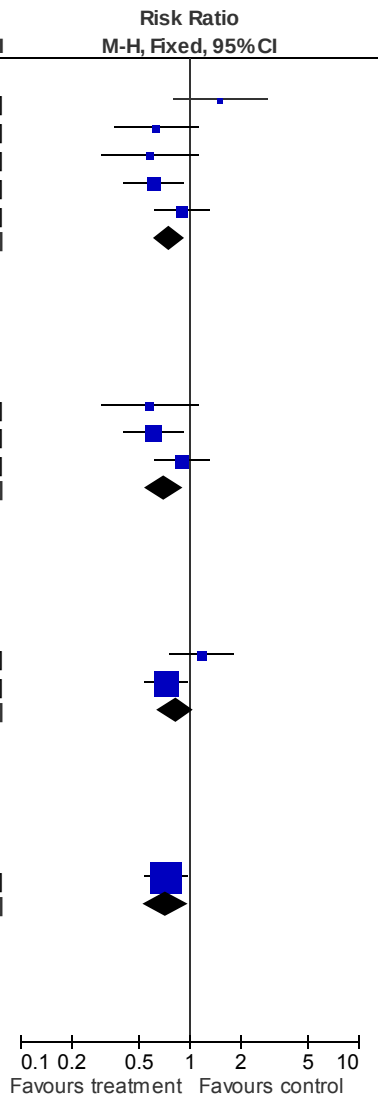
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.3.1 At end of treatment** | | | | | | |
| Tarrier1998 | 1 | 33 | 4 | 28 | 69.0% | 0.21 [0.03, 1.79] |
| GRANHOLM2005* | 2 | 37 | 2 | 39 | 31.0% | 1.05 [0.16, 7.10] |
| **Subtotal (95% CI)** | | **70** | | **67** | **100.0%** | **0.47 [0.13, 1.78]** |
| Total events | 3 | | 6 | | | |
| Heterogeneity: Chi² = 1.22, df = 1 (P = 0.27); I² = 18% | | | | | | |
| Test for overall effect: Z = 1.11 (P = 0.27) | | | | | | |
| **1.3.2 At end of treatment - sensitivity analysis removing multimodal studies** | | | | | | |
| Tarrier1998 | 1 | 33 | 4 | 28 | 100.0% | 0.21 [0.03, 1.79] |
| **Subtotal (95% CI)** | | **33** | | **28** | **100.0%** | **0.21 [0.03, 1.79]** |
| Total events | 1 | | 4 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.43 (P = 0.15) | | | | | | |



# Psychological clinical evidence: CBT

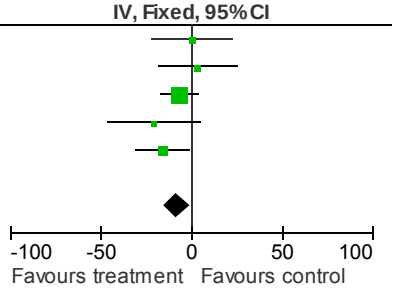
**1.4 Service outcome: 1. Rehospitalisation (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.4.1 At FU (up to 18 months after treatment) (all data)** | | | | | | |
| Tarrier1998 | 16 | 33 | 9 | 28 | 7.4% | 1.51 [0.79, 2.87] |
| BACH2002 | 12 | 40 | 19 | 40 | 14.5% | 0.63 [0.36, 1.12] |
| GUMLEY2003 | 11 | 72 | 19 | 72 | 14.5% | 0.58 [0.30, 1.13] |
| Turkington2002 | 36 | 257 | 38 | 165 | 35.4% | 0.61 [0.40, 0.92] |
| Lewis2002 | 33 | 101 | 37 | 102 | 28.1% | 0.90 [0.62, 1.32] |
| **Subtotal (95% CI)** | | **503** | | **407** | **100.0%** | **0.76 [0.61, 0.94]** |
| Total events | 108 | | 122 | | | |
| Heterogeneity: Chi² = 7.31, df = 4 (P = 0.12); I² = 45% | | | | | | |
| Test for overall effect: Z = 2.49 (P = 0.01) | | | | | | |
| **1.4.2 Sensitivity analysis (pre-NSF and non-UK removed)** | | | | | | |
| GUMLEY2003 | 11 | 72 | 19 | 72 | 18.6% | 0.58 [0.30, 1.13] |
| Turkington2002 | 36 | 257 | 38 | 165 | 45.3% | 0.61 [0.40, 0.92] |
| Lewis2002 | 33 | 101 | 37 | 102 | 36.1% | 0.90 [0.62, 1.32] |
| **Subtotal (95% CI)** | | **430** | | **339** | **100.0%** | **0.71 [0.55, 0.92]** |
| Total events | 80 | | 94 | | | |
| Heterogeneity: Chi² = 2.41, df = 2 (P = 0.30); I² = 17% | | | | | | |
| Test for overall effect: Z = 2.62 (P = 0.009) | | | | | | |
| **1.4.3 At FU (2 - 4 years after treatment) (all data)** | | | | | | |
| JACKSON2005 | 23 | 45 | 20 | 46 | 22.2% | 1.18 [0.76, 1.82] |
| Turkington2002 | 64 | 257 | 57 | 165 | 77.8% | 0.72 [0.53, 0.97] |
| **Subtotal (95% CI)** | | **302** | | **211** | **100.0%** | **0.82 [0.64, 1.05]** |
| Total events | 87 | | 77 | | | |
| Heterogeneity: Chi² = 3.33, df = 1 (P = 0.07); I² = 70% | | | | | | |
| Test for overall effect: Z = 1.56 (P = 0.12) | | | | | | |
| **1.4.4 Sensitivity analysis (pre-NSF and non-UK removed)** | | | | | | |
| Turkington2002 | 64 | 257 | 57 | 165 | 100.0% | 0.72 [0.53, 0.97] |
| **Subtotal (95% CI)** | | **257** | | **165** | **100.0%** | **0.72 [0.53, 0.97]** |
| Total events | 64 | | 57 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 2.15 (P = 0.03) | | | | | | |




**1.5 Service outcome: 2. Duration of re-hospitalisation (number of days) (up to 12 months FU)**

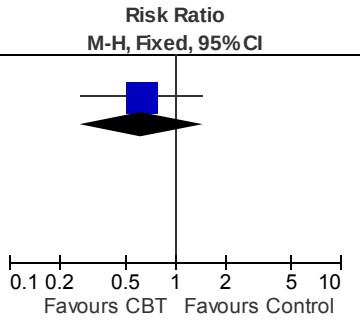
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| GARETY2007CP | 14.07 | 44.06 | 27 | 13.88 | 39.79 | 26 | 10.3% | 0.19 [-22.40, 22.78] |
| GARETY2007NCP | 46 | 80.05 | 103 | 42.94 | 81.1 | 105 | 11.0% | 3.06 [-18.84, 24.96] |
| BARROWCLOUGH2006 | 5.1 | 15.1 | 55 | 11.9 | 36.7 | 55 | 47.8% | -6.80 [-17.29, 3.69] |
| STARTUP2004 | 25.6 | 52.8 | 47 | 46.4 | 69.8 | 43 | 7.9% | -20.80 [-46.55, 4.95] |
| Turkington2002 | 32.73 | 52.5 | 205 | 48.91 | 76 | 125 | 23.0% | -16.18 [-31.32, -1.04] |
| **Total (95% CI)** | | | **437** | | | **354** | **100.0%** | **-8.26 [-15.51, -1.01]** |
| Heterogeneity: Chi² = 3.60, df = 4 (P = 0.46); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 2.23 (P = 0.03) | | | | | | | | |



# Psychological clinical evidence: CBT

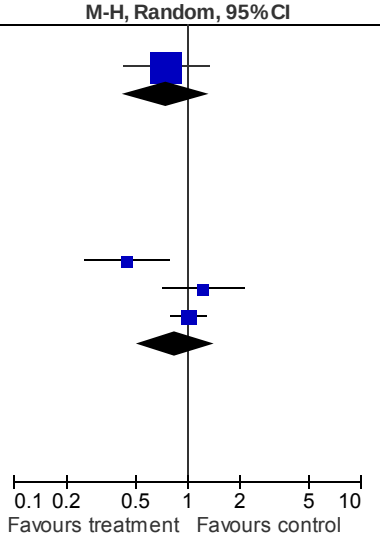
**1.6 Global state: 1. Relapse (at end of treatment)**

| Study or Subgroup | CBT Events | CBT Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.6.1 at end of treatment** | | | | | | |
| Kuipers1997 | 6 | 28 | 11 | 32 | 100.0% | 0.62 [0.26, 1.47] |
| **Subtotal (95% CI)** | | **28** | | **32** | **100.0%** | **0.62 [0.26, 1.47]** |
| Total events | 6 | | 11 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.08 (P = 0.28) | | | | | | |




**1.7 Global state: 1. Relapse (at FU)**

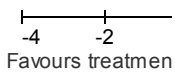
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **1.7.1 Author defined deterioration in GAF total (at 6 months FU)** | | | | | | |
| STARTUP2004 | 14 | 47 | 17 | 43 | 100.0% | 0.75 [0.42, 1.34] |
| **Subtotal (95% CI)** | | **47** | | **43** | **100.0%** | **0.75 [0.42, 1.34]** |
| Total events | 14 | | 17 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.97 (P = 0.33) | | | | | | |
| **1.7.2 FU (up to 24 months)** | | | | | | |
| GUMLEY2003 | 13 | 72 | 29 | 72 | 29.1% | 0.45 [0.25, 0.79] |
| BARROWCLOUGH2006 | 20 | 57 | 16 | 56 | 30.0% | 1.23 [0.71, 2.12] |
| Lewis2002 | 57 | 101 | 57 | 102 | 40.9% | 1.01 [0.79, 1.29] |
| **Subtotal (95% CI)** | | **230** | | **230** | **100.0%** | **0.85 [0.50, 1.41]** |
| Total events | 90 | | 102 | | | |
| Heterogeneity: Tau² = 0.15; Chi² = 8.06, df = 2 (P = 0.02); I² = 75% | | | | | | |
| Test for overall effect: Z = 0.64 (P = 0.52) | | | | | | |



# Psychological clinical evidence: CBT

**1.8 Mental state. 1. Continuous measures - total symptoms (lower = better) (at end of treatment)**

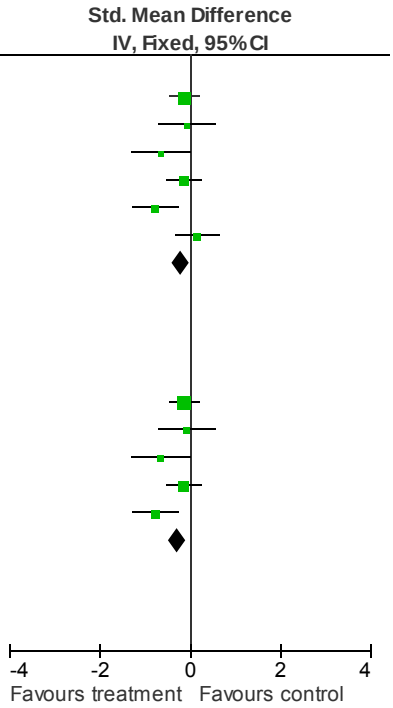
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.8.1 Total symptom score at end of treatment (PANSS, BPRS, CPRS)** | | | | | | | | |
| Turkington2002 | 19.62 | 13.34 | 257 | 22.61 | 13.21 | 165 | 12.8% | -0.22 [-0.42, -0.03] |
| Lewis2002 | 68.12 | 21.38 | 52 | 70.15 | 21.46 | 59 | 9.1% | -0.09 [-0.47, 0.28] |
| Kuipers1997 | 19.87 | 8.46 | 23 | 22.67 | 7.43 | 24 | 5.9% | -0.35 [-0.92, 0.23] |
| JACKSON2005 | 15.23 | 8.98 | 45 | 14.76 | 8.11 | 46 | 8.4% | 0.05 [-0.36, 0.47] |
| ENGLAND2007 | 36.9 | 9.6 | 44 | 50.1 | 7.8 | 21 | 5.8% | -1.44 [-2.02, -0.86] |
| BARROWCLOUGH2006 | 57.78 | 13.15 | 54 | 61.44 | 15.83 | 45 | 8.6% | -0.25 [-0.65, 0.15] |
| GARETY2007CP | 54.09 | 12.49 | 21 | 58.35 | 14.03 | 23 | 5.6% | -0.31 [-0.91, 0.28] |
| STARTUP2004 | 30.2 | 10 | 34 | 36.9 | 12.1 | 32 | 7.0% | -0.60 [-1.09, -0.10] |
| GARETY2007NCP | 57.63 | 15.21 | 90 | 59.66 | 17.27 | 90 | 10.7% | -0.12 [-0.42, 0.17] |
| LECOMTE2008 | 35.9 | 8.4 | 36 | 38.4 | 13.9 | 20 | 6.2% | -0.23 [-0.78, 0.32] |
| DURHAM2003 | 96.2 | 17.7 | 22 | 90.6 | 17.5 | 19 | 5.4% | 0.31 [-0.31, 0.93] |
| GRANHOLM2005* | 51.6 | 11 | 32 | 52.2 | 14.2 | 33 | 7.1% | -0.05 [-0.53, 0.44] |
| JENNER2004* | 52.5 | 15.3 | 35 | 62.4 | 18.9 | 34 | 7.2% | -0.57 [-1.05, -0.09] |
| **Subtotal (95% CI)** | | | **745** | | | **611** | **100.0%** | **-0.27 [-0.45, -0.10]** |
| Heterogeneity: Tau² = 0.06; Chi² = 27.32, df = 12 (P = 0.007); I² = 56% | | | | | | | | |
| Test for overall effect: Z = 3.00 (P = 0.003) | | | | | | | | |
| **1.8.2 Total symptom score at end of treatment (PANSS, BPRS, CPRS) (England removed)** | | | | | | | | |
| Kuipers1997 | 19.87 | 8.46 | 23 | 22.67 | 7.43 | 24 | 3.7% | -0.35 [-0.92, 0.23] |
| Turkington2002 | 19.62 | 13.34 | 257 | 22.61 | 13.21 | 165 | 31.9% | -0.22 [-0.42, -0.03] |
| Lewis2002 | 68.12 | 21.38 | 52 | 70.15 | 21.46 | 59 | 8.8% | -0.09 [-0.47, 0.28] |
| GARETY2007CP | 54.09 | 12.49 | 21 | 58.35 | 14.03 | 23 | 3.5% | -0.31 [-0.91, 0.28] |
| LECOMTE2008 | 35.9 | 8.4 | 36 | 38.4 | 13.9 | 20 | 4.1% | -0.23 [-0.78, 0.32] |
| STARTUP2004 | 30.2 | 10 | 34 | 36.9 | 12.1 | 32 | 5.0% | -0.60 [-1.09, -0.10] |
| GARETY2007NCP | 57.63 | 15.21 | 90 | 59.66 | 17.27 | 90 | 14.3% | -0.12 [-0.42, 0.17] |
| DURHAM2003 | 96.2 | 17.7 | 22 | 90.6 | 17.5 | 19 | 3.2% | 0.31 [-0.31, 0.93] |
| JACKSON2005 | 15.23 | 8.98 | 45 | 14.76 | 8.11 | 46 | 7.3% | 0.05 [-0.36, 0.47] |
| BARROWCLOUGH2006 | 57.78 | 13.15 | 54 | 61.44 | 15.83 | 45 | 7.8% | -0.25 [-0.65, 0.15] |
| GRANHOLM2005* | 51.6 | 11 | 32 | 52.2 | 14.2 | 33 | 5.2% | -0.05 [-0.53, 0.44] |
| JENNER2004* | 52.5 | 15.3 | 35 | 62.4 | 18.9 | 34 | 5.3% | -0.57 [-1.05, -0.09] |
| **Subtotal (95% CI)** | | | **701** | | | **590** | **100.0%** | **-0.20 [-0.31, -0.09]** |
| Heterogeneity: Tau² = 0.00; Chi² = 10.35, df = 11 (P = 0.50); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 3.52 (P = 0.0004) | | | | | | | | |
| **1.8.3 Total symptom score at end of treatment (PANSS, BPRS, CPRS) - sensitivity analysis removing multimodal studies** | | | | | | | | |
| Turkington2002 | 19.62 | 13.34 | 257 | 22.61 | 13.21 | 165 | 14.4% | -0.22 [-0.42, -0.03] |
| Lewis2002 | 68.12 | 21.38 | 52 | 70.15 | 21.46 | 59 | 10.6% | -0.09 [-0.47, 0.28] |
| Kuipers1997 | 19.87 | 8.46 | 23 | 22.67 | 7.43 | 24 | 7.0% | -0.35 [-0.92, 0.23] |
| JACKSON2005 | 15.23 | 8.98 | 45 | 14.76 | 8.11 | 46 | 9.8% | 0.05 [-0.36, 0.47] |
| BARROWCLOUGH2006 | 57.78 | 13.15 | 54 | 61.44 | 15.83 | 45 | 10.1% | -0.25 [-0.65, 0.15] |
| LECOMTE2008 | 35.9 | 8.4 | 36 | 38.4 | 13.9 | 20 | 7.4% | -0.23 [-0.78, 0.32] |
| STARTUP2004 | 30.2 | 10 | 34 | 36.9 | 12.1 | 32 | 8.3% | -0.60 [-1.09, -0.10] |
| GARETY2007NCP | 57.63 | 15.21 | 90 | 59.66 | 17.27 | 90 | 12.3% | -0.12 [-0.42, 0.17] |
| ENGLAND2007 | 36.9 | 9.6 | 44 | 50.1 | 7.8 | 21 | 7.0% | -1.44 [-2.02, -0.86] |
| GARETY2007CP | 54.09 | 12.49 | 21 | 58.35 | 14.03 | 23 | 6.7% | -0.31 [-0.91, 0.28] |
| DURHAM2003 | 96.2 | 17.7 | 22 | 90.6 | 17.5 | 19 | 6.4% | 0.31 [-0.31, 0.93] |
| **Subtotal (95% CI)** | | | **678** | | | **544** | **100.0%** | **-0.27 [-0.47, -0.07]** |
| Heterogeneity: Tau² = 0.06; Chi² = 24.91, df = 10 (P = 0.006); I² = 60% | | | | | | | | |
| Test for overall effect: Z = 2.65 (P = 0.008) | | | | | | | | |



# Psychological clinical evidence: CBT

**1.9 Mental state: 1. Continuous measures - total symptoms (6 months FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.9.1 Mental state: Continuous measures - total symptoms (up to 6 months FU)** | | | | | | | | |
| Lewis2002 | 61.73 | 19.69 | 78 | 64.38 | 16.79 | 60 | 31.8% | -0.14 [-0.48, 0.19] |
| DURHAM2003 | 87 | 23.1 | 21 | 88.8 | 18 | 17 | 8.8% | -0.08 [-0.72, 0.56] |
| LECOMTE2008 | 33.4 | 7.8 | 32 | 39.3 | 10.9 | 13 | 8.3% | -0.66 [-1.32, -0.00] |
| BARROWCLOUGH2006 | 54.87 | 13.07 | 52 | 56.96 | 14.08 | 45 | 22.6% | -0.15 [-0.55, 0.25] |
| STARTUP2004 | 28.2 | 9 | 33 | 36.1 | 11 | 30 | 13.7% | -0.78 [-1.29, -0.27] |
| GRANHOLM2005* | 55.8 | 19.1 | 31 | 53.1 | 16.7 | 32 | 14.8% | 0.15 [-0.35, 0.64] |
| **Subtotal (95% CI)** | | | **247** | | | **197** | **100.0%** | **-0.23 [-0.42, -0.04]** |
| Heterogeneity: Chi² = 8.89, df = 5 (P = 0.11); I² = 44% | | | | | | | | |
| Test for overall effect: Z = 2.34 (P = 0.02) | | | | | | | | |
| **1.9.2 Total symptoms (up to 6 months FU) - sensitivity analysis removing multimodal studies** | | | | | | | | |
| Lewis2002 | 61.73 | 19.69 | 78 | 64.38 | 16.79 | 60 | 37.3% | -0.14 [-0.48, 0.19] |
| DURHAM2003 | 87 | 23.1 | 21 | 88.8 | 18 | 17 | 10.4% | -0.08 [-0.72, 0.56] |
| LECOMTE2008 | 33.4 | 7.8 | 32 | 39.3 | 10.9 | 13 | 9.7% | -0.66 [-1.32, -0.00] |
| BARROWCLOUGH2006 | 54.87 | 13.07 | 52 | 56.96 | 14.08 | 45 | 26.5% | -0.15 [-0.55, 0.25] |
| STARTUP2004 | 28.2 | 9 | 33 | 36.1 | 11 | 30 | 16.0% | -0.78 [-1.29, -0.27] |
| **Subtotal (95% CI)** | | | **216** | | | **165** | **100.0%** | **-0.29 [-0.50, -0.09]** |
| Heterogeneity: Chi² = 6.29, df = 4 (P = 0.18); I² = 36% | | | | | | | | |
| Test for overall effect: Z = 2.78 (P = 0.005) | | | | | | | | |

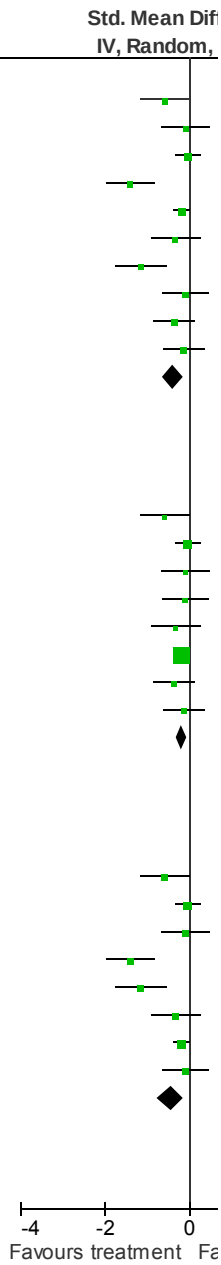



Test for subgroup differences: Chi² = 0.21, df = 1 (P = 0.65), I² = 0%

# Psychological clinical evidence: CBT

**1.10 Mental state: 1. Continuous measures - total symptoms (12 months FU)**

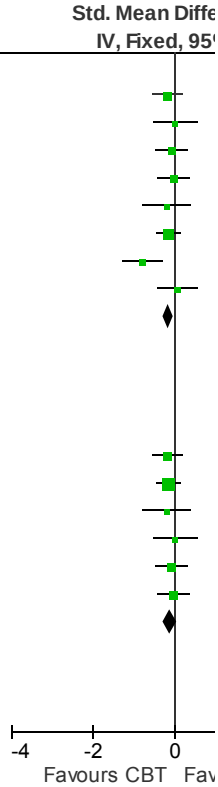
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.10.1 Mental state: Continuous measures - total symptom score (all data)** | | | | | | | | |
| Kuipers1997 | 18.78 | 8.19 | 23 | 23.5 | 7.42 | 24 | 8.6% | -0.59 [-1.18, -0.01] |
| GARETY2007CP | 54.41 | 16.7 | 22 | 56.04 | 18.02 | 24 | 8.7% | -0.09 [-0.67, 0.49] |
| GARETY2007NCP | 56.68 | 12.98 | 87 | 57.32 | 15.43 | 85 | 13.2% | -0.04 [-0.34, 0.25] |
| ENGLAND2007 | 36.3 | 10.1 | 44 | 50.1 | 8.7 | 21 | 8.8% | -1.41 [-1.99, -0.83] |
| Turkington2002 | 18.13 | 12.66 | 257 | 20.67 | 14.54 | 165 | 14.8% | -0.19 [-0.38, 0.01] |
| LEWIS2002N | 51.5 | 7.5 | 24 | 54.5 | 10.1 | 21 | 8.6% | -0.33 [-0.92, 0.26] |
| LEWIS2002L | 53.7 | 13.3 | 26 | 69.5 | 13.6 | 23 | 8.3% | -1.16 [-1.77, -0.55] |
| LEWIS2002M | 71.2 | 15.8 | 25 | 73.2 | 21.9 | 26 | 9.1% | -0.10 [-0.65, 0.45] |
| JENNER2004* | 51.1 | 15.8 | 31 | 57.3 | 17.4 | 32 | 9.9% | -0.37 [-0.87, 0.13] |
| GRANHOLM2005* | 52.9 | 17.9 | 31 | 55.2 | 13.5 | 33 | 10.0% | -0.14 [-0.63, 0.35] |
| **Subtotal (95% CI)** | | | **570** | | | **454** | **100.0%** | **-0.40 [-0.65, -0.15]** |
| Heterogeneity: Tau² = 0.10; Chi² = 28.22, df = 9 (P = 0.0009); I² = 68% | | | | | | | | |
| Test for overall effect: Z = 3.13 (P = 0.002) | | | | | | | | |
| **1.10.2 Mental state: Continuous measures - total symptoms (12-18 months FU, outliers removed)** | | | | | | | | |
| Kuipers1997 | 18.78 | 8.19 | 23 | 23.5 | 7.42 | 24 | 5.1% | -0.59 [-1.18, -0.01] |
| GARETY2007NCP | 56.68 | 12.98 | 87 | 57.32 | 15.43 | 85 | 19.5% | -0.04 [-0.34, 0.25] |
| GARETY2007CP | 54.41 | 16.7 | 22 | 56.04 | 18.02 | 24 | 5.2% | -0.09 [-0.67, 0.49] |
| LEWIS2002M | 71.2 | 15.8 | 25 | 73.2 | 21.9 | 26 | 5.8% | -0.10 [-0.65, 0.45] |
| LEWIS2002N | 51.5 | 7.5 | 24 | 54.5 | 10.1 | 21 | 5.0% | -0.33 [-0.92, 0.26] |
| Turkington2002 | 18.13 | 12.66 | 257 | 20.67 | 14.54 | 165 | 45.3% | -0.19 [-0.38, 0.01] |
| JENNER2004* | 51.1 | 15.8 | 31 | 57.3 | 17.4 | 32 | 7.0% | -0.37 [-0.87, 0.13] |
| GRANHOLM2005* | 52.9 | 17.9 | 31 | 55.2 | 13.5 | 33 | 7.2% | -0.14 [-0.63, 0.35] |
| **Subtotal (95% CI)** | | | **500** | | | **410** | **100.0%** | **-0.19 [-0.32, -0.06]** |
| Heterogeneity: Tau² = 0.00; Chi² = 3.70, df = 7 (P = 0.81); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 2.79 (P = 0.005) | | | | | | | | |
| **1.10.3 Mental state: Continuous measures - total symptom score - sensitivity analysis removing multimodal studies** | | | | | | | | |
| Kuipers1997 | 18.78 | 8.19 | 23 | 23.5 | 7.42 | 24 | 11.1% | -0.59 [-1.18, -0.01] |
| GARETY2007NCP | 56.68 | 12.98 | 87 | 57.32 | 15.43 | 85 | 15.7% | -0.04 [-0.34, 0.25] |
| GARETY2007CP | 54.41 | 16.7 | 22 | 56.04 | 18.02 | 24 | 11.2% | -0.09 [-0.67, 0.49] |
| ENGLAND2007 | 36.3 | 10.1 | 44 | 50.1 | 8.7 | 21 | 11.3% | -1.41 [-1.99, -0.83] |
| LEWIS2002L | 53.7 | 13.3 | 26 | 69.5 | 13.6 | 23 | 10.8% | -1.16 [-1.77, -0.55] |
| LEWIS2002N | 51.5 | 7.5 | 24 | 54.5 | 10.1 | 21 | 11.1% | -0.33 [-0.92, 0.26] |
| Turkington2002 | 18.13 | 12.66 | 257 | 20.67 | 14.54 | 165 | 17.1% | -0.19 [-0.38, 0.01] |
| LEWIS2002M | 71.2 | 15.8 | 25 | 73.2 | 21.9 | 26 | 11.7% | -0.10 [-0.65, 0.45] |
| **Subtotal (95% CI)** | | | **508** | | | **389** | **100.0%** | **-0.45 [-0.76, -0.14]** |
| Heterogeneity: Tau² = 0.14; Chi² = 27.78, df = 7 (P = 0.0002); I² = 75% | | | | | | | | |
| Test for overall effect: Z = 2.82 (P = 0.005) | | | | | | | | |



# Psychological clinical evidence: CBT

**1.11 Mental state: 2. Continuous measures - positive symptoms (at end of treatment) (lower = better)**

| Study or Subgroup | CBT Mean | CBT SD | CBT Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.11.1 PANSS, BPRS positive symptom score (end of treatment)** | | | | | | | | |
| Lewis2002 | 14.94 | 6.61 | 52 | 16.31 | 6.9 | 59 | 15.5% | -0.20 [-0.57, 0.17] |
| LECOMTE2008 | 1.7 | 0.73 | 36 | 1.7 | 0.99 | 20 | 7.3% | 0.00 [-0.55, 0.55] |
| LECLERC2000 | 2.29 | 0.89 | 55 | 2.37 | 1.01 | 44 | 13.8% | -0.08 [-0.48, 0.31] |
| BARROWCLOUGH2006 | 16.04 | 5 | 54 | 16.2 | 4.34 | 45 | 13.8% | -0.03 [-0.43, 0.36] |
| GARETY2007CP | 13.95 | 5.69 | 21 | 15.09 | 5.23 | 23 | 6.2% | -0.21 [-0.80, 0.39] |
| GARETY2007NCP | 15.39 | 6.37 | 90 | 16.49 | 6.47 | 90 | 25.3% | -0.17 [-0.46, 0.12] |
| JENNER2004* | 11.9 | 3.9 | 35 | 15.9 | 5.9 | 34 | 9.0% | -0.79 [-1.28, -0.30] |
| GRANHOLM2005* | 13.2 | 5.4 | 32 | 12.9 | 4.6 | 33 | 9.2% | 0.06 [-0.43, 0.55] |
| **Subtotal (95% CI)** | | | **375** | | | **348** | **100.0%** | **-0.17 [-0.32, -0.02]** |
| Heterogeneity: Chi² = 8.08, df = 7 (P = 0.33); I² = 13% | | | | | | | | |
| Test for overall effect: Z = 2.25 (P = 0.02) | | | | | | | | |
| **1.11.3 PANSS, BPRS positive symptom score (end of treatment) - sensitivity analysis removing multimodal studies** | | | | | | | | |
| Lewis2002 | 14.94 | 6.61 | 52 | 16.31 | 6.9 | 59 | 19.0% | -0.20 [-0.57, 0.17] |
| GARETY2007NCP | 15.39 | 6.37 | 90 | 16.49 | 6.47 | 90 | 30.9% | -0.17 [-0.46, 0.12] |
| GARETY2007CP | 13.95 | 5.69 | 21 | 15.09 | 5.23 | 23 | 7.5% | -0.21 [-0.80, 0.39] |
| LECOMTE2008 | 1.7 | 0.73 | 36 | 1.7 | 0.99 | 20 | 8.9% | 0.00 [-0.55, 0.55] |
| LECLERC2000 | 2.29 | 0.89 | 55 | 2.37 | 1.01 | 44 | 16.8% | -0.08 [-0.48, 0.31] |
| BARROWCLOUGH2006 | 16.04 | 5 | 54 | 16.2 | 4.34 | 45 | 16.9% | -0.03 [-0.43, 0.36] |
| **Subtotal (95% CI)** | | | **308** | | | **281** | **100.0%** | **-0.13 [-0.29, 0.04]** |
| Heterogeneity: Chi² = 0.77, df = 5 (P = 0.98); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.52 (P = 0.13) | | | | | | | | |

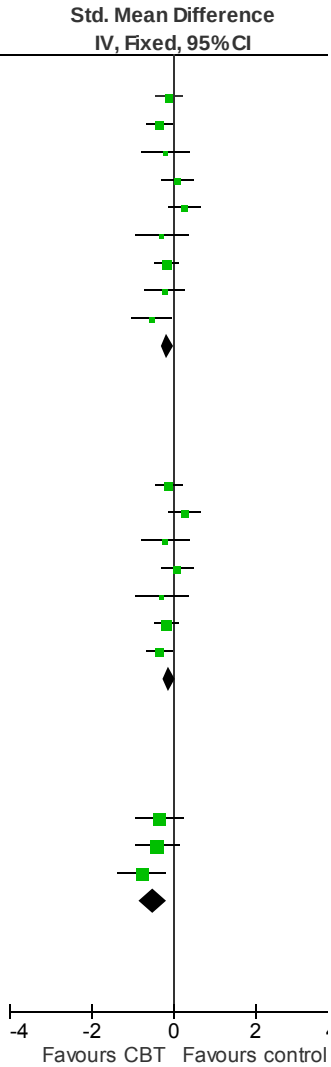



Test for subgroup differences: Chi² = 0.15, df = 1 (P = 0.70), I² = 0%

# Psychological clinical evidence: CBT

**1.12 Mental state: 2. Continuous measures - positive symptoms (at FU) (lower = better)**

| Study or Subgroup | CBT Mean | CBT SD | CBT Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.12.1 PANSS, BPRS positive symptom score (up to 12 months FU)** | | | | | | | | |
| Lewis2002 | 13.03 | 5.06 | 78 | 13.67 | 5.33 | 60 | 15.8% | -0.12 [-0.46, 0.21] |
| GUMLEY2003 | 8.85 | 2.09 | 72 | 9.88 | 3.61 | 72 | 16.6% | -0.35 [-0.68, -0.02] |
| GARETY2007CP | 13.95 | 5.69 | 21 | 15.09 | 5.23 | 23 | 5.1% | -0.21 [-0.80, 0.39] |
| LECLERC2000 | 2.22 | 0.83 | 55 | 2.15 | 0.99 | 44 | 11.4% | 0.08 [-0.32, 0.47] |
| BARROWCLOUGH2006 | 16.5 | 4.88 | 52 | 15.3 | 4.24 | 46 | 11.3% | 0.26 [-0.14, 0.66] |
| LECOMTE2008 | 1.7 | 0.68 | 32 | 1.9 | 0.66 | 13 | 4.3% | -0.29 [-0.94, 0.36] |
| GARETY2007NCP | 15.39 | 6.37 | 90 | 16.49 | 6.47 | 90 | 21.0% | -0.17 [-0.46, 0.12] |
| GRANHOLM2005* | 12.8 | 6.6 | 31 | 14.1 | 5 | 33 | 7.4% | -0.22 [-0.71, 0.27] |
| JENNER2004* | 11.2 | 4.4 | 31 | 14 | 5.8 | 32 | 7.1% | -0.54 [-1.04, -0.03] |
| **Subtotal (95% CI)** | | | **462** | | | **413** | **100.0%** | **-0.15 [-0.29, -0.02]** |
| Heterogeneity: Chi² = 9.29, df = 8 (P = 0.32); I² = 14% | | | | | | | | |
| Test for overall effect: Z = 2.22 (P = 0.03) | | | | | | | | |
| **1.12.2 Positive symptom score (up to 12 months FU) - sensitivity analysis removing multimodal studies** | | | | | | | | |
| Lewis2002 | 13.03 | 5.06 | 78 | 13.67 | 5.33 | 60 | 18.5% | -0.12 [-0.46, 0.21] |
| BARROWCLOUGH2006 | 16.5 | 4.88 | 52 | 15.3 | 4.24 | 46 | 13.2% | 0.26 [-0.14, 0.66] |
| GARETY2007CP | 13.95 | 5.69 | 21 | 15.09 | 5.23 | 23 | 6.0% | -0.21 [-0.80, 0.39] |
| LECLERC2000 | 2.22 | 0.83 | 55 | 2.15 | 0.99 | 44 | 13.4% | 0.08 [-0.32, 0.47] |
| LECOMTE2008 | 1.7 | 0.68 | 32 | 1.9 | 0.66 | 13 | 5.0% | -0.29 [-0.94, 0.36] |
| GARETY2007NCP | 15.39 | 6.37 | 90 | 16.49 | 6.47 | 90 | 24.5% | -0.17 [-0.46, 0.12] |
| GUMLEY2003 | 8.85 | 2.09 | 72 | 9.88 | 3.61 | 72 | 19.4% | -0.35 [-0.68, -0.02] |
| **Subtotal (95% CI)** | | | **400** | | | **348** | **100.0%** | **-0.11 [-0.26, 0.03]** |
| Heterogeneity: Chi² = 6.72, df = 6 (P = 0.35); I² = 11% | | | | | | | | |
| Test for overall effect: Z = 1.54 (P = 0.12) | | | | | | | | |
| **1.12.3 PANSS positive symptoms (up to 18 months)** | | | | | | | | |
| LEWIS2002N | 10.5 | 2.5 | 24 | 11.6 | 3.6 | 21 | 31.5% | -0.35 [-0.94, 0.24] |
| LEWIS2002M | 14.8 | 4.1 | 25 | 17.2 | 7.1 | 27 | 36.3% | -0.40 [-0.95, 0.15] |
| LEWIS2002L | 12 | 4.3 | 26 | 16.3 | 6.5 | 23 | 32.2% | -0.78 [-1.36, -0.19] |
| **Subtotal (95% CI)** | | | **75** | | | **71** | **100.0%** | **-0.51 [-0.84, -0.18]** |
| Heterogeneity: Chi² = 1.22, df = 2 (P = 0.54); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 3.01 (P = 0.003) | | | | | | | | |

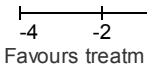



Test for subgroup differences: Chi² = 4.63, df = 2 (P = 0.10), I² = 56.8%

# Psychological clinical evidence: CBT

**1.13 Mental state: 3. Continuous measures - negative symptoms (at end of treatment) (lower = better)**

| | Treatment | | | Control | | | | Std. Mean Difference | Std. Me |
|---|---|---|---|---|---|---|---|---|---|
| **Study or Subgroup** | **Mean** | **SD** | **Total** | **Mean** | **SD** | **Total** | **Weight** | **IV, Fixed, 95% CI** | **IV, F** |
| **1.13.1 PANSS , SANS, BPRS negative symptom score (end of treatment)** | | | | | | | | | |
| GARETY2007CP | 12.33 | 4.94 | 21 | 13.26 | 5.58 | 23 | 5.8% | -0.17 [-0.77, 0.42] | |
| GARETY2007NCP | 12.06 | 4.92 | 90 | 12.62 | 6.32 | 90 | 23.7% | -0.10 [-0.39, 0.19] | |
| BARROWCLOUGH2006 | 13 | 4.81 | 54 | 13.31 | 5.22 | 45 | 12.9% | -0.06 [-0.46, 0.33] | |
| LECLERC2000 | 2.09 | 0.85 | 55 | 2.08 | 0.8 | 44 | 12.9% | 0.01 [-0.38, 0.41] | |
| JACKSON2005 | 18.84 | 12.61 | 45 | 15.61 | 13.36 | 46 | 11.9% | 0.25 [-0.17, 0.66] | |
| LECOMTE2008 | 1.6 | 0.71 | 36 | 1.5 | 0.86 | 20 | 6.8% | 0.13 [-0.42, 0.68] | |
| STARTUP2004 | 5.7 | 4 | 34 | 7 | 4.1 | 32 | 8.6% | -0.32 [-0.80, 0.17] | |
| JENNER2004* | 11.8 | 6.9 | 35 | 12.6 | 7.2 | 34 | 9.1% | -0.11 [-0.58, 0.36] | |
| GRANHOLM2005* | 12.9 | 3.8 | 32 | 13.7 | 5.2 | 33 | 8.5% | -0.17 [-0.66, 0.31] | |
| **Subtotal (95% CI)** | | | **402** | | | **367** | **100.0%** | **-0.05 [-0.20, 0.09]** | |
| Heterogeneity: Chi² = 4.23, df = 8 (P = 0.84); I² = 0% | | | | | | | | | |
| Test for overall effect: Z = 0.74 (P = 0.46) | | | | | | | | | |
| **1.13.2 PANSS , SANS, BPRS negative symptom score (end of treatment)- sensitivity analysis removing multimodal studies** | | | | | | | | | |
| GARETY2007CP | 12.33 | 4.94 | 21 | 13.26 | 5.58 | 23 | 7.0% | -0.17 [-0.77, 0.42] | |
| STARTUP2004 | 5.7 | 4 | 34 | 7 | 4.1 | 32 | 10.4% | -0.32 [-0.80, 0.17] | |
| LECLERC2000 | 2.09 | 0.85 | 55 | 2.08 | 0.8 | 44 | 15.6% | 0.01 [-0.38, 0.41] | |
| JACKSON2005 | 18.84 | 12.61 | 45 | 15.61 | 13.36 | 46 | 14.4% | 0.25 [-0.17, 0.66] | |
| BARROWCLOUGH2006 | 13 | 4.81 | 54 | 13.31 | 5.22 | 45 | 15.7% | -0.06 [-0.46, 0.33] | |
| LECOMTE2008 | 1.6 | 0.71 | 36 | 1.5 | 0.86 | 20 | 8.2% | 0.13 [-0.42, 0.68] | |
| GARETY2007NCP | 12.06 | 4.92 | 90 | 12.62 | 6.32 | 90 | 28.7% | -0.10 [-0.39, 0.19] | |
| **Subtotal (95% CI)** | | | **335** | | | **300** | **100.0%** | **-0.04 [-0.19, 0.12]** | |
| Heterogeneity: Chi² = 3.89, df = 6 (P = 0.69); I² = 0% | | | | | | | | | |
| Test for overall effect: Z = 0.44 (P = 0.66) | | | | | | | | | |

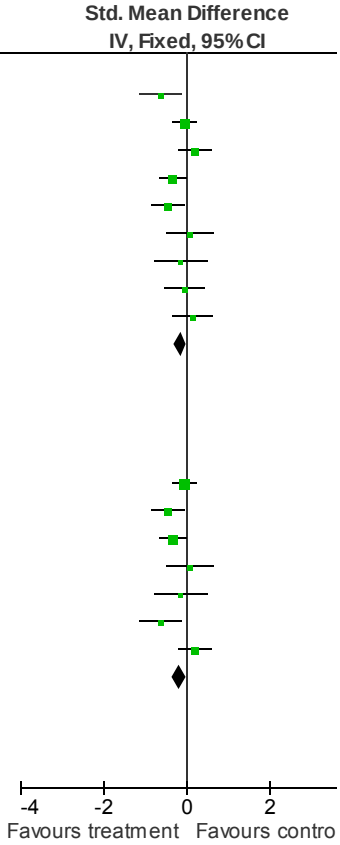



Test for subgroup differences: Chi² = 0.03, df = 1 (P = 0.86), I² = 0%

# Psychological clinical evidence: CBT

**1.14 Mental state: 3. Continuous measures - negative symptoms (at FU) (lower = better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.14.1 PANSS negative symptom score, SANS, BPRS (up to 12months FU)** | | | | | | | | |
| STARTUP2004 | 4.7 | 3.5 | 33 | 7.1 | 4 | 30 | 7.7% | -0.63 [-1.14, -0.13] |
| GARETY2007NCP | 11.64 | 4.83 | 87 | 11.91 | 5.21 | 85 | 22.2% | -0.05 [-0.35, 0.25] |
| LECLERC2000 | 2.03 | 0.82 | 55 | 1.89 | 0.66 | 44 | 12.6% | 0.18 [-0.21, 0.58] |
| GUMLEY2003 | 10.55 | 4.07 | 72 | 12.22 | 5.36 | 72 | 18.3% | -0.35 [-0.68, -0.02] |
| BARROWCLOUGH2006 | 10.71 | 3.82 | 52 | 12.82 | 5.23 | 45 | 12.1% | -0.46 [-0.87, -0.06] |
| GARETY2007CP | 12.18 | 4.38 | 22 | 11.88 | 5.19 | 25 | 6.0% | 0.06 [-0.51, 0.63] |
| LECOMTE2008 | 1.4 | 0.63 | 32 | 1.5 | 0.58 | 13 | 4.8% | -0.16 [-0.80, 0.49] |
| JENNER2004* | 11 | 6.3 | 31 | 11.4 | 6.1 | 32 | 8.1% | -0.06 [-0.56, 0.43] |
| GRANHOLM2005* | 14.6 | 6.8 | 31 | 13.8 | 4.8 | 33 | 8.2% | 0.14 [-0.36, 0.63] |
| **Subtotal (95% CI)** | | | **415** | | | **379** | **100.0%** | **-0.16 [-0.30, -0.01]** |
| Heterogeneity: Chi² = 12.22, df = 8 (P = 0.14); I² = 35% | | | | | | | | |
| Test for overall effect: Z = 2.16 (P = 0.03) | | | | | | | | |
| **1.14.2 Negative symptom score (up to 12months FU) - sensitivity analysis removing multimodal studies** | | | | | | | | |
| GARETY2007NCP | 11.64 | 4.83 | 87 | 11.91 | 5.21 | 85 | 26.5% | -0.05 [-0.35, 0.25] |
| BARROWCLOUGH2006 | 10.71 | 3.82 | 52 | 12.82 | 5.23 | 45 | 14.5% | -0.46 [-0.87, -0.06] |
| GUMLEY2003 | 10.55 | 4.07 | 72 | 12.22 | 5.36 | 72 | 21.9% | -0.35 [-0.68, -0.02] |
| GARETY2007CP | 12.18 | 4.38 | 22 | 11.88 | 5.19 | 25 | 7.2% | 0.06 [-0.51, 0.63] |
| LECOMTE2008 | 1.4 | 0.63 | 32 | 1.5 | 0.58 | 13 | 5.7% | -0.16 [-0.80, 0.49] |
| STARTUP2004 | 4.7 | 3.5 | 33 | 7.1 | 4 | 30 | 9.2% | -0.63 [-1.14, -0.13] |
| LECLERC2000 | 2.03 | 0.82 | 55 | 1.89 | 0.66 | 44 | 15.0% | 0.18 [-0.21, 0.58] |
| **Subtotal (95% CI)** | | | **353** | | | **314** | **100.0%** | **-0.19 [-0.35, -0.04]** |
| Heterogeneity: Chi² = 10.52, df = 6 (P = 0.10); I² = 43% | | | | | | | | |
| Test for overall effect: Z = 2.45 (P = 0.01) | | | | | | | | |

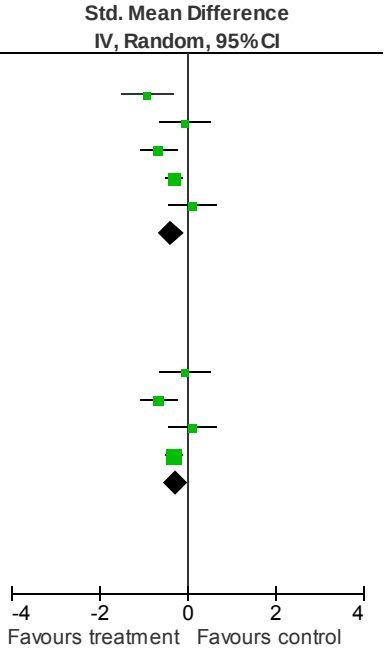



Test for subgroup differences: Chi² = 0.12, df = 1 (P = 0.72), I² = 0%

# Psychological clinical evidence: CBT

**1.15 Mental state: 3. Continuous measures - negative symptoms (at FU)**

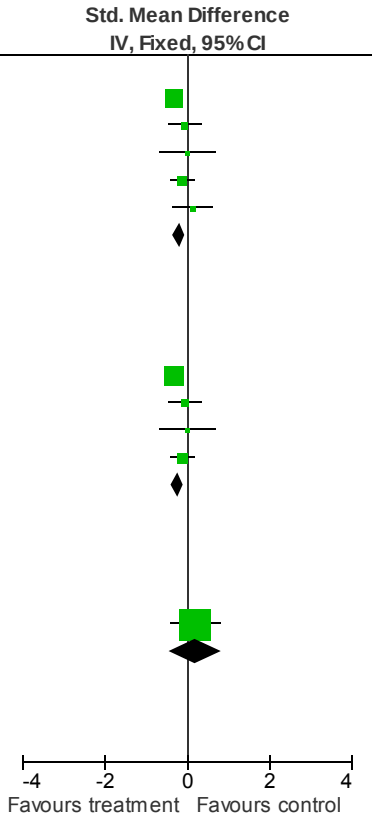
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.15.1 PANSS negative symptom score, SANS (12-24 months FU) (all data)** | | | | | | | | |
| LEWIS2002L | 12.8 | 4.3 | 26 | 17.6 | 5.8 | 23 | 15.1% | -0.93 [-1.53, -0.34] |
| LEWIS2002N | 12.2 | 2.9 | 24 | 12.4 | 3.3 | 21 | 15.3% | -0.06 [-0.65, 0.52] |
| STARTUP2004 | 4.32 | 3.77 | 47 | 7.09 | 4.39 | 43 | 21.1% | -0.67 [-1.10, -0.25] |
| Turkington2002 | 3.24 | 2.7 | 257 | 4.13 | 3.06 | 165 | 31.8% | -0.31 [-0.51, -0.12] |
| LEWIS2002M | 18 | 5.9 | 25 | 17.4 | 7.1 | 27 | 16.6% | 0.09 [-0.45, 0.63] |
| **Subtotal (95% CI)** | | | **379** | | | **279** | **100.0%** | **-0.38 [-0.68, -0.08]** |
| Heterogeneity: Tau² = 0.06; Chi² = 9.51, df = 4 (P = 0.05); I² = 58% | | | | | | | | |
| Test for overall effect: Z = 2.47 (P = 0.01) | | | | | | | | |
| **1.15.2 PANSS negative symptom score, SANS (12-24 months FU) (outlier removed)** | | | | | | | | |
| LEWIS2002N | 12.2 | 2.9 | 24 | 12.4 | 3.3 | 21 | 15.8% | -0.06 [-0.65, 0.52] |
| STARTUP2004 | 4.32 | 3.77 | 47 | 7.09 | 4.39 | 43 | 23.8% | -0.67 [-1.10, -0.25] |
| LEWIS2002M | 18 | 5.9 | 25 | 17.4 | 7.1 | 27 | 17.5% | 0.09 [-0.45, 0.63] |
| Turkington2002 | 3.24 | 2.7 | 257 | 4.13 | 3.06 | 165 | 43.0% | -0.31 [-0.51, -0.12] |
| **Subtotal (95% CI)** | | | **353** | | | **256** | **100.0%** | **-0.29 [-0.56, -0.01]** |
| Heterogeneity: Tau² = 0.04; Chi² = 5.56, df = 3 (P = 0.14); I² = 46% | | | | | | | | |
| Test for overall effect: Z = 2.05 (P = 0.04) | | | | | | | | |



# Psychological clinical evidence: CBT

**1.16 Mental state: 4. Depression: MADRS, BDI, CDSS**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.16.1 MADRS, BDI, CDSS (at end of treatment)** | | | | | | | | |
| Turkington2002 | 4.61 | 3.52 | 257 | 5.8 | 3.63 | 165 | 52.9% | -0.33 [-0.53, -0.14] |
| JACKSON2005 | 5.9 | 5.59 | 45 | 6.32 | 6.07 | 46 | 12.1% | -0.07 [-0.48, 0.34] |
| TROWER2004 | 8 | 6.3 | 15 | 8.1 | 7.4 | 17 | 4.3% | -0.01 [-0.71, 0.68] |
| GARETY2007NCP | 15.66 | 13.07 | 83 | 17.52 | 13.9 | 83 | 22.1% | -0.14 [-0.44, 0.17] |
| GRANHOLM2005* | 11.4 | 6.3 | 32 | 10.6 | 6.3 | 33 | 8.6% | 0.13 [-0.36, 0.61] |
| **Subtotal (95% CI)** | | | **432** | | | **344** | **100.0%** | **-0.21 [-0.35, -0.06]** |
| Heterogeneity: Chi² = 4.29, df = 4 (P = 0.37); I² = 7% | | | | | | | | |
| Test for overall effect: Z = 2.81 (P = 0.005) | | | | | | | | |
| **1.16.2 MADRS, BDI, CDSS (at end of treatment) - sensitivity analysis removing multimodal studies** | | | | | | | | |
| Turkington2002 | 4.61 | 3.52 | 257 | 5.8 | 3.63 | 165 | 57.9% | -0.33 [-0.53, -0.14] |
| JACKSON2005 | 5.9 | 5.59 | 45 | 6.32 | 6.07 | 46 | 13.3% | -0.07 [-0.48, 0.34] |
| TROWER2004 | 8 | 6.3 | 15 | 8.1 | 7.4 | 17 | 4.7% | -0.01 [-0.71, 0.68] |
| GARETY2007NCP | 15.66 | 13.07 | 83 | 17.52 | 13.9 | 83 | 24.2% | -0.14 [-0.44, 0.17] |
| **Subtotal (95% CI)** | | | **400** | | | **311** | **100.0%** | **-0.24 [-0.39, -0.09]** |
| Heterogeneity: Chi² = 2.35, df = 3 (P = 0.50); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 3.09 (P = 0.002) | | | | | | | | |
| **1.16.3 Depressions: BDI (Change score) (signs reversed)** | | | | | | | | |
| GARETY2007CP | -4.85 | 13.82 | 20 | -6.95 | 7.49 | 21 | 100.0% | 0.19 [-0.43, 0.80] |
| **Subtotal (95% CI)** | | | **20** | | | **21** | **100.0%** | **0.19 [-0.43, 0.80]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.60 (P = 0.55) | | | | | | | | |

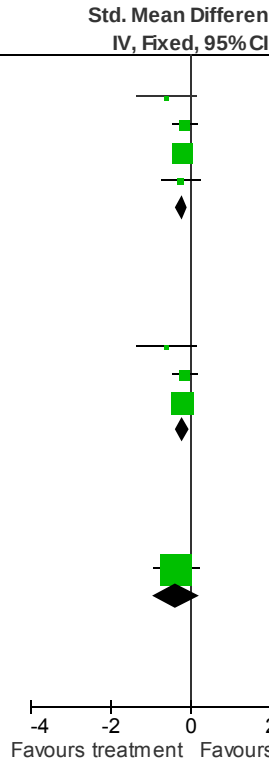



Test for subgroup differences: Chi² = 1.73, df = 2 (P = 0.42), I² = 0%

# Psychological clinical evidence: CBT

**1.17 Mental state: 4. Depression, MADRS, BDI, CDSS (at FU)**

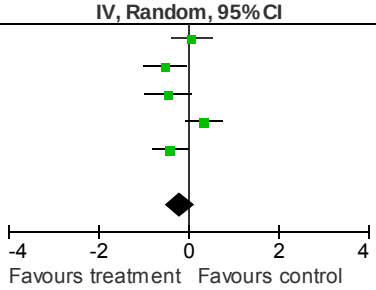
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.17.1 Depression: BDI, CDSS, MADRS (up to 12 months FU)** | | | | | | | | |
| TROWER2004 | 8.1 | 7.4 | 14 | 12.6 | 6.7 | 15 | 4.3% | -0.62 [-1.37, 0.13] |
| GARETY2007NCP | 15.19 | 11.63 | 78 | 17.18 | 13.1 | 77 | 23.9% | -0.16 [-0.48, 0.16] |
| Turkington2002 | 4.09 | 3.61 | 257 | 4.86 | 3.77 | 165 | 62.0% | -0.21 [-0.41, -0.01] |
| GRANHOLM2005* | 9.7 | 5.5 | 31 | 11.3 | 6.8 | 33 | 9.8% | -0.25 [-0.75, 0.24] |
| **Subtotal (95% CI)** | | | **380** | | | **290** | **100.0%** | **-0.22 [-0.37, -0.07]** |
| Heterogeneity: Chi² = 1.27, df = 3 (P = 0.74); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 2.79 (P = 0.005) | | | | | | | | |
| **1.17.2 Depression: BDI, CDSS, MADRS (up to 12 months FU) - sensitivity analysis removing multimodal studies** | | | | | | | | |
| TROWER2004 | 8.1 | 7.4 | 14 | 12.6 | 6.7 | 15 | 4.7% | -0.62 [-1.37, 0.13] |
| GARETY2007NCP | 15.19 | 11.63 | 78 | 17.18 | 13.1 | 77 | 26.6% | -0.16 [-0.48, 0.16] |
| Turkington2002 | 4.09 | 3.61 | 257 | 4.86 | 3.77 | 165 | 68.7% | -0.21 [-0.41, -0.01] |
| **Subtotal (95% CI)** | | | **349** | | | **257** | **100.0%** | **-0.22 [-0.38, -0.05]** |
| Heterogeneity: Chi² = 1.25, df = 2 (P = 0.54); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 2.60 (P = 0.009) | | | | | | | | |
| **1.17.3 Depression BDI (Change score) up to 12 months FU** | | | | | | | | |
| GARETY2007CP | -8.55 | 11.03 | 22 | -3.42 | 15.34 | 24 | 100.0% | -0.37 [-0.96, 0.21] |
| **Subtotal (95% CI)** | | | **22** | | | **24** | **100.0%** | **-0.37 [-0.96, 0.21]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.26 (P = 0.21) | | | | | | | | |




Test for subgroup differences: Chi² = 0.27, df = 2 (P = 0.87), I² = 0%

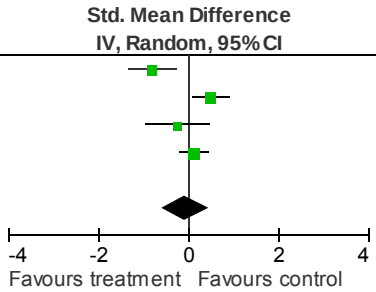
**1.18 Mental state: 5. Self-esteem (RSES, RSCQ) (at end of treatment) (signs reversed)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| WYKES2005 | -17.8 | 4 | 38 | -18 | 3.6 | 35 | 19.9% | 0.05 [-0.41, 0.51] |
| LECOMTE2008 | -15.4 | 18.1 | 36 | -3.2 | 27.5 | 32 | 19.1% | -0.52 [-1.01, -0.04] |
| DURHAM2003 | -123.9 | 14.7 | 44 | -116.4 | 18.9 | 21 | 17.9% | -0.46 [-0.98, 0.07] |
| BARROWCLOUGH2006 | -22.53 | 4.65 | 51 | -24.2 | 5.25 | 40 | 21.3% | 0.34 [-0.08, 0.75] |
| LECLERC2000 | -32.06 | 5.18 | 55 | -29.52 | 6.79 | 44 | 21.8% | -0.42 [-0.82, -0.02] |
| **Total (95% CI)** | | | **224** | | | **172** | **100.0%** | **-0.19 [-0.53, 0.15]** |
| Heterogeneity: Tau² = 0.10; Chi² = 11.31, df = 4 (P = 0.02); I² = 65% | | | | | | | | |
| Test for overall effect: Z = 1.11 (P = 0.27) | | | | | | | | |




**1.19 Mental state: 5. Self-esteem (RSES, RSCQ) (up to 12 months FU) (signs reversed)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| ENGLAND2007 | -128.6 | 16.7 | 44 | -114.7 | 17.3 | 21 | 24.1% | -0.81 [-1.35, -0.27] |
| BARROWCLOUGH2006 | -22.2 | 4.84 | 51 | -24.33 | 3.87 | 43 | 27.0% | 0.48 [0.07, 0.89] |
| LECOMTE2008 | -16.2 | 18.1 | 32 | -11.3 | 19.3 | 10 | 20.2% | -0.26 [-0.97, 0.45] |
| GUMLEY2003 | -22.7 | 6.3 | 72 | -23.3 | 5.1 | 72 | 28.8% | 0.10 [-0.22, 0.43] |
| **Total (95% CI)** | | | **199** | | | **146** | **100.0%** | **-0.09 [-0.61, 0.43]** |
| Heterogeneity: Tau² = 0.22; Chi² = 14.76, df = 3 (P = 0.002); I² = 80% | | | | | | | | |
| Test for overall effect: Z = 0.34 (P = 0.74) | | | | | | | | |

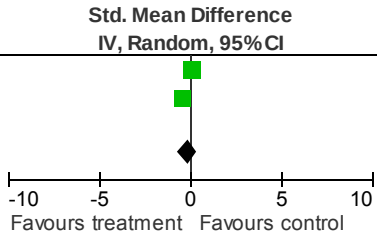


# Psychological clinical evidence: CBT

**1.20 Psychosocial Functioning: 1. Social Functioning Scale (end of treatment) (signs reversed)**

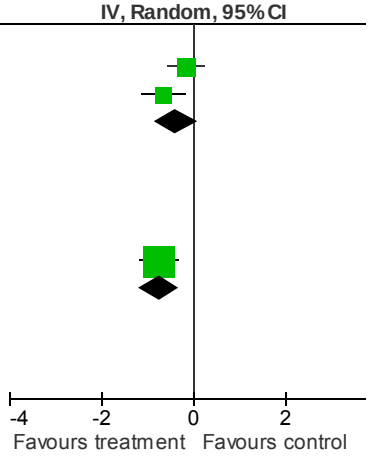
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| BARROWCLOUGH2006 | -111.52 | 21.74 | 48 | -113.73 | 28 | 41 | 51.7% | 0.09 [-0.33, 0.51] |
| STARTUP2004 | -102.3 | 11.1 | 39 | -97.4 | 11.1 | 36 | 48.3% | -0.44 [-0.90, 0.02] |
| **Total (95% CI)** | | | **87** | | | **77** | **100.0%** | **-0.17 [-0.68, 0.35]** |

Heterogeneity: Tau² = 0.09; Chi² = 2.76, df = 1 (P = 0.10); I² = 64%
Test for overall effect: Z = 0.63 (P = 0.53)




**1.21 Psychosocial Functioning: 1. Social Functioning Scale (at FU) (signs reversed)**

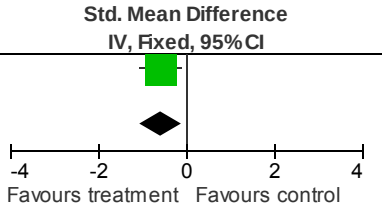
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.21.1 SFS (at 6 months FU)** | | | | | | | | |
| BARROWCLOUGH2006 | -116.44 | 27.02 | 50 | -112.23 | 24.14 | 43 | 53.8% | -0.16 [-0.57, 0.25] |
| STARTUP2004 | -105.9 | 9.8 | 35 | -99 | 11.3 | 34 | 46.2% | -0.65 [-1.13, -0.16] |
| **Subtotal (95% CI)** | | | **85** | | | **77** | **100.0%** | **-0.39 [-0.86, 0.09]** |
| Heterogeneity: Tau² = 0.06; Chi² = 2.23, df = 1 (P = 0.13); I² = 55% | | | | | | | | |
| Test for overall effect: Z = 1.60 (P = 0.11) | | | | | | | | |
| **1.21.2 SFS: (at 18 months FU)** | | | | | | | | |
| STARTUP2004 | -104 | 11.17 | 47 | -97.81 | 1.89 | 43 | 100.0% | -0.75 [-1.18, -0.32] |
| **Subtotal (95% CI)** | | | **47** | | | **43** | **100.0%** | **-0.75 [-1.18, -0.32]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.43 (P = 0.0006) | | | | | | | | |




**1.22 Psychosocial Functioning: 2. Social Behaviour Scale (lower = better) (at end of treatment)**

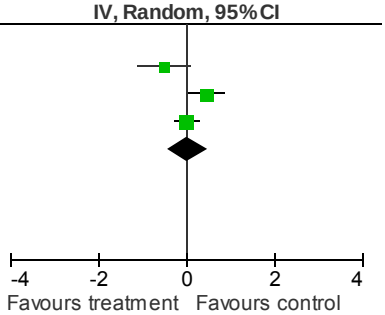
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| WYKES2005 | 6.1 | 7.8 | 35 | 11.2 | 9 | 35 | 100.0% | -0.60 [-1.08, -0.12] |
| **Total (95% CI)** | | | **35** | | | **35** | **100.0%** | **-0.60 [-1.08, -0.12]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 2.45 (P = 0.01)




**1.23 Psychosocial Functioning: 3. Social and Occupational Functioning Scale (signs reversed) (at end of treatment)**

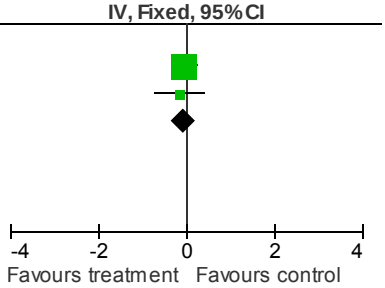
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.23.1 SOFAS (at end of treatment)** | | | | | | | | |
| GARETY2007CP | -60.91 | 13.83 | 21 | -53.26 | 14.94 | 23 | 26.0% | -0.52 [-1.12, 0.08] |
| JACKSON2005 | -53.18 | 14.36 | 45 | -59.65 | 14.62 | 46 | 34.1% | 0.44 [0.03, 0.86] |
| GARETY2007NCP | -52.02 | 15.92 | 90 | -51.88 | 15.47 | 90 | 39.8% | -0.01 [-0.30, 0.28] |
| **Subtotal (95% CI)** | | | **156** | | | **159** | **100.0%** | **0.01 [-0.45, 0.47]** |
| Heterogeneity: Tau² = 0.11; Chi² = 7.03, df = 2 (P = 0.03); I² = 72% | | | | | | | | |
| Test for overall effect: Z = 0.05 (P = 0.96) | | | | | | | | |



**1.24 Psychosocial Functioning: 3. Social and Occupational Functioning Scale (at FU)(signs reversed)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.24.2 SOFAS (up to 12 months FU)** | | | | | | | | |
| GARETY2007NCP | -53.04 | 13.31 | 85 | -52.07 | 15.96 | 85 | 78.5% | -0.07 [-0.37, 0.24] |
| GARETY2007CP | -59.73 | 14.53 | 22 | -57.04 | 16.83 | 25 | 21.5% | -0.17 [-0.74, 0.41] |
| **Subtotal (95% CI)** | | | **107** | | | **110** | **100.0%** | **-0.09 [-0.35, 0.18]** |

Heterogeneity: Chi² = 0.09, df = 1 (P = 0.76); I² = 0%
Test for overall effect: Z = 0.64 (P = 0.52)

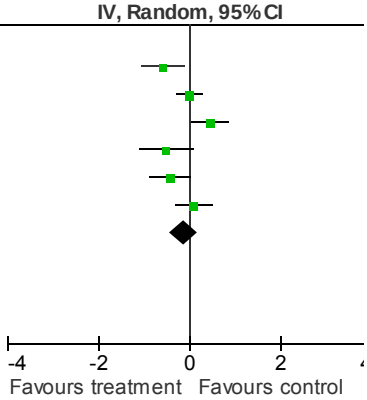



Test for subgroup differences: Not applicable

**1.25 Psychosocial Functioning: 1-3 combined (SFS, SBS, SOFAS combined) (at end of treatment) (signs reversed)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.25.1 Social functioning (at end of treatment)** | | | | | | | | |
| WYKES2005 | 6.1 | 7.8 | 35 | 11.2 | 9 | 35 | 15.7% | -0.60 [-1.08, -0.12] |
| GARETY2007NCP | -52.02 | 15.92 | 90 | -51.88 | 15.47 | 90 | 20.5% | -0.01 [-0.30, 0.28] |
| JACKSON2005 | -53.18 | 14.36 | 45 | -59.65 | 14.62 | 46 | 17.3% | 0.44 [0.03, 0.86] |
| GARETY2007CP | -60.91 | 13.83 | 21 | -53.26 | 14.94 | 23 | 12.9% | -0.52 [-1.12, 0.08] |
| STARTUP2004 | -102.3 | 11.1 | 39 | -97.4 | 11.1 | 36 | 16.2% | -0.44 [-0.90, 0.02] |
| BARROWCLOUGH2006 | -111.52 | 21.74 | 48 | -113.73 | 28 | 41 | 17.3% | 0.09 [-0.33, 0.51] |
| **Subtotal (95% CI)** | | | **278** | | | **271** | **100.0%** | **-0.14 [-0.45, 0.17]** |

Heterogeneity: Tau² = 0.10; Chi² = 15.78, df = 5 (P = 0.007); I² = 68%
Test for overall effect: Z = 0.90 (P = 0.37)



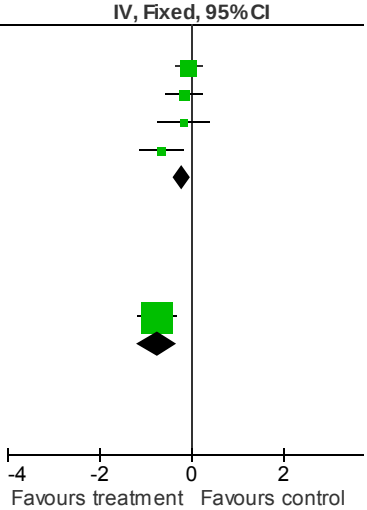

**1.26 Psychosocial Functioning: 1-3 combined (SFS, SBS, SOFAs combined) (at FU) (signs reversed)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.26.1 Social functioning (up to 12 months FU)** | | | | | | | | |
| GARETY2007NCP | -53.04 | 13.31 | 85 | -52.07 | 15.96 | 85 | 45.4% | -0.07 [-0.37, 0.24] |
| BARROWCLOUGH2006 | -116.44 | 27.02 | 50 | -112.23 | 24.14 | 43 | 24.6% | -0.16 [-0.57, 0.25] |
| GARETY2007CP | -59.73 | 14.53 | 22 | -57.04 | 16.83 | 25 | 12.5% | -0.17 [-0.74, 0.41] |
| STARTUP2004 | -105.9 | 9.8 | 35 | -99 | 11.3 | 34 | 17.5% | -0.65 [-1.13, -0.16] |
| **Subtotal (95% CI)** | | | **192** | | | **187** | **100.0%** | **-0.20 [-0.41, -0.00]** |

Heterogeneity: Chi² = 4.06, df = 3 (P = 0.26); I² = 26%
Test for overall effect: Z = 1.97 (P = 0.05)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **1.26.2 Social functioning (12 - 18 months FU)** | | | | | | | | |
| STARTUP2004 | -104 | 11.17 | 47 | -97.81 | 1.89 | 43 | 100.0% | -0.75 [-1.18, -0.32] |
| **Subtotal (95% CI)** | | | **47** | | | **43** | **100.0%** | **-0.75 [-1.18, -0.32]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 3.43 (P = 0.0006)



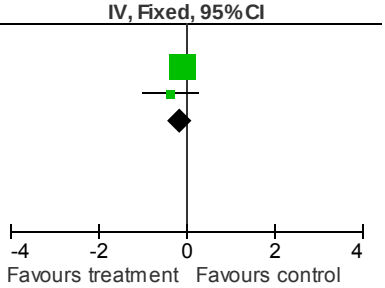

Test for subgroup differences: Chi² = 5.11, df = 1 (P = 0.02), I² = 80.4%

# Psychological clinical evidence: CBT

**1.27 Psychosocial Functioning: 4. Social functioning - time budget (signs reversed) (end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.27.1 1-12 months into treatment (Time Budget)** | | | | | | | | |
| GARETY2007NCP | -57.26 | 19.12 | 77 | -54.97 | 23.06 | 87 | 81.4% | -0.11 [-0.41, 0.20] |
| GARETY2007CP | -62.16 | 28.22 | 19 | -51.53 | 25.76 | 19 | 18.6% | -0.39 [-1.03, 0.26] |
| **Subtotal (95% CI)** | | | **96** | | | **106** | **100.0%** | **-0.16 [-0.44, 0.12]** |

Heterogeneity: Chi² = 0.59, df = 1 (P = 0.44); I² = 0%
Test for overall effect: Z = 1.12 (P = 0.26)

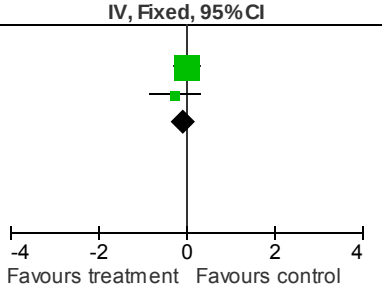



Test for subgroup differences: Not applicable

**1.28 Psychosocial Functioning: 4. Social functioning - time budget (signs reversed) (at FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.28.1 up to 12 months FU (Time Budget)** | | | | | | | | |
| GARETY2007NCP | -56.45 | 18.37 | 82 | -56.41 | 23.38 | 78 | 78.3% | -0.00 [-0.31, 0.31] |
| GARETY2007CP | -59.67 | 18.1 | 21 | -53.54 | 23.7 | 24 | 21.7% | -0.28 [-0.87, 0.31] |
| **Subtotal (95% CI)** | | | **103** | | | **102** | **100.0%** | **-0.06 [-0.34, 0.21]** |

Heterogeneity: Chi² = 0.69, df = 1 (P = 0.41); I² = 0%
Test for overall effect: Z = 0.45 (P = 0.65)

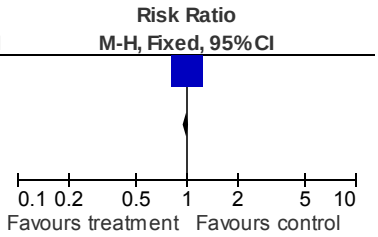



Test for subgroup differences: Not applicable

**1.29 Psychosocial Functioning: 5. Not in employment (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| Turkington2002 | 246 | 257 | 159 | 165 | 100.0% | 0.99 [0.96, 1.03] |
| **Total (95% CI)** | | **257** | | **165** | **100.0%** | **0.99 [0.96, 1.03]** |
| Total events | 246 | | 159 | | | |

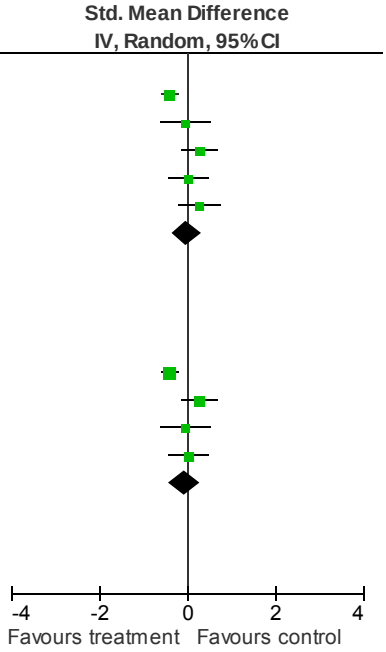
Heterogeneity: Not applicable
Test for overall effect: Z = 0.33 (P = 0.74)



# Psychological clinical evidence: CBT

**1.30 Insight (end of treatment)**

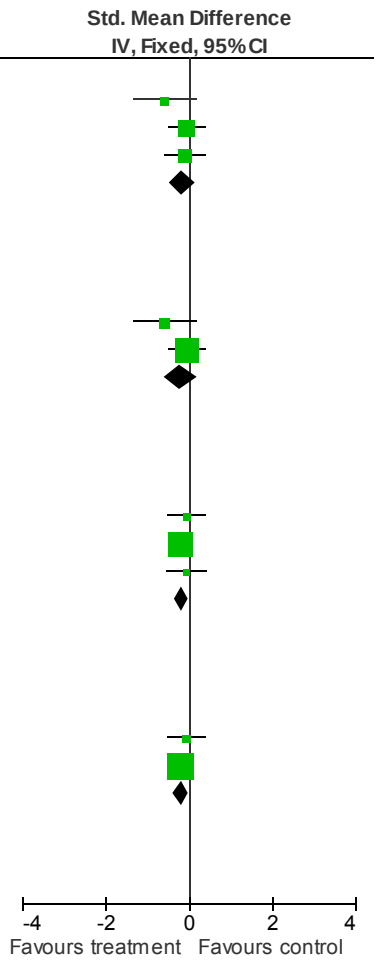
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.30.1 Insight, EM Insight Scale, Insight and Treatment Attitudes scale (end of treatment)** | | | | | | | | |
| Turkington2002 | -9.88 | 3.16 | 257 | -8.55 | 3.2 | 165 | 26.9% | -0.42 [-0.62, -0.22] |
| LECOMTE2008 | -17.6 | 3.3 | 31 | -17.4 | 3.3 | 19 | 15.8% | -0.06 [-0.63, 0.51] |
| JACKSON2005 | 1.42 | 0.97 | 45 | 1.18 | 0.85 | 46 | 20.3% | 0.26 [-0.15, 0.67] |
| STARTUP2004 | -14.3 | 6.1 | 37 | -14.4 | 6.1 | 37 | 19.0% | 0.02 [-0.44, 0.47] |
| GRANHOLM2005* | 5.69 | 5.06 | 32 | 4.36 | 5.51 | 33 | 18.0% | 0.25 [-0.24, 0.74] |
| **Subtotal (95% CI)** | | | **402** | | | **300** | **100.0%** | **-0.02 [-0.35, 0.31]** |
| Heterogeneity: Tau² = 0.10; Chi² = 13.79, df = 4 (P = 0.008); I² = 71% | | | | | | | | |
| Test for overall effect: Z = 0.12 (P = 0.90) | | | | | | | | |
| **1.30.2 Insight (end of treatment) - sensitivity analysis removing multimodal studies** | | | | | | | | |
| Turkington2002 | -9.88 | 3.16 | 257 | -8.55 | 3.2 | 165 | 33.1% | -0.42 [-0.62, -0.22] |
| JACKSON2005 | 1.42 | 0.97 | 45 | 1.18 | 0.85 | 46 | 24.8% | 0.26 [-0.15, 0.67] |
| LECOMTE2008 | -17.6 | 3.3 | 31 | -17.4 | 3.3 | 19 | 19.1% | -0.06 [-0.63, 0.51] |
| STARTUP2004 | -14.3 | 6.1 | 37 | -14.4 | 6.1 | 37 | 23.1% | 0.02 [-0.44, 0.47] |
| **Subtotal (95% CI)** | | | **370** | | | **267** | **100.0%** | **-0.08 [-0.44, 0.28]** |
| Heterogeneity: Tau² = 0.09; Chi² = 10.38, df = 3 (P = 0.02); I² = 71% | | | | | | | | |
| Test for overall effect: Z = 0.44 (P = 0.66) | | | | | | | | |



# Psychological clinical evidence: CBT

**1.31 Insight: (at FU)**

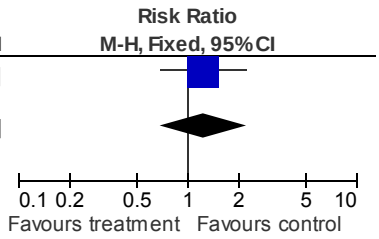
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.31.1 ITAQ, Insight rating Scale (higher = better) (6 month FU)** | | | | | | | | |
| LECOMTE2008 | -17.6 | 2.6 | 30 | -16.1 | 1.9 | 9 | 16.6% | -0.60 [-1.35, 0.16] |
| STARTUP2004 | -15.9 | 6 | 37 | -15.5 | 5.4 | 37 | 45.8% | -0.07 [-0.53, 0.39] |
| GRANHOLM2005* | 4.33 | 5.18 | 30 | 4.9 | 4.85 | 31 | 37.7% | -0.11 [-0.61, 0.39] |
| **Subtotal (95% CI)** | | | **97** | | | **77** | **100.0%** | **-0.17 [-0.48, 0.14]** |
| Heterogeneity: Chi² = 1.45, df = 2 (P = 0.48); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.10 (P = 0.27) | | | | | | | | |
| **1.31.2 Insight (higher = better) (6 month FU) - sensitivity analysis removing multimodal studies** | | | | | | | | |
| LECOMTE2008 | -17.6 | 2.6 | 30 | -16.1 | 1.9 | 9 | 26.6% | -0.60 [-1.35, 0.16] |
| STARTUP2004 | -15.9 | 6 | 37 | -15.5 | 5.4 | 37 | 73.4% | -0.07 [-0.53, 0.39] |
| **Subtotal (95% CI)** | | | **67** | | | **46** | **100.0%** | **-0.21 [-0.60, 0.18]** |
| Heterogeneity: Chi² = 1.36, df = 1 (P = 0.24); I² = 27% | | | | | | | | |
| Test for overall effect: Z = 1.05 (P = 0.29) | | | | | | | | |
| **1.31.3 ITAQ, Insight rating scale, (higher = better) ( 12- 18 month FU)** | | | | | | | | |
| STARTUP2004 | -16.6 | 5.8 | 37 | -16.2 | 5.3 | 37 | 13.8% | -0.07 [-0.53, 0.38] |
| Turkington2002 | -9.22 | 3.29 | 257 | -8.49 | 3.3 | 165 | 74.4% | -0.22 [-0.42, -0.03] |
| GRANHOLM2005* | 4.61 | 5.68 | 31 | 5.15 | 7.18 | 33 | 11.9% | -0.08 [-0.57, 0.41] |
| **Subtotal (95% CI)** | | | **325** | | | **235** | **100.0%** | **-0.18 [-0.35, -0.01]** |
| Heterogeneity: Chi² = 0.54, df = 2 (P = 0.76); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 2.13 (P = 0.03) | | | | | | | | |
| **1.31.4 Insight (higher = better) ( 12- 18 month FU) - sensitivity analysis removing multimodal studies** | | | | | | | | |
| STARTUP2004 | -16.6 | 5.8 | 37 | -16.2 | 5.3 | 37 | 15.6% | -0.07 [-0.53, 0.38] |
| Turkington2002 | -9.22 | 3.29 | 257 | -8.49 | 3.3 | 165 | 84.4% | -0.22 [-0.42, -0.03] |
| **Subtotal (95% CI)** | | | **294** | | | **202** | **100.0%** | **-0.20 [-0.38, -0.02]** |
| Heterogeneity: Chi² = 0.35, df = 1 (P = 0.55); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 2.15 (P = 0.03) | | | | | | | | |




Test for subgroup differences: Chi² = 0.03, df = 3 (P = 1.00), I² = 0%

**1.32 Non-compliance to medication (at FU)**

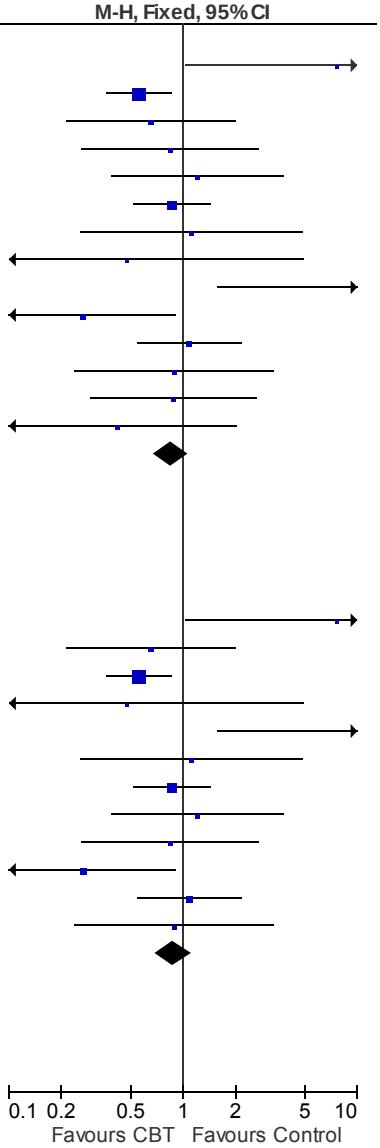
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| BACH2002 | 16 | 40 | 13 | 40 | 100.0% | 1.23 [0.68, 2.21] |
| **Total (95% CI)** | | **40** | | **40** | **100.0%** | **1.23 [0.68, 2.21]** |
| Total events | 16 | | 13 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.69 (P = 0.49) | | | | | | |



# Psychological clinical evidence: CBT

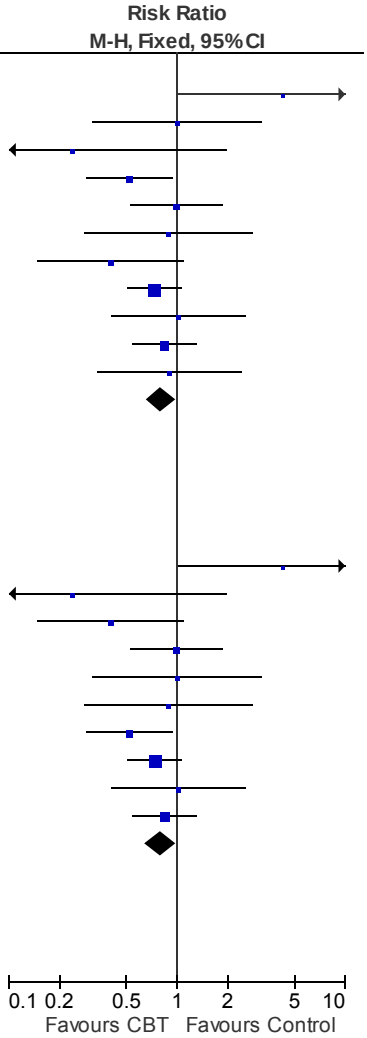
**1.33 Treatment acceptability: 1. Leaving the study early (at end of treatment)**

| Study or Subgroup | CBT Events | CBT Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.33.1 at end of treatment** | | | | | | |
| Tarrier1998 | 9 | 33 | 1 | 28 | 0.8% | 7.64 [1.03, 56.63] |
| Turkington2002 | 32 | 257 | 37 | 165 | 34.1% | 0.56 [0.36, 0.85] |
| Kuipers1997 | 4 | 28 | 7 | 32 | 4.9% | 0.65 [0.21, 2.00] |
| LECOMTE2008 | 6 | 48 | 4 | 27 | 3.9% | 0.84 [0.26, 2.73] |
| GUMLEY2003 | 6 | 72 | 5 | 72 | 3.8% | 1.20 [0.38, 3.76] |
| GARETY2007 | 22 | 133 | 27 | 140 | 19.9% | 0.86 [0.51, 1.43] |
| TROWER2004 | 3 | 18 | 3 | 20 | 2.2% | 1.11 [0.26, 4.82] |
| DURHAM2003 | 1 | 22 | 2 | 21 | 1.6% | 0.48 [0.05, 4.88] |
| JACKSON2005 | 12 | 45 | 0 | 46 | 0.4% | 25.54 [1.56, 418.93] |
| BARROWCLOUGH2006 | 3 | 57 | 11 | 56 | 8.4% | 0.27 [0.08, 0.91] |
| STARTUP2004 | 13 | 47 | 11 | 43 | 8.7% | 1.08 [0.54, 2.15] |
| WYKES2005 | 4 | 45 | 4 | 40 | 3.2% | 0.89 [0.24, 3.32] |
| GRANHOLM2005* | 5 | 37 | 6 | 39 | 4.4% | 0.88 [0.29, 2.63] |
| JENNER2004* | 2 | 37 | 5 | 39 | 3.7% | 0.42 [0.09, 2.04] |
| **Subtotal (95% CI)** | | **879** | | **768** | **100.0%** | **0.86 [0.68, 1.08]** |
| Total events | 122 | | 123 | | | |
| Heterogeneity: Chi² = 19.81, df = 13 (P = 0.10); I² = 34% | | | | | | |
| Test for overall effect: Z = 1.29 (P = 0.20) | | | | | | |
| **1.33.2 at end of treatment - sensitivity analysis removing multimodal studies** | | | | | | |
| Tarrier1998 | 9 | 33 | 1 | 28 | 0.9% | 7.64 [1.03, 56.63] |
| Kuipers1997 | 4 | 28 | 7 | 32 | 5.4% | 0.65 [0.21, 2.00] |
| Turkington2002 | 32 | 257 | 37 | 165 | 37.1% | 0.56 [0.36, 0.85] |
| DURHAM2003 | 1 | 22 | 2 | 21 | 1.7% | 0.48 [0.05, 4.88] |
| JACKSON2005 | 12 | 45 | 0 | 46 | 0.4% | 25.54 [1.56, 418.93] |
| TROWER2004 | 3 | 18 | 3 | 20 | 2.3% | 1.11 [0.26, 4.82] |
| GARETY2007 | 22 | 133 | 27 | 140 | 21.7% | 0.86 [0.51, 1.43] |
| GUMLEY2003 | 6 | 72 | 5 | 72 | 4.1% | 1.20 [0.38, 3.76] |
| LECOMTE2008 | 6 | 48 | 4 | 27 | 4.2% | 0.84 [0.26, 2.73] |
| BARROWCLOUGH2006 | 3 | 57 | 11 | 56 | 9.1% | 0.27 [0.08, 0.91] |
| STARTUP2004 | 13 | 47 | 11 | 43 | 9.5% | 1.08 [0.54, 2.15] |
| WYKES2005 | 4 | 45 | 4 | 40 | 3.5% | 0.89 [0.24, 3.32] |
| **Subtotal (95% CI)** | | **805** | | **690** | **100.0%** | **0.88 [0.69, 1.11]** |
| Total events | 115 | | 112 | | | |
| Heterogeneity: Chi² = 19.28, df = 11 (P = 0.06); I² = 43% | | | | | | |
| Test for overall effect: Z = 1.09 (P = 0.28) | | | | | | |



**1.34 Treatment acceptability: 1. Leaving the study early (at FU)**

| Study or Subgroup | CBT Events | CBT Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.34.1 FU** | | | | | | |
| Tarrier1998 | 10 | 33 | 2 | 28 | 1.4% | 4.24 [1.01, 17.77] |
| BACH2002 | 5 | 40 | 5 | 40 | 3.3% | 1.00 [0.31, 3.19] |
| DURHAM2003 | 1 | 22 | 4 | 21 | 2.7% | 0.24 [0.03, 1.96] |
| LECOMTE2008 | 13 | 48 | 14 | 27 | 11.8% | 0.52 [0.29, 0.94] |
| STARTUP2004 | 14 | 47 | 13 | 43 | 8.9% | 0.99 [0.52, 1.85] |
| TROWER2004 | 4 | 18 | 5 | 20 | 3.1% | 0.89 [0.28, 2.81] |
| BARROWCLOUGH2006 | 5 | 57 | 10 | 46 | 7.3% | 0.40 [0.15, 1.10] |
| Turkington2002 | 46 | 257 | 40 | 165 | 32.0% | 0.74 [0.51, 1.08] |
| WYKES2005 | 8 | 45 | 7 | 40 | 4.9% | 1.02 [0.40, 2.55] |
| Lewis2002 | 26 | 101 | 31 | 102 | 20.2% | 0.85 [0.54, 1.32] |
| JENNER2004* | 6 | 37 | 7 | 39 | 4.5% | 0.90 [0.33, 2.44] |
| **Subtotal (95% CI)** | | **705** | | **571** | **100.0%** | **0.80 [0.65, 0.99]** |
| Total events | 138 | | 138 | | | |
| Heterogeneity: Chi² = 11.45, df = 10 (P = 0.32); I² = 13% | | | | | | |
| Test for overall effect: Z = 2.08 (P = 0.04) | | | | | | |
| **1.34.2 FU - sensitivity analysis removing multimodal studies** | | | | | | |
| Tarrier1998 | 10 | 33 | 2 | 28 | 1.5% | 4.24 [1.01, 17.77] |
| DURHAM2003 | 1 | 22 | 4 | 21 | 2.8% | 0.24 [0.03, 1.96] |
| BARROWCLOUGH2006 | 5 | 57 | 10 | 46 | 7.6% | 0.40 [0.15, 1.10] |
| STARTUP2004 | 14 | 47 | 13 | 43 | 9.3% | 0.99 [0.52, 1.85] |
| BACH2002 | 5 | 40 | 5 | 40 | 3.4% | 1.00 [0.31, 3.19] |
| TROWER2004 | 4 | 18 | 5 | 20 | 3.3% | 0.89 [0.28, 2.81] |
| LECOMTE2008 | 13 | 48 | 14 | 27 | 12.3% | 0.52 [0.29, 0.94] |
| Turkington2002 | 46 | 257 | 40 | 165 | 33.5% | 0.74 [0.51, 1.08] |
| WYKES2005 | 8 | 45 | 7 | 40 | 5.1% | 1.02 [0.40, 2.55] |
| Lewis2002 | 26 | 101 | 31 | 102 | 21.2% | 0.85 [0.54, 1.32] |
| **Subtotal (95% CI)** | | **668** | | **532** | **100.0%** | **0.80 [0.65, 0.99]** |
| Total events | 132 | | 131 | | | |
| Heterogeneity: Chi² = 11.36, df = 9 (P = 0.25); I² = 21% | | | | | | |
| Test for overall effect: Z = 2.09 (P = 0.04) | | | | | | |

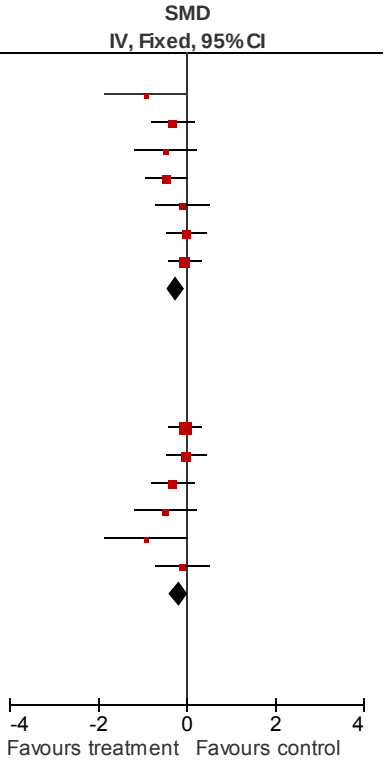



**2 CBT versus standard care (PSYRATS UK data, hallucination and delusions data)**

# Psychological clinical evidence: CBT

**2.1 PSYRATS 1. Auditory Hallucinations subscale - at end of treatment**

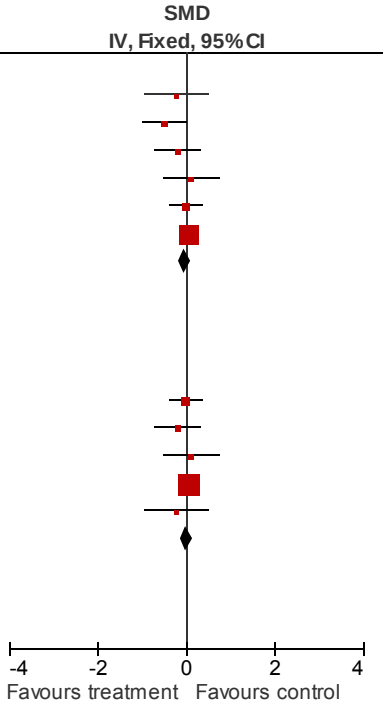
| Study or Subgroup | SMD | SE | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|
| **2.1.1 All data** | | | | |
| MCLEOD2007 | -0.9341 | 0.4812 | 4.3% | -0.93 [-1.88, 0.01] |
| Lewis2002 | -0.3305 | 0.2505 | 16.0% | -0.33 [-0.82, 0.16] |
| TROWER2004 | -0.4916 | 0.3607 | 7.7% | -0.49 [-1.20, 0.22] |
| JENNER2004* | -0.473 | 0.244 | 16.8% | -0.47 [-0.95, 0.01] |
| DURHAM2003 | -0.1135 | 0.3169 | 10.0% | -0.11 [-0.73, 0.51] |
| WYKES2005 | -0.0265 | 0.2341 | 18.3% | -0.03 [-0.49, 0.43] |
| GARETY2007 | -0.0511 | 0.1932 | 26.9% | -0.05 [-0.43, 0.33] |
| **Subtotal (95% CI)** | | | **100.0%** | **-0.24 [-0.44, -0.04]** |
| Heterogeneity: Chi² = 5.56, df = 6 (P = 0.47); I² = 0% | | | | |
| Test for overall effect: Z = 2.40 (P = 0.02) | | | | |
| **2.1.2 Sensitivity analysis removing multimodal studies** | | | | |
| GARETY2007 | -0.0511 | 0.1932 | 32.3% | -0.05 [-0.43, 0.33] |
| WYKES2005 | -0.0265 | 0.2341 | 22.0% | -0.03 [-0.49, 0.43] |
| Lewis2002 | -0.3305 | 0.2505 | 19.2% | -0.33 [-0.82, 0.16] |
| TROWER2004 | -0.4916 | 0.3607 | 9.3% | -0.49 [-1.20, 0.22] |
| MCLEOD2007 | -0.9341 | 0.4812 | 5.2% | -0.93 [-1.88, 0.01] |
| DURHAM2003 | -0.1135 | 0.3169 | 12.0% | -0.11 [-0.73, 0.51] |
| **Subtotal (95% CI)** | | | **100.0%** | **-0.19 [-0.41, 0.02]** |
| Heterogeneity: Chi² = 4.47, df = 5 (P = 0.48); I² = 0% | | | | |
| Test for overall effect: Z = 1.76 (P = 0.08) | | | | |




Test for subgroup differences: Chi² = 0.10, df = 1 (P = 0.75), I² = 0%

**2.2 PSYRATS 1. Auditory Hallucinations subscale - at FU**

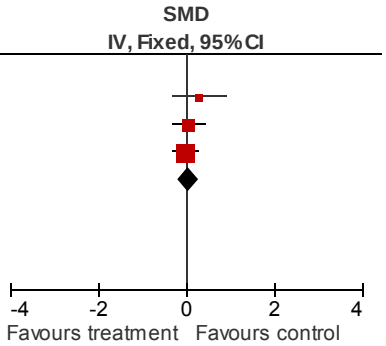
| Study or Subgroup | SMD | SE | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|
| **2.2.1 All data** | | | | |
| TROWER2004 | -0.2382 | 0.3759 | 4.1% | -0.24 [-0.97, 0.50] |
| JENNER2004* | -0.507 | 0.256 | 8.8% | -0.51 [-1.01, -0.01] |
| Lewis2002 | -0.2073 | 0.2654 | 8.2% | -0.21 [-0.73, 0.31] |
| DURHAM2003 | 0.1056 | 0.3301 | 5.3% | 0.11 [-0.54, 0.75] |
| GARETY2007 | -0.0266 | 0.1941 | 15.4% | -0.03 [-0.41, 0.35] |
| Turkington2002 | 0.0427 | 0.0998 | 58.2% | 0.04 [-0.15, 0.24] |
| **Subtotal (95% CI)** | | | **100.0%** | **-0.05 [-0.19, 0.10]** |
| Heterogeneity: Chi² = 4.88, df = 5 (P = 0.43); I² = 0% | | | | |
| Test for overall effect: Z = 0.59 (P = 0.55) | | | | |
| **2.2.2 Sensitivity analysis removing multimodal studies** | | | | |
| GARETY2007 | -0.0266 | 0.1941 | 16.9% | -0.03 [-0.41, 0.35] |
| Lewis2002 | -0.2073 | 0.2654 | 9.0% | -0.21 [-0.73, 0.31] |
| DURHAM2003 | 0.1056 | 0.3301 | 5.8% | 0.11 [-0.54, 0.75] |
| Turkington2002 | 0.0427 | 0.0998 | 63.8% | 0.04 [-0.15, 0.24] |
| TROWER2004 | -0.2382 | 0.3759 | 4.5% | -0.24 [-0.97, 0.50] |
| **Subtotal (95% CI)** | | | **100.0%** | **-0.00 [-0.16, 0.16]** |
| Heterogeneity: Chi² = 1.32, df = 4 (P = 0.86); I² = 0% | | | | |
| Test for overall effect: Z = 0.01 (P = 1.00) | | | | |




Test for subgroup differences: Chi² = 0.16, df = 1 (P = 0.68), I² = 0%

**2.3 PSYRATS 2. Delusions subscale - at end of treament**

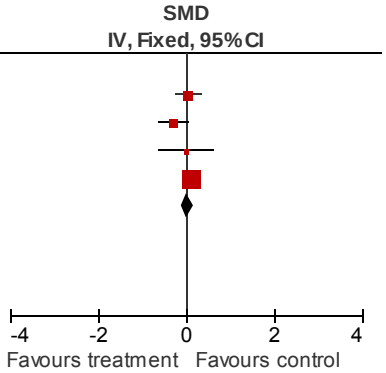
| Study or Subgroup | SMD | SE | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|
| **2.3.1 All data** | | | | |
| DURHAM2003 | 0.2841 | 0.3148 | 12.8% | 0.28 [-0.33, 0.90] |
| Lewis2002 | 0.0496 | 0.1941 | 33.6% | 0.05 [-0.33, 0.43] |
| GARETY2007 | -0.0212 | 0.1536 | 53.6% | -0.02 [-0.32, 0.28] |
| **Subtotal (95% CI)** | | | **100.0%** | **0.04 [-0.18, 0.26]** |
| Heterogeneity: Chi² = 0.76, df = 2 (P = 0.68); I² = 0% | | | | |
| Test for overall effect: Z = 0.37 (P = 0.71) | | | | |




Test for subgroup differences: Not applicable

**2.4 PSYRATS 2. Delusions subscale - at FU**

| Study or Subgroup | SMD | SE | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|
| **2.4.1 All data** | | | | |
| GARETY2007 | 0.0294 | 0.1542 | 22.8% | 0.03 [-0.27, 0.33] |
| Lewis2002 | -0.2967 | 0.1751 | 17.7% | -0.30 [-0.64, 0.05] |
| DURHAM2003 | -0.0163 | 0.3212 | 5.2% | -0.02 [-0.65, 0.61] |
| Turkington2002 | 0.1006 | 0.0998 | 54.3% | 0.10 [-0.10, 0.30] |
| **Subtotal (95% CI)** | | | **100.0%** | **0.01 [-0.14, 0.15]** |
| Heterogeneity: Chi² = 3.91, df = 3 (P = 0.27); I² = 23% | | | | |
| Test for overall effect: Z = 0.11 (P = 0.91) | | | | |

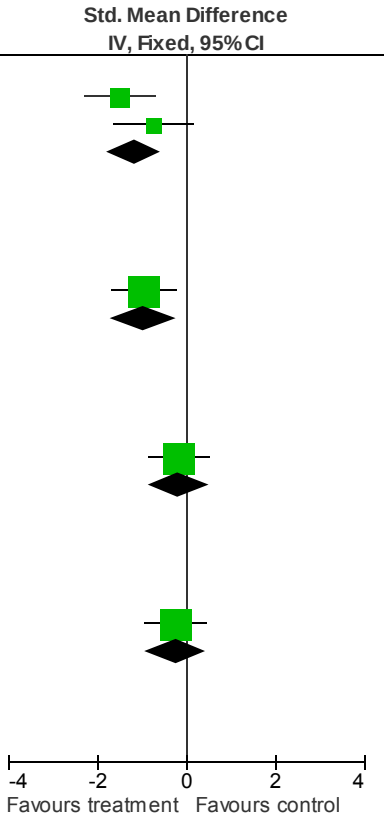



Test for subgroup differences: Not applicable

# Psychological clinical evidence: CBT

**2.5 Mental State: 1. Command Hallucinations - at end of treatment**

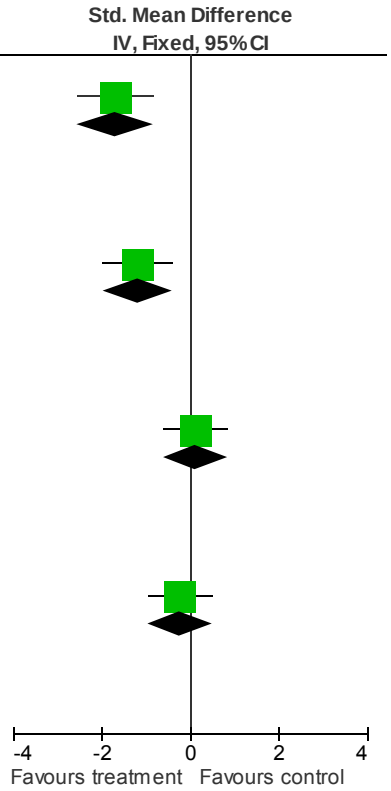
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.5.1 Voice Power Differential Scale, Power Scale (lower=better) (end of treatment)** | | | | | | | | |
| TROWER2004 | 17.4 | 6.7 | 15 | 26.7 | 5.3 | 17 | 56.7% | -1.51 [-2.31, -0.71] |
| MCLEOD2007 | 3.3 | 1.06 | 10 | 4.1 | 0.99 | 10 | 43.3% | -0.75 [-1.66, 0.17] |
| **Subtotal (95% CI)** | | | **25** | | | **27** | **100.0%** | **-1.18 [-1.78, -0.58]** |
| Heterogeneity: Chi² = 1.53, df = 1 (P = 0.22); I² = 35% | | | | | | | | |
| Test for overall effect: Z = 3.85 (P = 0.0001) | | | | | | | | |
| **2.5.2 Voice Compliance Scale (lower=better) (end of treatment)** | | | | | | | | |
| TROWER2004 | 1.8 | 1.2 | 15 | 3.1 | 1.4 | 17 | 100.0% | -0.97 [-1.71, -0.23] |
| **Subtotal (95% CI)** | | | **15** | | | **17** | **100.0%** | **-0.97 [-1.71, -0.23]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.56 (P = 0.01) | | | | | | | | |
| **2.5.3 Malevolence (BAVQ) (lower=better) (end of treatment)** | | | | | | | | |
| TROWER2004 | 18.3 | 7.5 | 15 | 19.8 | 8.9 | 17 | 100.0% | -0.18 [-0.87, 0.52] |
| **Subtotal (95% CI)** | | | **15** | | | **17** | **100.0%** | **-0.18 [-0.87, 0.52]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.50 (P = 0.62) | | | | | | | | |
| **2.5.4 Omniscience Scale (lower=better) (end of treatment)** | | | | | | | | |
| TROWER2004 | 9.1 | 4.4 | 15 | 10.2 | 4.1 | 17 | 100.0% | -0.25 [-0.95, 0.44] |
| **Subtotal (95% CI)** | | | **15** | | | **17** | **100.0%** | **-0.25 [-0.95, 0.44]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.71 (P = 0.48) | | | | | | | | |




Test for subgroup differences: Chi² = 6.69, df = 3 (P = 0.08), I² = 55.2%

**2.6 Mental State: 1. Command Hallucinations - at FU**

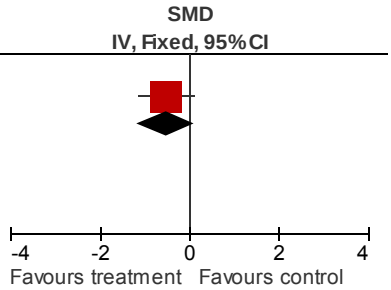
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.6.1 Voice Power Differential Scale (lower=better) (at FU)** | | | | | | | | |
| TROWER2004 | 18 | 6.5 | 14 | 29.1 | 6.2 | 15 | 100.0% | -1.70 [-2.57, -0.83] |
| **Subtotal (95% CI)** | | | **14** | | | **15** | **100.0%** | **-1.70 [-2.57, -0.83]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.84 (P = 0.0001) | | | | | | | | |
| **2.6.2 Voice Compliance Scale (lower=better) (FU)** | | | | | | | | |
| TROWER2004 | 1.7 | 1.1 | 14 | 3.4 | 1.6 | 15 | 100.0% | -1.20 [-2.00, -0.40] |
| **Subtotal (95% CI)** | | | **14** | | | **15** | **100.0%** | **-1.20 [-2.00, -0.40]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.93 (P = 0.003) | | | | | | | | |
| **2.6.3 Malevolence (BAVQ) (lower=better) (FU)** | | | | | | | | |
| TROWER2004 | 21.7 | 8.6 | 14 | 20.7 | 8.6 | 15 | 100.0% | 0.11 [-0.62, 0.84] |
| **Subtotal (95% CI)** | | | **14** | | | **15** | **100.0%** | **0.11 [-0.62, 0.84]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.30 (P = 0.76) | | | | | | | | |
| **2.6.4 Omniscience Scale (lower=better) (FU)** | | | | | | | | |
| TROWER2004 | 9.1 | 2.1 | 14 | 10 | 4.6 | 15 | 100.0% | -0.24 [-0.97, 0.49] |
| **Subtotal (95% CI)** | | | **14** | | | **15** | **100.0%** | **-0.24 [-0.97, 0.49]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.65 (P = 0.52) | | | | | | | | |




Test for subgroup differences: Chi² = 12.82, df = 3 (P = 0.005), I² = 76.6%

**2.7 Mental State: 2. Maudsley Assessment of Delusions Schedule (MADS) - at FU**

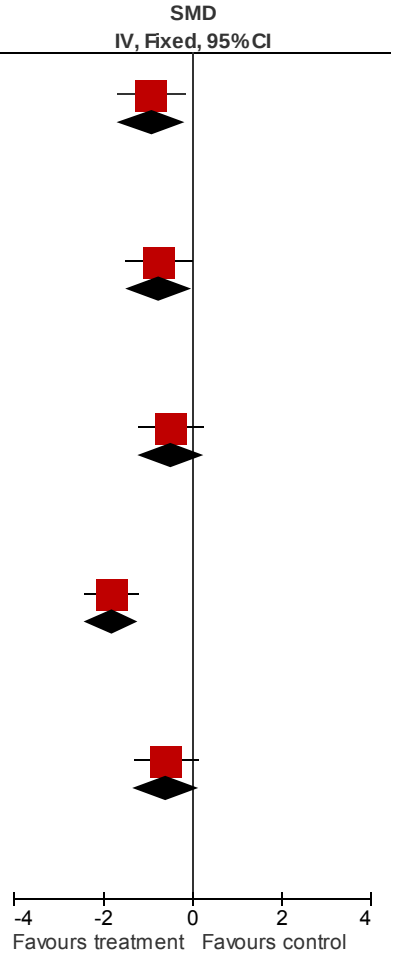
| Study or Subgroup | SMD | SE | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|
| **2.7.1 All data** | | | | |
| Kuipers1997 | -0.5394 | 0.3226 | 100.0% | -0.54 [-1.17, 0.09] |
| **Subtotal (95% CI)** | | | **100.0%** | **-0.54 [-1.17, 0.09]** |
| Heterogeneity: Not applicable | | | | |
| Test for overall effect: Z = 1.67 (P = 0.09) | | | | |




Test for subgroup differences: Not applicable

**2.8 Mental State: 3. Symptom specific measures - at end of treatment**

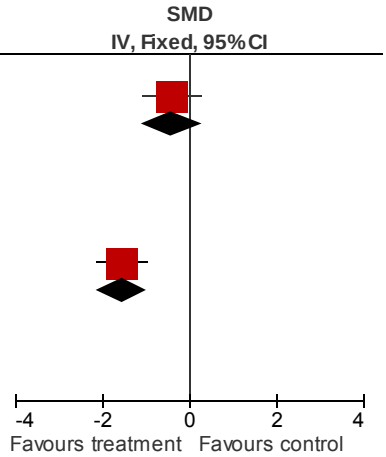
| Study or Subgroup | SMD | SE | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|
| **2.8.1 Frequency of symptoms** | | | | |
| Kuipers1997 | -0.9291 | 0.3902 | 100.0% | -0.93 [-1.69, -0.16] |
| **Subtotal (95% CI)** | | | **100.0%** | **-0.93 [-1.69, -0.16]** |
| Heterogeneity: Not applicable | | | | |
| Test for overall effect: Z = 2.38 (P = 0.02) | | | | |
| **2.8.2 Believability of symptoms** | | | | |
| BACH2002 | -0.7575 | 0.3856 | 100.0% | -0.76 [-1.51, -0.00] |
| **Subtotal (95% CI)** | | | **100.0%** | **-0.76 [-1.51, -0.00]** |
| Heterogeneity: Not applicable | | | | |
| Test for overall effect: Z = 1.96 (P = 0.05) | | | | |
| **2.8.3 Distress** | | | | |
| BACH2002 | -0.4921 | 0.3779 | 100.0% | -0.49 [-1.23, 0.25] |
| **Subtotal (95% CI)** | | | **100.0%** | **-0.49 [-1.23, 0.25]** |
| Heterogeneity: Not applicable | | | | |
| Test for overall effect: Z = 1.30 (P = 0.19) | | | | |
| **2.8.4 Hallucination severity** | | | | |
| ENGLAND2007 | -1.8213 | 0.3123 | 100.0% | -1.82 [-2.43, -1.21] |
| **Subtotal (95% CI)** | | | **100.0%** | **-1.82 [-2.43, -1.21]** |
| Heterogeneity: Not applicable | | | | |
| Test for overall effect: Z = 5.83 (P < 0.00001) | | | | |
| **2.8.5 Conviction (as measured on the Beliefs and Conviction scale)** | | | | |
| Drury1996 | -0.6014 | 0.3686 | 100.0% | -0.60 [-1.32, 0.12] |
| **Subtotal (95% CI)** | | | **100.0%** | **-0.60 [-1.32, 0.12]** |
| Heterogeneity: Not applicable | | | | |
| Test for overall effect: Z = 1.63 (P = 0.10) | | | | |




Test for subgroup differences: Chi² = 10.32, df = 4 (P = 0.04), I² = 61.2%

**2.9 Mental State: 3. Symptom specific measures - at FU**

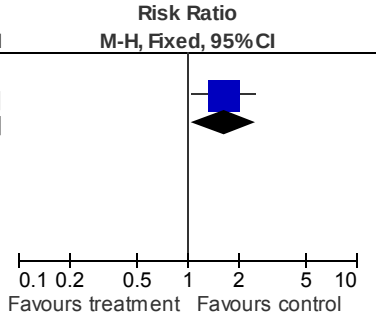
| Study or Subgroup | SMD | SE | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|
| **2.9.1 Conviction (as measured on the Beliefs and Conviction scale)** | | | | |
| Drury1996 | -0.418 | 0.3472 | 100.0% | -0.42 [-1.10, 0.26] |
| **Subtotal (95% CI)** | | | **100.0%** | **-0.42 [-1.10, 0.26]** |
| Heterogeneity: Not applicable | | | | |
| Test for overall effect: Z = 1.20 (P = 0.23) | | | | |
| **2.9.4 Hallucination severity** | | | | |
| ENGLAND2007 | -1.5714 | 0.3009 | 100.0% | -1.57 [-2.16, -0.98] |
| **Subtotal (95% CI)** | | | **100.0%** | **-1.57 [-2.16, -0.98]** |
| Heterogeneity: Not applicable | | | | |
| Test for overall effect: Z = 5.22 (P < 0.00001) | | | | |




Test for subgroup differences: Chi² = 6.30, df = 1 (P = 0.01), I² = 84.1%

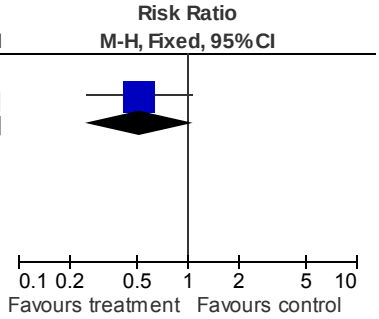
**2.10 Number of participants reporting symptoms (hallucinations and delusions) (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.10.1 Numbers reporting symptoms** | | | | | | |
| BACH2002 | 26 | 40 | 16 | 40 | 100.0% | 1.63 [1.04, 2.53] |
| **Subtotal (95% CI)** | | **40** | | **40** | **100.0%** | **1.63 [1.04, 2.53]** |
| Total events | 26 | | 16 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 2.15 (P = 0.03) | | | | | | |




**2.11 Number of participants complying with voices - at FU**

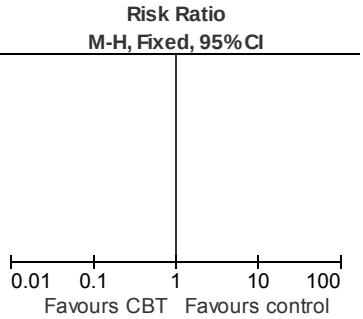
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.11.1 Numbers complying or appeasing** | | | | | | |
| BACH2002 | 6 | 18 | 13 | 20 | 100.0% | 0.51 [0.25, 1.06] |
| **Subtotal (95% CI)** | | **18** | | **20** | **100.0%** | **0.51 [0.25, 1.06]** |
| Total events | 6 | | 13 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.80 (P = 0.07) | | | | | | |




**3 CBT versus other active treatments**

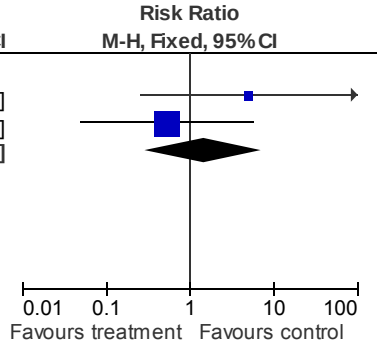
**3.1 Mortality (at end of treatment)**

| Study or Subgroup | CBT Events | CBT Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.1.1 Suicide: at end of treatment** | | | | | | |
| GARETY2007 | 0 | 28 | 0 | 28 | | Not estimable |
| **Subtotal (95% CI)** | | **28** | | **28** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |




**3.2 Mortality (at FU)**

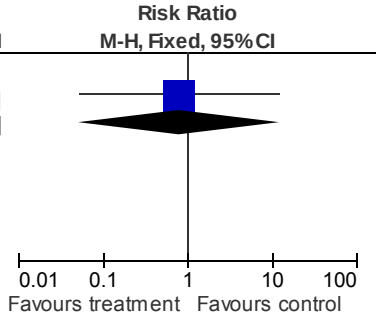
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.2.1 Suicide: at FU (up to 18 months after end of treatment)** | | | | | | |
| JACKSON2007 | 2 | 31 | 0 | 31 | 20.4% | 5.00 [0.25, 100.08] |
| Lewis2002 | 1 | 101 | 2 | 106 | 79.6% | 0.52 [0.05, 5.70] |
| **Subtotal (95% CI)** | | **132** | | **137** | **100.0%** | **1.44 [0.29, 7.24]** |
| Total events | 3 | | 2 | | | |
| Heterogeneity: Chi² = 1.35, df = 1 (P = 0.25); I² = 26% | | | | | | |
| Test for overall effect: Z = 0.44 (P = 0.66) | | | | | | |



**3.3 Service outcome: 1. Rehospitalisation (at end of treatment)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.3.1 Rehospitalisation (at end of treatment) (worst case scenario)** | | | | | | |
| Tarrier1998 | 1 | 33 | 1 | 26 | 100.0% | 0.79 [0.05, 12.01] |
| **Subtotal (95% CI)** | | **33** | | **26** | **100.0%** | **0.79 [0.05, 12.01]** |
| Total events | 1 | | 1 | | | |

Heterogeneity: Not applicable
Test for overall effect: Z = 0.17 (P = 0.86)



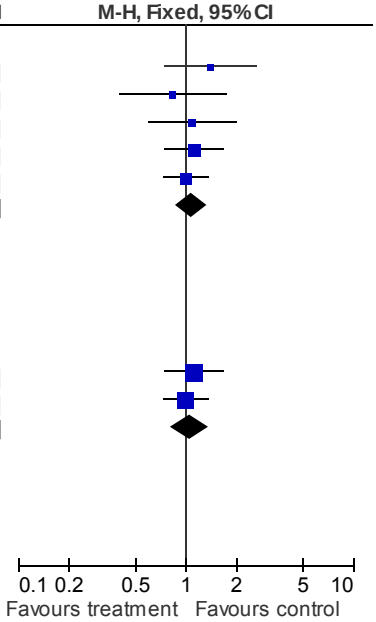

**3.4 Service outcome: 1. Rehospitalisation (up to 2 years FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.4.1 Rehospitalisation (at FU) (all data)** | | | | | | |
| Tarrier1998 | 16 | 33 | 9 | 26 | 10.9% | 1.40 [0.74, 2.64] |
| BECHDOLF2004 | 9 | 40 | 13 | 48 | 12.7% | 0.83 [0.40, 1.74] |
| JACKSON2007 | 13 | 31 | 12 | 31 | 12.9% | 1.08 [0.59, 1.99] |
| Lewis2002 | 33 | 101 | 31 | 106 | 32.6% | 1.12 [0.74, 1.68] |
| Sensky2000 | 29 | 46 | 28 | 44 | 30.9% | 0.99 [0.72, 1.36] |
| **Subtotal (95% CI)** | | **251** | | **255** | **100.0%** | **1.07 [0.86, 1.33]** |
| Total events | 100 | | 93 | | | |

Heterogeneity: Chi² = 1.41, df = 4 (P = 0.84); I² = 0%
Test for overall effect: Z = 0.60 (P = 0.55)

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.4.2 Rehospitalisation (at FU) (pre-NSF and Non-UK data removed)** | | | | | | |
| Lewis2002 | 33 | 101 | 31 | 106 | 51.4% | 1.12 [0.74, 1.68] |
| Sensky2000 | 29 | 46 | 28 | 44 | 48.6% | 0.99 [0.72, 1.36] |
| **Subtotal (95% CI)** | | **147** | | **150** | **100.0%** | **1.06 [0.81, 1.37]** |
| Total events | 62 | | 59 | | | |

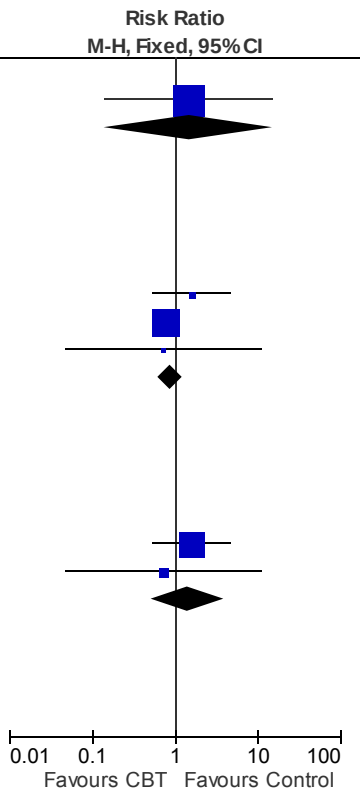
Heterogeneity: Chi² = 0.23, df = 1 (P = 0.63); I² = 0%
Test for overall effect: Z = 0.41 (P = 0.68)



# Psychological clinical evidence: CBT

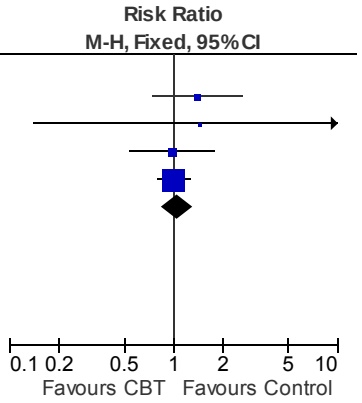
**3.5 Global state: 1. Relapse (at end of treatment)**

| Study or Subgroup | CBT Events | CBT Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.5.1 During treatment** | | | | | | |
| VALMAGGIA2005 | 2 | 36 | 1 | 26 | 100.0% | 1.44 [0.14, 15.10] |
| **Subtotal (95% CI)** | | **36** | | **26** | **100.0%** | **1.44 [0.14, 15.10]** |
| Total events | 2 | | 1 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.31 (P = 0.76) | | | | | | |
| **3.5.2 at end of treatment** | | | | | | |
| Tarrier1998 | 8 | 33 | 4 | 26 | 11.5% | 1.58 [0.53, 4.66] |
| Hogarty1997* | 24 | 48 | 35 | 53 | 85.5% | 0.76 [0.54, 1.07] |
| VALMAGGIA2005 | 1 | 36 | 1 | 26 | 3.0% | 0.72 [0.05, 11.02] |
| **Subtotal (95% CI)** | | **117** | | **105** | **100.0%** | **0.85 [0.61, 1.19]** |
| Total events | 33 | | 40 | | | |
| Heterogeneity: Chi² = 1.70, df = 2 (P = 0.43); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.95 (P = 0.34) | | | | | | |
| **3.5.3 at end of treatment - sensitivity analysis removing multimodal studies** | | | | | | |
| Tarrier1998 | 8 | 33 | 4 | 26 | 79.4% | 1.58 [0.53, 4.66] |
| VALMAGGIA2005 | 1 | 36 | 1 | 26 | 20.6% | 0.72 [0.05, 11.02] |
| **Subtotal (95% CI)** | | **69** | | **52** | **100.0%** | **1.40 [0.52, 3.80]** |
| Total events | 9 | | 5 | | | |
| Heterogeneity: Chi² = 0.27, df = 1 (P = 0.60); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.66 (P = 0.51) | | | | | | |




**3.6 Global state: 1. Relapse (at FU)**

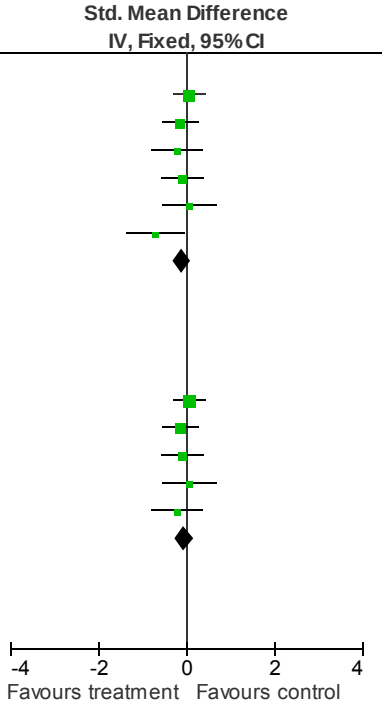
| Study or Subgroup | CBT Events | CBT Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.6.1 Relapse: (up to 2 yrs FU)** | | | | | | |
| Tarrier1998 | 16 | 33 | 9 | 26 | 11.9% | 1.40 [0.74, 2.64] |
| VALMAGGIA2005 | 2 | 36 | 1 | 26 | 1.4% | 1.44 [0.14, 15.10] |
| BECHDOLF2004 | 13 | 40 | 16 | 48 | 17.2% | 0.97 [0.54, 1.78] |
| Lewis2002 | 57 | 101 | 60 | 106 | 69.4% | 1.00 [0.79, 1.27] |
| **Subtotal (95% CI)** | | **210** | | **206** | **100.0%** | **1.05 [0.85, 1.30]** |
| Total events | 88 | | 86 | | | |
| Heterogeneity: Chi² = 1.10, df = 3 (P = 0.78); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.43 (P = 0.67) | | | | | | |



# Psychological clinical evidence: CBT

**3.7 Mental state: 1. Continuous measures - total symptom score (BPRS, PANSS, CPRS) (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.7.1 Total Symptom score (at end of treatment)** | | | | | | | | |
| Lewis2002 | 68.12 | 21.38 | 52 | 67.25 | 18.52 | 64 | 29.4% | 0.04 [-0.32, 0.41] |
| Sensky2000 | 20.5 | 12.89 | 46 | 22.9 | 17.23 | 44 | 23.0% | -0.16 [-0.57, 0.26] |
| GARETY2007 | 54.09 | 12.49 | 21 | 57.46 | 15.53 | 24 | 11.4% | -0.23 [-0.82, 0.35] |
| LECOMTE2008 | 35.9 | 8.4 | 36 | 37 | 11.4 | 31 | 17.0% | -0.11 [-0.59, 0.37] |
| DURHAM2003 | 96.2 | 17.7 | 22 | 95.2 | 16.2 | 19 | 10.4% | 0.06 [-0.56, 0.67] |
| PINTO1999* | 38.1 | 9.7 | 19 | 45.7 | 11 | 18 | 8.8% | -0.72 [-1.39, -0.05] |
| **Subtotal (95% CI)** | | | **196** | | | **200** | **100.0%** | **-0.13 [-0.32, 0.07]** |
| Heterogeneity: Chi² = 4.35, df = 5 (P = 0.50); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.24 (P = 0.21) | | | | | | | | |
| **3.7.2 Sensitivity analysis removing multimodal studies** | | | | | | | | |
| Lewis2002 | 68.12 | 21.38 | 52 | 67.25 | 18.52 | 64 | 32.2% | 0.04 [-0.32, 0.41] |
| Sensky2000 | 20.5 | 12.89 | 46 | 22.9 | 17.23 | 44 | 25.2% | -0.16 [-0.57, 0.26] |
| LECOMTE2008 | 35.9 | 8.4 | 36 | 37 | 11.4 | 31 | 18.7% | -0.11 [-0.59, 0.37] |
| DURHAM2003 | 96.2 | 17.7 | 22 | 95.2 | 16.2 | 19 | 11.4% | 0.06 [-0.56, 0.67] |
| GARETY2007 | 54.09 | 12.49 | 21 | 57.46 | 15.53 | 24 | 12.5% | -0.23 [-0.82, 0.35] |
| **Subtotal (95% CI)** | | | **177** | | | **182** | **100.0%** | **-0.07 [-0.28, 0.14]** |
| Heterogeneity: Chi² = 1.03, df = 4 (P = 0.91); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.65 (P = 0.52) | | | | | | | | |

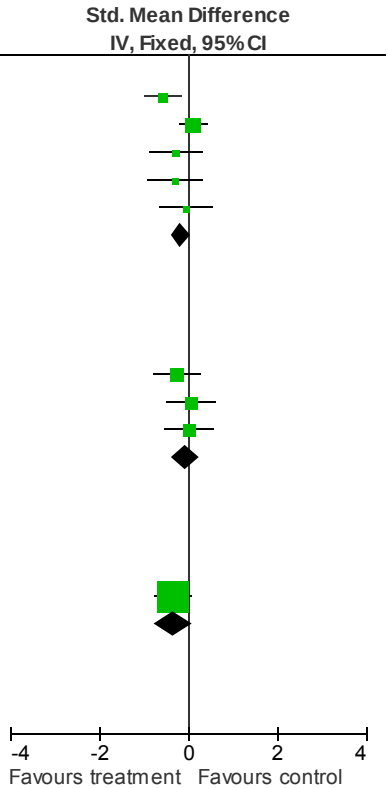



Test for subgroup differences: Chi² = 0.15, df = 1 (P = 0.70), I² = 0%

# Psychological clinical evidence: CBT

**3.8 Mental state: 1. Continuous measure - total score: (at FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.8.1 PANSS/CPRS/BPRS Total score: (up to 12months FU)** | | | | | | | | |
| Sensky2000 | 15.1 | 11.53 | 46 | 26.6 | 25.19 | 44 | 24.0% | -0.59 [-1.01, -0.16] |
| Lewis2002 | 61.73 | 19.69 | 78 | 59.96 | 16.39 | 71 | 41.5% | 0.10 [-0.22, 0.42] |
| LECOMTE2008 | 33.4 | 7.8 | 32 | 36.5 | 13.7 | 16 | 11.8% | -0.30 [-0.91, 0.30] |
| DURHAM2003 | 87 | 23.1 | 21 | 93.5 | 16.8 | 19 | 11.0% | -0.31 [-0.94, 0.31] |
| GARETY2007 | 54.41 | 16.7 | 22 | 55.5 | 15.26 | 20 | 11.7% | -0.07 [-0.67, 0.54] |
| **Subtotal (95% CI)** | | | **199** | | | **170** | **100.0%** | **-0.18 [-0.39, 0.03]** |
| Heterogeneity: Chi² = 6.86, df = 4 (P = 0.14); I² = 42% | | | | | | | | |
| Test for overall effect: Z = 1.69 (P = 0.09) | | | | | | | | |
| **3.8.2 PANSS/ CPRS/ BPRS total score: (12 -24 months FU)** | | | | | | | | |
| LEWIS2002M | 71.2 | 15.8 | 25 | 76.6 | 21.7 | 30 | 35.4% | -0.28 [-0.81, 0.26] |
| LEWIS2002L | 53.7 | 13.3 | 26 | 53 | 14.6 | 23 | 32.0% | 0.05 [-0.51, 0.61] |
| LEWIS2002N | 51.5 | 7.5 | 24 | 51.4 | 9.6 | 26 | 32.7% | 0.01 [-0.54, 0.57] |
| **Subtotal (95% CI)** | | | **75** | | | **79** | **100.0%** | **-0.08 [-0.40, 0.24]** |
| Heterogeneity: Chi² = 0.83, df = 2 (P = 0.66); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.48 (P = 0.63) | | | | | | | | |
| **3.8.3 PANSS/CPRS/BPRS Total Score (5 year FU)** | | | | | | | | |
| Sensky2000 | 24.4 | 11.7 | 46 | 29 | 14 | 44 | 100.0% | -0.35 [-0.77, 0.06] |
| **Subtotal (95% CI)** | | | **46** | | | **44** | **100.0%** | **-0.35 [-0.77, 0.06]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.67 (P = 0.10) | | | | | | | | |

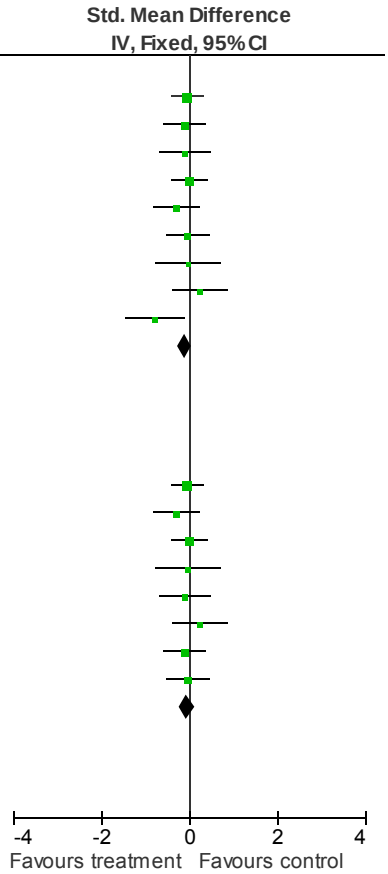



Test for subgroup differences: Chi² = 1.07, df = 2 (P = 0.59), I² = 0%

# Psychological clinical evidence: CBT

**3.9 Mental state: 2. Continuous measures - PANSS positive symptoms**

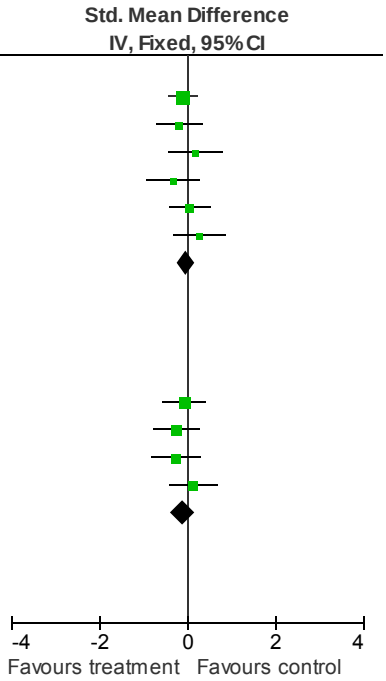
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.9.1 PANSS positive symptoms (at end of treatment)** | | | | | | | | |
| Lewis2002 | 14.94 | 6.61 | 52 | 15.34 | 6.01 | 64 | 21.6% | -0.06 [-0.43, 0.30] |
| LECOMTE2008 | 1.7 | 0.73 | 36 | 1.8 | 0.89 | 31 | 12.5% | -0.12 [-0.60, 0.36] |
| GARETY2007 | 13.95 | 5.69 | 21 | 14.54 | 5.24 | 24 | 8.4% | -0.11 [-0.69, 0.48] |
| BECHDOLF2004 | 11.3 | 4.2 | 40 | 11.4 | 4.5 | 48 | 16.4% | -0.02 [-0.44, 0.40] |
| VALMAGGIA2005 | 15.09 | 3.91 | 35 | 16.28 | 3.76 | 23 | 10.3% | -0.30 [-0.83, 0.22] |
| JACKSON2007 | 7.45 | 4.05 | 31 | 7.65 | 4.03 | 31 | 11.7% | -0.05 [-0.55, 0.45] |
| CATHER2005 | 10.93 | 3.33 | 15 | 11.08 | 3.44 | 13 | 5.2% | -0.04 [-0.79, 0.70] |
| PENADES2006 | 6.2 | 2.4 | 20 | 5.7 | 1.7 | 20 | 7.5% | 0.24 [-0.39, 0.86] |
| PINTO1999* | 17.9 | 17 | 19 | 29.9 | 12.1 | 18 | 6.4% | -0.79 [-1.46, -0.12] |
| **Subtotal (95% CI)** | | | **269** | | | **272** | **100.0%** | **-0.11 [-0.28, 0.06]** |
| Heterogeneity: Chi² = 5.98, df = 8 (P = 0.65); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.32 (P = 0.19) | | | | | | | | |
| **3.9.2 Sensitivity analysis removing multimodal studies** | | | | | | | | |
| Lewis2002 | 14.94 | 6.61 | 52 | 15.34 | 6.01 | 64 | 23.1% | -0.06 [-0.43, 0.30] |
| VALMAGGIA2005 | 15.09 | 3.91 | 35 | 16.28 | 3.76 | 23 | 11.0% | -0.30 [-0.83, 0.22] |
| BECHDOLF2004 | 11.3 | 4.2 | 40 | 11.4 | 4.5 | 48 | 17.5% | -0.02 [-0.44, 0.40] |
| CATHER2005 | 10.93 | 3.33 | 15 | 11.08 | 3.44 | 13 | 5.6% | -0.04 [-0.79, 0.70] |
| GARETY2007 | 13.95 | 5.69 | 21 | 14.54 | 5.24 | 24 | 9.0% | -0.11 [-0.69, 0.48] |
| PENADES2006 | 6.2 | 2.4 | 20 | 5.7 | 1.7 | 20 | 8.0% | 0.24 [-0.39, 0.86] |
| LECOMTE2008 | 1.7 | 0.73 | 36 | 1.8 | 0.89 | 31 | 13.4% | -0.12 [-0.60, 0.36] |
| JACKSON2007 | 7.45 | 4.05 | 31 | 7.65 | 4.03 | 31 | 12.5% | -0.05 [-0.55, 0.45] |
| **Subtotal (95% CI)** | | | **250** | | | **254** | **100.0%** | **-0.07 [-0.24, 0.11]** |
| Heterogeneity: Chi² = 1.80, df = 7 (P = 0.97); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.76 (P = 0.45) | | | | | | | | |




Test for subgroup differences: Chi² = 0.14, df = 1 (P = 0.71), I² = 0%

**3.10 Mental state: 2. Continuous measures - positive symptoms (at FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.10.1 PANSS/PAS Positive symptom score: FU (0-12 months)** | | | | | | | | |
| Lewis2002 | 13.03 | 5.06 | 78 | 13.67 | 5.33 | 60 | 35.2% | -0.12 [-0.46, 0.21] |
| VALMAGGIA2005 | 14.64 | 3.7 | 35 | 15.44 | 3.94 | 23 | 14.3% | -0.21 [-0.74, 0.32] |
| PENADES2006 | 6.2 | 2.4 | 20 | 5.8 | 2.2 | 20 | 10.4% | 0.17 [-0.45, 0.79] |
| GARETY2007 | 14.23 | 6.41 | 22 | 16.52 | 6.9 | 21 | 11.0% | -0.34 [-0.94, 0.26] |
| BECHDOLF2004 | 11.6 | 4.3 | 31 | 11.4 | 4.8 | 40 | 18.1% | 0.04 [-0.43, 0.51] |
| LECOMTE2008 | 1.7 | 0.68 | 32 | 1.5 | 0.89 | 16 | 11.0% | 0.26 [-0.34, 0.86] |
| **Subtotal (95% CI)** | | | **218** | | | **180** | **100.0%** | **-0.06 [-0.26, 0.14]** |
| Heterogeneity: Chi² = 3.05, df = 5 (P = 0.69); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.55 (P = 0.58) | | | | | | | | |
| **3.10.2 PANSS/PAS positive symptom score (12-24 months FU)** | | | | | | | | |
| JACKSON2007 | 7.2 | 4.08 | 31 | 7.55 | 4.76 | 31 | 28.9% | -0.08 [-0.58, 0.42] |
| LEWIS2002M | 14.8 | 4.1 | 25 | 16.2 | 6.2 | 30 | 25.2% | -0.26 [-0.79, 0.28] |
| LEWIS2002L | 12 | 4.3 | 26 | 13.3 | 4.8 | 23 | 22.6% | -0.28 [-0.85, 0.28] |
| LEWIS2002N | 10.5 | 2.5 | 24 | 10.2 | 2.5 | 26 | 23.3% | 0.12 [-0.44, 0.67] |
| **Subtotal (95% CI)** | | | **106** | | | **110** | **100.0%** | **-0.12 [-0.39, 0.14]** |
| Heterogeneity: Chi² = 1.31, df = 3 (P = 0.73); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.91 (P = 0.37) | | | | | | | | |

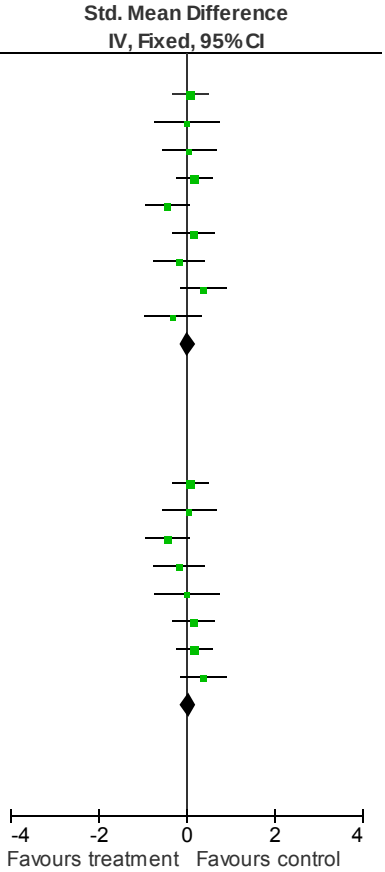



Test for subgroup differences: Chi² = 0.16, df = 1 (P = 0.69), I² = 0%

# Psychological clinical evidence: CBT

**3.11 Mental state: 3. Continuous measures - PANSS negative symptoms, SANS**

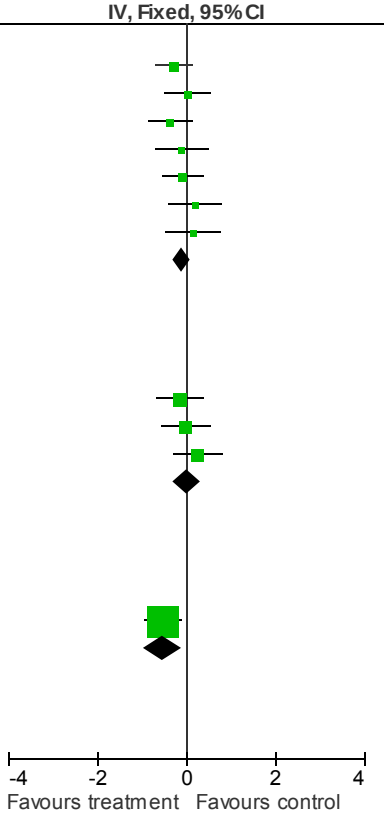
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.11.1 PANSS, SANS negative symptom score (at end of treatment)** | | | | | | | | |
| Sensky2000 | 21.95 | 16.53 | 44 | 20.68 | 20.93 | 44 | 17.4% | 0.07 [-0.35, 0.48] |
| CATHER2005 | 14.87 | 4.97 | 15 | 14.92 | 5.72 | 13 | 5.5% | -0.01 [-0.75, 0.73] |
| PENADES2006 | 13.1 | 4.2 | 20 | 12.9 | 3.8 | 20 | 7.9% | 0.05 [-0.57, 0.67] |
| BECHDOLF2004 | 13.9 | 4.5 | 40 | 13.1 | 5.2 | 48 | 17.2% | 0.16 [-0.26, 0.58] |
| JACKSON2007 | 17.67 | 10.19 | 31 | 22.88 | 12.87 | 31 | 12.0% | -0.44 [-0.95, 0.06] |
| LECOMTE2008 | 1.6 | 0.71 | 36 | 1.5 | 0.57 | 31 | 13.1% | 0.15 [-0.33, 0.63] |
| GARETY2007 | 12.33 | 4.94 | 21 | 13.38 | 5.81 | 24 | 8.8% | -0.19 [-0.78, 0.40] |
| VALMAGGIA2005 | 12.95 | 3.51 | 35 | 11.74 | 2.91 | 23 | 10.8% | 0.36 [-0.17, 0.89] |
| PINTO1999* | 46.9 | 19.4 | 19 | 53.5 | 19.1 | 18 | 7.2% | -0.34 [-0.99, 0.31] |
| **Subtotal (95% CI)** | | | **261** | | | **252** | **100.0%** | **0.01 [-0.17, 0.18]** |
| Heterogeneity: Chi² = 7.26, df = 8 (P = 0.51); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.09 (P = 0.93) | | | | | | | | |
| **3.11.2 Sensitivity analysis removing multimodal studies** | | | | | | | | |
| Sensky2000 | 21.95 | 16.53 | 44 | 20.68 | 20.93 | 44 | 18.8% | 0.07 [-0.35, 0.48] |
| PENADES2006 | 13.1 | 4.2 | 20 | 12.9 | 3.8 | 20 | 8.5% | 0.05 [-0.57, 0.67] |
| JACKSON2007 | 17.67 | 10.19 | 31 | 22.88 | 12.87 | 31 | 12.9% | -0.44 [-0.95, 0.06] |
| GARETY2007 | 12.33 | 4.94 | 21 | 13.38 | 5.81 | 24 | 9.5% | -0.19 [-0.78, 0.40] |
| CATHER2005 | 14.87 | 4.97 | 15 | 14.92 | 5.72 | 13 | 5.9% | -0.01 [-0.75, 0.73] |
| LECOMTE2008 | 1.6 | 0.71 | 36 | 1.5 | 0.57 | 31 | 14.2% | 0.15 [-0.33, 0.63] |
| BECHDOLF2004 | 13.9 | 4.5 | 40 | 13.1 | 5.2 | 48 | 18.6% | 0.16 [-0.26, 0.58] |
| VALMAGGIA2005 | 12.95 | 3.51 | 35 | 11.74 | 2.91 | 23 | 11.6% | 0.36 [-0.17, 0.89] |
| **Subtotal (95% CI)** | | | **242** | | | **234** | **100.0%** | **0.03 [-0.15, 0.22]** |
| Heterogeneity: Chi² = 6.11, df = 7 (P = 0.53); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.38 (P = 0.71) | | | | | | | | |




Test for subgroup differences: Chi² = 0.04, df = 1 (P = 0.84), I² = 0%

**3.12 Mental state: 3. Continuous measures - negative symptoms (at FU)**

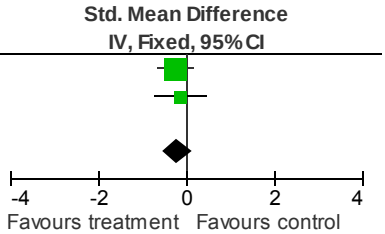
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.12.1 PANSS/SANS Negative symptom score: (up to 12 months FU)** | | | | | | | | |
| Sensky2000 | 18.16 | 17.19 | 44 | 25.07 | 27.39 | 44 | 21.8% | -0.30 [-0.72, 0.12] |
| VALMAGGIA2005 | 11.76 | 3.42 | 35 | 11.72 | 2.61 | 23 | 13.9% | 0.01 [-0.51, 0.54] |
| JACKSON2007 | 14.66 | 10.9 | 31 | 19.55 | 14.79 | 31 | 15.3% | -0.37 [-0.87, 0.13] |
| GARETY2007 | 12.18 | 4.38 | 22 | 12.95 | 8.09 | 21 | 10.8% | -0.12 [-0.72, 0.48] |
| BECHDOLF2004 | 12.5 | 4 | 31 | 13 | 6.1 | 40 | 17.5% | -0.09 [-0.56, 0.38] |
| LECOMTE2008 | 1.5 | 0.57 | 32 | 1.4 | 0.44 | 16 | 10.7% | 0.19 [-0.42, 0.79] |
| PENADES2006 | 12.9 | 3.8 | 20 | 12.3 | 4.9 | 20 | 10.0% | 0.13 [-0.49, 0.75] |
| **Subtotal (95% CI)** | | | **215** | | | **195** | **100.0%** | **-0.12 [-0.31, 0.08]** |
| Heterogeneity: Chi² = 3.55, df = 6 (P = 0.74); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.16 (P = 0.25) | | | | | | | | |
| **3.12.2 PANSS/SANS Negative symptom score (18 months FU)** | | | | | | | | |
| LEWIS2002M | 18 | 5.9 | 25 | 18.9 | 5.9 | 30 | 35.6% | -0.15 [-0.68, 0.38] |
| LEWIS2002N | 12.2 | 2.9 | 24 | 12.3 | 3.5 | 26 | 32.7% | -0.03 [-0.59, 0.52] |
| LEWIS2002L | 12.8 | 4.3 | 26 | 11.8 | 4 | 23 | 31.7% | 0.24 [-0.33, 0.80] |
| **Subtotal (95% CI)** | | | **75** | | | **79** | **100.0%** | **0.01 [-0.31, 0.33]** |
| Heterogeneity: Chi² = 0.99, df = 2 (P = 0.61); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.07 (P = 0.94) | | | | | | | | |
| **3.12.3 SANS negative score (5 years FU)** | | | | | | | | |
| Sensky2000 | 22.8 | 14.5 | 46 | 33.1 | 22.6 | 44 | 100.0% | -0.54 [-0.96, -0.12] |
| **Subtotal (95% CI)** | | | **46** | | | **44** | **100.0%** | **-0.54 [-0.96, -0.12]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.52 (P = 0.01) | | | | | | | | |




Test for subgroup differences: Chi² = 4.40, df = 2 (P = 0.11), I² = 54.6%

**3.13 Mental state: 4. Depression: MADRS, BDI (at end of treatment)**

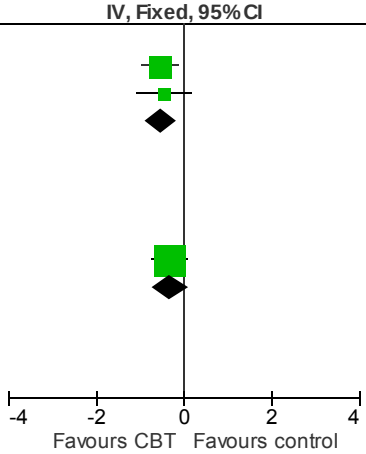
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| Sensky2000 | 4.83 | 3.58 | 46 | 6.05 | 5.42 | 44 | 67.6% | -0.26 [-0.68, 0.15] |
| GARETY2007 | 18.75 | 14.33 | 20 | 20.87 | 13.32 | 23 | 32.4% | -0.15 [-0.75, 0.45] |
| **Total (95% CI)** | | | **66** | | | **67** | **100.0%** | **-0.23 [-0.57, 0.11]** |
| Heterogeneity: Chi² = 0.09, df = 1 (P = 0.76); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.31 (P = 0.19) | | | | | | | | |



# Psychological clinical evidence: CBT

**3.14 Mental state: 4. Depression: MADRS , BDI(at FU)**

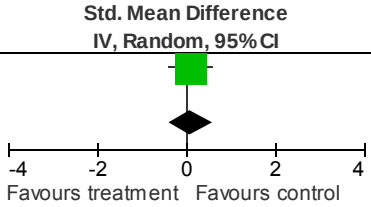
| Study or Subgroup | CBT Mean | CBT SD | CBT Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.14.1 MADRS: at 9-12 months FU** | | | | | | | | |
| Sensky2000 | 3.7 | 3.03 | 46 | 6.72 | 7.1 | 44 | 69.2% | -0.55 [-0.97, -0.13] |
| GARETY2007 | 15.54 | 10.91 | 22 | 21.39 | 13.87 | 18 | 30.8% | -0.47 [-1.10, 0.17] |
| **Subtotal (95% CI)** | | | **68** | | | **62** | **100.0%** | **-0.53 [-0.88, -0.18]** |
| Heterogeneity: Chi² = 0.05, df = 1 (P = 0.82); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 2.94 (P = 0.003) | | | | | | | | |
| **3.14.2 MADRS: at 5 years** | | | | | | | | |
| Sensky2000 | 5.5 | 4.3 | 46 | 7 | 4.6 | 44 | 100.0% | -0.33 [-0.75, 0.08] |
| **Subtotal (95% CI)** | | | **46** | | | **44** | **100.0%** | **-0.33 [-0.75, 0.08]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.57 (P = 0.12) | | | | | | | | |




Test for subgroup differences: Chi² = 0.48, df = 1 (P = 0.49), I² = 0%

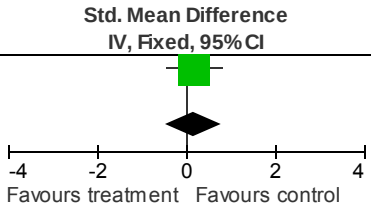
**3.15 Mental state: 5. Self-esteem (RSES, RSCQ) (at end of treatment) (signs reversed)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| LECOMTE2008 | -15.4 | 18.1 | 36 | -17.1 | 17.7 | 28 | 100.0% | 0.09 [-0.40, 0.59] |
| **Total (95% CI)** | | | **36** | | | **28** | **100.0%** | **0.09 [-0.40, 0.59]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.37 (P = 0.71) | | | | | | | | |



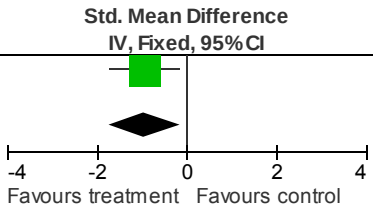

**3.16 Mental state: 5. Self-esteem (RSES, RSCQ) (at FU) (signs reversed)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| LECOMTE2008 | -16.2 | 18.1 | 32 | -19.1 | 13.9 | 14 | 100.0% | 0.17 [-0.46, 0.80] |
| **Total (95% CI)** | | | **32** | | | **14** | **100.0%** | **0.17 [-0.46, 0.80]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.52 (P = 0.60) | | | | | | | | |




**3.17 Psychosocial Functioning: 1. Social Functioning Scale (end of treatment) (signs reversed)**

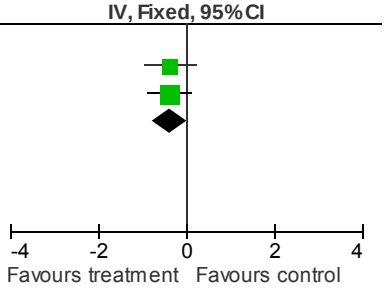
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| CATHER2005 | -129.88 | 24.91 | 15 | -105.21 | 25.57 | 13 | 100.0% | -0.95 [-1.74, -0.16] |
| **Total (95% CI)** | | | **15** | | | **13** | **100.0%** | **-0.95 [-1.74, -0.16]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.36 (P = 0.02) | | | | | | | | |



**3.18 Psychosocial Functioning: 2. Social and Occupational Functioning Assessment Scale (signs reversed)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.18.2 SOFAS (at end of treatment)** | | | | | | | | |
| GARETY2007 | -60.91 | 13.83 | 21 | -55.58 | 13.09 | 24 | 42.0% | -0.39 [-0.98, 0.20] |
| JACKSON2007 | -62.69 | 13.81 | 31 | -57.6 | 11.37 | 31 | 58.0% | -0.40 [-0.90, 0.11] |
| **Subtotal (95% CI)** | | | **52** | | | **55** | **100.0%** | **-0.39 [-0.78, -0.01]** |

Heterogeneity: Chi² = 0.00, df = 1 (P = 0.98); I² = 0%
Test for overall effect: Z = 2.02 (P = 0.04)

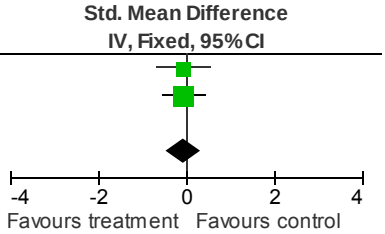



Test for subgroup differences: Not applicable

**3.19 Psychosocial Functioning: 2. Social and Occupational Assessment Scale (signs reversed) (up to 12 months FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| GARETY2007 | -59.73 | 14.53 | 22 | -58.37 | 20.26 | 19 | 39.7% | -0.08 [-0.69, 0.54] |
| JACKSON2007 | -64.21 | 15.18 | 31 | -62.91 | 15.18 | 31 | 60.3% | -0.08 [-0.58, 0.41] |
| **Total (95% CI)** | | | **53** | | | **50** | **100.0%** | **-0.08 [-0.47, 0.31]** |

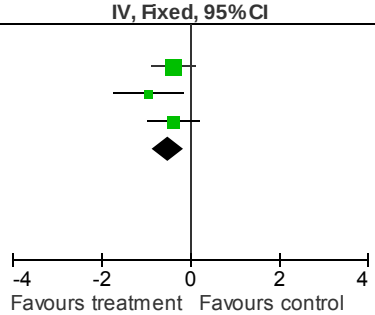
Heterogeneity: Chi² = 0.00, df = 1 (P = 0.98); I² = 0%
Test for overall effect: Z = 0.41 (P = 0.68)




**3.20 Psychosocial Functioning: 1-2 combined (SFS, SBS, SOFAS combined) (at end of treatment) (signs reversed)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.20.1 Social functioning (at end of treatment)** | | | | | | | | |
| JACKSON2007 | -62.69 | 13.81 | 31 | -57.6 | 11.37 | 31 | 47.0% | -0.40 [-0.90, 0.11] |
| CATHER2005 | -129.88 | 24.91 | 15 | -105.21 | 25.57 | 13 | 19.1% | -0.95 [-1.74, -0.16] |
| GARETY2007 | -60.91 | 13.83 | 21 | -55.58 | 13.09 | 24 | 34.0% | -0.39 [-0.98, 0.20] |
| **Subtotal (95% CI)** | | | **67** | | | **68** | **100.0%** | **-0.50 [-0.84, -0.16]** |

Heterogeneity: Chi² = 1.54, df = 2 (P = 0.46); I² = 0%
Test for overall effect: Z = 2.84 (P = 0.004)

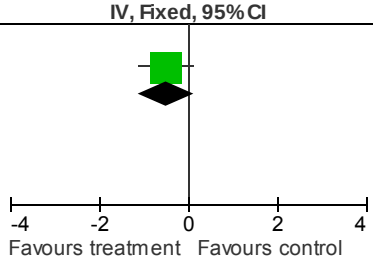



Test for subgroup differences: Not applicable

**3.21 Psychosocial Functioning: 3. Social functioning - Time budget (signs reversed) (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.21.1 1-12 months (Time Budget)** | | | | | | | | |
| GARETY2007 | -62.16 | 28.22 | 19 | -50.14 | 16.38 | 22 | 100.0% | -0.52 [-1.15, 0.10] |
| **Subtotal (95% CI)** | | | **19** | | | **22** | **100.0%** | **-0.52 [-1.15, 0.10]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 1.63 (P = 0.10)



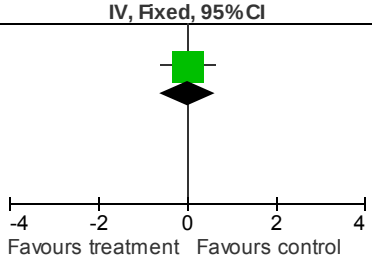

Test for subgroup differences: Not applicable

# Psychological clinical evidence: CBT

**3.22 Psychosocial Functioning: 3. Social functioning - Time budget (signs reversed) (6-12 mths FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.22.1 FU (12 months) after end of treatment (Time Budget)** | | | | | | | | |
| GARETY2007 | -59.67 | 18.1 | 21 | -59.79 | 20.03 | 19 | 100.0% | 0.01 [-0.61, 0.63] |
| **Subtotal (95% CI)** | | | **21** | | | **19** | **100.0%** | **0.01 [-0.61, 0.63]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 0.02 (P = 0.98)

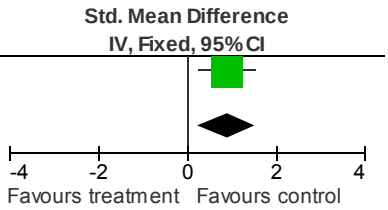



Test for subgroup differences: Not applicable

**3.23 Psychosocial Functioning: 4. Life Skills Profile (end of treatment) (signs reversed)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| PENADES2006 | -117 | 13.3 | 20 | -133.3 | 21.8 | 20 | 100.0% | 0.88 [0.23, 1.54] |
| **Total (95% CI)** | | | **20** | | | **20** | **100.0%** | **0.88 [0.23, 1.54]** |

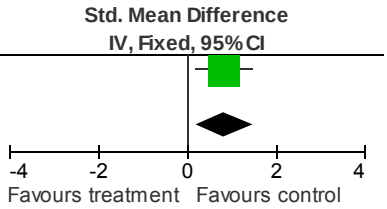
Heterogeneity: Not applicable
Test for overall effect: Z = 2.66 (P = 0.008)




**3.24 Psychosocial Functioning: 4. Life Skills Profile (signs reversed) (at FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| PENADES2006 | -115.9 | 13.9 | 20 | -131.3 | 21.8 | 20 | 100.0% | 0.83 [0.18, 1.47] |
| **Total (95% CI)** | | | **20** | | | **20** | **100.0%** | **0.83 [0.18, 1.47]** |

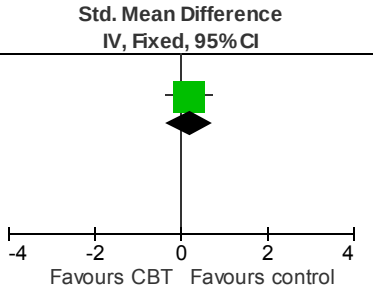
Heterogeneity: Not applicable
Test for overall effect: Z = 2.50 (P = 0.01)




**3.25 Insight (signs reversed)**

| Study or Subgroup | CBT Mean | CBT SD | CBT Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.25.1 Expanded Schedule for Assessment of Insight, Insight Scale: at end of treatment** | | | | | | | | |
| LECOMTE2008 | -17.6 | 3.3 | 31 | -18.2 | 3.1 | 22 | 100.0% | 0.18 [-0.36, 0.73] |
| **Subtotal (95% CI)** | | | **31** | | | **22** | **100.0%** | **0.18 [-0.36, 0.73]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 0.66 (P = 0.51)

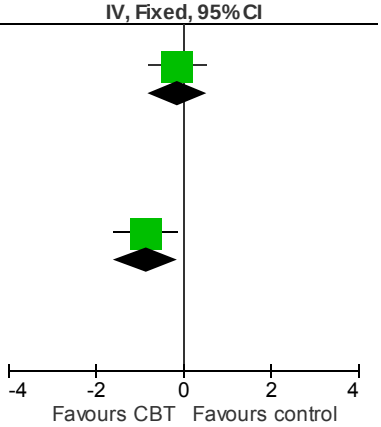



Test for subgroup differences: Not applicable

# Psychological clinical evidence: CBT

**3.26 Insight (at FU)**

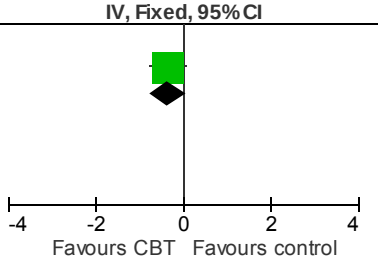
| Study or Subgroup | CBT Mean | CBT SD | CBT Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.26.1 Expanded Schedule for Assessment of Insight, Insight scale: 12 month FU** | | | | | | | | |
| LECOMTE2008 | -17.6 | 2.6 | 30 | -17.2 | 2.8 | 12 | 100.0% | -0.15 [-0.82, 0.52] |
| **Subtotal (95% CI)** | | | **30** | | | **12** | **100.0%** | **-0.15 [-0.82, 0.52]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.43 (P = 0.67) | | | | | | | | |
| **3.26.2 Insight Scale: 5 year FU** | | | | | | | | |
| Drury1996 | -10.9 | 1.8 | 15 | -9.1 | 2.2 | 16 | 100.0% | -0.87 [-1.61, -0.13] |
| **Subtotal (95% CI)** | | | **15** | | | **16** | **100.0%** | **-0.87 [-1.61, -0.13]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.30 (P = 0.02) | | | | | | | | |




Test for subgroup differences: Chi² = 2.00, df = 1 (P = 0.16), I² = 50.0%

**3.27 Non-adherence to study medication (at end of treatment)**

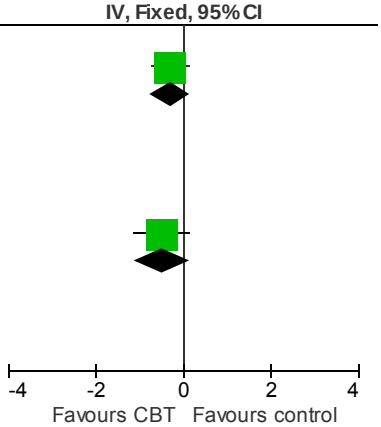
| Study or Subgroup | CBT Mean | CBT SD | CBT Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.27.3 Compliance: compliance rating scales: at end of treatment** | | | | | | | | |
| BECHDOLF2004 | -3.9 | 0.3 | 40 | -3.7 | 0.7 | 48 | 100.0% | -0.36 [-0.78, 0.07] |
| **Subtotal (95% CI)** | | | **40** | | | **48** | **100.0%** | **-0.36 [-0.78, 0.07]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.65 (P = 0.10) | | | | | | | | |




Test for subgroup differences: Not applicable

**3.28 Non-adherence to study medication (at FU)**

| Study or Subgroup | CBT Mean | CBT SD | CBT Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.28.8 Compliance: compliance rating scale: 6-12 month FU** | | | | | | | | |
| BECHDOLF2004 | -3.5 | 0.9 | 40 | -3.2 | 1 | 40 | 100.0% | -0.31 [-0.75, 0.13] |
| **Subtotal (95% CI)** | | | **40** | | | **40** | **100.0%** | **-0.31 [-0.75, 0.13]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.39 (P = 0.17) | | | | | | | | |
| **3.28.9 Compliance: compliance rating scale: 24 month FU** | | | | | | | | |
| BECHDOLF2004 | -3.4 | 0.7 | 16 | -2.9 | 1.1 | 25 | 100.0% | -0.51 [-1.15, 0.13] |
| **Subtotal (95% CI)** | | | **16** | | | **25** | **100.0%** | **-0.51 [-1.15, 0.13]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.56 (P = 0.12) | | | | | | | | |

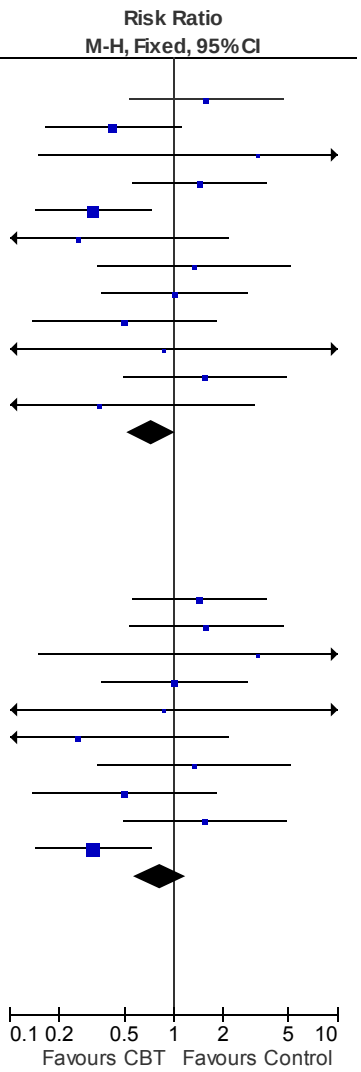



Test for subgroup differences: Chi² = 0.24, df = 1 (P = 0.62), I² = 0%

# Psychological clinical evidence: CBT

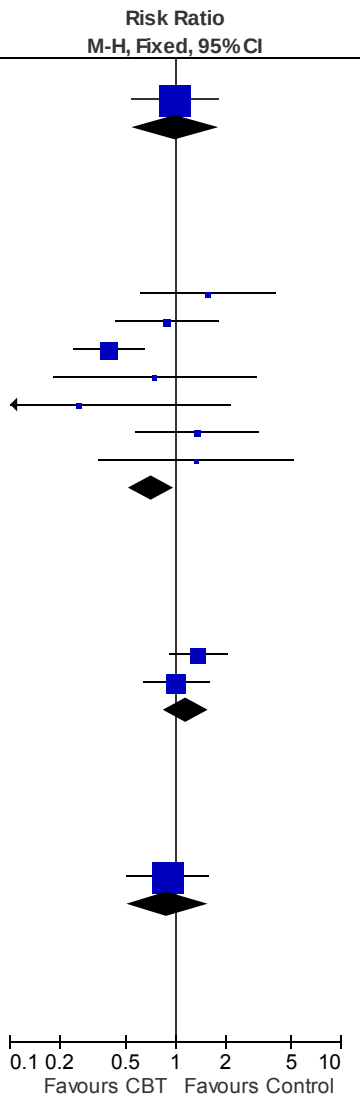
**3.29 Treatment acceptability: 1. Leaving the study early (at end of treatment)**

| Study or Subgroup | CBT Events | CBT Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.29.1 at end of treatment** | | | | | | |
| Tarrier1998 | 8 | 33 | 4 | 26 | 6.4% | 1.58 [0.53, 4.66] |
| Hogarty1997* | 5 | 48 | 13 | 53 | 17.7% | 0.42 [0.16, 1.10] |
| Haddock1999 | 1 | 10 | 0 | 11 | 0.7% | 3.27 [0.15, 72.23] |
| Sensky2000 | 9 | 46 | 6 | 44 | 8.8% | 1.43 [0.56, 3.70] |
| LECOMTE2008 | 6 | 48 | 21 | 54 | 28.3% | 0.32 [0.14, 0.73] |
| DURHAM2003 | 1 | 22 | 4 | 23 | 5.6% | 0.26 [0.03, 2.16] |
| PENADES2006 | 4 | 20 | 3 | 20 | 4.3% | 1.33 [0.34, 5.21] |
| VALMAGGIA2005 | 7 | 36 | 5 | 26 | 8.3% | 1.01 [0.36, 2.83] |
| JACKSON2007 | 3 | 31 | 6 | 31 | 8.6% | 0.50 [0.14, 1.82] |
| CATHER2005 | 1 | 16 | 1 | 14 | 1.5% | 0.88 [0.06, 12.73] |
| GARETY2007 | 6 | 27 | 4 | 28 | 5.6% | 1.56 [0.49, 4.91] |
| PINTO1999* | 1 | 20 | 3 | 21 | 4.2% | 0.35 [0.04, 3.09] |
| **Subtotal (95% CI)** | | **357** | | **351** | **100.0%** | **0.73 [0.52, 1.02]** |
| Total events | 52 | | 70 | | | |
| Heterogeneity: Chi² = 14.37, df = 11 (P = 0.21); I² = 23% | | | | | | |
| Test for overall effect: Z = 1.85 (P = 0.06) | | | | | | |
| **3.29.2 at end of treatment - sensitivity analysis removing multimodal studies** | | | | | | |
| Sensky2000 | 9 | 46 | 6 | 44 | 11.2% | 1.43 [0.56, 3.70] |
| Tarrier1998 | 8 | 33 | 4 | 26 | 8.2% | 1.58 [0.53, 4.66] |
| Haddock1999 | 1 | 10 | 0 | 11 | 0.9% | 3.27 [0.15, 72.23] |
| VALMAGGIA2005 | 7 | 36 | 5 | 26 | 10.6% | 1.01 [0.36, 2.83] |
| CATHER2005 | 1 | 16 | 1 | 14 | 2.0% | 0.88 [0.06, 12.73] |
| DURHAM2003 | 1 | 22 | 4 | 23 | 7.2% | 0.26 [0.03, 2.16] |
| PENADES2006 | 4 | 20 | 3 | 20 | 5.5% | 1.33 [0.34, 5.21] |
| JACKSON2007 | 3 | 31 | 6 | 31 | 11.0% | 0.50 [0.14, 1.82] |
| GARETY2007 | 6 | 27 | 4 | 28 | 7.2% | 1.56 [0.49, 4.91] |
| LECOMTE2008 | 6 | 48 | 21 | 54 | 36.2% | 0.32 [0.14, 0.73] |
| **Subtotal (95% CI)** | | **289** | | **277** | **100.0%** | **0.82 [0.57, 1.18]** |
| Total events | 46 | | 54 | | | |
| Heterogeneity: Chi² = 12.05, df = 9 (P = 0.21); I² = 25% | | | | | | |
| Test for overall effect: Z = 1.07 (P = 0.28) | | | | | | |



**3.30 Treatment acceptability: 1. Leaving the study early (at FU)**

| Study or Subgroup | CBT Events | CBT Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.30.1 FU (1-5 weeks after end of treatment)** | | | | | | |
| Lewis2002 | 17 | 101 | 18 | 106 | 100.0% | 0.99 [0.54, 1.81] |
| **Subtotal (95% CI)** | | **101** | | **106** | **100.0%** | **0.99 [0.54, 1.81]** |
| Total events | 17 | | 18 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.03 (P = 0.98) | | | | | | |
| **3.30.2 FU (3-12 months after end of treatment)** | | | | | | |
| Tarrier1998 | 10 | 33 | 5 | 26 | 8.1% | 1.58 [0.61, 4.04] |
| VALMAGGIA2005 | 11 | 36 | 9 | 26 | 15.1% | 0.88 [0.43, 1.82] |
| LECOMTE2008 | 13 | 48 | 37 | 54 | 50.4% | 0.40 [0.24, 0.65] |
| JACKSON2007 | 3 | 31 | 4 | 31 | 5.8% | 0.75 [0.18, 3.08] |
| DURHAM2003 | 1 | 22 | 4 | 23 | 5.7% | 0.26 [0.03, 2.16] |
| BECHDOLF2004 | 9 | 40 | 8 | 48 | 10.5% | 1.35 [0.57, 3.17] |
| PENADES2006 | 4 | 20 | 3 | 20 | 4.3% | 1.33 [0.34, 5.21] |
| **Subtotal (95% CI)** | | **230** | | **228** | **100.0%** | **0.72 [0.53, 0.98]** |
| Total events | 51 | | 70 | | | |
| Heterogeneity: Chi² = 12.27, df = 6 (P = 0.06); I² = 51% | | | | | | |
| Test for overall effect: Z = 2.09 (P = 0.04) | | | | | | |
| **3.30.3 FU (18 - 24 months after end of treatment)** | | | | | | |
| BECHDOLF2004 | 24 | 40 | 21 | 48 | 42.0% | 1.37 [0.91, 2.06] |
| Lewis2002 | 26 | 101 | 27 | 106 | 58.0% | 1.01 [0.64, 1.61] |
| **Subtotal (95% CI)** | | **141** | | **154** | **100.0%** | **1.16 [0.85, 1.59]** |
| Total events | 50 | | 48 | | | |
| Heterogeneity: Chi² = 0.98, df = 1 (P = 0.32); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.94 (P = 0.35) | | | | | | |
| **3.30.4 FU (~5 years after end of treatment)** | | | | | | |
| Sensky2000 | 15 | 46 | 16 | 44 | 100.0% | 0.90 [0.51, 1.59] |
| **Subtotal (95% CI)** | | **46** | | **44** | **100.0%** | **0.90 [0.51, 1.59]** |
| Total events | 15 | | 16 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.37 (P = 0.71) | | | | | | |



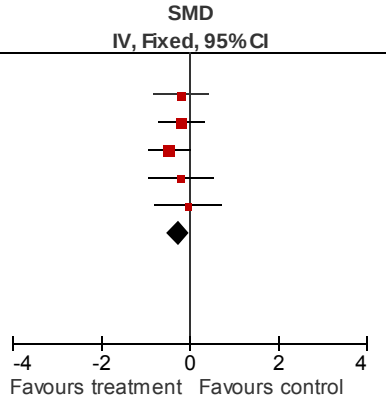

**4 CBT versus other active treatments (PSYRATS UK data, hallucination and delusions data)**

# Psychological clinical evidence: CBT

**4.1 PSYRATS 1. Auditory Hallucinations subscale - at end of treatment**

| Study or Subgroup | SMD | SE | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|
| **4.1.1 All data** | | | | |
| DURHAM2003 | -0.2112 | 0.3175 | 18.5% | -0.21 [-0.83, 0.41] |
| VALMAGGIA2005 | -0.2076 | 0.2693 | 25.7% | -0.21 [-0.74, 0.32] |
| Lewis2002 | -0.4754 | 0.2462 | 30.7% | -0.48 [-0.96, 0.01] |
| CATHER2005 | -0.2019 | 0.3799 | 12.9% | -0.20 [-0.95, 0.54] |
| GARETY2007 | -0.0486 | 0.3908 | 12.2% | -0.05 [-0.81, 0.72] |
| **Subtotal (95% CI)** | | | **100.0%** | **-0.27 [-0.54, -0.00]** |

Heterogeneity: Chi² = 1.14, df = 4 (P = 0.89); I² = 0%
Test for overall effect: Z = 1.98 (P = 0.05)

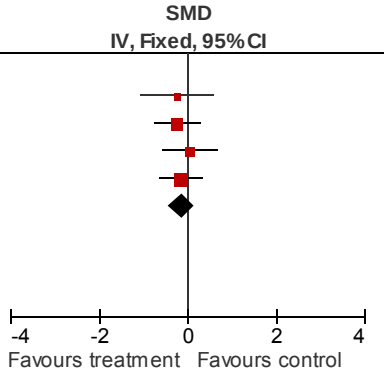



Test for subgroup differences: Not applicable

**4.2 PSYRATS 1. Auditory Hallucinations subscale - at FU**

| Study or Subgroup | SMD | SE | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|
| **4.2.1 All data** | | | | |
| GARETY2007 | -0.2465 | 0.424 | 12.5% | -0.25 [-1.08, 0.58] |
| VALMAGGIA2005 | -0.2543 | 0.2696 | 30.8% | -0.25 [-0.78, 0.27] |
| DURHAM2003 | 0.04 | 0.3204 | 21.8% | 0.04 [-0.59, 0.67] |
| Lewis2002 | -0.1612 | 0.2537 | 34.8% | -0.16 [-0.66, 0.34] |
| **Subtotal (95% CI)** | | | **100.0%** | **-0.16 [-0.45, 0.14]** |

Heterogeneity: Chi² = 0.55, df = 3 (P = 0.91); I² = 0%
Test for overall effect: Z = 1.05 (P = 0.30)

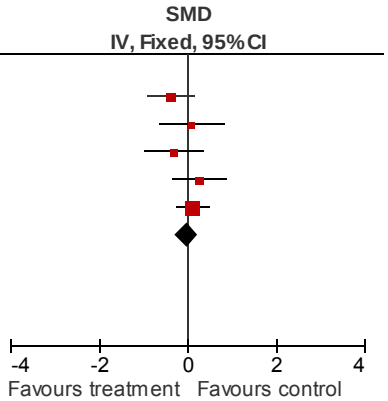



Test for subgroup differences: Not applicable

**4.3 PSYRATS 2. Delusions subscale - at end of treament**

| Study or Subgroup | SMD | SE | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|
| **4.3.1 All data** | | | | |
| VALMAGGIA2005 | -0.391 | 0.2712 | 20.6% | -0.39 [-0.92, 0.14] |
| CATHER2005 | 0.079 | 0.3791 | 10.6% | 0.08 [-0.66, 0.82] |
| GARETY2007 | -0.3242 | 0.3424 | 12.9% | -0.32 [-1.00, 0.35] |
| DURHAM2003 | 0.2594 | 0.3145 | 15.3% | 0.26 [-0.36, 0.88] |
| Lewis2002 | 0.0992 | 0.1934 | 40.6% | 0.10 [-0.28, 0.48] |
| **Subtotal (95% CI)** | | | **100.0%** | **-0.03 [-0.28, 0.21]** |

Heterogeneity: Chi² = 3.88, df = 4 (P = 0.42); I² = 0%
Test for overall effect: Z = 0.28 (P = 0.78)

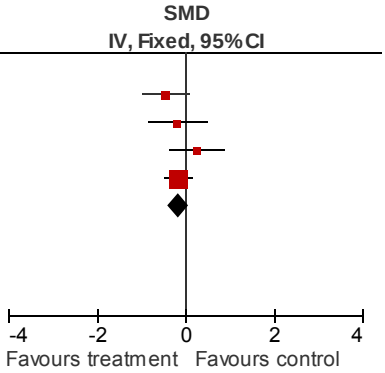



Test for subgroup differences: Not applicable

**4.4 PSYRATS 2. Delusions subscale - at FU**

| Study or Subgroup | SMD | SE | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|
| **4.4.1 All data** | | | | |
| VALMAGGIA2005 | -0.4676 | 0.2719 | 19.8% | -0.47 [-1.00, 0.07] |
| GARETY2007 | -0.1994 | 0.3452 | 12.3% | -0.20 [-0.88, 0.48] |
| DURHAM2003 | 0.2355 | 0.3177 | 14.5% | 0.24 [-0.39, 0.86] |
| Lewis2002 | -0.1843 | 0.1656 | 53.4% | -0.18 [-0.51, 0.14] |
| **Subtotal (95% CI)** | | | **100.0%** | **-0.18 [-0.42, 0.06]** |

Heterogeneity: Chi² = 2.83, df = 3 (P = 0.42); I² = 0%
Test for overall effect: Z = 1.50 (P = 0.13)



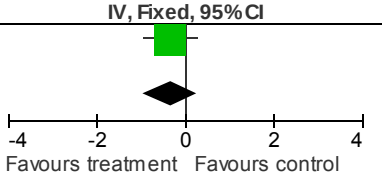

Test for subgroup differences: Not applicable

**5 CBT versus non-standard care**

**5.1 Mental state: 1. Continuous measures - PANSS positive symptoms (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| RECTOR2003 | 12 | 4 | 24 | 13.9 | 6.7 | 18 | 100.0% | -0.35 [-0.97, 0.27] |
| **Total (95% CI)** | | | **24** | | | **18** | **100.0%** | **-0.35 [-0.97, 0.27]** |

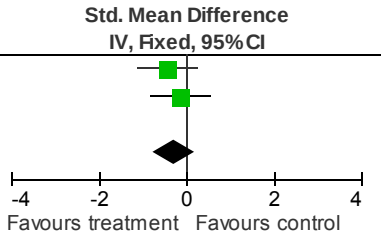
Heterogeneity: Not applicable
Test for overall effect: Z = 1.12 (P = 0.26)




**5.2 Mental state: 1. Continuous measures - PANSS positive (lower = better) (at FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| Drury1996 | 1.9 | 2.5 | 16 | 3.2 | 3.2 | 17 | 50.1% | -0.44 [-1.13, 0.25] |
| RECTOR2003 | 10.9 | 3.4 | 21 | 11.5 | 4.7 | 13 | 49.9% | -0.15 [-0.84, 0.54] |
| **Total (95% CI)** | | | **37** | | | **30** | **100.0%** | **-0.29 [-0.78, 0.20]** |

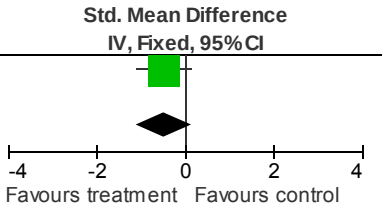
Heterogeneity: Chi² = 0.34, df = 1 (P = 0.56); I² = 0%
Test for overall effect: Z = 1.18 (P = 0.24)




**5.3 Mental state: 2. Continuous measures - PANSS negative symptoms (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| RECTOR2003 | 13.1 | 4.5 | 24 | 16 | 7.2 | 18 | 100.0% | -0.49 [-1.11, 0.13] |
| **Total (95% CI)** | | | **24** | | | **18** | **100.0%** | **-0.49 [-1.11, 0.13]** |

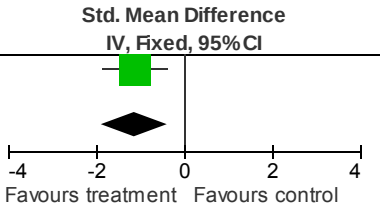
Heterogeneity: Not applicable
Test for overall effect: Z = 1.55 (P = 0.12)




**5.4 Mental state: 2. Continuous measures - PANSS negative (lower = better) (at FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| RECTOR2003 | 10.9 | 4 | 21 | 16.5 | 6 | 13 | 100.0% | -1.13 [-1.88, -0.38] |
| **Total (95% CI)** | | | **21** | | | **13** | **100.0%** | **-1.13 [-1.88, -0.38]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 2.95 (P = 0.003)

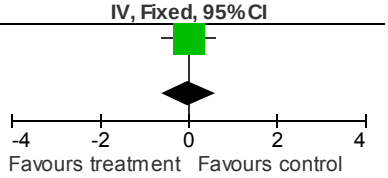


# Psychological clinical evidence: CBT

**5.5 Mental state: 3. Depression: BDI (lower = better) (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| RECTOR2003 | 11.7 | 7.9 | 24 | 11.8 | 11.5 | 18 | 100.0% | -0.01 [-0.62, 0.60] |
| **Total (95% CI)** | | | **24** | | | **18** | **100.0%** | **-0.01 [-0.62, 0.60]** |

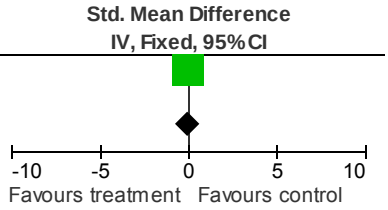
Heterogeneity: Not applicable
Test for overall effect: Z = 0.03 (P = 0.97)




**5.6 Mental state: 3. Depression: BDI (lower = better) (at FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| RECTOR2003 | 12 | 7.8 | 21 | 12.7 | 11.8 | 13 | 100.0% | -0.07 [-0.76, 0.62] |
| **Total (95% CI)** | | | **21** | | | **13** | **100.0%** | **-0.07 [-0.76, 0.62]** |

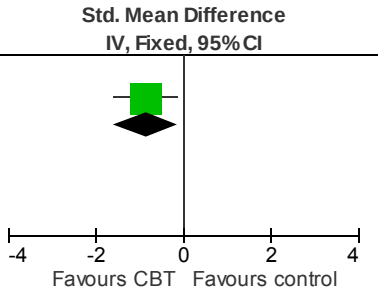
Heterogeneity: Not applicable
Test for overall effect: Z = 0.20 (P = 0.84)




**5.7 Insight (at FU)**

| Study or Subgroup | CBT Mean | CBT SD | CBT Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **5.7.2 Insight Scale: 5 year FU** | | | | | | | | |
| Drury1996 | -10.9 | 1.8 | 15 | -9.1 | 2.2 | 16 | 100.0% | -0.87 [-1.61, -0.13] |
| **Subtotal (95% CI)** | | | **15** | | | **16** | **100.0%** | **-0.87 [-1.61, -0.13]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 2.30 (P = 0.02)

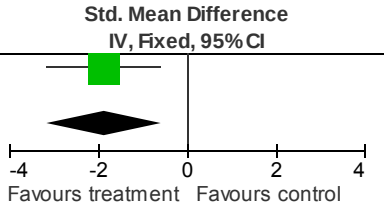



Test for subgroup differences: Not applicable

**5.8 Psychosocial Functioning: 1. Continuous measures - role functioning Scale (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| Bradshaw2000 | -20.13 | 2.41 | 8 | -15.28 | 2.43 | 7 | 100.0% | -1.89 [-3.17, -0.60] |
| **Total (95% CI)** | | | **8** | | | **7** | **100.0%** | **-1.89 [-3.17, -0.60]** |

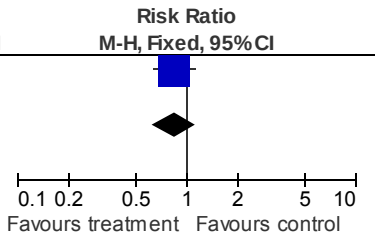
Heterogeneity: Not applicable
Test for overall effect: Z = 2.88 (P = 0.004)




**5.9 Psychosocial Functioning: 2. Not living independently (at end of treatment)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| Bradshaw2000 | 10 | 12 | 12 | 12 | 100.0% | 0.84 [0.63, 1.12] |
| **Total (95% CI)** | | **12** | | **12** | **100.0%** | **0.84 [0.63, 1.12]** |
| Total events | 10 | | 12 | | | |

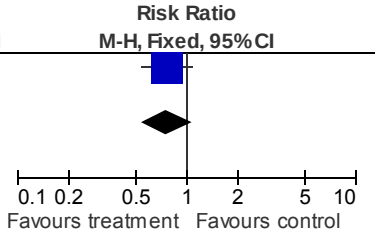
Heterogeneity: Not applicable
Test for overall effect: Z = 1.19 (P = 0.23)



**5.10 Psychosocial Functioning: 3. Not returned to education (at end of treatment)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| Bradshaw2000 | 9 | 12 | 12 | 12 | 100.0% | 0.76 [0.54, 1.08] |
| **Total (95% CI)** | | **12** | | **12** | **100.0%** | **0.76 [0.54, 1.08]** |
| Total events | 9 | | 12 | | | |

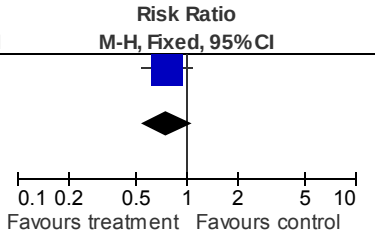
Heterogeneity: Not applicable
Test for overall effect: Z = 1.55 (P = 0.12)




**5.11 Psychosocial Functioning: 4. Not employed part-time (at end of treatment)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| Bradshaw2000 | 9 | 12 | 12 | 12 | 100.0% | 0.76 [0.54, 1.08] |
| **Total (95% CI)** | | **12** | | **12** | **100.0%** | **0.76 [0.54, 1.08]** |
| Total events | 9 | | 12 | | | |

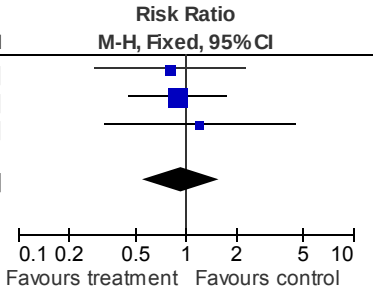
Heterogeneity: Not applicable
Test for overall effect: Z = 1.55 (P = 0.12)




**5.12 Treatment acceptability: 1. Leaving study early (at end of treatment)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| Bradshaw2000 | 4 | 12 | 5 | 12 | 24.9% | 0.80 [0.28, 2.27] |
| Drury1996 | 10 | 30 | 12 | 32 | 57.8% | 0.89 [0.45, 1.75] |
| RECTOR2003 | 5 | 29 | 3 | 21 | 17.3% | 1.21 [0.32, 4.50] |
| **Total (95% CI)** | | **71** | | **65** | **100.0%** | **0.92 [0.55, 1.56]** |
| Total events | 19 | | 20 | | | |

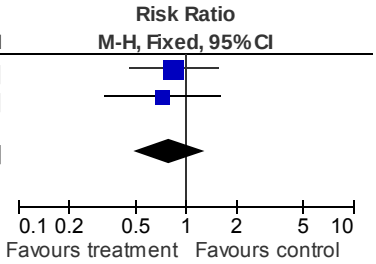
Heterogeneity: Chi² = 0.24, df = 2 (P = 0.89); I² = 0%
Test for overall effect: Z = 0.30 (P = 0.76)




**5.13 Treatment acceptability: 1. Leaving the study early (up to12 months FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| Drury1996 | 11 | 30 | 14 | 32 | 59.3% | 0.84 [0.45, 1.55] |
| RECTOR2003 | 8 | 29 | 8 | 21 | 40.7% | 0.72 [0.32, 1.62] |
| **Total (95% CI)** | | **59** | | **53** | **100.0%** | **0.79 [0.49, 1.29]** |
| Total events | 19 | | 22 | | | |

Heterogeneity: Chi² = 0.08, df = 1 (P = 0.78); I² = 0%
Test for overall effect: Z = 0.94 (P = 0.35)

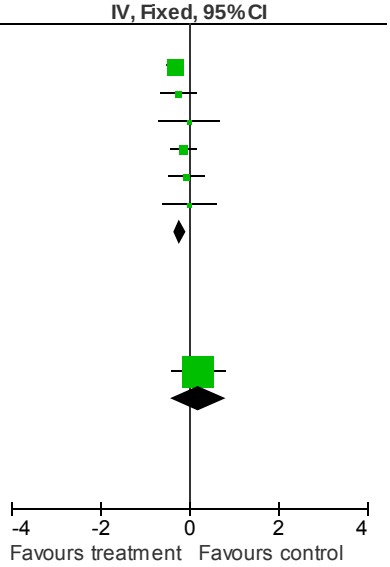



**6 CBT versus any control (selected critical outcomes only)**

# Psychological clinical evidence: CBT

**6.1 Mental state: 1. Depression: MADRS, BDI, CDSS (at end of treatment)**

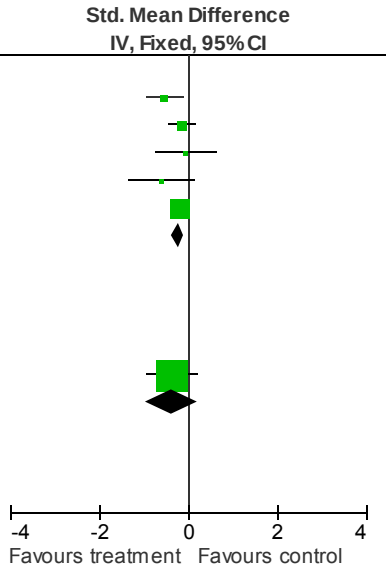
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **6.1.1 MADRS, BDI, CDSS (at end of treatment)** | | | | | | | | |
| Turkington2002 | 4.61 | 3.52 | 257 | 5.8 | 3.63 | 165 | 48.6% | -0.33 [-0.53, -0.14] |
| Sensky2000 | 4.83 | 3.58 | 46 | 6.05 | 5.42 | 44 | 10.9% | -0.26 [-0.68, 0.15] |
| TROWER2004 | 8 | 6.3 | 15 | 8.1 | 7.4 | 17 | 3.9% | -0.01 [-0.71, 0.68] |
| GARETY2007NCP | 15.66 | 13.07 | 83 | 17.52 | 13.9 | 83 | 20.3% | -0.14 [-0.44, 0.17] |
| JACKSON2005 | 5.9 | 5.59 | 45 | 6.32 | 6.07 | 46 | 11.2% | -0.07 [-0.48, 0.34] |
| RECTOR2003 | 11.7 | 7.9 | 24 | 11.8 | 11.5 | 18 | 5.0% | -0.01 [-0.62, 0.60] |
| **Subtotal (95% CI)** | | | **470** | | | **373** | **100.0%** | **-0.23 [-0.37, -0.09]** |
| Heterogeneity: Chi² = 2.88, df = 5 (P = 0.72); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 3.26 (P = 0.001) | | | | | | | | |
| **6.1.2 Depressions: BDI (Change score) (signs reversed)** | | | | | | | | |
| GARETY2007CP | -4.85 | 13.82 | 20 | -6.95 | 7.49 | 21 | 100.0% | 0.19 [-0.43, 0.80] |
| **Subtotal (95% CI)** | | | **20** | | | **21** | **100.0%** | **0.19 [-0.43, 0.80]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.60 (P = 0.55) | | | | | | | | |




Test for subgroup differences: Chi² = 1.67, df = 1 (P = 0.20), I² = 40.1%

**6.2 Mental state: 1. Depression: MADRS, BDI, CDSS (at FU)**

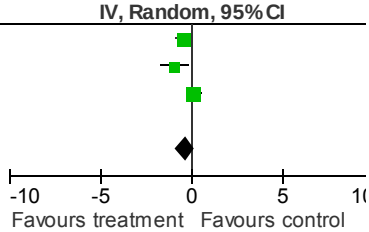
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **6.2.1 Depression: BDI, CDSS, MADRS (up to 12 months FU)** | | | | | | | | |
| Sensky2000 | 3.7 | 3.03 | 46 | 6.72 | 7.1 | 44 | 12.4% | -0.55 [-0.97, -0.13] |
| GARETY2007NCP | 15.19 | 11.63 | 78 | 17.18 | 13.1 | 77 | 22.1% | -0.16 [-0.48, 0.16] |
| RECTOR2003 | 12 | 7.8 | 21 | 12.7 | 11.8 | 13 | 4.6% | -0.07 [-0.76, 0.62] |
| TROWER2004 | 8.1 | 7.4 | 14 | 12.6 | 6.7 | 15 | 3.9% | -0.62 [-1.37, 0.13] |
| Turkington2002 | 4.09 | 3.61 | 257 | 4.86 | 3.77 | 165 | 57.1% | -0.21 [-0.41, -0.01] |
| **Subtotal (95% CI)** | | | **416** | | | **314** | **100.0%** | **-0.25 [-0.40, -0.10]** |
| Heterogeneity: Chi² = 3.66, df = 4 (P = 0.45); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 3.32 (P = 0.0009) | | | | | | | | |
| **6.2.2 Depression BDI (Change score) up to 12 months FU** | | | | | | | | |
| GARETY2007CP | -8.55 | 11.03 | 22 | -3.42 | 15.34 | 24 | 100.0% | -0.37 [-0.96, 0.21] |
| **Subtotal (95% CI)** | | | **22** | | | **24** | **100.0%** | **-0.37 [-0.96, 0.21]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.26 (P = 0.21) | | | | | | | | |




Test for subgroup differences: Chi² = 0.16, df = 1 (P = 0.69), I² = 0%

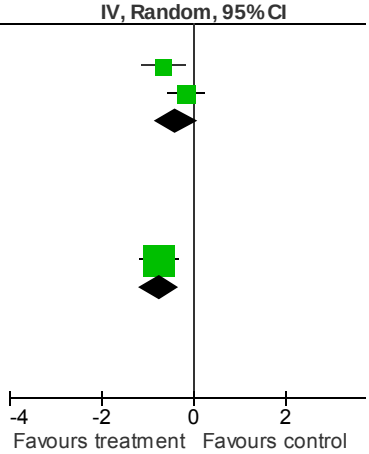
**6.3 Psychosocial Functioning: 1. Social Functioning Scale (end of treatment) (signs reversed)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| STARTUP2004 | -102.3 | 11.1 | 39 | -97.4 | 11.1 | 36 | 37.0% | -0.44 [-0.90, 0.02] |
| CATHER2005 | -129.88 | 24.91 | 15 | -105.21 | 25.57 | 13 | 24.2% | -0.95 [-1.74, -0.16] |
| BARROWCLOUGH2006 | -111.52 | 21.74 | 48 | -113.73 | 28 | 41 | 38.8% | 0.09 [-0.33, 0.51] |
| **Total (95% CI)** | | | **102** | | | **90** | **100.0%** | **-0.36 [-0.90, 0.18]** |
| Heterogeneity: Tau² = 0.15; Chi² = 6.18, df = 2 (P = 0.05); I² = 68% | | | | | | | | |
| Test for overall effect: Z = 1.30 (P = 0.19) | | | | | | | | |



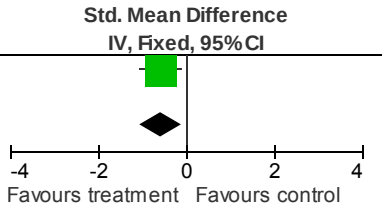
**6.4 Psychosocial Functioning: 1. Social Functioning Scale (at FU) (signs reversed)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **6.4.1 SFS (at 6 months FU)** | | | | | | | | |
| STARTUP2004 | -105.9 | 9.8 | 35 | -99 | 11.3 | 34 | 46.2% | -0.65 [-1.13, -0.16] |
| BARROWCLOUGH2006 | -116.44 | 27.02 | 50 | -112.23 | 24.14 | 43 | 53.8% | -0.16 [-0.57, 0.25] |
| **Subtotal (95% CI)** | | | **85** | | | **77** | **100.0%** | **-0.39 [-0.86, 0.09]** |
| Heterogeneity: Tau² = 0.06; Chi² = 2.23, df = 1 (P = 0.13); I² = 55% | | | | | | | | |
| Test for overall effect: Z = 1.60 (P = 0.11) | | | | | | | | |
| **6.4.2 SFS: (at 18 months FU)** | | | | | | | | |
| STARTUP2004 | -104 | 11.17 | 47 | -97.81 | 1.89 | 43 | 100.0% | -0.75 [-1.18, -0.32] |
| **Subtotal (95% CI)** | | | **47** | | | **43** | **100.0%** | **-0.75 [-1.18, -0.32]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.43 (P = 0.0006) | | | | | | | | |



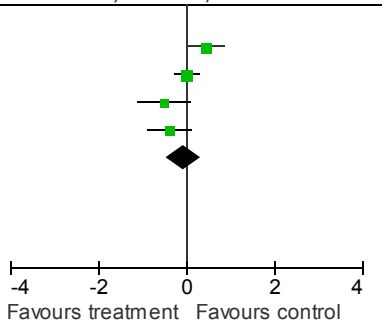

**6.5 Psychosocial Functioning: 2. Social Behaviour Scale (lower = better) (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| WYKES2005 | 6.1 | 7.8 | 35 | 11.2 | 9 | 35 | 100.0% | -0.60 [-1.08, -0.12] |
| **Total (95% CI)** | | | **35** | | | **35** | **100.0%** | **-0.60 [-1.08, -0.12]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.45 (P = 0.01) | | | | | | | | |




**6.6 Psychosocial Functioning: 3. Social and Occupational Functioning Scale (signs reversed) (at end of treatment)**

| Study or Subgroup | C)Treatment Mean | C)Treatment SD | C)Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **6.6.1 SOFAS (at end of treatment)** | | | | | | | | |
| JACKSON2005 | -53.18 | 14.36 | 45 | -59.65 | 14.62 | 46 | 26.2% | 0.44 [0.03, 0.86] |
| GARETY2007NCP | -52.02 | 15.92 | 90 | -51.88 | 15.47 | 90 | 30.9% | -0.01 [-0.30, 0.28] |
| GARETY2007CP | -60.91 | 13.83 | 21 | -53.26 | 14.94 | 23 | 19.8% | -0.52 [-1.12, 0.08] |
| JACKSON2007 | -62.69 | 13.81 | 31 | -57.6 | 11.37 | 31 | 23.1% | -0.40 [-0.90, 0.11] |
| **Subtotal (95% CI)** | | | **187** | | | **190** | **100.0%** | **-0.08 [-0.47, 0.31]** |
| Heterogeneity: Tau² = 0.11; Chi² = 9.57, df = 3 (P = 0.02); I² = 69% | | | | | | | | |
| Test for overall effect: Z = 0.41 (P = 0.68) | | | | | | | | |

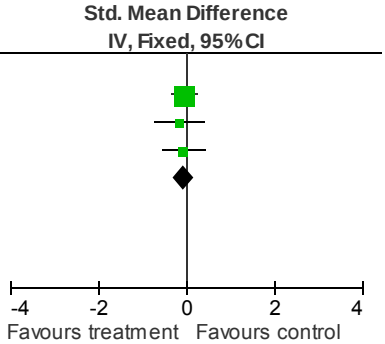


# Psychological clinical evidence: CBT

**6.7 Psychosocial Functioning: 3. Social and Occupational Functioning Scale (at FU)(signs reversed)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **6.7.2 SOFAS (up to 12 months FU)** | | | | | | | | |
| GARETY2007NCP | -53.04 | 13.31 | 85 | -52.07 | 15.96 | 85 | 61.0% | -0.07 [-0.37, 0.24] |
| GARETY2007CP | -59.73 | 14.53 | 22 | -57.04 | 16.83 | 25 | 16.7% | -0.17 [-0.74, 0.41] |
| JACKSON2007 | -64.21 | 15.18 | 31 | -62.91 | 15.18 | 31 | 22.2% | -0.08 [-0.58, 0.41] |
| **Subtotal (95% CI)** | | | **138** | | | **141** | **100.0%** | **-0.09 [-0.32, 0.15]** |

Heterogeneity: Chi² = 0.09, df = 2 (P = 0.95); I² = 0%
Test for overall effect: Z = 0.73 (P = 0.47)

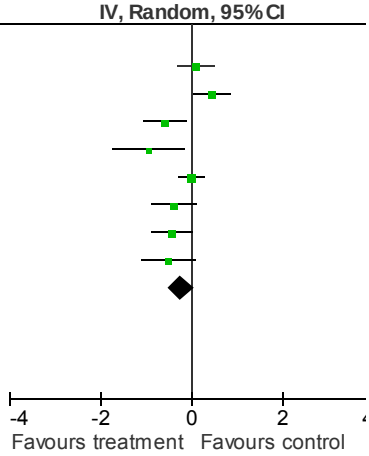



Test for subgroup differences: Not applicable

**6.8 Psychosocial Functioning: 1-3 combined (SFS, SBS, SOFAS combined) (at end of treatment) (signs reversed)**

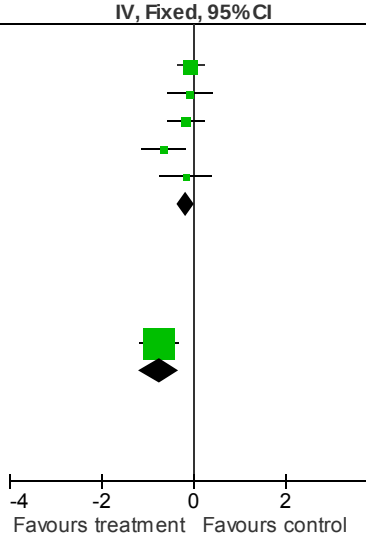
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **6.8.1 Social functioning (at end of treatment)** | | | | | | | | |
| BARROWCLOUGH2006 | -111.52 | 21.74 | 48 | -113.73 | 28 | 41 | 13.8% | 0.09 [-0.33, 0.51] |
| JACKSON2005 | -53.18 | 14.36 | 45 | -59.65 | 14.62 | 46 | 13.8% | 0.44 [0.03, 0.86] |
| WYKES2005 | 6.1 | 7.8 | 35 | 11.2 | 9 | 35 | 12.6% | -0.60 [-1.08, -0.12] |
| CATHER2005 | -129.88 | 24.91 | 15 | -105.21 | 25.57 | 13 | 7.8% | -0.95 [-1.74, -0.16] |
| GARETY2007NCP | -52.02 | 15.92 | 90 | -51.88 | 15.47 | 90 | 16.3% | -0.01 [-0.30, 0.28] |
| JACKSON2007 | -62.69 | 13.81 | 31 | -57.6 | 11.37 | 31 | 12.2% | -0.40 [-0.90, 0.11] |
| STARTUP2004 | -102.3 | 11.1 | 39 | -97.4 | 11.1 | 36 | 13.0% | -0.44 [-0.90, 0.02] |
| GARETY2007CP | -60.91 | 13.83 | 21 | -53.26 | 14.94 | 23 | 10.5% | -0.52 [-1.12, 0.08] |
| **Subtotal (95% CI)** | | | **324** | | | **315** | **100.0%** | **-0.24 [-0.52, 0.05]** |

Heterogeneity: Tau² = 0.11; Chi² = 21.13, df = 7 (P = 0.004); I² = 67%
Test for overall effect: Z = 1.63 (P = 0.10)



**6.9 Psychosocial Functioning: 1-3 combined (SFS, SBS, SOFAs combined) (at FU) (signs reversed)**

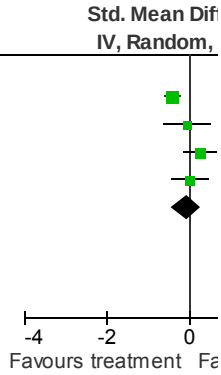
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **6.9.1 Social functioning (up to 12 months FU)** | | | | | | | | |
| GARETY2007NCP | -53.04 | 13.31 | 85 | -52.07 | 15.96 | 85 | 39.0% | -0.07 [-0.37, 0.24] |
| JACKSON2007 | -64.21 | 15.18 | 31 | -62.91 | 15.18 | 31 | 14.2% | -0.08 [-0.58, 0.41] |
| BARROWCLOUGH2006 | -116.44 | 27.02 | 50 | -112.23 | 24.14 | 43 | 21.1% | -0.16 [-0.57, 0.25] |
| STARTUP2004 | -105.9 | 9.8 | 35 | -99 | 11.3 | 34 | 15.0% | -0.65 [-1.13, -0.16] |
| GARETY2007CP | -59.73 | 14.53 | 22 | -57.04 | 16.83 | 25 | 10.7% | -0.17 [-0.74, 0.41] |
| **Subtotal (95% CI)** | | | **223** | | | **218** | **100.0%** | **-0.19 [-0.37, 0.00]** |
| Heterogeneity: Chi² = 4.25, df = 4 (P = 0.37); I² = 6% | | | | | | | | |
| Test for overall effect: Z = 1.95 (P = 0.05) | | | | | | | | |
| **6.9.2 Social functioning (12 - 18 months FU)** | | | | | | | | |
| STARTUP2004 | -104 | 11.17 | 47 | -97.81 | 1.89 | 43 | 100.0% | -0.75 [-1.18, -0.32] |
| **Subtotal (95% CI)** | | | **47** | | | **43** | **100.0%** | **-0.75 [-1.18, -0.32]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.43 (P = 0.0006) | | | | | | | | |




Test for subgroup differences: Chi² = 5.57, df = 1 (P = 0.02), I² = 82.1%

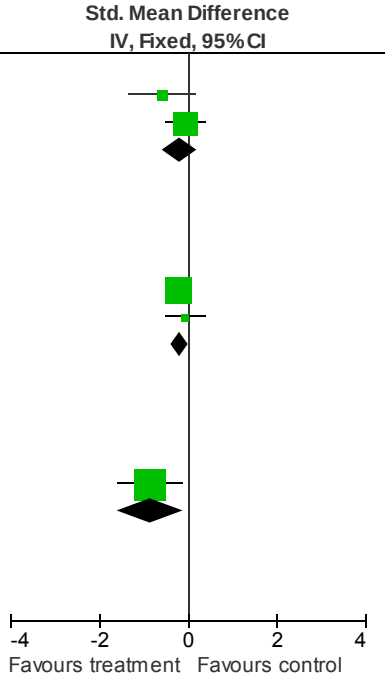
**6.10 Insight (end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **6.10.1 Psychosocial Functioning: Insight, EM Insight Scale, Insight and Treatment Attitudes scale (end of treatment)** | | | | | | | | |
| Turkington2002 | -9.88 | 3.16 | 257 | -8.55 | 3.2 | 165 | 33.1% | -0.42 [-0.62, -0.22] |
| LECOMTE2008 | -17.6 | 3.3 | 31 | -17.4 | 3.3 | 19 | 19.1% | -0.06 [-0.63, 0.51] |
| JACKSON2005 | 1.42 | 0.97 | 45 | 1.18 | 0.85 | 46 | 24.8% | 0.26 [-0.15, 0.67] |
| STARTUP2004 | -14.3 | 6.1 | 37 | -14.4 | 6.1 | 37 | 23.1% | 0.02 [-0.44, 0.47] |
| **Subtotal (95% CI)** | | | **370** | | | **267** | **100.0%** | **-0.08 [-0.44, 0.28]** |
| Heterogeneity: Tau² = 0.09; Chi² = 10.38, df = 3 (P = 0.02); I² = 71% | | | | | | | | |
| Test for overall effect: Z = 0.44 (P = 0.66) | | | | | | | | |



**6.11 Insight (signs reversed)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **6.11.1 ITAQ, Insight rating Scale (higher = better) (6 month FU)** | | | | | | | | |
| LECOMTE2008 | -17.6 | 2.6 | 30 | -16.1 | 1.9 | 9 | 26.6% | -0.60 [-1.35, 0.16] |
| STARTUP2004 | -15.9 | 6 | 37 | -15.5 | 5.4 | 37 | 73.4% | -0.07 [-0.53, 0.39] |
| **Subtotal (95% CI)** | | | **67** | | | **46** | **100.0%** | **-0.21 [-0.60, 0.18]** |
| Heterogeneity: Chi² = 1.36, df = 1 (P = 0.24); I² = 27% | | | | | | | | |
| Test for overall effect: Z = 1.05 (P = 0.29) | | | | | | | | |
| **6.11.2 ITAQ, Insight rating scale, (higher = better) ( 12- 18 month FU)** | | | | | | | | |
| Turkington2002 | -9.22 | 3.29 | 257 | -8.49 | 3.3 | 165 | 84.4% | -0.22 [-0.42, -0.03] |
| STARTUP2004 | -16.6 | 5.8 | 37 | -16.2 | 5.3 | 37 | 15.6% | -0.07 [-0.53, 0.38] |
| **Subtotal (95% CI)** | | | **294** | | | **202** | **100.0%** | **-0.20 [-0.38, -0.02]** |
| Heterogeneity: Chi² = 0.35, df = 1 (P = 0.55); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 2.15 (P = 0.03) | | | | | | | | |
| **6.11.3 Insight Scale: 5 year FU** | | | | | | | | |
| Drury1996 | -10.9 | 1.8 | 15 | -9.1 | 2.2 | 16 | 100.0% | -0.87 [-1.61, -0.13] |
| **Subtotal (95% CI)** | | | **15** | | | **16** | **100.0%** | **-0.87 [-1.61, -0.13]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.30 (P = 0.02) | | | | | | | | |



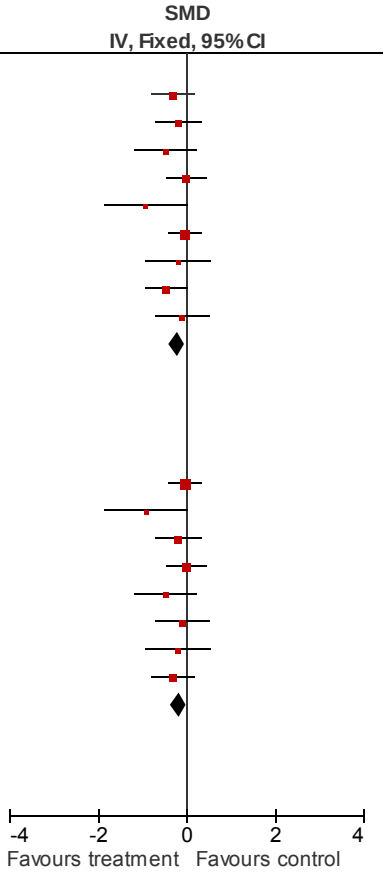

Test for subgroup differences: Chi² = 2.99, df = 2 (P = 0.22), I² = 33.1%

**7 CBT versus any control (PSYRATS UK data, hallucination and delusions data)**

# Psychological clinical evidence: CBT

**7.1 PSYRATS 1. Auditory Hallucinations subscale - at end of treatment**

| Study or Subgroup | SMD | SE | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|
| **7.1.1 All data** | | | | |
| Lewis2002 | -0.3305 | 0.2505 | 13.2% | -0.33 [-0.82, 0.16] |
| VALMAGGIA2005 | -0.2076 | 0.2693 | 11.4% | -0.21 [-0.74, 0.32] |
| TROWER2004 | -0.4916 | 0.3607 | 6.4% | -0.49 [-1.20, 0.22] |
| WYKES2005 | -0.0265 | 0.2341 | 15.1% | -0.03 [-0.49, 0.43] |
| MCLEOD2007 | -0.9341 | 0.4812 | 3.6% | -0.93 [-1.88, 0.01] |
| GARETY2007 | -0.0511 | 0.1932 | 22.2% | -0.05 [-0.43, 0.33] |
| CATHER2005 | -0.2019 | 0.3799 | 5.8% | -0.20 [-0.95, 0.54] |
| JENNER2004* | -0.473 | 0.244 | 13.9% | -0.47 [-0.95, 0.01] |
| DURHAM2003 | -0.1135 | 0.3169 | 8.3% | -0.11 [-0.73, 0.51] |
| **Subtotal (95% CI)** | | | **100.0%** | **-0.23 [-0.41, -0.06]** |
| Heterogeneity: Chi² = 5.58, df = 8 (P = 0.69); I² = 0% | | | | |
| Test for overall effect: Z = 2.58 (P = 0.01) | | | | |
| **7.1.2 Sensitivity analysis removing multimodal studies** | | | | |
| GARETY2007 | -0.0511 | 0.1932 | 25.8% | -0.05 [-0.43, 0.33] |
| MCLEOD2007 | -0.9341 | 0.4812 | 4.2% | -0.93 [-1.88, 0.01] |
| VALMAGGIA2005 | -0.2076 | 0.2693 | 13.3% | -0.21 [-0.74, 0.32] |
| WYKES2005 | -0.0265 | 0.2341 | 17.6% | -0.03 [-0.49, 0.43] |
| TROWER2004 | -0.4916 | 0.3607 | 7.4% | -0.49 [-1.20, 0.22] |
| DURHAM2003 | -0.1135 | 0.3169 | 9.6% | -0.11 [-0.73, 0.51] |
| CATHER2005 | -0.2019 | 0.3799 | 6.7% | -0.20 [-0.95, 0.54] |
| Lewis2002 | -0.3305 | 0.2505 | 15.4% | -0.33 [-0.82, 0.16] |
| **Subtotal (95% CI)** | | | **100.0%** | **-0.20 [-0.39, -0.00]** |
| Heterogeneity: Chi² = 4.47, df = 7 (P = 0.72); I² = 0% | | | | |
| Test for overall effect: Z = 2.00 (P = 0.05) | | | | |

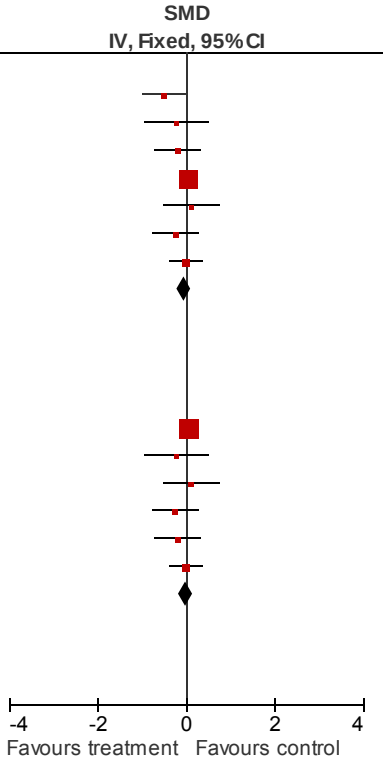



Test for subgroup differences: Chi² = 0.08, df = 1 (P = 0.77), I² = 0%

# Psychological clinical evidence: CBT

**7.2 PSYRATS 1. Auditory Hallucinations subscale - at FU**

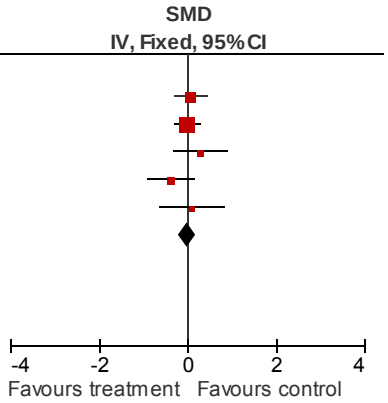
| Study or Subgroup | SMD | SE | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|
| **7.2.1 All data** | | | | |
| JENNER2004* | -0.507 | 0.256 | 8.2% | -0.51 [-1.01, -0.01] |
| TROWER2004 | -0.2382 | 0.3759 | 3.8% | -0.24 [-0.97, 0.50] |
| Lewis2002 | -0.2073 | 0.2654 | 7.6% | -0.21 [-0.73, 0.31] |
| Turkington2002 | 0.0427 | 0.0998 | 53.9% | 0.04 [-0.15, 0.24] |
| DURHAM2003 | 0.1056 | 0.3301 | 4.9% | 0.11 [-0.54, 0.75] |
| VALMAGGIA2005 | -0.2543 | 0.2696 | 7.4% | -0.25 [-0.78, 0.27] |
| GARETY2007 | -0.0266 | 0.1941 | 14.2% | -0.03 [-0.41, 0.35] |
| **Subtotal (95% CI)** | | | **100.0%** | **-0.06 [-0.20, 0.08]** |
| Heterogeneity: Chi² = 5.44, df = 6 (P = 0.49); I² = 0% | | | | |
| Test for overall effect: Z = 0.83 (P = 0.41) | | | | |
| **7.2.2 Sensitivity analysis removing multimodal studies** | | | | |
| Turkington2002 | 0.0427 | 0.0998 | 58.7% | 0.04 [-0.15, 0.24] |
| TROWER2004 | -0.2382 | 0.3759 | 4.1% | -0.24 [-0.97, 0.50] |
| DURHAM2003 | 0.1056 | 0.3301 | 5.4% | 0.11 [-0.54, 0.75] |
| VALMAGGIA2005 | -0.2543 | 0.2696 | 8.0% | -0.25 [-0.78, 0.27] |
| Lewis2002 | -0.2073 | 0.2654 | 8.3% | -0.21 [-0.73, 0.31] |
| GARETY2007 | -0.0266 | 0.1941 | 15.5% | -0.03 [-0.41, 0.35] |
| **Subtotal (95% CI)** | | | **100.0%** | **-0.02 [-0.17, 0.13]** |
| Heterogeneity: Chi² = 2.13, df = 5 (P = 0.83); I² = 0% | | | | |
| Test for overall effect: Z = 0.27 (P = 0.78) | | | | |




Test for subgroup differences: Chi² = 0.14, df = 1 (P = 0.71), I² = 0%

**7.3 PSYRATS 2. Delusions subscale - at end of treament**

| Study or Subgroup | SMD | SE | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|
| **7.3.1 All data** | | | | |
| Lewis2002 | 0.0496 | 0.1941 | 26.7% | 0.05 [-0.33, 0.43] |
| GARETY2007 | -0.0212 | 0.1536 | 42.6% | -0.02 [-0.32, 0.28] |
| DURHAM2003 | 0.2841 | 0.3148 | 10.1% | 0.28 [-0.33, 0.90] |
| VALMAGGIA2005 | -0.391 | 0.2712 | 13.7% | -0.39 [-0.92, 0.14] |
| CATHER2005 | 0.079 | 0.3791 | 7.0% | 0.08 [-0.66, 0.82] |
| **Subtotal (95% CI)** | | | **100.0%** | **-0.01 [-0.21, 0.18]** |
| Heterogeneity: Chi² = 3.00, df = 4 (P = 0.56); I² = 0% | | | | |
| Test for overall effect: Z = 0.15 (P = 0.88) | | | | |

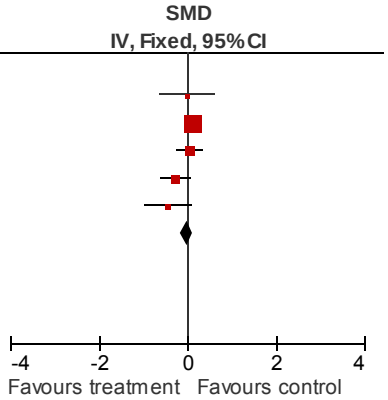



Test for subgroup differences: Not applicable

**7.4 PSYRATS 2. Delusions subscale - at FU**

| Study or Subgroup | SMD | SE | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|
| **7.4.1 All data** | | | | |
| DURHAM2003 | -0.0163 | 0.3212 | 4.9% | -0.02 [-0.65, 0.61] |
| Turkington2002 | 0.1006 | 0.0998 | 50.6% | 0.10 [-0.10, 0.30] |
| GARETY2007 | 0.0294 | 0.1542 | 21.2% | 0.03 [-0.27, 0.33] |
| Lewis2002 | -0.2967 | 0.1751 | 16.4% | -0.30 [-0.64, 0.05] |
| VALMAGGIA2005 | -0.4676 | 0.2719 | 6.8% | -0.47 [-1.00, 0.07] |
| **Subtotal (95% CI)** | | | **100.0%** | **-0.02 [-0.16, 0.11]** |

Heterogeneity: Chi² = 6.77, df = 4 (P = 0.15); I² = 41%
Test for overall effect: Z = 0.34 (P = 0.73)




Test for subgroup differences: Not applicable

**7.5 Mental State: 1. Command Hallucinations - at end of treatment**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **7.5.1 Voice Power Differential Scale, Power Scale (lower=better) (end of treatment)** | | | | | | | | |
| TROWER2004 | 17.4 | 6.7 | 15 | 26.7 | 5.3 | 17 | 56.7% | -1.51 [-2.31, -0.71] |
| MCLEOD2007 | 3.3 | 1.06 | 10 | 4.1 | 0.99 | 10 | 43.3% | -0.75 [-1.66, 0.17] |
| **Subtotal (95% CI)** | | | **25** | | | **27** | **100.0%** | **-1.18 [-1.78, -0.58]** |

Heterogeneity: Chi² = 1.53, df = 1 (P = 0.22); I² = 35%
Test for overall effect: Z = 3.85 (P = 0.0001)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **7.5.2 Voice Compliance Scale (lower=better) (end of treatment)** | | | | | | | | |
| TROWER2004 | 1.8 | 1.2 | 15 | 3.1 | 1.4 | 17 | 100.0% | -0.97 [-1.71, -0.23] |
| **Subtotal (95% CI)** | | | **15** | | | **17** | **100.0%** | **-0.97 [-1.71, -0.23]** |

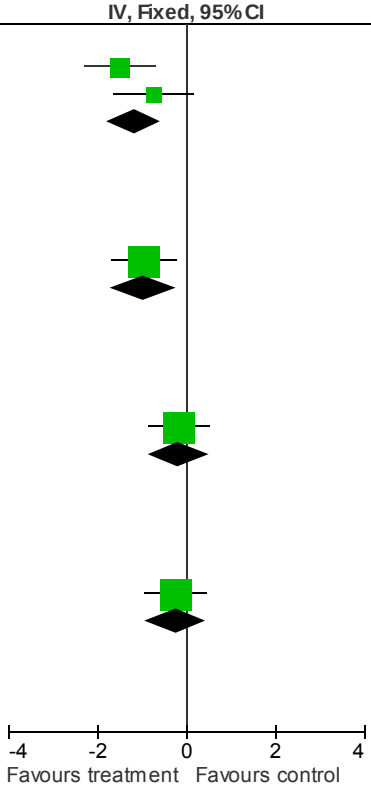
Heterogeneity: Not applicable
Test for overall effect: Z = 2.56 (P = 0.01)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **7.5.3 Malevolence (BAVQ) (lower=better) (end of treatment)** | | | | | | | | |
| TROWER2004 | 18.3 | 7.5 | 15 | 19.8 | 8.9 | 17 | 100.0% | -0.18 [-0.87, 0.52] |
| **Subtotal (95% CI)** | | | **15** | | | **17** | **100.0%** | **-0.18 [-0.87, 0.52]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 0.50 (P = 0.62)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **7.5.4 Omniscience Scale (lower=better) (end of treatment)** | | | | | | | | |
| TROWER2004 | 9.1 | 4.4 | 15 | 10.2 | 4.1 | 17 | 100.0% | -0.25 [-0.95, 0.44] |
| **Subtotal (95% CI)** | | | **15** | | | **17** | **100.0%** | **-0.25 [-0.95, 0.44]** |

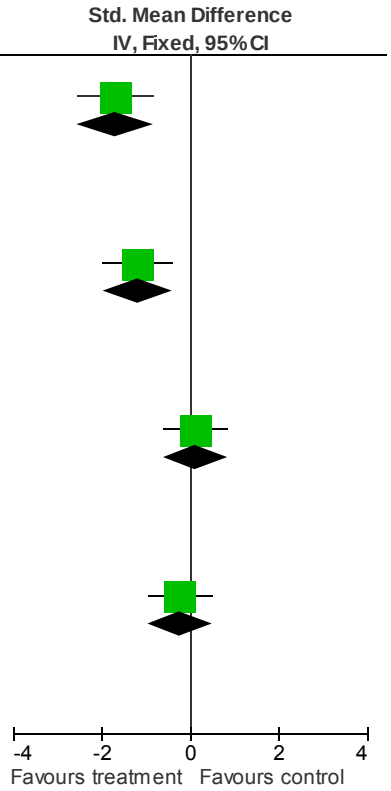
Heterogeneity: Not applicable
Test for overall effect: Z = 0.71 (P = 0.48)




Test for subgroup differences: Chi² = 6.69, df = 3 (P = 0.08), I² = 55.2%

**7.6 Mental State: 1. Command Hallucinations - at FU**

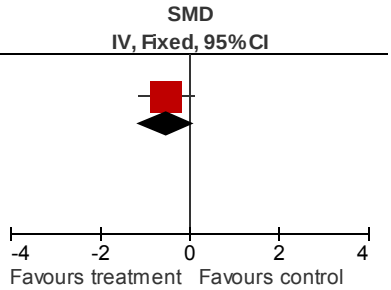
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **7.6.1 Voice Power Differential Scale (lower=better) (at FU)** | | | | | | | | |
| TROWER2004 | 18 | 6.5 | 14 | 29.1 | 6.2 | 15 | 100.0% | -1.70 [-2.57, -0.83] |
| **Subtotal (95% CI)** | | | **14** | | | **15** | **100.0%** | **-1.70 [-2.57, -0.83]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.84 (P = 0.0001) | | | | | | | | |
| **7.6.2 Voice Compliance Scale (lower=better) (FU)** | | | | | | | | |
| TROWER2004 | 1.7 | 1.1 | 14 | 3.4 | 1.6 | 15 | 100.0% | -1.20 [-2.00, -0.40] |
| **Subtotal (95% CI)** | | | **14** | | | **15** | **100.0%** | **-1.20 [-2.00, -0.40]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.93 (P = 0.003) | | | | | | | | |
| **7.6.3 Malevolence (BAVQ) (lower=better) (FU)** | | | | | | | | |
| TROWER2004 | 21.7 | 8.6 | 14 | 20.7 | 8.6 | 15 | 100.0% | 0.11 [-0.62, 0.84] |
| **Subtotal (95% CI)** | | | **14** | | | **15** | **100.0%** | **0.11 [-0.62, 0.84]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.30 (P = 0.76) | | | | | | | | |
| **7.6.4 Omniscience Scale (lower=better) (FU)** | | | | | | | | |
| TROWER2004 | 9.1 | 2.1 | 14 | 10 | 4.6 | 15 | 100.0% | -0.24 [-0.97, 0.49] |
| **Subtotal (95% CI)** | | | **14** | | | **15** | **100.0%** | **-0.24 [-0.97, 0.49]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.65 (P = 0.52) | | | | | | | | |




Test for subgroup differences: Chi² = 12.82, df = 3 (P = 0.005), I² = 76.6%

**7.7 Mental State: 2. Maudsley Assessment of Delusions Schedule (MADS) - at FU**

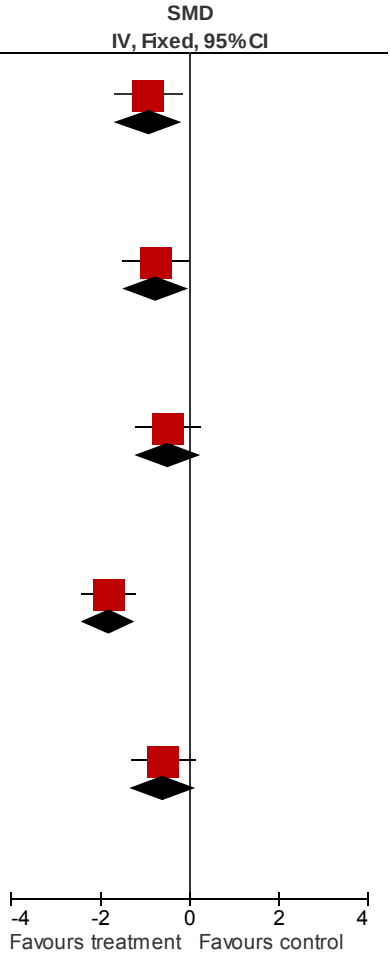
| Study or Subgroup | SMD | SE | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|
| **7.7.1 All data** | | | | |
| Kuipers1997 | -0.5394 | 0.3226 | 100.0% | -0.54 [-1.17, 0.09] |
| **Subtotal (95% CI)** | | | **100.0%** | **-0.54 [-1.17, 0.09]** |
| Heterogeneity: Not applicable | | | | |
| Test for overall effect: Z = 1.67 (P = 0.09) | | | | |




Test for subgroup differences: Not applicable

**7.8 Mental State: 3. Symptom specific measures - at end of treatment**

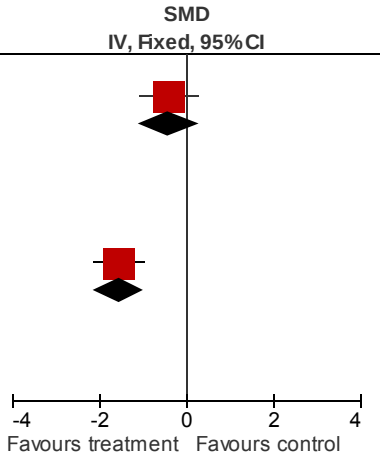
| Study or Subgroup | SMD | SE | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|
| **7.8.1 Frequency of symptoms** | | | | |
| Kuipers1997 | -0.9291 | 0.3902 | 100.0% | -0.93 [-1.69, -0.16] |
| **Subtotal (95% CI)** | | | **100.0%** | **-0.93 [-1.69, -0.16]** |
| Heterogeneity: Not applicable | | | | |
| Test for overall effect: Z = 2.38 (P = 0.02) | | | | |
| **7.8.2 Believability of symptoms** | | | | |
| BACH2002 | -0.7575 | 0.3856 | 100.0% | -0.76 [-1.51, -0.00] |
| **Subtotal (95% CI)** | | | **100.0%** | **-0.76 [-1.51, -0.00]** |
| Heterogeneity: Not applicable | | | | |
| Test for overall effect: Z = 1.96 (P = 0.05) | | | | |
| **7.8.3 Distress** | | | | |
| BACH2002 | -0.4921 | 0.3779 | 100.0% | -0.49 [-1.23, 0.25] |
| **Subtotal (95% CI)** | | | **100.0%** | **-0.49 [-1.23, 0.25]** |
| Heterogeneity: Not applicable | | | | |
| Test for overall effect: Z = 1.30 (P = 0.19) | | | | |
| **7.8.4 Hallucination severity** | | | | |
| ENGLAND2007 | -1.8213 | 0.3123 | 100.0% | -1.82 [-2.43, -1.21] |
| **Subtotal (95% CI)** | | | **100.0%** | **-1.82 [-2.43, -1.21]** |
| Heterogeneity: Not applicable | | | | |
| Test for overall effect: Z = 5.83 (P < 0.00001) | | | | |
| **7.8.5 Conviction (as measured on the Beliefs and Conviction scale)** | | | | |
| Drury1996 | -0.6014 | 0.3686 | 100.0% | -0.60 [-1.32, 0.12] |
| **Subtotal (95% CI)** | | | **100.0%** | **-0.60 [-1.32, 0.12]** |
| Heterogeneity: Not applicable | | | | |
| Test for overall effect: Z = 1.63 (P = 0.10) | | | | |




Test for subgroup differences: Chi² = 10.32, df = 4 (P = 0.04), I² = 61.2%

**7.9 Mental State: 3. Symptom specific measures - at FU**

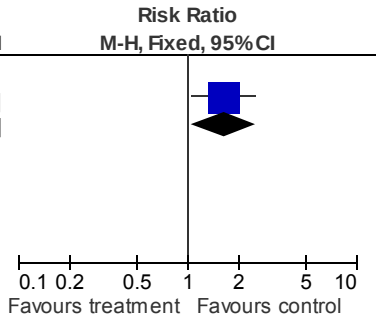
| Study or Subgroup | SMD | SE | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|
| **7.9.1 Conviction (as measured on the Beliefs and Conviction scale)** | | | | |
| Drury1996 | -0.418 | 0.3472 | 100.0% | -0.42 [-1.10, 0.26] |
| **Subtotal (95% CI)** | | | **100.0%** | **-0.42 [-1.10, 0.26]** |
| Heterogeneity: Not applicable | | | | |
| Test for overall effect: Z = 1.20 (P = 0.23) | | | | |
| **7.9.4 Hallucination severity** | | | | |
| ENGLAND2007 | -1.5714 | 0.3009 | 100.0% | -1.57 [-2.16, -0.98] |
| **Subtotal (95% CI)** | | | **100.0%** | **-1.57 [-2.16, -0.98]** |
| Heterogeneity: Not applicable | | | | |
| Test for overall effect: Z = 5.22 (P < 0.00001) | | | | |




Test for subgroup differences: Chi² = 6.30, df = 1 (P = 0.01), I² = 84.1%

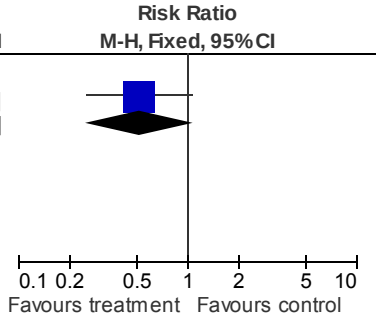
**7.10 Number of participants reporting symptoms (hallucinations and delusions) (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **7.10.1 Numbers reporting symptoms** | | | | | | |
| BACH2002 | 26 | 40 | 16 | 40 | 100.0% | 1.63 [1.04, 2.53] |
| **Subtotal (95% CI)** | | **40** | | **40** | **100.0%** | **1.63 [1.04, 2.53]** |
| Total events | 26 | | 16 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 2.15 (P = 0.03) | | | | | | |




**7.11 Number of participants complying with voices - at FU**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **7.11.1 Numbers complying or appeasing** | | | | | | |
| BACH2002 | 6 | 18 | 13 | 20 | 100.0% | 0.51 [0.25, 1.06] |
| **Subtotal (95% CI)** | | **18** | | **20** | **100.0%** | **0.51 [0.25, 1.06]** |
| Total events | 6 | | 13 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.80 (P = 0.07) | | | | | | |

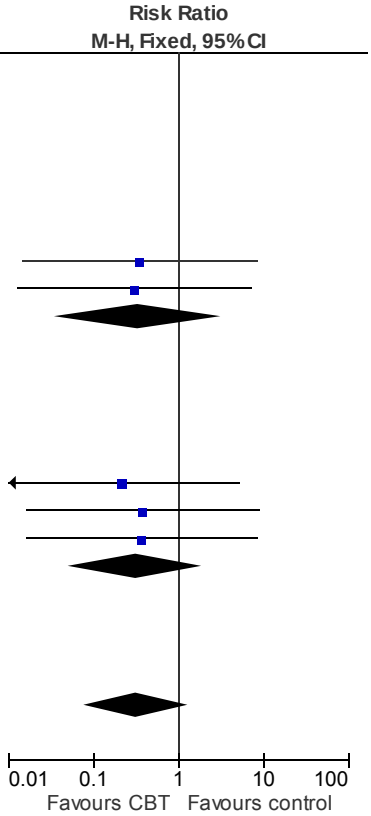


# Psychological clinical evidence: CBT (subgroup analyses)

**1 CBT versus any control - subgroup by phase of illness**

**1.1 Mortality (at end of treatment)**

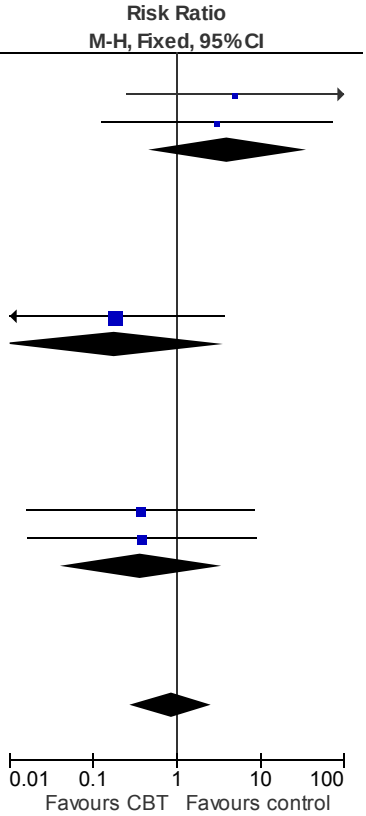
| Study or Subgroup | CBT Events | CBT Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.1.1 Suicide: (Initial treatment)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **1.1.2 Suicide: (Acute treatment)** | | | | | | |
| GARETY2007 | 0 | 133 | 1 | 140 | 19.0% | 0.35 [0.01, 8.53] |
| STARTUP2004 | 0 | 47 | 1 | 43 | 20.4% | 0.31 [0.01, 7.31] |
| **Subtotal (95% CI)** | | **180** | | **183** | **39.4%** | **0.33 [0.03, 3.10]** |
| Total events | 0 | | 2 | | | |
| Heterogeneity: Chi² = 0.00, df = 1 (P = 0.95); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.97 (P = 0.33) | | | | | | |
| **1.1.3 Suicide: (Promoting recovery - in service users with persistent symptoms)** | | | | | | |
| Turkington2002 | 0 | 257 | 1 | 165 | 23.8% | 0.21 [0.01, 5.23] |
| Kuipers1997 | 0 | 28 | 1 | 32 | 18.3% | 0.38 [0.02, 8.95] |
| TROWER2004 | 0 | 18 | 1 | 20 | 18.6% | 0.37 [0.02, 8.51] |
| **Subtotal (95% CI)** | | **303** | | **217** | **60.6%** | **0.31 [0.05, 1.91]** |
| Total events | 0 | | 3 | | | |
| Heterogeneity: Chi² = 0.08, df = 2 (P = 0.96); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.26 (P = 0.21) | | | | | | |
| **Total (95% CI)** | | **483** | | **400** | **100.0%** | **0.32 [0.08, 1.30]** |
| Total events | 0 | | 5 | | | |
| Heterogeneity: Chi² = 0.08, df = 4 (P = 1.00); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.59 (P = 0.11) | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**1.2 Mortality (at FU)**

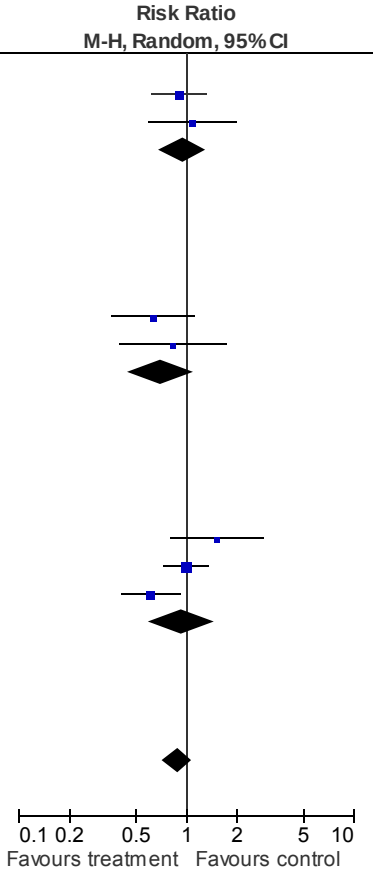
| Study or Subgroup | CBT Events | CBT Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.2.1 Suicide: (Initial treatment)** | | | | | | |
| JACKSON2007 | 2 | 31 | 0 | 31 | 7.8% | 5.00 [0.25, 100.08] |
| Lewis2002 | 1 | 101 | 0 | 102 | 7.7% | 3.03 [0.12, 73.50] |
| **Subtotal (95% CI)** | | **132** | | **133** | **15.5%** | **4.02 [0.46, 35.24]** |
| Total events | 3 | | 0 | | | |
| Heterogeneity: Chi² = 0.05, df = 1 (P = 0.82); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.26 (P = 0.21) | | | | | | |
| **1.2.2 Suicide: at FU (Acute treatment)** | | | | | | |
| STARTUP2004 | 0 | 47 | 2 | 43 | 40.5% | 0.18 [0.01, 3.71] |
| **Subtotal (95% CI)** | | **47** | | **43** | **40.5%** | **0.18 [0.01, 3.71]** |
| Total events | 0 | | 2 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.11 (P = 0.27) | | | | | | |
| **1.2.3 Suicide: at FU (Promoting recovery - in service users with persistent symptoms)** | | | | | | |
| TROWER2004 | 0 | 18 | 1 | 20 | 22.1% | 0.37 [0.02, 8.51] |
| Kuipers1997 | 0 | 28 | 1 | 32 | 21.8% | 0.38 [0.02, 8.95] |
| **Subtotal (95% CI)** | | **46** | | **52** | **44.0%** | **0.37 [0.04, 3.47]** |
| Total events | 0 | | 2 | | | |
| Heterogeneity: Chi² = 0.00, df = 1 (P = 0.99); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.87 (P = 0.39) | | | | | | |
| **Total (95% CI)** | | **225** | | **228** | **100.0%** | **0.86 [0.28, 2.65]** |
| Total events | 3 | | 4 | | | |
| Heterogeneity: Chi² = 3.48, df = 4 (P = 0.48); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.26 (P = 0.79) | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**1.3 Service outcome: 1. Hospital admission (up to 24 months FU)**

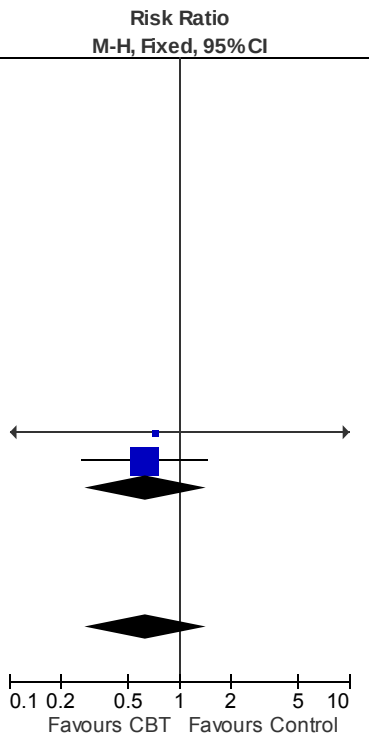
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **1.3.1 At FU (up to 24 months FU) (Initial treatment)** | | | | | | |
| Lewis2002 | 33 | 101 | 37 | 102 | 19.9% | 0.90 [0.62, 1.32] |
| JACKSON2007 | 13 | 31 | 12 | 31 | 10.1% | 1.08 [0.59, 1.99] |
| **Subtotal (95% CI)** | | **132** | | **133** | **29.9%** | **0.95 [0.69, 1.31]** |
| Total events | 46 | | 49 | | | |
| Heterogeneity: Tau² = 0.00; Chi² = 0.26, df = 1 (P = 0.61); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.32 (P = 0.75) | | | | | | |
| **1.3.2 At FU (up to 24 monthsFU) (Acute treatment)** | | | | | | |
| BACH2002 | 12 | 40 | 19 | 40 | 11.0% | 0.63 [0.36, 1.12] |
| BECHDOLF2004 | 9 | 40 | 13 | 48 | 7.2% | 0.83 [0.40, 1.74] |
| **Subtotal (95% CI)** | | **80** | | **88** | **18.2%** | **0.70 [0.44, 1.10]** |
| Total events | 21 | | 32 | | | |
| Heterogeneity: Tau² = 0.00; Chi² = 0.33, df = 1 (P = 0.56); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.54 (P = 0.12) | | | | | | |
| **1.3.3 At FU (up to 24 monthsFU) (Promoting recovery - in service users with persistent symptoms)** | | | | | | |
| Tarrier1998 | 16 | 33 | 9 | 28 | 9.2% | 1.51 [0.79, 2.87] |
| Sensky2000 | 29 | 46 | 28 | 44 | 24.8% | 0.99 [0.72, 1.36] |
| Turkington2002 | 36 | 257 | 38 | 165 | 17.9% | 0.61 [0.40, 0.92] |
| **Subtotal (95% CI)** | | **336** | | **237** | **51.8%** | **0.93 [0.59, 1.47]** |
| Total events | 81 | | 75 | | | |
| Heterogeneity: Tau² = 0.11; Chi² = 6.59, df = 2 (P = 0.04); I² = 70% | | | | | | |
| Test for overall effect: Z = 0.32 (P = 0.75) | | | | | | |
| **Total (95% CI)** | | **548** | | **458** | **100.0%** | **0.88 [0.71, 1.09]** |
| Total events | 148 | | 156 | | | |
| Heterogeneity: Tau² = 0.02; Chi² = 8.27, df = 6 (P = 0.22); I² = 27% | | | | | | |
| Test for overall effect: Z = 1.19 (P = 0.23) | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**1.4 Global state: 1. Relapse (at end of treatment)**

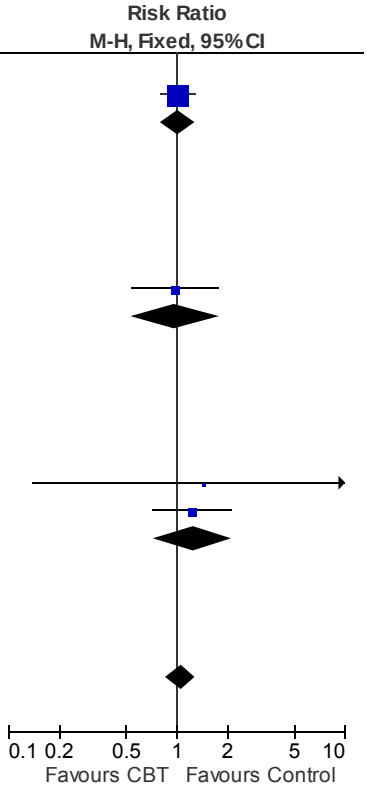
| Study or Subgroup | CBT Events | CBT Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.4.1 Relapse: (Initial treatment)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **1.4.2 Relapse: (Acute treatment)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **1.4.3 Relapse: (Promoting recovery - in service users with persistent symptoms)** | | | | | | |
| VALMAGGIA2005 | 1 | 36 | 1 | 26 | 10.2% | 0.72 [0.05, 11.02] |
| Kuipers1997 | 6 | 28 | 11 | 32 | 89.8% | 0.62 [0.26, 1.47] |
| **Subtotal (95% CI)** | | **64** | | **58** | **100.0%** | **0.63 [0.28, 1.44]** |
| Total events | 7 | | 12 | | | |
| Heterogeneity: Chi² = 0.01, df = 1 (P = 0.92); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.09 (P = 0.27) | | | | | | |
| **Total (95% CI)** | | **64** | | **58** | **100.0%** | **0.63 [0.28, 1.44]** |
| Total events | 7 | | 12 | | | |
| Heterogeneity: Chi² = 0.01, df = 1 (P = 0.92); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.09 (P = 0.27) | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**1.5 Global state: 1. Relapse (at 24 months FU)**

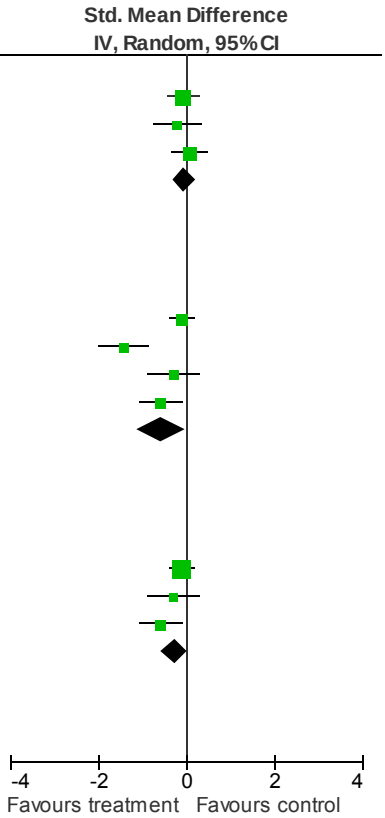
| Study or Subgroup | CBT Events | CBT Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.5.1 Relapse: (Initial treatment)** | | | | | | |
| Lewis2002 | 57 | 101 | 57 | 102 | 64.0% | 1.01 [0.79, 1.29] |
| **Subtotal (95% CI)** | | **101** | | **102** | **64.0%** | **1.01 [0.79, 1.29]** |
| Total events | 57 | | 57 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.08 (P = 0.94) | | | | | | |
| **1.5.2 Relapse: (Acute treatment)** | | | | | | |
| BECHDOLF2004 | 13 | 40 | 16 | 48 | 16.4% | 0.97 [0.54, 1.78] |
| **Subtotal (95% CI)** | | **40** | | **48** | **16.4%** | **0.97 [0.54, 1.78]** |
| Total events | 13 | | 16 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.08 (P = 0.93) | | | | | | |
| **1.5.3 Relapse: (Promoting recovery - in service users with persistent symptoms)** | | | | | | |
| VALMAGGIA2005 | 2 | 36 | 1 | 26 | 1.3% | 1.44 [0.14, 15.10] |
| BARROWCLOUGH2006 | 20 | 57 | 16 | 56 | 18.2% | 1.23 [0.71, 2.12] |
| **Subtotal (95% CI)** | | **93** | | **82** | **19.5%** | **1.24 [0.73, 2.12]** |
| Total events | 22 | | 17 | | | |
| Heterogeneity: Chi² = 0.02, df = 1 (P = 0.89); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.80 (P = 0.42) | | | | | | |
| **Total (95% CI)** | | **234** | | **232** | **100.0%** | **1.05 [0.85, 1.30]** |
| Total events | 92 | | 90 | | | |
| Heterogeneity: Chi² = 0.55, df = 3 (P = 0.91); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.45 (P = 0.65) | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**1.6 Mental State: 1. Total symptom score (end of treatment) (lower = better)**

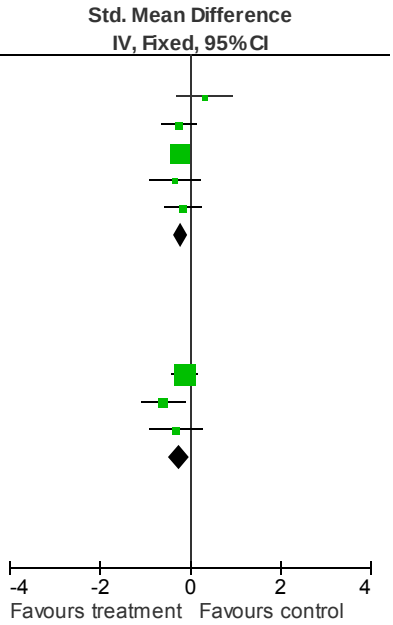
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.6.1 Total symptom score (Initial treatment)** | | | | | | | | |
| Lewis2002 | 68.12 | 21.38 | 52 | 70.15 | 21.46 | 59 | 43.7% | -0.09 [-0.47, 0.28] |
| LECOMTE2008 | 35.9 | 8.4 | 36 | 38.4 | 13.9 | 20 | 20.2% | -0.23 [-0.78, 0.32] |
| JACKSON2005 | 15.23 | 8.98 | 45 | 14.76 | 8.11 | 46 | 36.0% | 0.05 [-0.36, 0.47] |
| **Subtotal (95% CI)** | | | **133** | | | **125** | **100.0%** | **-0.07 [-0.32, 0.18]** |
| Heterogeneity: Tau² = 0.00; Chi² = 0.70, df = 2 (P = 0.70); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.54 (P = 0.59) | | | | | | | | |
| **1.6.2 Total symptom score (Acute treatment) (all data)** | | | | | | | | |
| GARETY2007NCP | 57.63 | 15.21 | 90 | 59.66 | 17.27 | 90 | 28.7% | -0.12 [-0.42, 0.17] |
| ENGLAND2007 | 36.9 | 9.6 | 44 | 50.1 | 7.8 | 21 | 23.3% | -1.44 [-2.02, -0.86] |
| GARETY2007CP | 54.09 | 12.49 | 21 | 58.35 | 14.03 | 23 | 22.9% | -0.31 [-0.91, 0.28] |
| STARTUP2004 | 30.2 | 10 | 34 | 36.9 | 12.1 | 32 | 25.0% | -0.60 [-1.09, -0.10] |
| **Subtotal (95% CI)** | | | **189** | | | **166** | **100.0%** | **-0.59 [-1.15, -0.04]** |
| Heterogeneity: Tau² = 0.26; Chi² = 16.43, df = 3 (P = 0.0009); I² = 82% | | | | | | | | |
| Test for overall effect: Z = 2.10 (P = 0.04) | | | | | | | | |
| **1.6.3 Total symptom score (Acute treatment) (ENGLAND2007 removed)** | | | | | | | | |
| GARETY2007NCP | 57.63 | 15.21 | 90 | 59.66 | 17.27 | 90 | 54.0% | -0.12 [-0.42, 0.17] |
| GARETY2007CP | 54.09 | 12.49 | 21 | 58.35 | 14.03 | 23 | 19.5% | -0.31 [-0.91, 0.28] |
| STARTUP2004 | 30.2 | 10 | 34 | 36.9 | 12.1 | 32 | 26.4% | -0.60 [-1.09, -0.10] |
| **Subtotal (95% CI)** | | | **145** | | | **145** | **100.0%** | **-0.29 [-0.57, -0.00]** |
| Heterogeneity: Tau² = 0.02; Chi² = 2.66, df = 2 (P = 0.26); I² = 25% | | | | | | | | |
| Test for overall effect: Z = 1.96 (P = 0.05) | | | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**1.7 Mental State: 1. Total symptom score (end of treatment) (lower = better)**

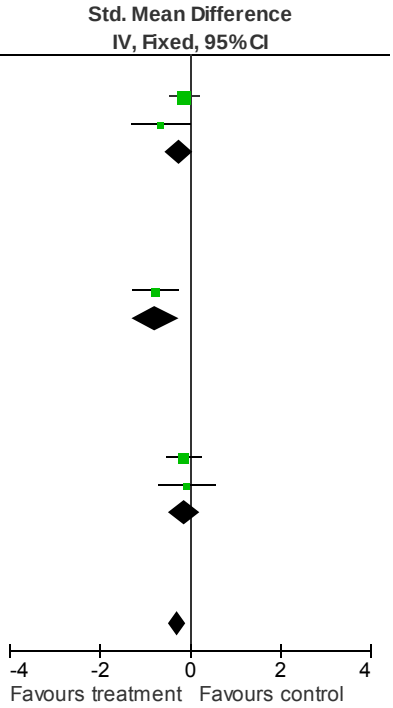
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.7.1 Total symptom score (Promoting recovery - in service users with persistent symptoms)** | | | | | | | | |
| DURHAM2003 | 96.2 | 17.7 | 22 | 90.6 | 17.5 | 19 | 6.0% | 0.31 [-0.31, 0.93] |
| BARROWCLOUGH2006 | 57.78 | 13.15 | 54 | 61.44 | 15.83 | 45 | 14.5% | -0.25 [-0.65, 0.15] |
| Turkington2002 | 19.62 | 13.34 | 257 | 22.61 | 13.21 | 165 | 59.4% | -0.22 [-0.42, -0.03] |
| Kuipers1997 | 19.87 | 8.46 | 23 | 22.67 | 7.43 | 24 | 6.9% | -0.35 [-0.92, 0.23] |
| Sensky2000 | 20.5 | 12.89 | 46 | 22.9 | 17.23 | 44 | 13.3% | -0.16 [-0.57, 0.26] |
| **Subtotal (95% CI)** | | | **402** | | | **297** | **100.0%** | **-0.20 [-0.35, -0.04]** |
| Heterogeneity: Chi² = 3.05, df = 4 (P = 0.55); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 2.54 (P = 0.01) | | | | | | | | |
| **1.7.2 Total symptom score (Acute treatment) (ENGLAND2007 removed)** | | | | | | | | |
| GARETY2007NCP | 57.63 | 15.21 | 90 | 59.66 | 17.27 | 90 | 62.8% | -0.12 [-0.42, 0.17] |
| STARTUP2004 | 30.2 | 10 | 34 | 36.9 | 12.1 | 32 | 22.0% | -0.60 [-1.09, -0.10] |
| GARETY2007CP | 54.09 | 12.49 | 21 | 58.35 | 14.03 | 23 | 15.2% | -0.31 [-0.91, 0.28] |
| **Subtotal (95% CI)** | | | **145** | | | **145** | **100.0%** | **-0.26 [-0.49, -0.03]** |
| Heterogeneity: Chi² = 2.66, df = 2 (P = 0.26); I² = 25% | | | | | | | | |
| Test for overall effect: Z = 2.18 (P = 0.03) | | | | | | | | |




Test for subgroup differences: Chi² = 0.19, df = 1 (P = 0.66), I² = 0%

**1.8 Mental State: 1. Total symptom score (up to 6 months FU) (lower = better)**

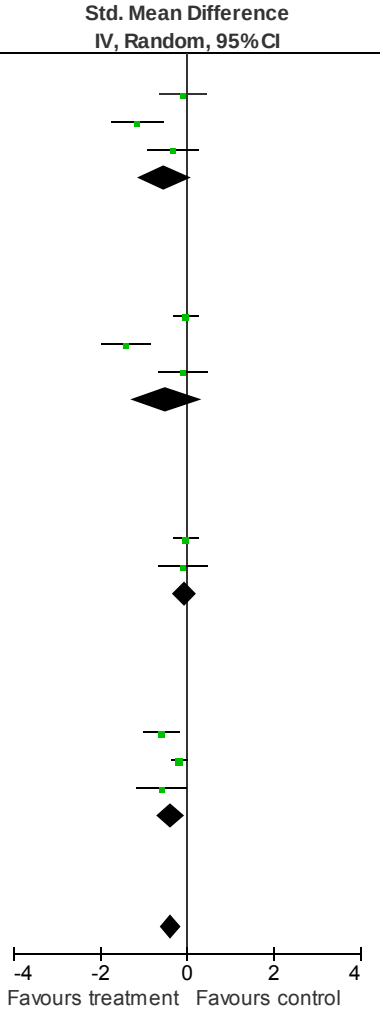
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.8.1 Total symptom score (Initial treatment)** | | | | | | | | |
| Lewis2002 | 61.73 | 19.69 | 78 | 64.38 | 16.79 | 60 | 37.3% | -0.14 [-0.48, 0.19] |
| LECOMTE2008 | 33.4 | 7.8 | 32 | 39.3 | 10.9 | 13 | 9.7% | -0.66 [-1.32, -0.00] |
| **Subtotal (95% CI)** | | | **110** | | | **73** | **47.1%** | **-0.25 [-0.55, 0.05]** |
| Heterogeneity: Chi² = 1.88, df = 1 (P = 0.17); I² = 47% | | | | | | | | |
| Test for overall effect: Z = 1.63 (P = 0.10) | | | | | | | | |
| **1.8.2 Total symptom score (Acute treatment)** | | | | | | | | |
| STARTUP2004 | 28.2 | 9 | 33 | 36.1 | 11 | 30 | 16.0% | -0.78 [-1.29, -0.27] |
| **Subtotal (95% CI)** | | | **33** | | | **30** | **16.0%** | **-0.78 [-1.29, -0.27]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.97 (P = 0.003) | | | | | | | | |
| **1.8.3 Total symptom score (Promoting recovery - in service users with persistent symptoms)** | | | | | | | | |
| BARROWCLOUGH2006 | 54.87 | 13.07 | 52 | 56.96 | 14.08 | 45 | 26.5% | -0.15 [-0.55, 0.25] |
| DURHAM2003 | 87 | 23.1 | 21 | 88.8 | 18 | 17 | 10.4% | -0.08 [-0.72, 0.56] |
| **Subtotal (95% CI)** | | | **73** | | | **62** | **36.9%** | **-0.13 [-0.47, 0.21]** |
| Heterogeneity: Chi² = 0.03, df = 1 (P = 0.86); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.77 (P = 0.44) | | | | | | | | |
| **Total (95% CI)** | | | **216** | | | **165** | **100.0%** | **-0.29 [-0.50, -0.09]** |
| Heterogeneity: Chi² = 6.29, df = 4 (P = 0.18); I² = 36% | | | | | | | | |
| Test for overall effect: Z = 2.78 (P = 0.005) | | | | | | | | |
| Test for subgroup differences: Chi² = 4.38, df = 2 (P = 0.11), I² = 54.3% | | | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**1.9 Mental State: 1. Total symptom score (at 9-18 months FU) (lower = better)**

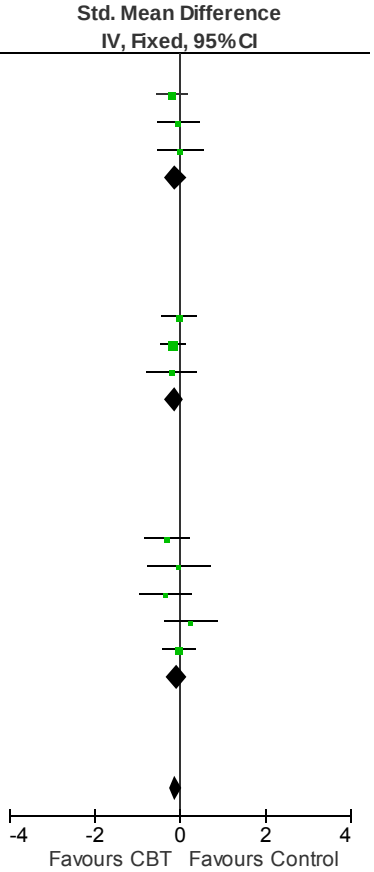
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.9.1 Total symptom score (Inital treatment)** | | | | | | | | |
| LEWIS2002M | 71.2 | 15.8 | 25 | 73.2 | 21.9 | 26 | 8.0% | -0.10 [-0.65, 0.45] |
| LEWIS2002L | 53.7 | 13.3 | 26 | 69.5 | 13.6 | 23 | 7.3% | -1.16 [-1.77, -0.55] |
| LEWIS2002N | 51.5 | 7.5 | 24 | 54.5 | 10.1 | 21 | 7.5% | -0.33 [-0.92, 0.26] |
| **Subtotal (95% CI)** | | | **75** | | | **70** | **22.8%** | **-0.52 [-1.14, 0.10]** |
| Heterogeneity: Tau² = 0.21; Chi² = 6.76, df = 2 (P = 0.03); I² = 70% | | | | | | | | |
| Test for overall effect: Z = 1.65 (P = 0.10) | | | | | | | | |
| **1.9.2 Total symptom score (Acute treatment) (all data)** | | | | | | | | |
| GARETY2007NCP | 56.68 | 12.98 | 87 | 57.32 | 15.43 | 85 | 11.8% | -0.04 [-0.34, 0.25] |
| ENGLAND2007 | 36.3 | 10.1 | 44 | 50.1 | 8.7 | 21 | 7.7% | -1.41 [-1.99, -0.83] |
| GARETY2007CP | 54.41 | 16.7 | 22 | 56.04 | 18.02 | 24 | 7.7% | -0.09 [-0.67, 0.49] |
| **Subtotal (95% CI)** | | | **153** | | | **130** | **27.1%** | **-0.50 [-1.31, 0.32]** |
| Heterogeneity: Tau² = 0.46; Chi² = 17.49, df = 2 (P = 0.0002); I² = 89% | | | | | | | | |
| Test for overall effect: Z = 1.19 (P = 0.23) | | | | | | | | |
| **1.9.3 Total symptom score (Acute treatment) (ENGLAND2007 removed)** | | | | | | | | |
| GARETY2007NCP | 56.68 | 12.98 | 87 | 57.32 | 15.43 | 85 | 11.8% | -0.04 [-0.34, 0.25] |
| GARETY2007CP | 54.41 | 16.7 | 22 | 56.04 | 18.02 | 24 | 7.7% | -0.09 [-0.67, 0.49] |
| **Subtotal (95% CI)** | | | **109** | | | **109** | **19.4%** | **-0.05 [-0.32, 0.21]** |
| Heterogeneity: Tau² = 0.00; Chi² = 0.02, df = 1 (P = 0.89); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.40 (P = 0.69) | | | | | | | | |
| **1.9.4 Total symptom score (Promoting recovery - in service users with persistent symptoms)** | | | | | | | | |
| Sensky2000 | 15.1 | 11.53 | 46 | 26.6 | 25.19 | 44 | 9.8% | -0.59 [-1.01, -0.16] |
| Turkington2002 | 18.13 | 12.66 | 257 | 20.67 | 14.54 | 165 | 13.2% | -0.19 [-0.38, 0.01] |
| Kuipers1997 | 18.78 | 8.19 | 23 | 23.5 | 7.42 | 24 | 7.6% | -0.59 [-1.18, -0.01] |
| **Subtotal (95% CI)** | | | **326** | | | **233** | **30.6%** | **-0.38 [-0.69, -0.08]** |
| Heterogeneity: Tau² = 0.04; Chi² = 3.95, df = 2 (P = 0.14); I² = 49% | | | | | | | | |
| Test for overall effect: Z = 2.46 (P = 0.01) | | | | | | | | |
| **Total (95% CI)** | | | **663** | | | **542** | **100.0%** | **-0.38 [-0.61, -0.15]** |
| Heterogeneity: Tau² = 0.10; Chi² = 32.58, df = 10 (P = 0.0003); I² = 69% | | | | | | | | |
| Test for overall effect: Z = 3.19 (P = 0.001) | | | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**1.10 Mental state: 2. Continuous measures - positive symptoms (at end of treatment) (lower = better)**

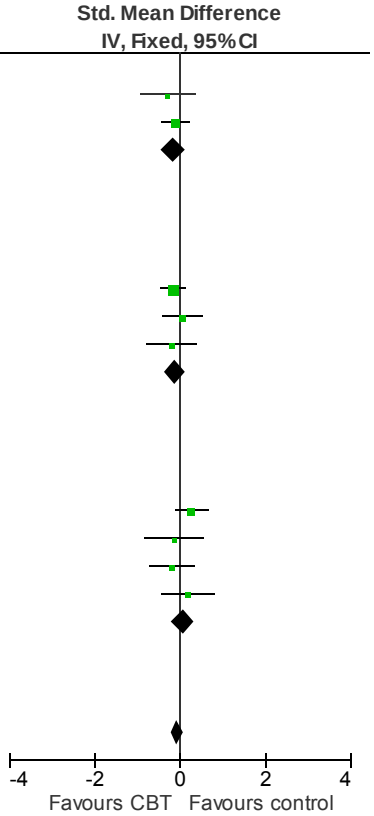
| Study or Subgroup | CBT Mean | CBT SD | CBT Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.10.1 Positive symptom score (Initial treatment)** | | | | | | | | |
| Lewis2002 | 14.94 | 6.61 | 52 | 16.31 | 6.9 | 59 | 13.8% | -0.20 [-0.57, 0.17] |
| JACKSON2007 | 7.45 | 4.05 | 31 | 7.65 | 4.03 | 31 | 7.8% | -0.05 [-0.55, 0.45] |
| LECOMTE2008 | 1.7 | 0.73 | 36 | 1.7 | 0.99 | 20 | 6.5% | 0.00 [-0.55, 0.55] |
| **Subtotal (95% CI)** | | | **119** | | | **110** | **28.1%** | **-0.11 [-0.37, 0.15]** |
| Heterogeneity: Chi² = 0.44, df = 2 (P = 0.80); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.84 (P = 0.40) | | | | | | | | |
| **1.10.2 Positive symptom score (Acute treatment)** | | | | | | | | |
| BECHDOLF2004 | 11.3 | 4.2 | 40 | 11.4 | 4.5 | 48 | 11.0% | -0.02 [-0.44, 0.40] |
| GARETY2007NCP | 15.39 | 6.37 | 90 | 16.49 | 6.47 | 90 | 22.6% | -0.17 [-0.46, 0.12] |
| GARETY2007CP | 13.95 | 5.69 | 21 | 15.09 | 5.23 | 23 | 5.5% | -0.21 [-0.80, 0.39] |
| **Subtotal (95% CI)** | | | **151** | | | **161** | **39.0%** | **-0.13 [-0.36, 0.09]** |
| Heterogeneity: Chi² = 0.39, df = 2 (P = 0.82); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.18 (P = 0.24) | | | | | | | | |
| **1.10.3 Positive symptom score (Promoting recovery - in service users with persistent symptoms)** | | | | | | | | |
| VALMAGGIA2005 | 15.09 | 3.91 | 35 | 16.28 | 3.76 | 23 | 6.9% | -0.30 [-0.83, 0.22] |
| CATHER2005 | 10.93 | 3.33 | 15 | 11.08 | 3.44 | 13 | 3.5% | -0.04 [-0.79, 0.70] |
| RECTOR2003 | 12 | 4 | 24 | 13.9 | 6.7 | 18 | 5.1% | -0.35 [-0.97, 0.27] |
| PENADES2006 | 6.2 | 2.4 | 20 | 5.7 | 1.7 | 20 | 5.0% | 0.24 [-0.39, 0.86] |
| BARROWCLOUGH2006 | 16.04 | 5 | 54 | 16.2 | 4.34 | 45 | 12.4% | -0.03 [-0.43, 0.36] |
| **Subtotal (95% CI)** | | | **148** | | | **119** | **32.8%** | **-0.10 [-0.34, 0.14]** |
| Heterogeneity: Chi² = 2.46, df = 4 (P = 0.65); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.81 (P = 0.42) | | | | | | | | |
| **Total (95% CI)** | | | **418** | | | **390** | **100.0%** | **-0.12 [-0.26, 0.02]** |
| Heterogeneity: Chi² = 3.33, df = 10 (P = 0.97); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.65 (P = 0.10) | | | | | | | | |
| Test for subgroup differences: Chi² = 0.04, df = 2 (P = 0.98), I² = 0% | | | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**1.11 Mental state: 2. Continuous measures - positive symptoms (up to 12 months FU) (lower = better)**

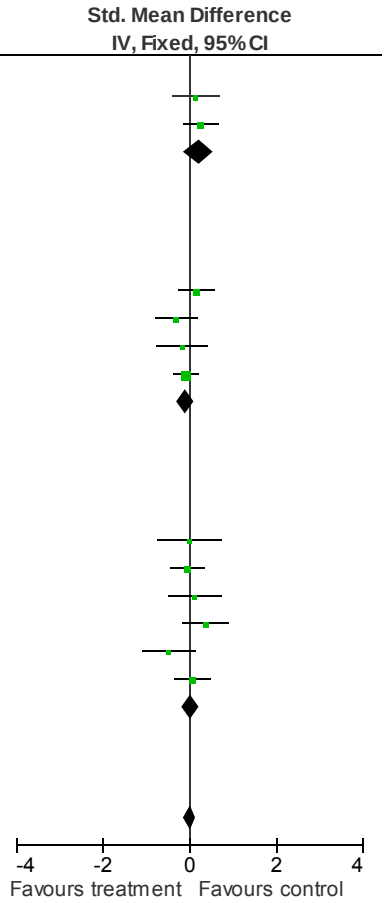
| Study or Subgroup | CBT Mean | CBT SD | CBT Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.11.1 Positive symptom score (Initial treatment)** | | | | | | | | |
| LECOMTE2008 | 1.7 | 0.68 | 32 | 1.9 | 0.66 | 13 | 5.3% | -0.29 [-0.94, 0.36] |
| Lewis2002 | 13.03 | 5.06 | 78 | 13.67 | 5.33 | 60 | 19.7% | -0.12 [-0.46, 0.21] |
| **Subtotal (95% CI)** | | | **110** | | | **73** | **25.0%** | **-0.16 [-0.46, 0.14]** |
| Heterogeneity: Chi² = 0.20, df = 1 (P = 0.65); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.04 (P = 0.30) | | | | | | | | |
| **1.11.2 Positive symptom score (Acute treatment)** | | | | | | | | |
| GARETY2007NCP | 15.39 | 6.37 | 90 | 16.49 | 6.47 | 90 | 26.0% | -0.17 [-0.46, 0.12] |
| BECHDOLF2004 | 11.6 | 4.3 | 31 | 11.4 | 4.8 | 40 | 10.1% | 0.04 [-0.43, 0.51] |
| GARETY2007CP | 13.95 | 5.69 | 21 | 15.09 | 5.23 | 23 | 6.3% | -0.21 [-0.80, 0.39] |
| **Subtotal (95% CI)** | | | **142** | | | **153** | **42.5%** | **-0.12 [-0.35, 0.10]** |
| Heterogeneity: Chi² = 0.66, df = 2 (P = 0.72); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.07 (P = 0.29) | | | | | | | | |
| **1.11.3 Positive symptom score (Promoting recovery - in service users with persistent symptoms)** | | | | | | | | |
| BARROWCLOUGH2006 | 16.5 | 4.88 | 52 | 15.3 | 4.24 | 46 | 14.1% | 0.26 [-0.14, 0.66] |
| RECTOR2003 | 10.9 | 3.4 | 21 | 11.5 | 4.7 | 13 | 4.6% | -0.15 [-0.84, 0.54] |
| VALMAGGIA2005 | 14.64 | 3.7 | 35 | 15.44 | 3.94 | 23 | 8.0% | -0.21 [-0.74, 0.32] |
| PENADES2006 | 6.2 | 2.4 | 20 | 5.8 | 2.2 | 20 | 5.8% | 0.17 [-0.45, 0.79] |
| **Subtotal (95% CI)** | | | **128** | | | **102** | **32.5%** | **0.07 [-0.19, 0.33]** |
| Heterogeneity: Chi² = 2.42, df = 3 (P = 0.49); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.52 (P = 0.60) | | | | | | | | |
| **Total (95% CI)** | | | **380** | | | **328** | **100.0%** | **-0.07 [-0.22, 0.08]** |
| Heterogeneity: Chi² = 4.93, df = 8 (P = 0.76); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.92 (P = 0.36) | | | | | | | | |
| Test for subgroup differences: Chi² = 1.65, df = 2 (P = 0.44), I² = 0% | | | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**1.12 Mental state: 3. Continuous measures - negative symptoms (at end of treatment) (lower = better)**

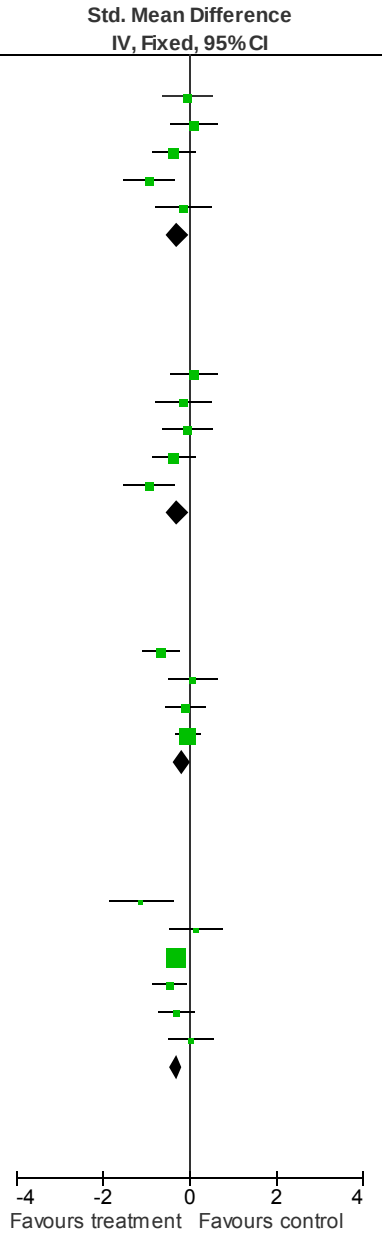
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.12.1 Negative symptom score (Initial treatment)** | | | | | | | | |
| LECOMTE2008 | 1.6 | 0.71 | 36 | 1.5 | 0.86 | 20 | 5.9% | 0.13 [-0.42, 0.68] |
| JACKSON2005 | 18.84 | 12.61 | 45 | 15.61 | 13.36 | 46 | 10.4% | 0.25 [-0.17, 0.66] |
| **Subtotal (95% CI)** | | | **81** | | | **66** | **16.4%** | **0.20 [-0.13, 0.53]** |
| Heterogeneity: Chi² = 0.11, df = 1 (P = 0.74); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.21 (P = 0.23) | | | | | | | | |
| **1.12.2 Negative symptom score (Acute treatment)** | | | | | | | | |
| BECHDOLF2004 | 13.9 | 4.5 | 40 | 13.1 | 5.2 | 48 | 10.0% | 0.16 [-0.26, 0.58] |
| STARTUP2004 | 5.7 | 4 | 34 | 7 | 4.1 | 32 | 7.5% | -0.32 [-0.80, 0.17] |
| GARETY2007CP | 12.33 | 4.94 | 21 | 13.26 | 5.58 | 23 | 5.1% | -0.17 [-0.77, 0.42] |
| GARETY2007NCP | 12.06 | 4.92 | 90 | 12.62 | 6.32 | 90 | 20.8% | -0.10 [-0.39, 0.19] |
| **Subtotal (95% CI)** | | | **185** | | | **193** | **43.4%** | **-0.08 [-0.29, 0.12]** |
| Heterogeneity: Chi² = 2.30, df = 3 (P = 0.51); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.82 (P = 0.41) | | | | | | | | |
| **1.12.3 Negative symptom score (Promoting recovery - in service users with persistent symptoms)** | | | | | | | | |
| CATHER2005 | 14.87 | 4.97 | 15 | 14.92 | 5.72 | 13 | 3.2% | -0.01 [-0.75, 0.73] |
| BARROWCLOUGH2006 | 13 | 4.81 | 54 | 13.31 | 5.22 | 45 | 11.3% | -0.06 [-0.46, 0.33] |
| PENADES2006 | 13.1 | 4.2 | 20 | 12.6 | 4.7 | 20 | 4.6% | 0.11 [-0.51, 0.73] |
| VALMAGGIA2005 | 12.95 | 3.51 | 35 | 11.74 | 2.91 | 23 | 6.3% | 0.36 [-0.17, 0.89] |
| RECTOR2003 | 13.1 | 4.5 | 24 | 16 | 7.2 | 18 | 4.6% | -0.49 [-1.11, 0.13] |
| Sensky2000 | 21.95 | 16.53 | 44 | 20.68 | 20.93 | 44 | 10.2% | 0.07 [-0.35, 0.48] |
| **Subtotal (95% CI)** | | | **192** | | | **163** | **40.2%** | **0.01 [-0.20, 0.22]** |
| Heterogeneity: Chi² = 4.49, df = 5 (P = 0.48); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.11 (P = 0.91) | | | | | | | | |
| **Total (95% CI)** | | | **458** | | | **422** | **100.0%** | **0.00 [-0.13, 0.13]** |
| Heterogeneity: Chi² = 9.06, df = 11 (P = 0.62); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.02 (P = 0.98) | | | | | | | | |
| Test for subgroup differences: Chi² = 2.16, df = 2 (P = 0.34), I² = 7.2% | | | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**1.13 Mental state: 3. Continuous measures - negative symptoms (up to 24 months FU) (lower = better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.13.1 Negative symptom score (Initial treatment) (all data)** | | | | | | | | |
| LEWIS2002N | 12.2 | 2.9 | 24 | 12.4 | 3.3 | 21 | 18.8% | -0.06 [-0.65, 0.52] |
| LEWIS2002M | 18 | 5.9 | 25 | 17.4 | 7.1 | 27 | 21.8% | 0.09 [-0.45, 0.63] |
| JACKSON2007 | 14.66 | 10.9 | 31 | 19.55 | 14.79 | 31 | 25.6% | -0.37 [-0.87, 0.13] |
| LEWIS2002L | 12.8 | 4.3 | 26 | 17.6 | 5.8 | 23 | 18.3% | -0.93 [-1.53, -0.34] |
| LECOMTE2008 | 1.4 | 0.63 | 32 | 1.5 | 0.58 | 13 | 15.5% | -0.16 [-0.80, 0.49] |
| **Subtotal (95% CI)** | | | **138** | | | **115** | **100.0%** | **-0.28 [-0.54, -0.03]** |
| Heterogeneity: Chi² = 7.23, df = 4 (P = 0.12); I² = 45% | | | | | | | | |
| Test for overall effect: Z = 2.19 (P = 0.03) | | | | | | | | |
| **1.13.3 Negative symptom score (Initial treatment) (LewisL removed)** | | | | | | | | |
| LEWIS2002M | 18 | 5.9 | 25 | 17.4 | 7.1 | 27 | 21.8% | 0.09 [-0.45, 0.63] |
| LECOMTE2008 | 1.4 | 0.63 | 32 | 1.5 | 0.58 | 13 | 15.5% | -0.16 [-0.80, 0.49] |
| LEWIS2002N | 12.2 | 2.9 | 24 | 12.4 | 3.3 | 21 | 18.8% | -0.06 [-0.65, 0.52] |
| JACKSON2007 | 14.66 | 10.9 | 31 | 19.55 | 14.79 | 31 | 25.6% | -0.37 [-0.87, 0.13] |
| LEWIS2002L | 12.8 | 4.3 | 26 | 17.6 | 5.8 | 23 | 18.3% | -0.93 [-1.53, -0.34] |
| **Subtotal (95% CI)** | | | **138** | | | **115** | **100.0%** | **-0.28 [-0.54, -0.03]** |
| Heterogeneity: Chi² = 7.23, df = 4 (P = 0.12); I² = 45% | | | | | | | | |
| Test for overall effect: Z = 2.19 (P = 0.03) | | | | | | | | |
| **1.13.4 Negative symptom score (Acute treatment)** | | | | | | | | |
| STARTUP2004 | 4.32 | 3.77 | 47 | 7.09 | 4.39 | 43 | 22.7% | -0.67 [-1.10, -0.25] |
| GARETY2007CP | 12.18 | 4.38 | 22 | 11.88 | 5.19 | 25 | 12.5% | 0.06 [-0.51, 0.63] |
| BECHDOLF2004 | 12.5 | 4 | 31 | 13 | 6.1 | 40 | 18.7% | -0.09 [-0.56, 0.38] |
| GARETY2007NCP | 11.64 | 4.83 | 87 | 11.91 | 5.21 | 85 | 46.1% | -0.05 [-0.35, 0.25] |
| **Subtotal (95% CI)** | | | **187** | | | **193** | **100.0%** | **-0.19 [-0.39, 0.02]** |
| Heterogeneity: Chi² = 6.66, df = 3 (P = 0.08); I² = 55% | | | | | | | | |
| Test for overall effect: Z = 1.81 (P = 0.07) | | | | | | | | |
| **1.13.5 Negative symptom score (Promoting recovery - in service users with persistent symptoms)** | | | | | | | | |
| RECTOR2003 | 10.9 | 4 | 21 | 16.5 | 6 | 13 | 3.9% | -1.13 [-1.88, -0.38] |
| PENADES2006 | 12.9 | 3.8 | 20 | 12.3 | 4.9 | 20 | 5.7% | 0.13 [-0.49, 0.75] |
| Turkington2002 | 3.24 | 2.7 | 257 | 4.13 | 3.06 | 165 | 56.7% | -0.31 [-0.51, -0.12] |
| BARROWCLOUGH2006 | 10.71 | 3.82 | 52 | 12.82 | 5.23 | 45 | 13.4% | -0.46 [-0.87, -0.06] |
| Sensky2000 | 18.16 | 17.19 | 44 | 25.07 | 27.39 | 44 | 12.4% | -0.30 [-0.72, 0.12] |
| VALMAGGIA2005 | 11.76 | 3.42 | 35 | 11.72 | 2.61 | 23 | 7.9% | 0.01 [-0.51, 0.54] |
| **Subtotal (95% CI)** | | | **429** | | | **310** | **100.0%** | **-0.31 [-0.46, -0.16]** |
| Heterogeneity: Chi² = 8.55, df = 5 (P = 0.13); I² = 42% | | | | | | | | |
| Test for overall effect: Z = 4.12 (P < 0.0001) | | | | | | | | |

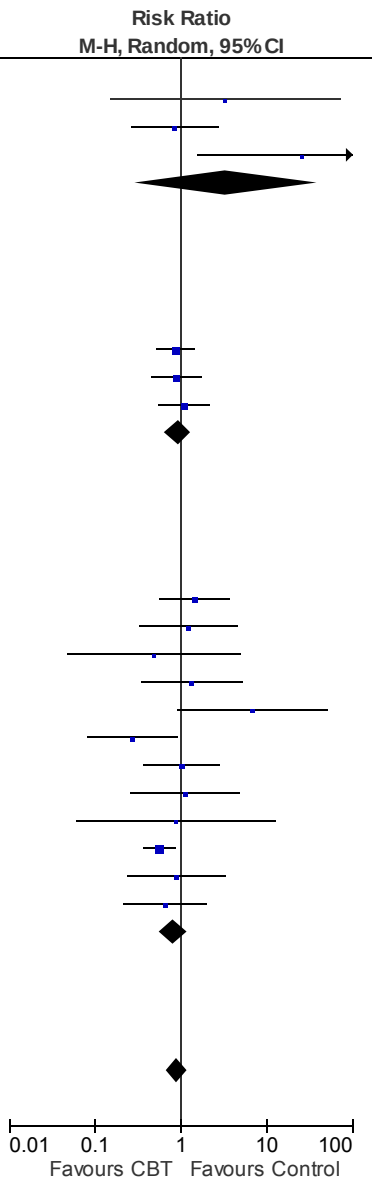



Test for subgroup differences: Chi² = 0.96, df = 3 (P = 0.81), I² = 0%

# Psychological clinical evidence: CBT (subgroup analyses)

**1.14 Treatment acceptability: 1. Leaving the study early (end of treatment)**

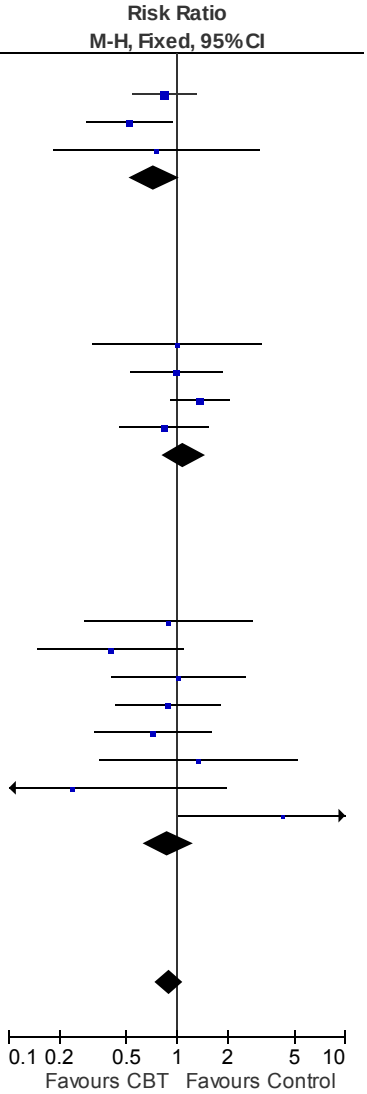
| Study or Subgroup | CBT Events | CBT Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **1.14.1 at end of treatment (Initial treatment)** | | | | | | |
| Haddock1999 | 1 | 10 | 0 | 11 | 0.8% | 3.27 [0.15, 72.23] |
| LECOMTE2008 | 6 | 48 | 4 | 27 | 4.6% | 0.84 [0.26, 2.73] |
| JACKSON2005 | 12 | 45 | 0 | 46 | 0.9% | 25.54 [1.56, 418.93] |
| **Subtotal (95% CI)** | | **103** | | **84** | **6.3%** | **3.35 [0.29, 39.23]** |
| Total events | 19 | | 4 | | | |
| Heterogeneity: Tau² = 3.29; Chi² = 6.80, df = 2 (P = 0.03); I² = 71% | | | | | | |
| Test for overall effect: Z = 0.96 (P = 0.34) | | | | | | |
| **1.14.2 at end of treatment (Acute treatment)** | | | | | | |
| GARETY2007 | 22 | 133 | 27 | 140 | 14.9% | 0.86 [0.51, 1.43] |
| Drury1996 | 10 | 30 | 12 | 32 | 10.7% | 0.89 [0.45, 1.75] |
| STARTUP2004 | 13 | 47 | 11 | 43 | 10.5% | 1.08 [0.54, 2.15] |
| **Subtotal (95% CI)** | | **210** | | **215** | **36.2%** | **0.92 [0.65, 1.31]** |
| Total events | 45 | | 50 | | | |
| Heterogeneity: Tau² = 0.00; Chi² = 0.29, df = 2 (P = 0.86); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.47 (P = 0.64) | | | | | | |
| **1.14.3 at end of treatment (Promoting recovery - in service users with persistent symptoms)** | | | | | | |
| Sensky2000 | 9 | 46 | 6 | 44 | 6.6% | 1.43 [0.56, 3.70] |
| RECTOR2003 | 5 | 29 | 3 | 21 | 3.8% | 1.21 [0.32, 4.50] |
| DURHAM2003 | 1 | 22 | 2 | 21 | 1.3% | 0.48 [0.05, 4.88] |
| PENADES2006 | 4 | 20 | 3 | 20 | 3.6% | 1.33 [0.34, 5.21] |
| Tarrier1998 | 8 | 33 | 1 | 28 | 1.7% | 6.79 [0.90, 51.01] |
| BARROWCLOUGH2006 | 3 | 57 | 11 | 56 | 4.3% | 0.27 [0.08, 0.91] |
| VALMAGGIA2005 | 7 | 36 | 5 | 26 | 5.7% | 1.01 [0.36, 2.83] |
| TROWER2004 | 3 | 18 | 3 | 20 | 3.1% | 1.11 [0.26, 4.82] |
| CATHER2005 | 1 | 16 | 1 | 14 | 1.0% | 0.88 [0.06, 12.73] |
| Turkington2002 | 32 | 257 | 37 | 165 | 17.6% | 0.56 [0.36, 0.85] |
| WYKES2005 | 4 | 45 | 4 | 40 | 3.8% | 0.89 [0.24, 3.32] |
| Kuipers1997 | 4 | 28 | 7 | 32 | 5.0% | 0.65 [0.21, 2.00] |
| **Subtotal (95% CI)** | | **607** | | **487** | **57.5%** | **0.81 [0.57, 1.17]** |
| Total events | 81 | | 83 | | | |
| Heterogeneity: Tau² = 0.06; Chi² = 13.10, df = 11 (P = 0.29); I² = 16% | | | | | | |
| Test for overall effect: Z = 1.12 (P = 0.26) | | | | | | |
| **Total (95% CI)** | | **920** | | **786** | **100.0%** | **0.89 [0.68, 1.17]** |
| Total events | 145 | | 137 | | | |
| Heterogeneity: Tau² = 0.06; Chi² = 21.31, df = 17 (P = 0.21); I² = 20% | | | | | | |
| Test for overall effect: Z = 0.82 (P = 0.41) | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**1.15 Treatment acceptability: 1. Leaving the study early (up to 24 months FU)**

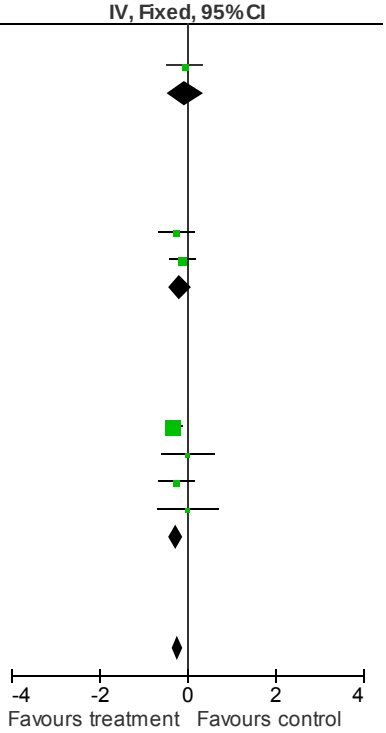
| Study or Subgroup | CBT Events | CBT Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.15.1 FU (Initial treatment)** | | | | | | |
| Lewis2002 | 26 | 101 | 31 | 102 | 19.7% | 0.85 [0.54, 1.32] |
| LECOMTE2008 | 13 | 48 | 14 | 27 | 11.5% | 0.52 [0.29, 0.94] |
| JACKSON2007 | 3 | 31 | 4 | 31 | 2.6% | 0.75 [0.18, 3.08] |
| **Subtotal (95% CI)** | | **180** | | **160** | **33.8%** | **0.73 [0.52, 1.03]** |
| Total events | 42 | | 49 | | | |
| Heterogeneity: Chi² = 1.67, df = 2 (P = 0.43); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.80 (P = 0.07) | | | | | | |
| **1.15.2 FU (Acute treatment)** | | | | | | |
| BACH2002 | 5 | 40 | 5 | 40 | 3.2% | 1.00 [0.31, 3.19] |
| STARTUP2004 | 14 | 47 | 13 | 43 | 8.7% | 0.99 [0.52, 1.85] |
| BECHDOLF2004 | 24 | 40 | 21 | 48 | 12.2% | 1.37 [0.91, 2.06] |
| Drury1996 | 11 | 30 | 14 | 32 | 8.7% | 0.84 [0.45, 1.55] |
| **Subtotal (95% CI)** | | **157** | | **163** | **32.8%** | **1.09 [0.81, 1.46]** |
| Total events | 54 | | 53 | | | |
| Heterogeneity: Chi² = 2.04, df = 3 (P = 0.57); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.59 (P = 0.56) | | | | | | |
| **1.15.3 FU (Promoting recovery - in service users with persistent symptoms)** | | | | | | |
| TROWER2004 | 4 | 18 | 5 | 20 | 3.0% | 0.89 [0.28, 2.81] |
| BARROWCLOUGH2006 | 5 | 57 | 10 | 46 | 7.1% | 0.40 [0.15, 1.10] |
| WYKES2005 | 8 | 45 | 7 | 40 | 4.7% | 1.02 [0.40, 2.55] |
| VALMAGGIA2005 | 11 | 36 | 9 | 26 | 6.7% | 0.88 [0.43, 1.82] |
| RECTOR2003 | 8 | 29 | 8 | 21 | 5.9% | 0.72 [0.32, 1.62] |
| PENADES2006 | 4 | 20 | 3 | 20 | 1.9% | 1.33 [0.34, 5.21] |
| DURHAM2003 | 1 | 22 | 4 | 21 | 2.6% | 0.24 [0.03, 1.96] |
| Tarrier1998 | 10 | 33 | 2 | 28 | 1.4% | 4.24 [1.01, 17.77] |
| **Subtotal (95% CI)** | | **260** | | **222** | **33.4%** | **0.89 [0.63, 1.26]** |
| Total events | 51 | | 48 | | | |
| Heterogeneity: Chi² = 9.13, df = 7 (P = 0.24); I² = 23% | | | | | | |
| Test for overall effect: Z = 0.67 (P = 0.50) | | | | | | |
| **Total (95% CI)** | | **597** | | **545** | **100.0%** | **0.90 [0.75, 1.09]** |
| Total events | 147 | | 150 | | | |
| Heterogeneity: Chi² = 16.82, df = 14 (P = 0.27); I² = 17% | | | | | | |
| Test for overall effect: Z = 1.08 (P = 0.28) | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**1.16 Depression: MADRS, BDI, CDSS (at end of treatment)**

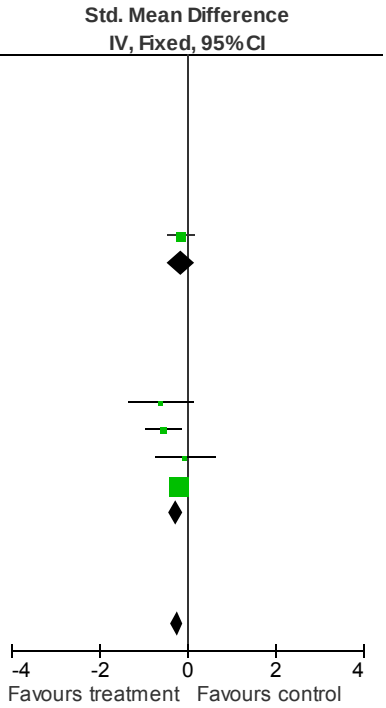
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.16.1 MADRS, BDI, CDSS (initial treatment)** | | | | | | | | |
| JACKSON2005 | 5.9 | 5.59 | 45 | 6.32 | 6.07 | 46 | 10.1% | -0.07 [-0.48, 0.34] |
| **Subtotal (95% CI)** | | | **45** | | | **46** | **10.1%** | **-0.07 [-0.48, 0.34]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.34 (P = 0.73) | | | | | | | | |
| **1.16.2 MADRS, BDI, CDSS (acute treatment)** | | | | | | | | |
| Sensky2000 | 4.83 | 3.58 | 46 | 6.05 | 5.42 | 44 | 9.9% | -0.26 [-0.68, 0.15] |
| GARETY2007NCP | 15.66 | 13.07 | 83 | 17.52 | 13.9 | 83 | 18.3% | -0.14 [-0.44, 0.17] |
| **Subtotal (95% CI)** | | | **129** | | | **127** | **28.2%** | **-0.18 [-0.43, 0.06]** |
| Heterogeneity: Chi² = 0.23, df = 1 (P = 0.63); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.45 (P = 0.15) | | | | | | | | |
| **1.16.3 MADRS, BDI, CDSS (promoting recovery)** | | | | | | | | |
| Turkington2002 | 4.61 | 3.52 | 257 | 5.8 | 3.63 | 165 | 43.9% | -0.33 [-0.53, -0.14] |
| RECTOR2003 | 11.7 | 7.9 | 24 | 11.8 | 11.5 | 18 | 4.5% | -0.01 [-0.62, 0.60] |
| Sensky2000 | 4.83 | 3.58 | 46 | 6.05 | 5.42 | 44 | 9.9% | -0.26 [-0.68, 0.15] |
| TROWER2004 | 8 | 6.3 | 15 | 8.1 | 7.4 | 17 | 3.5% | -0.01 [-0.71, 0.68] |
| **Subtotal (95% CI)** | | | **342** | | | **244** | **61.8%** | **-0.28 [-0.45, -0.11]** |
| Heterogeneity: Chi² = 1.60, df = 3 (P = 0.66); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 3.31 (P = 0.0009) | | | | | | | | |
| **Total (95% CI)** | | | **516** | | | **417** | **100.0%** | **-0.23 [-0.36, -0.10]** |
| Heterogeneity: Chi² = 2.91, df = 6 (P = 0.82); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 3.48 (P = 0.0005) | | | | | | | | |
| Test for subgroup differences: Chi² = 1.07, df = 2 (P = 0.58), I² = 0% | | | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**1.17 Depression, MADRS, BDI, CDSS (at FU)**

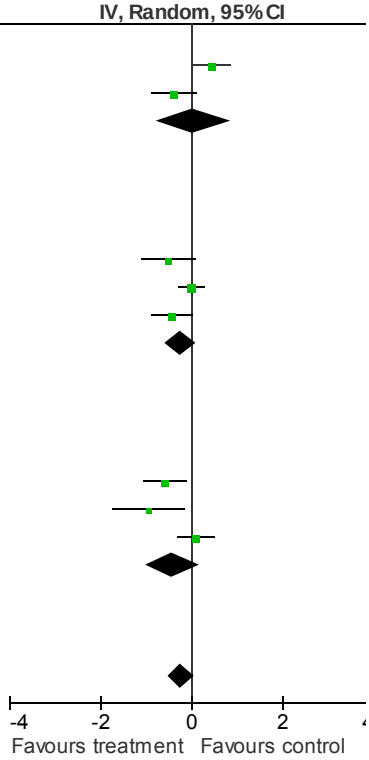
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.17.1 Depression: BDI, CDSS, MADRS (initial treatment)** | | | | | | | | |
| **Subtotal (95% CI)** | | | **0** | | | **0** | | **Not estimable** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Not applicable | | | | | | | | |
| **1.17.2 Depression: BDI, CDSS, MADRS (acute treatment)** | | | | | | | | |
| GARETY2007NCP | 15.19 | 11.63 | 78 | 17.18 | 13.1 | 77 | 22.1% | -0.16 [-0.48, 0.16] |
| **Subtotal (95% CI)** | | | **78** | | | **77** | **22.1%** | **-0.16 [-0.48, 0.16]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.99 (P = 0.32) | | | | | | | | |
| **1.17.3 Depression: BDI, CDSS, MADRS (promoting recovery)** | | | | | | | | |
| TROWER2004 | 8.1 | 7.4 | 14 | 12.6 | 6.7 | 15 | 3.9% | -0.62 [-1.37, 0.13] |
| Sensky2000 | 3.7 | 3.03 | 46 | 6.72 | 7.1 | 44 | 12.4% | -0.55 [-0.97, -0.13] |
| RECTOR2003 | 12 | 7.8 | 21 | 12.7 | 11.8 | 13 | 4.6% | -0.07 [-0.76, 0.62] |
| Turkington2002 | 4.09 | 3.61 | 257 | 4.86 | 3.77 | 165 | 57.1% | -0.21 [-0.41, -0.01] |
| **Subtotal (95% CI)** | | | **338** | | | **237** | **77.9%** | **-0.28 [-0.44, -0.11]** |
| Heterogeneity: Chi² = 3.25, df = 3 (P = 0.35); I² = 8% | | | | | | | | |
| Test for overall effect: Z = 3.23 (P = 0.001) | | | | | | | | |
| **Total (95% CI)** | | | **416** | | | **314** | **100.0%** | **-0.25 [-0.40, -0.10]** |
| Heterogeneity: Chi² = 3.66, df = 4 (P = 0.45); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 3.32 (P = 0.0009) | | | | | | | | |
| Test for subgroup differences: Chi² = 0.41, df = 1 (P = 0.52), I² = 0% | | | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**1.18 Social Functioning measures (SFS, SBS, SOFAS combined) (at end of treatment) (signs reversed)**

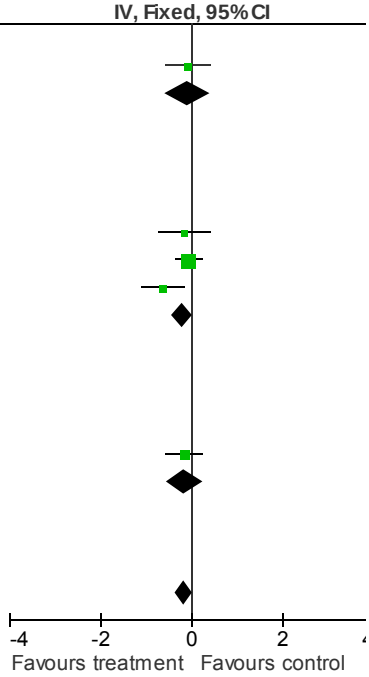
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.18.1 Social functioning (Initial treatment)** | | | | | | | | |
| JACKSON2005 | -53.18 | 14.36 | 45 | -59.65 | 14.62 | 46 | 13.8% | 0.44 [0.03, 0.86] |
| JACKSON2007 | -62.69 | 13.81 | 31 | -57.6 | 11.37 | 31 | 12.2% | -0.40 [-0.90, 0.11] |
| **Subtotal (95% CI)** | | | **76** | | | **77** | **26.0%** | **0.04 [-0.79, 0.86]** |
| Heterogeneity: Tau² = 0.30; Chi² = 6.36, df = 1 (P = 0.01); I² = 84% | | | | | | | | |
| Test for overall effect: Z = 0.08 (P = 0.93) | | | | | | | | |
| **1.18.2 Social functioning (acute treatment)** | | | | | | | | |
| GARETY2007CP | -60.91 | 13.83 | 21 | -53.26 | 14.94 | 23 | 10.5% | -0.52 [-1.12, 0.08] |
| GARETY2007NCP | -52.02 | 15.92 | 90 | -51.88 | 15.47 | 90 | 16.3% | -0.01 [-0.30, 0.28] |
| STARTUP2004 | -102.3 | 11.1 | 39 | -97.4 | 11.1 | 36 | 13.0% | -0.44 [-0.90, 0.02] |
| **Subtotal (95% CI)** | | | **150** | | | **149** | **39.7%** | **-0.26 [-0.60, 0.09]** |
| Heterogeneity: Tau² = 0.04; Chi² = 3.75, df = 2 (P = 0.15); I² = 47% | | | | | | | | |
| Test for overall effect: Z = 1.46 (P = 0.14) | | | | | | | | |
| **1.18.3 Social functioning (promoting recovery)** | | | | | | | | |
| WYKES2005 | 6.1 | 7.8 | 35 | 11.2 | 9 | 35 | 12.6% | -0.60 [-1.08, -0.12] |
| CATHER2005 | -129.88 | 24.91 | 15 | -105.21 | 25.57 | 13 | 7.8% | -0.95 [-1.74, -0.16] |
| BARROWCLOUGH2006 | -111.52 | 21.74 | 48 | -113.73 | 28 | 41 | 13.8% | 0.09 [-0.33, 0.51] |
| **Subtotal (95% CI)** | | | **98** | | | **89** | **34.3%** | **-0.43 [-1.03, 0.17]** |
| Heterogeneity: Tau² = 0.20; Chi² = 7.42, df = 2 (P = 0.02); I² = 73% | | | | | | | | |
| Test for overall effect: Z = 1.40 (P = 0.16) | | | | | | | | |
| **Total (95% CI)** | | | **324** | | | **315** | **100.0%** | **-0.24 [-0.52, 0.05]** |
| Heterogeneity: Tau² = 0.11; Chi² = 21.13, df = 7 (P = 0.004); I² = 67% | | | | | | | | |
| Test for overall effect: Z = 1.63 (P = 0.10) | | | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**1.19 Social Functioning measures (SFS, SBS, SOFAs combined) (at FU) (signs reversed)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.19.1 Social functioing (Initial treatment)** | | | | | | | | |
| JACKSON2007 | -64.21 | 15.18 | 31 | -62.91 | 15.18 | 31 | 14.2% | -0.08 [-0.58, 0.41] |
| **Subtotal (95% CI)** | | | **31** | | | **31** | **14.2%** | **-0.08 [-0.58, 0.41]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.33 (P = 0.74) | | | | | | | | |
| **1.19.2 Social functioing (Acute treatment)** | | | | | | | | |
| GARETY2007CP | -59.73 | 14.53 | 22 | -57.04 | 16.83 | 25 | 10.7% | -0.17 [-0.74, 0.41] |
| GARETY2007NCP | -53.04 | 13.31 | 85 | -52.07 | 15.96 | 85 | 39.0% | -0.07 [-0.37, 0.24] |
| STARTUP2004 | -105.9 | 9.8 | 35 | -99 | 11.3 | 34 | 15.0% | -0.65 [-1.13, -0.16] |
| **Subtotal (95% CI)** | | | **142** | | | **144** | **64.7%** | **-0.22 [-0.45, 0.02]** |
| Heterogeneity: Chi² = 4.00, df = 2 (P = 0.14); I² = 50% | | | | | | | | |
| Test for overall effect: Z = 1.82 (P = 0.07) | | | | | | | | |
| **1.19.3 Social functioing (Promoting recovery)** | | | | | | | | |
| BARROWCLOUGH2006 | -116.44 | 27.02 | 50 | -112.23 | 24.14 | 43 | 21.1% | -0.16 [-0.57, 0.25] |
| **Subtotal (95% CI)** | | | **50** | | | **43** | **21.1%** | **-0.16 [-0.57, 0.25]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.78 (P = 0.44) | | | | | | | | |
| **Total (95% CI)** | | | **223** | | | **218** | **100.0%** | **-0.19 [-0.37, 0.00]** |
| Heterogeneity: Chi² = 4.25, df = 4 (P = 0.37); I² = 6% | | | | | | | | |
| Test for overall effect: Z = 1.95 (P = 0.05) | | | | | | | | |
| Test for subgroup differences: Chi² = 0.24, df = 2 (P = 0.89), I² = 0% | | | | | | | | |

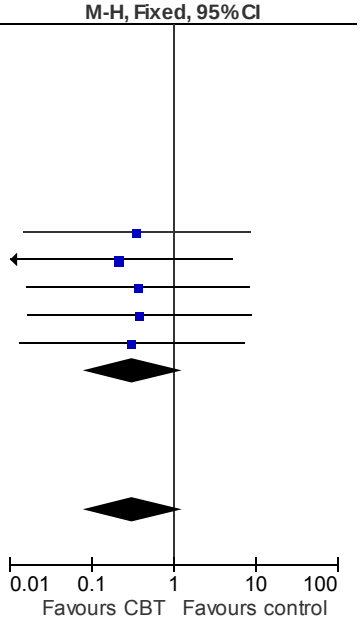



**2 CBT versus any control - subgroup analysis by format**

# Psychological clinical evidence: CBT (subgroup analyses)

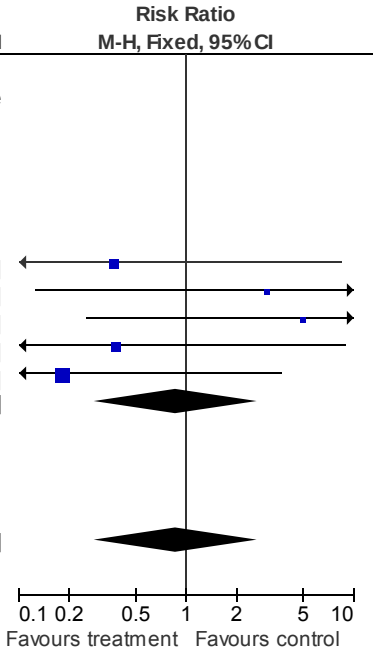
**2.1 Mortality (at end of treatment)**

| Study or Subgroup | CBT Events | CBT Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.1.1 Suicide: (Group CBT)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **2.1.2 Suicide: (Individual CBT)** | | | | | | |
| GARETY2007 | 0 | 133 | 1 | 140 | 19.0% | 0.35 [0.01, 8.53] |
| Turkington2002 | 0 | 257 | 1 | 165 | 23.8% | 0.21 [0.01, 5.23] |
| TROWER2004 | 0 | 18 | 1 | 20 | 18.6% | 0.37 [0.02, 8.51] |
| Kuipers1997 | 0 | 28 | 1 | 32 | 18.3% | 0.38 [0.02, 8.95] |
| STARTUP2004 | 0 | 47 | 1 | 43 | 20.4% | 0.31 [0.01, 7.31] |
| **Subtotal (95% CI)** | | **483** | | **400** | **100.0%** | **0.32 [0.08, 1.30]** |
| Total events | 0 | | 5 | | | |
| Heterogeneity: Chi² = 0.08, df = 4 (P = 1.00); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.59 (P = 0.11) | | | | | | |
| **Total (95% CI)** | | **483** | | **400** | **100.0%** | **0.32 [0.08, 1.30]** |
| Total events | 0 | | 5 | | | |
| Heterogeneity: Chi² = 0.08, df = 4 (P = 1.00); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.59 (P = 0.11) | | | | | | |




**2.2 Mortality (at FU)**

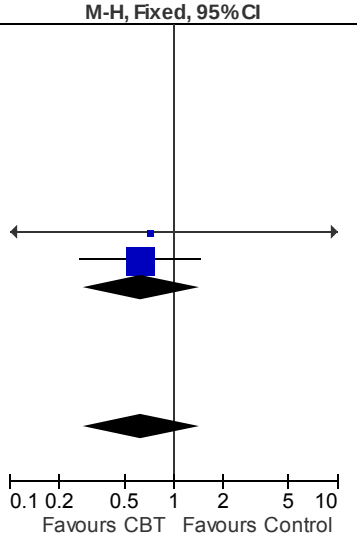
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.2.1 Suicide: at FU (up to 18 months after end of treatment) (Group CBT)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **2.2.2 Suicide: at FU (up to 18 months after end of treatment) (Individual CBT)** | | | | | | |
| TROWER2004 | 0 | 18 | 1 | 20 | 22.1% | 0.37 [0.02, 8.51] |
| Lewis2002 | 1 | 101 | 0 | 102 | 7.7% | 3.03 [0.12, 73.50] |
| JACKSON2007 | 2 | 31 | 0 | 31 | 7.8% | 5.00 [0.25, 100.08] |
| Kuipers1997 | 0 | 28 | 1 | 32 | 21.8% | 0.38 [0.02, 8.95] |
| STARTUP2004 | 0 | 47 | 2 | 43 | 40.5% | 0.18 [0.01, 3.71] |
| **Subtotal (95% CI)** | | **225** | | **228** | **100.0%** | **0.86 [0.28, 2.65]** |
| Total events | 3 | | 4 | | | |
| Heterogeneity: Chi² = 3.48, df = 4 (P = 0.48); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.26 (P = 0.79) | | | | | | |
| **Total (95% CI)** | | **225** | | **228** | **100.0%** | **0.86 [0.28, 2.65]** |
| Total events | 3 | | 4 | | | |
| Heterogeneity: Chi² = 3.48, df = 4 (P = 0.48); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.26 (P = 0.79) | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

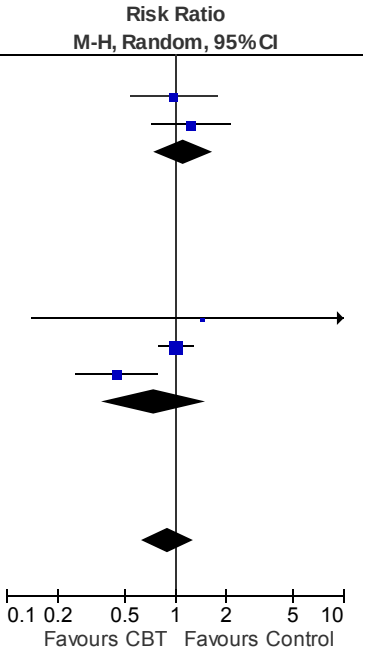
**2.3 Global state: 1. Relapse (at end of treatment)**

| Study or Subgroup | CBT Events | CBT Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.3.1 Relapse (Group CBT)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **2.3.2 Relapse (Individual CBT)** | | | | | | |
| VALMAGGIA2005 | 1 | 36 | 1 | 26 | 10.2% | 0.72 [0.05, 11.02] |
| Kuipers1997 | 6 | 28 | 11 | 32 | 89.8% | 0.62 [0.26, 1.47] |
| **Subtotal (95% CI)** | | **64** | | **58** | **100.0%** | **0.63 [0.28, 1.44]** |
| Total events | 7 | | 12 | | | |
| Heterogeneity: Chi² = 0.01, df = 1 (P = 0.92); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.09 (P = 0.27) | | | | | | |
| **Total (95% CI)** | | **64** | | **58** | **100.0%** | **0.63 [0.28, 1.44]** |
| Total events | 7 | | 12 | | | |
| Heterogeneity: Chi² = 0.01, df = 1 (P = 0.92); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.09 (P = 0.27) | | | | | | |




**2.4 Global state: 1. Relapse (up to 2 years FU)**

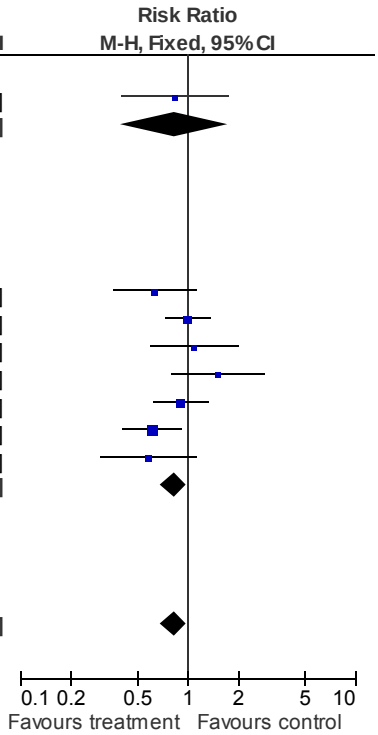
| Study or Subgroup | CBT Events | CBT Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **2.4.1 Relapse (Group CBT)** | | | | | | |
| BECHDOLF2004 | 13 | 40 | 16 | 48 | 19.4% | 0.97 [0.54, 1.78] |
| BARROWCLOUGH2006 | 20 | 57 | 16 | 56 | 21.5% | 1.23 [0.71, 2.12] |
| **Subtotal (95% CI)** | | **97** | | **104** | **40.9%** | **1.11 [0.74, 1.66]** |
| Total events | 33 | | 32 | | | |
| Heterogeneity: Tau² = 0.00; Chi² = 0.31, df = 1 (P = 0.58); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.49 (P = 0.62) | | | | | | |
| **2.4.2 Relapse (Individual CBT)** | | | | | | |
| VALMAGGIA2005 | 2 | 36 | 1 | 26 | 2.2% | 1.44 [0.14, 15.10] |
| Lewis2002 | 57 | 101 | 57 | 102 | 36.3% | 1.01 [0.79, 1.29] |
| GUMLEY2003 | 13 | 72 | 29 | 72 | 20.6% | 0.45 [0.25, 0.79] |
| **Subtotal (95% CI)** | | **209** | | **200** | **59.1%** | **0.75 [0.36, 1.53]** |
| Total events | 72 | | 87 | | | |
| Heterogeneity: Tau² = 0.25; Chi² = 7.28, df = 2 (P = 0.03); I² = 73% | | | | | | |
| Test for overall effect: Z = 0.80 (P = 0.43) | | | | | | |
| **Total (95% CI)** | | **306** | | **304** | **100.0%** | **0.89 [0.63, 1.27]** |
| Total events | 105 | | 119 | | | |
| Heterogeneity: Tau² = 0.07; Chi² = 8.14, df = 4 (P = 0.09); I² = 51% | | | | | | |
| Test for overall effect: Z = 0.63 (P = 0.53) | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**2.5 Service outcome: 1. Hospital admission (up to 24 months FU)**

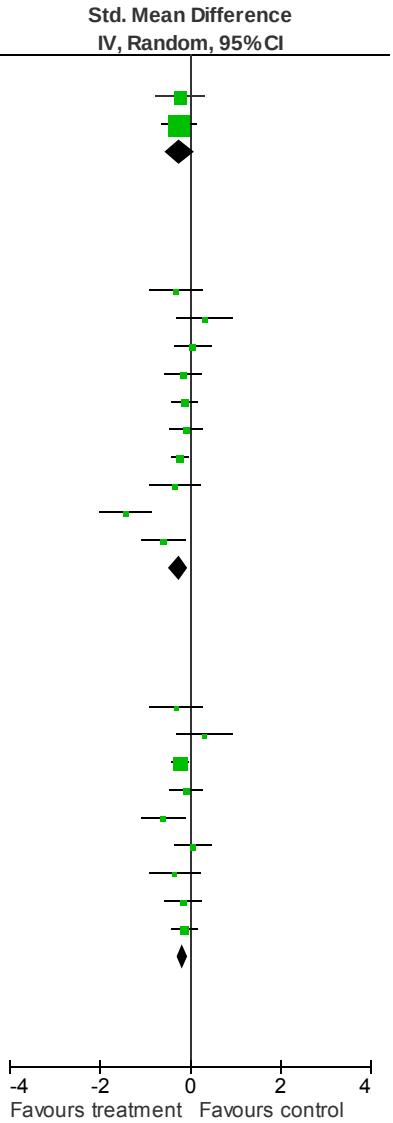
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.5.1 At FU (up to 24 months FU) (Group CBT)** | | | | | | |
| BECHDOLF2004 | 9 | 40 | 13 | 48 | 6.4% | 0.83 [0.40, 1.74] |
| **Subtotal (95% CI)** | | **40** | | **48** | **6.4%** | **0.83 [0.40, 1.74]** |
| Total events | 9 | | 13 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.49 (P = 0.62) | | | | | | |
| **2.5.2 At FU (up to 24 months FU) (Individual CBT)** | | | | | | |
| BACH2002 | 12 | 40 | 19 | 40 | 10.4% | 0.63 [0.36, 1.12] |
| Sensky2000 | 29 | 46 | 28 | 44 | 15.6% | 0.99 [0.72, 1.36] |
| JACKSON2007 | 13 | 31 | 12 | 31 | 6.5% | 1.08 [0.59, 1.99] |
| Tarrier1998 | 16 | 33 | 9 | 28 | 5.3% | 1.51 [0.79, 2.87] |
| Lewis2002 | 33 | 101 | 37 | 102 | 20.1% | 0.90 [0.62, 1.32] |
| Turkington2002 | 36 | 257 | 38 | 165 | 25.3% | 0.61 [0.40, 0.92] |
| GUMLEY2003 | 11 | 72 | 19 | 72 | 10.4% | 0.58 [0.30, 1.13] |
| **Subtotal (95% CI)** | | **580** | | **482** | **93.6%** | **0.82 [0.69, 0.98]** |
| Total events | 150 | | 162 | | | |
| Heterogeneity: Chi² = 9.77, df = 6 (P = 0.13); I² = 39% | | | | | | |
| Test for overall effect: Z = 2.20 (P = 0.03) | | | | | | |
| **Total (95% CI)** | | **620** | | **530** | **100.0%** | **0.82 [0.69, 0.97]** |
| Total events | 159 | | 175 | | | |
| Heterogeneity: Chi² = 9.76, df = 7 (P = 0.20); I² = 28% | | | | | | |
| Test for overall effect: Z = 2.25 (P = 0.02) | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**2.6 Mental State: 1. Total symptom score (end of treatment) (lower = better)**

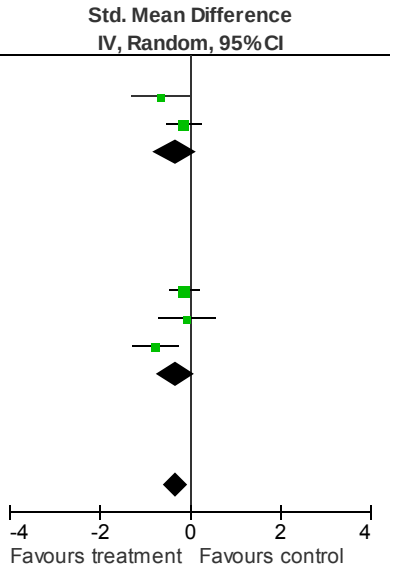
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.6.1 Total symptom score at end of treatment (Group CBT)** | | | | | | | | |
| LECOMTE2008 | 35.9 | 8.4 | 36 | 38.4 | 13.9 | 20 | 34.4% | -0.23 [-0.78, 0.32] |
| BARROWCLOUGH2006 | 57.78 | 13.15 | 54 | 61.44 | 15.83 | 45 | 65.6% | -0.25 [-0.65, 0.15] |
| **Subtotal (95% CI)** | | | **90** | | | **65** | **100.0%** | **-0.24 [-0.57, 0.08]** |
| Heterogeneity: Tau² = 0.00; Chi² = 0.00, df = 1 (P = 0.95); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.49 (P = 0.14) | | | | | | | | |
| **2.6.2 Total symptom score at end of treatment (Individual CBT - all data)** | | | | | | | | |
| GARETY2007CP | 54.09 | 12.49 | 21 | 58.35 | 14.03 | 23 | 7.5% | -0.31 [-0.91, 0.28] |
| DURHAM2003 | 96.2 | 17.7 | 22 | 90.6 | 17.5 | 19 | 7.2% | 0.31 [-0.31, 0.93] |
| JACKSON2005 | 15.23 | 8.98 | 45 | 14.76 | 8.11 | 46 | 10.6% | 0.05 [-0.36, 0.47] |
| Sensky2000 | 20.5 | 12.89 | 46 | 22.9 | 17.23 | 44 | 10.6% | -0.16 [-0.57, 0.26] |
| GARETY2007NCP | 57.63 | 15.21 | 90 | 59.66 | 17.27 | 90 | 13.1% | -0.12 [-0.42, 0.17] |
| Lewis2002 | 68.12 | 21.38 | 52 | 70.15 | 21.46 | 59 | 11.4% | -0.09 [-0.47, 0.28] |
| Turkington2002 | 19.62 | 13.34 | 257 | 22.61 | 13.21 | 165 | 15.1% | -0.22 [-0.42, -0.03] |
| Kuipers1997 | 19.87 | 8.46 | 23 | 22.67 | 7.43 | 24 | 7.8% | -0.35 [-0.92, 0.23] |
| ENGLAND2007 | 36.9 | 9.6 | 44 | 50.1 | 7.8 | 21 | 7.7% | -1.44 [-2.02, -0.86] |
| STARTUP2004 | 30.2 | 10 | 34 | 36.9 | 12.1 | 32 | 9.1% | -0.60 [-1.09, -0.10] |
| **Subtotal (95% CI)** | | | **634** | | | **523** | **100.0%** | **-0.27 [-0.48, -0.05]** |
| Heterogeneity: Tau² = 0.07; Chi² = 25.02, df = 9 (P = 0.003); I² = 64% | | | | | | | | |
| Test for overall effect: Z = 2.40 (P = 0.02) | | | | | | | | |
| **2.6.3 Total symptom score at end of treatment (Individual CBT - ENGLAND2007 removed)** | | | | | | | | |
| GARETY2007CP | 54.09 | 12.49 | 21 | 58.35 | 14.03 | 23 | 4.1% | -0.31 [-0.91, 0.28] |
| DURHAM2003 | 96.2 | 17.7 | 22 | 90.6 | 17.5 | 19 | 3.8% | 0.31 [-0.31, 0.93] |
| Turkington2002 | 19.62 | 13.34 | 257 | 22.61 | 13.21 | 165 | 37.6% | -0.22 [-0.42, -0.03] |
| Lewis2002 | 68.12 | 21.38 | 52 | 70.15 | 21.46 | 59 | 10.4% | -0.09 [-0.47, 0.28] |
| STARTUP2004 | 30.2 | 10 | 34 | 36.9 | 12.1 | 32 | 5.9% | -0.60 [-1.09, -0.10] |
| JACKSON2005 | 15.23 | 8.98 | 45 | 14.76 | 8.11 | 46 | 8.6% | 0.05 [-0.36, 0.47] |
| Kuipers1997 | 19.87 | 8.46 | 23 | 22.67 | 7.43 | 24 | 4.3% | -0.35 [-0.92, 0.23] |
| Sensky2000 | 20.5 | 12.89 | 46 | 22.9 | 17.23 | 44 | 8.4% | -0.16 [-0.57, 0.26] |
| GARETY2007NCP | 57.63 | 15.21 | 90 | 59.66 | 17.27 | 90 | 16.9% | -0.12 [-0.42, 0.17] |
| **Subtotal (95% CI)** | | | **590** | | | **502** | **100.0%** | **-0.18 [-0.30, -0.06]** |
| Heterogeneity: Tau² = 0.00; Chi² = 7.50, df = 8 (P = 0.48); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 2.86 (P = 0.004) | | | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**2.7 Mental State: 1. Total symptom score (up to 6 months FU) (lower = better)**

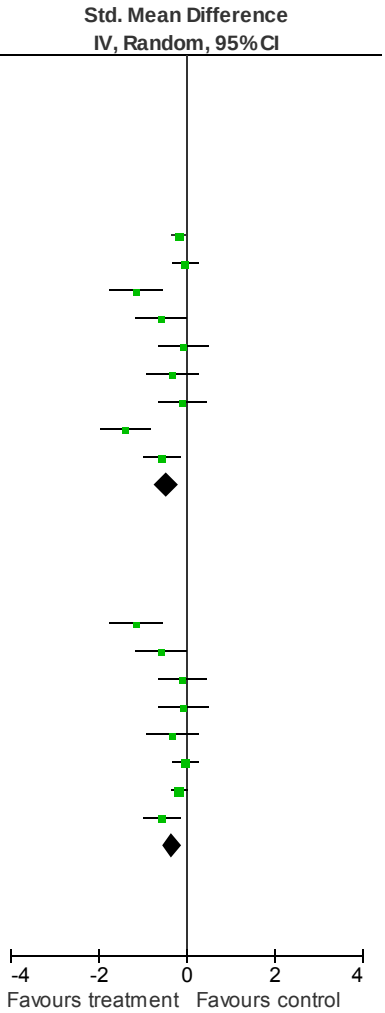
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.7.1 Total symptom score (Group CBT)** | | | | | | | | |
| LECOMTE2008 | 33.4 | 7.8 | 32 | 39.3 | 10.9 | 13 | 12.9% | -0.66 [-1.32, -0.00] |
| BARROWCLOUGH2006 | 54.87 | 13.07 | 52 | 56.96 | 14.08 | 45 | 25.2% | -0.15 [-0.55, 0.25] |
| **Subtotal (95% CI)** | | | **84** | | | **58** | **38.1%** | **-0.34 [-0.81, 0.14]** |
| Heterogeneity: Tau² = 0.05; Chi² = 1.66, df = 1 (P = 0.20); I² = 40% | | | | | | | | |
| Test for overall effect: Z = 1.38 (P = 0.17) | | | | | | | | |
| **2.7.3 Total Symptom Score (Individual CBT)** | | | | | | | | |
| Lewis2002 | 61.73 | 19.69 | 78 | 64.38 | 16.79 | 60 | 29.9% | -0.14 [-0.48, 0.19] |
| DURHAM2003 | 87 | 23.1 | 21 | 88.8 | 18 | 17 | 13.5% | -0.08 [-0.72, 0.56] |
| STARTUP2004 | 28.2 | 9 | 33 | 36.1 | 11 | 30 | 18.5% | -0.78 [-1.29, -0.27] |
| **Subtotal (95% CI)** | | | **132** | | | **107** | **61.9%** | **-0.33 [-0.76, 0.10]** |
| Heterogeneity: Tau² = 0.08; Chi² = 4.63, df = 2 (P = 0.10); I² = 57% | | | | | | | | |
| Test for overall effect: Z = 1.52 (P = 0.13) | | | | | | | | |
| **Total (95% CI)** | | | **216** | | | **165** | **100.0%** | **-0.32 [-0.59, -0.05]** |
| Heterogeneity: Tau² = 0.03; Chi² = 6.29, df = 4 (P = 0.18); I² = 36% | | | | | | | | |
| Test for overall effect: Z = 2.34 (P = 0.02) | | | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**2.8 Mental State: 1. Total symptom score (at 9-18 months FU) (lower = better)**

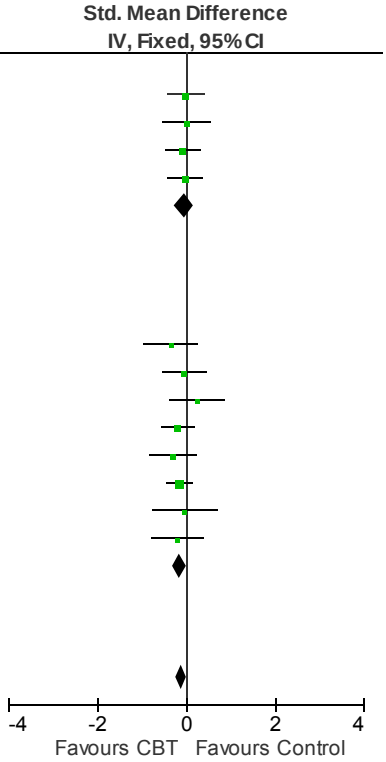
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.8.1 Total symptom score (Group CBT)** | | | | | | | | |
| **Subtotal (95% CI)** | | | **0** | | | **0** | | **Not estimable** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Not applicable | | | | | | | | |
| **2.8.2 Total symptom score (Individual CBT) (all data)** | | | | | | | | |
| Turkington2002 | 18.13 | 12.66 | 257 | 20.67 | 14.54 | 165 | 15.5% | -0.19 [-0.38, 0.01] |
| GARETY2007NCP | 56.68 | 12.98 | 87 | 57.32 | 15.43 | 85 | 14.1% | -0.04 [-0.34, 0.25] |
| LEWIS2002L | 53.7 | 13.3 | 26 | 69.5 | 13.6 | 23 | 9.3% | -1.16 [-1.77, -0.55] |
| Kuipers1997 | 18.78 | 8.19 | 23 | 23.5 | 7.42 | 24 | 9.7% | -0.59 [-1.18, -0.01] |
| GARETY2007CP | 54.41 | 16.7 | 22 | 56.04 | 18.02 | 24 | 9.8% | -0.09 [-0.67, 0.49] |
| LEWIS2002N | 51.5 | 7.5 | 24 | 54.5 | 10.1 | 21 | 9.6% | -0.33 [-0.92, 0.26] |
| LEWIS2002M | 71.2 | 15.8 | 25 | 73.2 | 21.9 | 26 | 10.2% | -0.10 [-0.65, 0.45] |
| ENGLAND2007 | 36.3 | 10.1 | 44 | 50.1 | 8.7 | 21 | 9.8% | -1.41 [-1.99, -0.83] |
| Sensky2000 | 15.1 | 11.53 | 46 | 26.6 | 25.19 | 44 | 12.1% | -0.59 [-1.01, -0.16] |
| **Subtotal (95% CI)** | | | **554** | | | **433** | **100.0%** | **-0.46 [-0.74, -0.18]** |
| Heterogeneity: Tau² = 0.12; Chi² = 29.47, df = 8 (P = 0.0003); I² = 73% | | | | | | | | |
| Test for overall effect: Z = 3.23 (P = 0.001) | | | | | | | | |
| **2.8.3 Total symptom score (Individual CBT) (england removed)** | | | | | | | | |
| LEWIS2002L | 53.7 | 13.3 | 26 | 69.5 | 13.6 | 23 | 8.8% | -1.16 [-1.77, -0.55] |
| Kuipers1997 | 18.78 | 8.19 | 23 | 23.5 | 7.42 | 24 | 9.3% | -0.59 [-1.18, -0.01] |
| LEWIS2002M | 71.2 | 15.8 | 25 | 73.2 | 21.9 | 26 | 10.1% | -0.10 [-0.65, 0.45] |
| GARETY2007CP | 54.41 | 16.7 | 22 | 56.04 | 18.02 | 24 | 9.5% | -0.09 [-0.67, 0.49] |
| LEWIS2002N | 51.5 | 7.5 | 24 | 54.5 | 10.1 | 21 | 9.2% | -0.33 [-0.92, 0.26] |
| GARETY2007NCP | 56.68 | 12.98 | 87 | 57.32 | 15.43 | 85 | 17.8% | -0.04 [-0.34, 0.25] |
| Turkington2002 | 18.13 | 12.66 | 257 | 20.67 | 14.54 | 165 | 21.8% | -0.19 [-0.38, 0.01] |
| Sensky2000 | 15.1 | 11.53 | 46 | 26.6 | 25.19 | 44 | 13.5% | -0.59 [-1.01, -0.16] |
| **Subtotal (95% CI)** | | | **510** | | | **412** | **100.0%** | **-0.34 [-0.56, -0.11]** |
| Heterogeneity: Tau² = 0.05; Chi² = 15.05, df = 7 (P = 0.04); I² = 53% | | | | | | | | |
| Test for overall effect: Z = 2.95 (P = 0.003) | | | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**2.9 Mental state: 2. Continuous measures - positive symptoms (at end of treatment) (lower = better)**

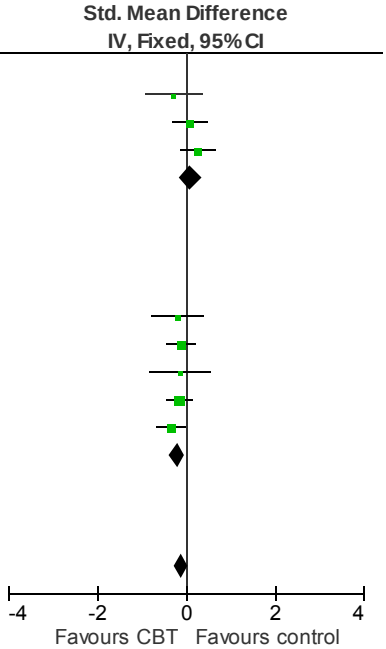
| | CBT | | | Control | | | | Std. Mean Difference |
|---|---|---|---|---|---|---|---|---|
| **Study or Subgroup** | **Mean** | **SD** | **Total** | **Mean** | **SD** | **Total** | **Weight** | **IV, Fixed, 95% CI** |
| **2.9.1 Positive symptom score (Group CBT)** | | | | | | | | |
| BECHDOLF2004 | 11.3 | 4.2 | 40 | 11.4 | 4.5 | 48 | 9.8% | -0.02 [-0.44, 0.40] |
| LECOMTE2008 | 1.7 | 0.73 | 36 | 1.7 | 0.99 | 20 | 5.8% | 0.00 [-0.55, 0.55] |
| LECLERC2000 | 2.29 | 0.89 | 55 | 2.37 | 1.01 | 44 | 10.9% | -0.08 [-0.48, 0.31] |
| BARROWCLOUGH2006 | 16.04 | 5 | 54 | 16.2 | 4.34 | 45 | 11.0% | -0.03 [-0.43, 0.36] |
| **Subtotal (95% CI)** | | | **185** | | | **157** | **37.5%** | **-0.04 [-0.25, 0.17]** |
| Heterogeneity: Chi² = 0.08, df = 3 (P = 0.99); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.37 (P = 0.71) | | | | | | | | |
| **2.9.3 Positive symptom score (Individual CBT)** | | | | | | | | |
| RECTOR2003 | 12 | 4 | 24 | 13.9 | 6.7 | 18 | 4.5% | -0.35 [-0.97, 0.27] |
| JACKSON2007 | 7.45 | 4.05 | 31 | 7.65 | 4.03 | 31 | 6.9% | -0.05 [-0.55, 0.45] |
| PENADES2006 | 6.2 | 2.4 | 20 | 5.7 | 1.7 | 20 | 4.4% | 0.24 [-0.39, 0.86] |
| Lewis2002 | 14.94 | 6.61 | 52 | 16.31 | 6.9 | 59 | 12.3% | -0.20 [-0.57, 0.17] |
| VALMAGGIA2005 | 15.09 | 3.91 | 35 | 16.28 | 3.76 | 23 | 6.1% | -0.30 [-0.83, 0.22] |
| GARETY2007NCP | 15.39 | 6.37 | 90 | 16.49 | 6.47 | 90 | 20.1% | -0.17 [-0.46, 0.12] |
| CATHER2005 | 10.93 | 3.33 | 15 | 11.08 | 3.44 | 13 | 3.1% | -0.04 [-0.79, 0.70] |
| GARETY2007CP | 13.95 | 5.69 | 21 | 15.09 | 5.23 | 23 | 4.9% | -0.21 [-0.80, 0.39] |
| **Subtotal (95% CI)** | | | **288** | | | **277** | **62.5%** | **-0.16 [-0.32, 0.01]** |
| Heterogeneity: Chi² = 2.57, df = 7 (P = 0.92); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.85 (P = 0.06) | | | | | | | | |
| **Total (95% CI)** | | | **473** | | | **434** | **100.0%** | **-0.11 [-0.24, 0.02]** |
| Heterogeneity: Chi² = 3.35, df = 11 (P = 0.99); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.69 (P = 0.09) | | | | | | | | |
| Test for subgroup differences: Chi² = 0.71, df = 1 (P = 0.40), I² = 0% | | | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**2.10 Mental state: 2. Continuous measures - positive symptoms (up to 12 months FU) (lower = better)**

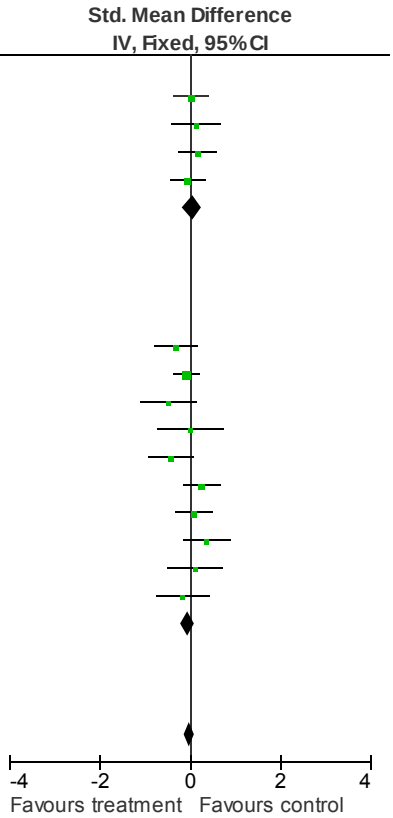
| Study or Subgroup | CBT Mean | CBT SD | CBT Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.10.1 Positive symptoms (Group CBT)** | | | | | | | | |
| LECOMTE2008 | 1.7 | 0.68 | 32 | 1.9 | 0.66 | 13 | 4.8% | -0.29 [-0.94, 0.36] |
| LECLERC2000 | 2.22 | 0.83 | 55 | 2.15 | 0.99 | 44 | 12.8% | 0.08 [-0.32, 0.47] |
| BARROWCLOUGH2006 | 16.5 | 4.88 | 52 | 15.3 | 4.24 | 46 | 12.7% | 0.26 [-0.14, 0.66] |
| **Subtotal (95% CI)** | | | **139** | | | **103** | **30.3%** | **0.09 [-0.16, 0.35]** |
| Heterogeneity: Chi² = 2.03, df = 2 (P = 0.36); I² = 1% | | | | | | | | |
| Test for overall effect: Z = 0.72 (P = 0.47) | | | | | | | | |
| **2.10.2 Positive symptom score (Individual CBT)** | | | | | | | | |
| GARETY2007CP | 13.95 | 5.69 | 21 | 15.09 | 5.23 | 23 | 5.7% | -0.21 [-0.80, 0.39] |
| Lewis2002 | 13.03 | 5.06 | 78 | 13.67 | 5.33 | 60 | 17.7% | -0.12 [-0.46, 0.21] |
| RECTOR2003 | 10.9 | 3.4 | 21 | 11.5 | 4.7 | 13 | 4.2% | -0.15 [-0.84, 0.54] |
| GARETY2007NCP | 15.39 | 6.37 | 90 | 16.49 | 6.47 | 90 | 23.5% | -0.17 [-0.46, 0.12] |
| GUMLEY2003 | 8.85 | 2.09 | 72 | 9.88 | 3.61 | 72 | 18.6% | -0.35 [-0.68, -0.02] |
| **Subtotal (95% CI)** | | | **282** | | | **258** | **69.7%** | **-0.21 [-0.38, -0.04]** |
| Heterogeneity: Chi² = 1.02, df = 4 (P = 0.91); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 2.39 (P = 0.02) | | | | | | | | |
| **Total (95% CI)** | | | **421** | | | **361** | **100.0%** | **-0.12 [-0.26, 0.03]** |
| Heterogeneity: Chi² = 6.73, df = 7 (P = 0.46); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.60 (P = 0.11) | | | | | | | | |
| Test for subgroup differences: Chi² = 3.67, df = 1 (P = 0.06), I² = 72.8% | | | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**2.11 Mental state: 3. Continuous measures - negative symptoms (at end of treatment) (lower = better)**

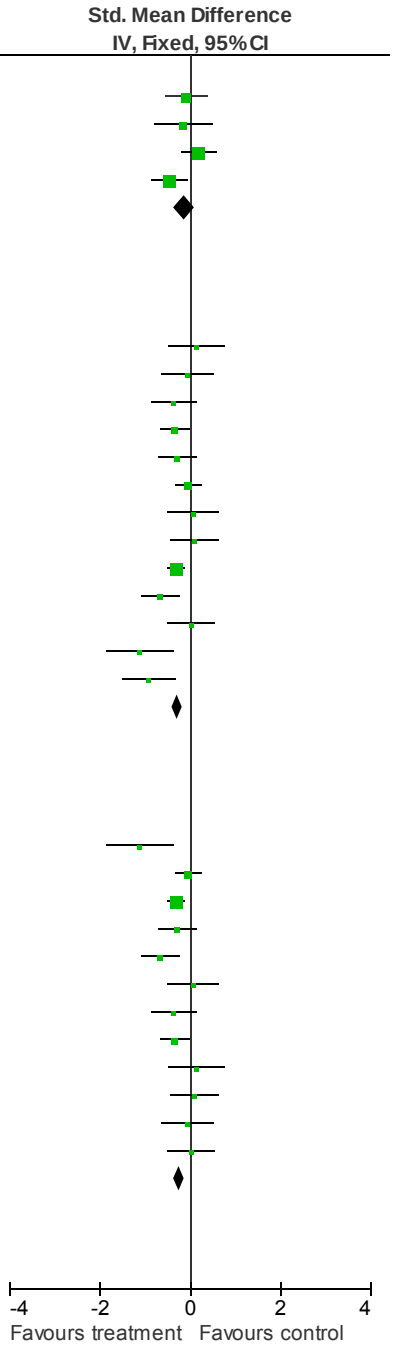
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.11.1 Negative symptom score (Group CBT)** | | | | | | | | |
| LECLERC2000 | 2.09 | 0.85 | 55 | 2.08 | 0.8 | 44 | 9.6% | 0.01 [-0.38, 0.41] |
| LECOMTE2008 | 1.6 | 0.71 | 36 | 1.5 | 0.86 | 20 | 5.0% | 0.13 [-0.42, 0.68] |
| BECHDOLF2004 | 13.9 | 4.5 | 40 | 13.1 | 5.2 | 48 | 8.5% | 0.16 [-0.26, 0.58] |
| BARROWCLOUGH2006 | 13 | 4.81 | 54 | 13.31 | 5.22 | 45 | 9.6% | -0.06 [-0.46, 0.33] |
| **Subtotal (95% CI)** | | | **185** | | | **157** | **32.6%** | **0.05 [-0.17, 0.26]** |
| Heterogeneity: Chi² = 0.69, df = 3 (P = 0.88); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.43 (P = 0.67) | | | | | | | | |
| **2.11.2 Negative symptom score (Individual CBT)** | | | | | | | | |
| STARTUP2004 | 5.7 | 4 | 34 | 7 | 4.1 | 32 | 6.4% | -0.32 [-0.80, 0.17] |
| GARETY2007NCP | 12.06 | 4.92 | 90 | 12.62 | 6.32 | 90 | 17.6% | -0.10 [-0.39, 0.19] |
| RECTOR2003 | 13.1 | 4.5 | 24 | 16 | 7.2 | 18 | 3.9% | -0.49 [-1.11, 0.13] |
| CATHER2005 | 14.87 | 4.97 | 15 | 14.92 | 5.72 | 13 | 2.7% | -0.01 [-0.75, 0.73] |
| JACKSON2007 | 17.67 | 10.19 | 31 | 22.88 | 12.87 | 31 | 5.9% | -0.44 [-0.95, 0.06] |
| JACKSON2005 | 18.84 | 12.61 | 45 | 15.61 | 13.36 | 46 | 8.8% | 0.25 [-0.17, 0.66] |
| Sensky2000 | 21.95 | 16.53 | 44 | 20.68 | 20.93 | 44 | 8.6% | 0.07 [-0.35, 0.48] |
| VALMAGGIA2005 | 12.95 | 3.51 | 35 | 11.74 | 2.91 | 23 | 5.3% | 0.36 [-0.17, 0.89] |
| PENADES2006 | 13.1 | 4.2 | 20 | 12.6 | 4.7 | 20 | 3.9% | 0.11 [-0.51, 0.73] |
| GARETY2007CP | 12.33 | 4.94 | 21 | 13.26 | 5.58 | 23 | 4.3% | -0.17 [-0.77, 0.42] |
| **Subtotal (95% CI)** | | | **359** | | | **340** | **67.4%** | **-0.06 [-0.21, 0.09]** |
| Heterogeneity: Chi² = 10.57, df = 9 (P = 0.31); I² = 15% | | | | | | | | |
| Test for overall effect: Z = 0.76 (P = 0.44) | | | | | | | | |
| **Total (95% CI)** | | | **544** | | | **497** | **100.0%** | **-0.02 [-0.15, 0.10]** |
| Heterogeneity: Chi² = 11.89, df = 13 (P = 0.54); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.38 (P = 0.70) | | | | | | | | |
| Test for subgroup differences: Chi² = 0.63, df = 1 (P = 0.43), I² = 0% | | | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**2.12 Mental state: 3. Continuous measures - negative symptoms (up to 24 months FU) (lower = better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.12.1 Negative symptom score (Group CBT)** | | | | | | | | |
| BECHDOLF2004 | 12.5 | 4 | 31 | 13 | 6.1 | 40 | 23.4% | -0.09 [-0.56, 0.38] |
| LECOMTE2008 | 1.4 | 0.63 | 32 | 1.5 | 0.58 | 13 | 12.4% | -0.16 [-0.80, 0.49] |
| LECLERC2000 | 2.03 | 0.82 | 55 | 1.89 | 0.66 | 44 | 32.7% | 0.18 [-0.21, 0.58] |
| BARROWCLOUGH2006 | 10.71 | 3.82 | 52 | 12.82 | 5.23 | 45 | 31.5% | -0.46 [-0.87, -0.06] |
| **Subtotal (95% CI)** | | | **170** | | | **142** | **100.0%** | **-0.13 [-0.35, 0.10]** |
| Heterogeneity: Chi² = 5.03, df = 3 (P = 0.17); I² = 40% | | | | | | | | |
| Test for overall effect: Z = 1.10 (P = 0.27) | | | | | | | | |
| **2.12.2 Negative symptom score (Individual CBT) (all data)** | | | | | | | | |
| PENADES2006 | 12.9 | 3.8 | 20 | 12.3 | 4.9 | 20 | 3.2% | 0.13 [-0.49, 0.75] |
| LEWIS2002N | 12.2 | 2.9 | 24 | 12.4 | 3.3 | 21 | 3.6% | -0.06 [-0.65, 0.52] |
| JACKSON2007 | 14.66 | 10.9 | 31 | 19.55 | 14.79 | 31 | 4.9% | -0.37 [-0.87, 0.13] |
| GUMLEY2003 | 10.55 | 4.07 | 72 | 12.22 | 5.36 | 72 | 11.3% | -0.35 [-0.68, -0.02] |
| Sensky2000 | 18.16 | 17.19 | 44 | 25.07 | 27.39 | 44 | 6.9% | -0.30 [-0.72, 0.12] |
| GARETY2007NCP | 11.64 | 4.83 | 87 | 11.91 | 5.21 | 85 | 13.7% | -0.05 [-0.35, 0.25] |
| GARETY2007CP | 12.18 | 4.38 | 22 | 11.88 | 5.19 | 25 | 3.7% | 0.06 [-0.51, 0.63] |
| LEWIS2002M | 18 | 5.9 | 25 | 17.4 | 7.1 | 27 | 4.1% | 0.09 [-0.45, 0.63] |
| Turkington2002 | 3.24 | 2.7 | 257 | 4.13 | 3.06 | 165 | 31.7% | -0.31 [-0.51, -0.12] |
| STARTUP2004 | 4.32 | 3.77 | 47 | 7.09 | 4.39 | 43 | 6.8% | -0.67 [-1.10, -0.25] |
| VALMAGGIA2005 | 11.76 | 3.42 | 35 | 11.72 | 2.61 | 23 | 4.4% | 0.01 [-0.51, 0.54] |
| RECTOR2003 | 10.9 | 4 | 21 | 16.5 | 6 | 13 | 2.2% | -1.13 [-1.88, -0.38] |
| LEWIS2002L | 12.8 | 4.3 | 26 | 17.6 | 5.8 | 23 | 3.5% | -0.93 [-1.53, -0.34] |
| **Subtotal (95% CI)** | | | **711** | | | **592** | **100.0%** | **-0.28 [-0.39, -0.17]** |
| Heterogeneity: Chi² = 22.06, df = 12 (P = 0.04); I² = 46% | | | | | | | | |
| Test for overall effect: Z = 4.94 (P < 0.00001) | | | | | | | | |
| **2.12.3 Negative symptom score (Individual CBT) (LewisL removed)** | | | | | | | | |
| RECTOR2003 | 10.9 | 4 | 21 | 16.5 | 6 | 13 | 2.3% | -1.13 [-1.88, -0.38] |
| GARETY2007NCP | 11.64 | 4.83 | 87 | 11.91 | 5.21 | 85 | 14.2% | -0.05 [-0.35, 0.25] |
| Turkington2002 | 3.24 | 2.7 | 257 | 4.13 | 3.06 | 165 | 32.8% | -0.31 [-0.51, -0.12] |
| Sensky2000 | 18.16 | 17.19 | 44 | 25.07 | 27.39 | 44 | 7.2% | -0.30 [-0.72, 0.12] |
| STARTUP2004 | 4.32 | 3.77 | 47 | 7.09 | 4.39 | 43 | 7.0% | -0.67 [-1.10, -0.25] |
| GARETY2007CP | 12.18 | 4.38 | 22 | 11.88 | 5.19 | 25 | 3.9% | 0.06 [-0.51, 0.63] |
| JACKSON2007 | 14.66 | 10.9 | 31 | 19.55 | 14.79 | 31 | 5.0% | -0.37 [-0.87, 0.13] |
| GUMLEY2003 | 10.55 | 4.07 | 72 | 12.22 | 5.36 | 72 | 11.7% | -0.35 [-0.68, -0.02] |
| PENADES2006 | 12.9 | 3.8 | 20 | 12.3 | 4.9 | 20 | 3.3% | 0.13 [-0.49, 0.75] |
| LEWIS2002M | 18 | 5.9 | 25 | 17.4 | 7.1 | 27 | 4.3% | 0.09 [-0.45, 0.63] |
| LEWIS2002N | 12.2 | 2.9 | 24 | 12.4 | 3.3 | 21 | 3.7% | -0.06 [-0.65, 0.52] |
| VALMAGGIA2005 | 11.76 | 3.42 | 35 | 11.72 | 2.61 | 23 | 4.6% | 0.01 [-0.51, 0.54] |
| **Subtotal (95% CI)** | | | **685** | | | **569** | **100.0%** | **-0.26 [-0.37, -0.14]** |
| Heterogeneity: Chi² = 17.20, df = 11 (P = 0.10); I² = 36% | | | | | | | | |
| Test for overall effect: Z = 4.44 (P < 0.00001) | | | | | | | | |

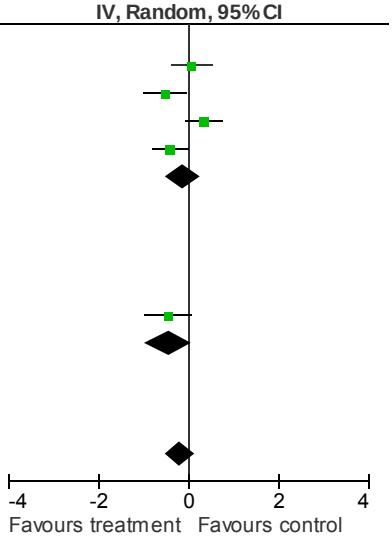



Test for subgroup differences: Chi² = 1.39, df = 2 (P = 0.50), I² = 0%

# Psychological clinical evidence: CBT (subgroup analyses)

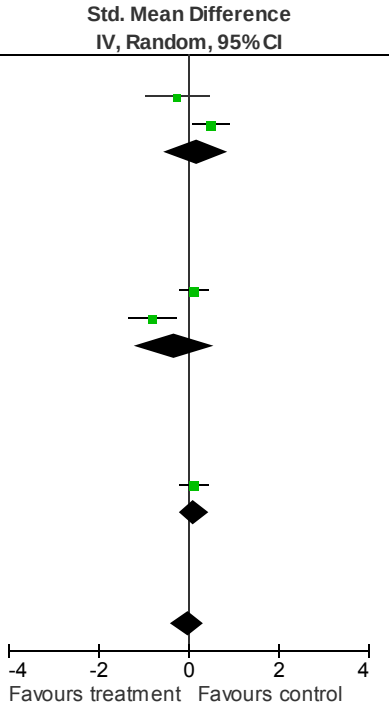
**2.13 Mental State: 4. Self-esteem (RSES, RSCQ) (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.13.1 Self-esteem (Group CBT)** | | | | | | | | |
| WYKES2005 | -17.8 | 4 | 38 | -18 | 3.6 | 35 | 19.9% | 0.05 [-0.41, 0.51] |
| LECOMTE2008 | -15.4 | 18.1 | 36 | -3.2 | 27.5 | 32 | 19.1% | -0.52 [-1.01, -0.04] |
| BARROWCLOUGH2006 | -22.53 | 4.65 | 51 | -24.2 | 5.25 | 40 | 21.3% | 0.34 [-0.08, 0.75] |
| LECLERC2000 | -32.06 | 5.18 | 55 | -29.52 | 6.79 | 44 | 21.8% | -0.42 [-0.82, -0.02] |
| **Subtotal (95% CI)** | | | **180** | | | **151** | **82.1%** | **-0.14 [-0.54, 0.27]** |
| Heterogeneity: Tau² = 0.12; Chi² = 10.01, df = 3 (P = 0.02); I² = 70% | | | | | | | | |
| Test for overall effect: Z = 0.66 (P = 0.51) | | | | | | | | |
| **2.13.2 Self esteem (Individual CBT)** | | | | | | | | |
| DURHAM2003 | -123.9 | 14.7 | 44 | -116.4 | 18.9 | 21 | 17.9% | -0.46 [-0.98, 0.07] |
| **Subtotal (95% CI)** | | | **44** | | | **21** | **17.9%** | **-0.46 [-0.98, 0.07]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.71 (P = 0.09) | | | | | | | | |
| **Total (95% CI)** | | | **224** | | | **172** | **100.0%** | **-0.19 [-0.53, 0.15]** |
| Heterogeneity: Tau² = 0.10; Chi² = 11.31, df = 4 (P = 0.02); I² = 65% | | | | | | | | |
| Test for overall effect: Z = 1.11 (P = 0.27) | | | | | | | | |




**2.14 Mental state: 4. Self-esteem (RSES, RSCQ) (up to 12 months Follow Up)**

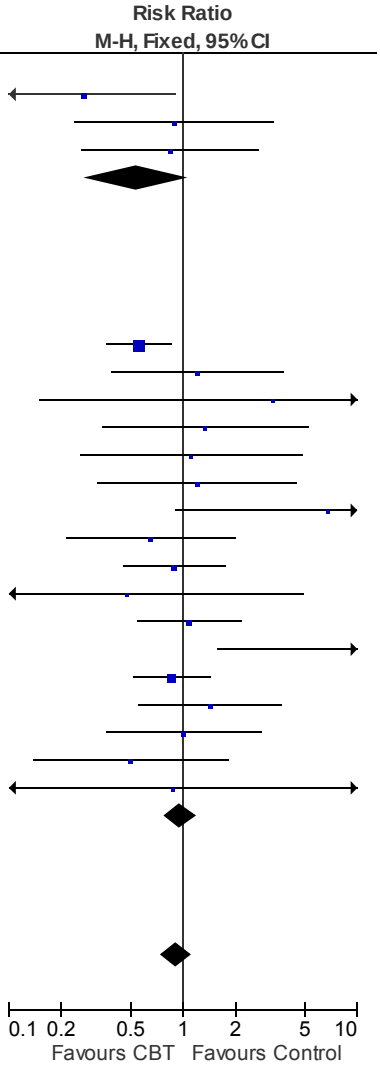
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.14.1 Self-esteem (Group CBT)** | | | | | | | | |
| LECOMTE2008 | -16.2 | 18.1 | 32 | -11.3 | 19.3 | 10 | 14.0% | -0.26 [-0.97, 0.45] |
| BARROWCLOUGH2006 | -22.2 | 4.84 | 51 | -24.33 | 3.87 | 43 | 21.2% | 0.48 [0.07, 0.89] |
| **Subtotal (95% CI)** | | | **83** | | | **53** | **35.2%** | **0.17 [-0.55, 0.88]** |
| Heterogeneity: Tau² = 0.19; Chi² = 3.10, df = 1 (P = 0.08); I² = 68% | | | | | | | | |
| Test for overall effect: Z = 0.46 (P = 0.65) | | | | | | | | |
| **2.14.2 Self-esteem (Individual CBT) (all data)** | | | | | | | | |
| GUMLEY2003 | -22.7 | 6.3 | 72 | -23.3 | 5.1 | 72 | 23.5% | 0.10 [-0.22, 0.43] |
| ENGLAND2007 | -128.6 | 16.7 | 44 | -114.7 | 17.3 | 21 | 17.9% | -0.81 [-1.35, -0.27] |
| **Subtotal (95% CI)** | | | **116** | | | **93** | **41.3%** | **-0.33 [-1.23, 0.57]** |
| Heterogeneity: Tau² = 0.37; Chi² = 8.12, df = 1 (P = 0.004); I² = 88% | | | | | | | | |
| Test for overall effect: Z = 0.72 (P = 0.47) | | | | | | | | |
| **2.14.3 Self-esteem (Individual CBT) (ENGLAND2007 removed)** | | | | | | | | |
| GUMLEY2003 | -22.7 | 6.3 | 72 | -23.3 | 5.1 | 72 | 23.5% | 0.10 [-0.22, 0.43] |
| **Subtotal (95% CI)** | | | **72** | | | **72** | **23.5%** | **0.10 [-0.22, 0.43]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.62 (P = 0.53) | | | | | | | | |
| **Total (95% CI)** | | | **271** | | | **218** | **100.0%** | **-0.03 [-0.40, 0.34]** |
| Heterogeneity: Tau² = 0.13; Chi² = 14.92, df = 4 (P = 0.005); I² = 73% | | | | | | | | |
| Test for overall effect: Z = 0.17 (P = 0.87) | | | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**2.15 Treatment acceptability: 1. Leaving the study early (at end of treatment)**

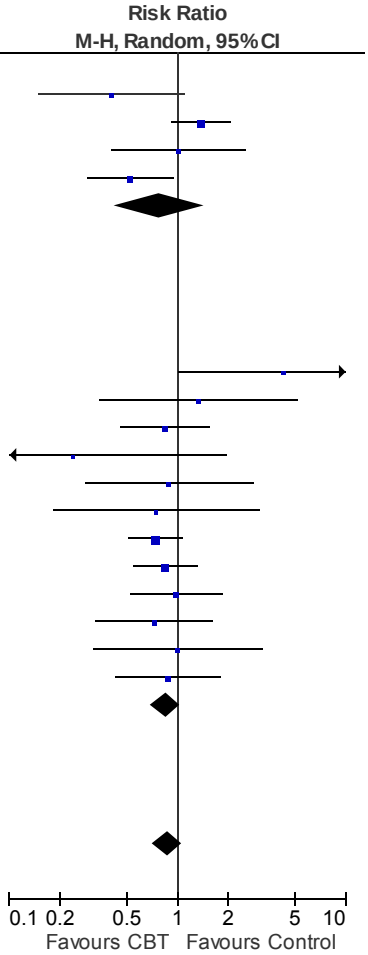
| Study or Subgroup | CBT Events | CBT Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.15.1 at end of treatment (Group CBT)** | | | | | | |
| BARROWCLOUGH2006 | 3 | 57 | 11 | 56 | 7.0% | 0.27 [0.08, 0.91] |
| WYKES2005 | 4 | 45 | 4 | 40 | 2.7% | 0.89 [0.24, 3.32] |
| LECOMTE2008 | 6 | 48 | 4 | 27 | 3.2% | 0.84 [0.26, 2.73] |
| **Subtotal (95% CI)** | | **150** | | **123** | **12.9%** | **0.54 [0.27, 1.08]** |
| Total events | 13 | | 19 | | | |
| Heterogeneity: Chi² = 2.37, df = 2 (P = 0.31); I² = 15% | | | | | | |
| Test for overall effect: Z = 1.75 (P = 0.08) | | | | | | |
| **2.15.2 at end of treatment (Individual CBT)** | | | | | | |
| Turkington2002 | 32 | 257 | 37 | 165 | 28.4% | 0.56 [0.36, 0.85] |
| GUMLEY2003 | 6 | 72 | 5 | 72 | 3.1% | 1.20 [0.38, 3.76] |
| Haddock1999 | 1 | 10 | 0 | 11 | 0.3% | 3.27 [0.15, 72.23] |
| PENADES2006 | 4 | 20 | 3 | 20 | 1.9% | 1.33 [0.34, 5.21] |
| TROWER2004 | 3 | 18 | 3 | 20 | 1.8% | 1.11 [0.26, 4.82] |
| RECTOR2003 | 5 | 29 | 3 | 21 | 2.2% | 1.21 [0.32, 4.50] |
| Tarrier1998 | 8 | 33 | 1 | 28 | 0.7% | 6.79 [0.90, 51.01] |
| Kuipers1997 | 4 | 28 | 7 | 32 | 4.1% | 0.65 [0.21, 2.00] |
| Drury1996 | 10 | 30 | 12 | 32 | 7.3% | 0.89 [0.45, 1.75] |
| DURHAM2003 | 1 | 22 | 2 | 21 | 1.3% | 0.48 [0.05, 4.88] |
| STARTUP2004 | 13 | 47 | 11 | 43 | 7.2% | 1.08 [0.54, 2.15] |
| JACKSON2005 | 12 | 45 | 0 | 46 | 0.3% | 25.54 [1.56, 418.93] |
| GARETY2007 | 22 | 133 | 27 | 140 | 16.6% | 0.86 [0.51, 1.43] |
| Sensky2000 | 9 | 46 | 6 | 44 | 3.9% | 1.43 [0.56, 3.70] |
| VALMAGGIA2005 | 7 | 36 | 5 | 26 | 3.7% | 1.01 [0.36, 2.83] |
| JACKSON2007 | 3 | 31 | 6 | 31 | 3.8% | 0.50 [0.14, 1.82] |
| CATHER2005 | 1 | 16 | 1 | 14 | 0.7% | 0.88 [0.06, 12.73] |
| **Subtotal (95% CI)** | | **873** | | **766** | **87.1%** | **0.96 [0.78, 1.19]** |
| Total events | 141 | | 129 | | | |
| Heterogeneity: Chi² = 19.09, df = 16 (P = 0.26); I² = 16% | | | | | | |
| Test for overall effect: Z = 0.36 (P = 0.72) | | | | | | |
| **Total (95% CI)** | | **1023** | | **889** | **100.0%** | **0.91 [0.74, 1.11]** |
| Total events | 154 | | 148 | | | |
| Heterogeneity: Chi² = 22.26, df = 19 (P = 0.27); I² = 15% | | | | | | |
| Test for overall effect: Z = 0.93 (P = 0.35) | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**2.16 Treatment acceptability: 1. Leaving the study early (at FU)**

| Study or Subgroup | CBT Events | CBT Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **2.16.1 FU (Group CBT)** | | | | | | |
| BARROWCLOUGH2006 | 5 | 57 | 10 | 46 | 3.5% | 0.40 [0.15, 1.10] |
| BECHDOLF2004 | 24 | 40 | 21 | 48 | 14.8% | 1.37 [0.91, 2.06] |
| WYKES2005 | 8 | 45 | 7 | 40 | 4.1% | 1.02 [0.40, 2.55] |
| LECOMTE2008 | 13 | 48 | 14 | 27 | 8.7% | 0.52 [0.29, 0.94] |
| **Subtotal (95% CI)** | | **190** | | **161** | **31.1%** | **0.78 [0.42, 1.45]** |
| Total events | 50 | | 52 | | | |
| Heterogeneity: Tau² = 0.27; Chi² = 10.11, df = 3 (P = 0.02); I² = 70% | | | | | | |
| Test for overall effect: Z = 0.79 (P = 0.43) | | | | | | |
| **2.16.2 FU (Individual CBT)** | | | | | | |
| Tarrier1998 | 10 | 33 | 2 | 28 | 1.8% | 4.24 [1.01, 17.77] |
| PENADES2006 | 4 | 20 | 3 | 20 | 2.0% | 1.33 [0.34, 5.21] |
| Drury1996 | 11 | 30 | 14 | 32 | 8.2% | 0.84 [0.45, 1.55] |
| DURHAM2003 | 1 | 22 | 4 | 21 | 0.8% | 0.24 [0.03, 1.96] |
| TROWER2004 | 4 | 18 | 5 | 20 | 2.7% | 0.89 [0.28, 2.81] |
| JACKSON2007 | 3 | 31 | 4 | 31 | 1.8% | 0.75 [0.18, 3.08] |
| Turkington2002 | 46 | 257 | 40 | 165 | 16.5% | 0.74 [0.51, 1.08] |
| Lewis2002 | 26 | 101 | 31 | 102 | 13.3% | 0.85 [0.54, 1.32] |
| STARTUP2004 | 14 | 47 | 13 | 43 | 7.8% | 0.99 [0.52, 1.85] |
| RECTOR2003 | 8 | 29 | 8 | 21 | 5.2% | 0.72 [0.32, 1.62] |
| BACH2002 | 5 | 40 | 5 | 40 | 2.7% | 1.00 [0.31, 3.19] |
| VALMAGGIA2005 | 11 | 36 | 9 | 26 | 6.2% | 0.88 [0.43, 1.82] |
| **Subtotal (95% CI)** | | **664** | | **549** | **68.9%** | **0.85 [0.69, 1.04]** |
| Total events | 143 | | 138 | | | |
| Heterogeneity: Tau² = 0.00; Chi² = 7.71, df = 11 (P = 0.74); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.57 (P = 0.12) | | | | | | |
| **Total (95% CI)** | | **854** | | **710** | **100.0%** | **0.87 [0.71, 1.05]** |
| Total events | 193 | | 190 | | | |
| Heterogeneity: Tau² = 0.02; Chi² = 17.77, df = 15 (P = 0.27); I² = 16% | | | | | | |
| Test for overall effect: Z = 1.43 (P = 0.15) | | | | | | |

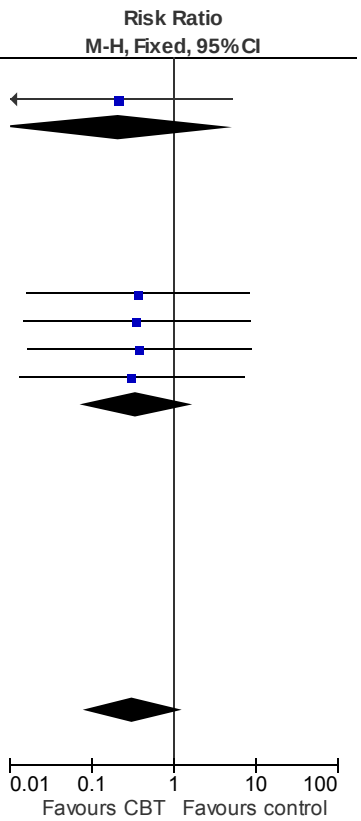



**3 CBT versus any control - subgroup analysis by duration**

# Psychological clinical evidence: CBT (subgroup analyses)

**3.1 Mortality (at end of treatment)**

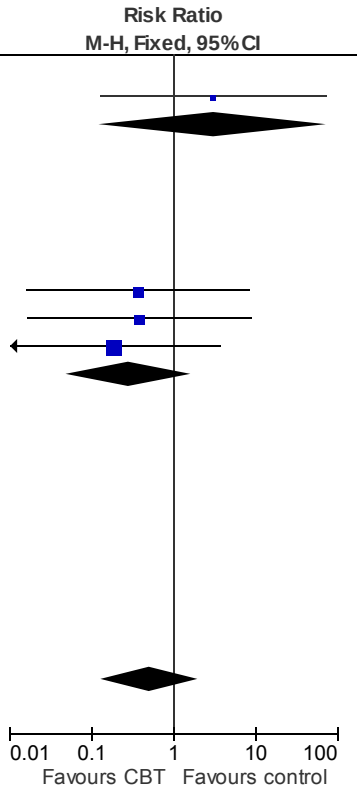
| Study or Subgroup | CBT Events | CBT Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.1.1 Suicide: (Short: 0-11 wks)** | | | | | | |
| Turkington2002 | 0 | 257 | 1 | 165 | 23.8% | 0.21 [0.01, 5.23] |
| **Subtotal (95% CI)** | | **257** | | **165** | **23.8%** | **0.21 [0.01, 5.23]** |
| Total events | 0 | | 1 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.94 (P = 0.34) | | | | | | |
| **3.1.2 Suicide: (Medium: 12 - 51 wks)** | | | | | | |
| TROWER2004 | 0 | 18 | 1 | 20 | 18.6% | 0.37 [0.02, 8.51] |
| GARETY2007 | 0 | 133 | 1 | 140 | 19.0% | 0.35 [0.01, 8.53] |
| Kuipers1997 | 0 | 28 | 1 | 32 | 18.3% | 0.38 [0.02, 8.95] |
| STARTUP2004 | 0 | 47 | 1 | 43 | 20.4% | 0.31 [0.01, 7.31] |
| **Subtotal (95% CI)** | | **226** | | **235** | **76.2%** | **0.35 [0.07, 1.70]** |
| Total events | 0 | | 4 | | | |
| Heterogeneity: Chi² = 0.01, df = 3 (P = 1.00); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.30 (P = 0.19) | | | | | | |
| **3.1.3 Suicide: (Long: >51wks)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **Total (95% CI)** | | **483** | | **400** | **100.0%** | **0.32 [0.08, 1.30]** |
| Total events | 0 | | 5 | | | |
| Heterogeneity: Chi² = 0.08, df = 4 (P = 1.00); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.59 (P = 0.11) | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**3.2 Mortality (at FU)**

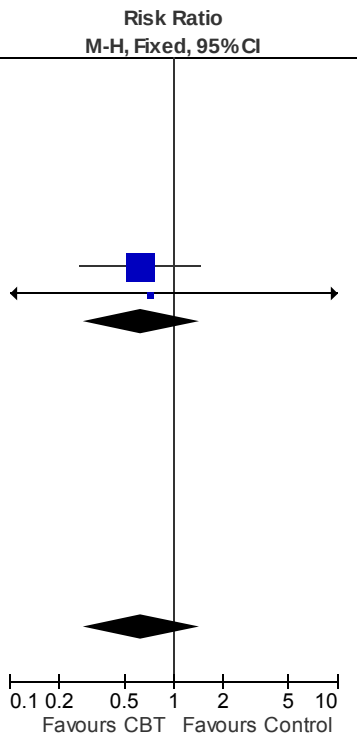
| Study or Subgroup | CBT Events | CBT Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.2.1 Suicide: (Short: 0-11wks)** | | | | | | |
| Lewis2002 | 1 | 101 | 0 | 102 | 8.4% | 3.03 [0.12, 73.50] |
| **Subtotal (95% CI)** | | **101** | | **102** | **8.4%** | **3.03 [0.12, 73.50]** |
| Total events | 1 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.68 (P = 0.50) | | | | | | |
| **3.2.2 Suicide: (Medium: 12-51 wks)** | | | | | | |
| TROWER2004 | 0 | 18 | 1 | 20 | 24.0% | 0.37 [0.02, 8.51] |
| Kuipers1997 | 0 | 28 | 1 | 32 | 23.6% | 0.38 [0.02, 8.95] |
| STARTUP2004 | 0 | 47 | 2 | 43 | 44.0% | 0.18 [0.01, 3.71] |
| **Subtotal (95% CI)** | | **93** | | **95** | **91.6%** | **0.28 [0.05, 1.66]** |
| Total events | 0 | | 4 | | | |
| Heterogeneity: Chi² = 0.14, df = 2 (P = 0.93); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.40 (P = 0.16) | | | | | | |
| **3.2.3 Suicide: (Long >51wks)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **Total (95% CI)** | | **194** | | **197** | **100.0%** | **0.51 [0.13, 2.01]** |
| Total events | 1 | | 4 | | | |
| Heterogeneity: Chi² = 1.72, df = 3 (P = 0.63); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.96 (P = 0.34) | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**3.3 Global state: 1. Relapse (at end of treatment)**

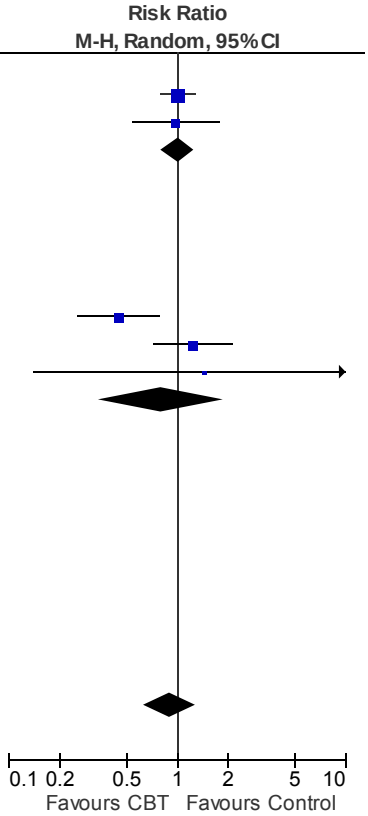
| Study or Subgroup | CBT Events | CBT Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.3.1 Relapse: (Short: 0-11wks)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **3.3.2 Relapse: (Medium: 12-51wks )** | | | | | | |
| Kuipers1997 | 6 | 28 | 11 | 32 | 89.8% | 0.62 [0.26, 1.47] |
| VALMAGGIA2005 | 1 | 36 | 1 | 26 | 10.2% | 0.72 [0.05, 11.02] |
| **Subtotal (95% CI)** | | **64** | | **58** | **100.0%** | **0.63 [0.28, 1.44]** |
| Total events | 7 | | 12 | | | |
| Heterogeneity: Chi² = 0.01, df = 1 (P = 0.92); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.09 (P = 0.27) | | | | | | |
| **3.3.3 Relapse: (Long >51wks)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **Total (95% CI)** | | **64** | | **58** | **100.0%** | **0.63 [0.28, 1.44]** |
| Total events | 7 | | 12 | | | |
| Heterogeneity: Chi² = 0.01, df = 1 (P = 0.92); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.09 (P = 0.27) | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**3.4 Global state: 1. Relapse (at FU)**

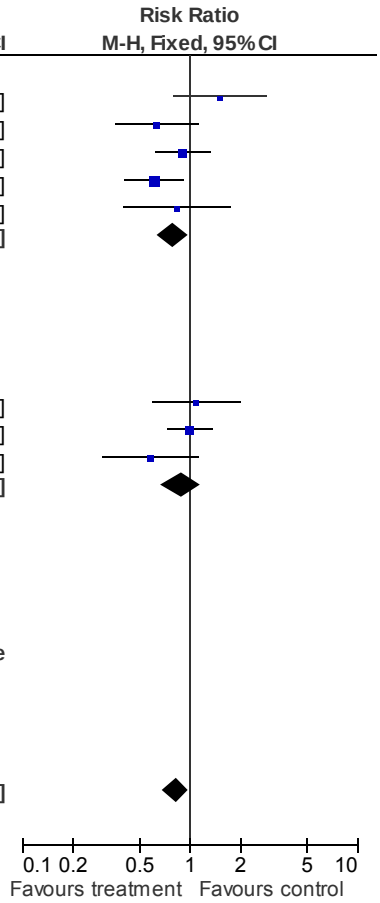
| Study or Subgroup | CBT Events | CBT Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **3.4.1 FU (up to 24 months) (Short: 0-11wks)** | | | | | | |
| Lewis2002 | 57 | 101 | 57 | 102 | 36.3% | 1.01 [0.79, 1.29] |
| BECHDOLF2004 | 13 | 40 | 16 | 48 | 19.4% | 0.97 [0.54, 1.78] |
| **Subtotal (95% CI)** | | **141** | | **150** | **55.7%** | **1.00 [0.80, 1.26]** |
| Total events | 70 | | 73 | | | |
| Heterogeneity: Tau² = 0.00; Chi² = 0.01, df = 1 (P = 0.91); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.04 (P = 0.97) | | | | | | |
| **3.4.2 FU (up to 24 months) (Medium 12-51wks)** | | | | | | |
| GUMLEY2003 | 13 | 72 | 29 | 72 | 20.6% | 0.45 [0.25, 0.79] |
| BARROWCLOUGH2006 | 20 | 57 | 16 | 56 | 21.5% | 1.23 [0.71, 2.12] |
| VALMAGGIA2005 | 2 | 36 | 1 | 26 | 2.2% | 1.44 [0.14, 15.10] |
| **Subtotal (95% CI)** | | **165** | | **154** | **44.3%** | **0.80 [0.34, 1.88]** |
| Total events | 35 | | 46 | | | |
| Heterogeneity: Tau² = 0.34; Chi² = 6.63, df = 2 (P = 0.04); I² = 70% | | | | | | |
| Test for overall effect: Z = 0.51 (P = 0.61) | | | | | | |
| **3.4.3 FU (up to 24 months) (Long: >51wks)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **Total (95% CI)** | | **306** | | **304** | **100.0%** | **0.89 [0.63, 1.27]** |
| Total events | 105 | | 119 | | | |
| Heterogeneity: Tau² = 0.07; Chi² = 8.14, df = 4 (P = 0.09); I² = 51% | | | | | | |
| Test for overall effect: Z = 0.63 (P = 0.53) | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**3.5 Service outcome: 1. Hospital admission (up to 24 months FU)**

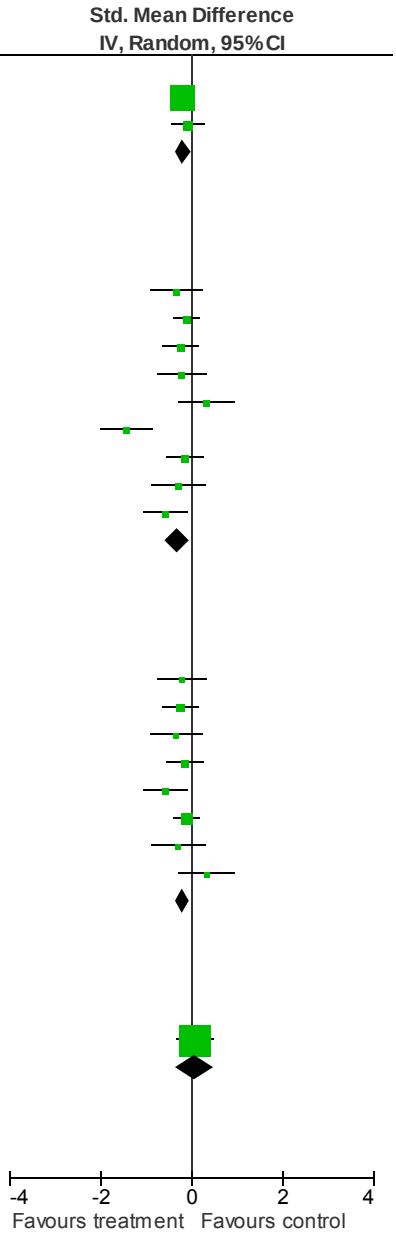
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.5.1 At FU (up to 24 months FU) (Short: 0-11wks)** | | | | | | |
| Tarrier1998 | 16 | 33 | 9 | 28 | 5.3% | 1.51 [0.79, 2.87] |
| BACH2002 | 12 | 40 | 19 | 40 | 10.4% | 0.63 [0.36, 1.12] |
| Lewis2002 | 33 | 101 | 37 | 102 | 20.1% | 0.90 [0.62, 1.32] |
| Turkington2002 | 36 | 257 | 38 | 165 | 25.3% | 0.61 [0.40, 0.92] |
| BECHDOLF2004 | 9 | 40 | 13 | 48 | 6.4% | 0.83 [0.40, 1.74] |
| **Subtotal (95% CI)** | | **471** | | **383** | **67.5%** | **0.79 [0.63, 0.99]** |
| Total events | 106 | | 116 | | | |
| Heterogeneity: Chi² = 6.49, df = 4 (P = 0.17); I² = 38% | | | | | | |
| Test for overall effect: Z = 2.07 (P = 0.04) | | | | | | |
| **3.5.2 At FU (up to 24 months FU) (Medium: 12-51wks)** | | | | | | |
| JACKSON2007 | 13 | 31 | 12 | 31 | 6.5% | 1.08 [0.59, 1.99] |
| Sensky2000 | 29 | 46 | 28 | 44 | 15.6% | 0.99 [0.72, 1.36] |
| GUMLEY2003 | 11 | 72 | 19 | 72 | 10.4% | 0.58 [0.30, 1.13] |
| **Subtotal (95% CI)** | | **149** | | **147** | **32.5%** | **0.88 [0.67, 1.15]** |
| Total events | 53 | | 59 | | | |
| Heterogeneity: Chi² = 2.53, df = 2 (P = 0.28); I² = 21% | | | | | | |
| Test for overall effect: Z = 0.94 (P = 0.35) | | | | | | |
| **3.5.3 At FU (up to 24 months FU) (Long: >51wks)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **Total (95% CI)** | | **620** | | **530** | **100.0%** | **0.82 [0.69, 0.97]** |
| Total events | 159 | | 175 | | | |
| Heterogeneity: Chi² = 9.76, df = 7 (P = 0.20); I² = 28% | | | | | | |
| Test for overall effect: Z = 2.25 (P = 0.02) | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**3.6 Mental State: 1. Total symptom score (end of treatment) (lower = better)**

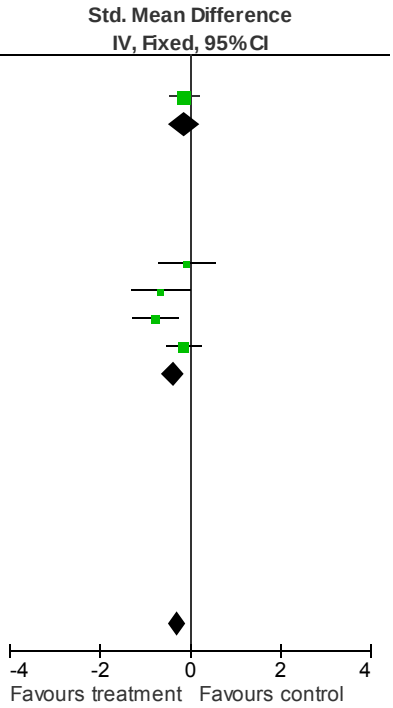
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.6.1 Total symptom score at end of treatment (Short: 0-12wks) (all data)** | | | | | | | | |
| Turkington2002 | 19.62 | 13.34 | 257 | 22.61 | 13.21 | 165 | 78.3% | -0.22 [-0.42, -0.03] |
| Lewis2002 | 68.12 | 21.38 | 52 | 70.15 | 21.46 | 59 | 21.7% | -0.09 [-0.47, 0.28] |
| **Subtotal (95% CI)** | | | **309** | | | **224** | **100.0%** | **-0.20 [-0.37, -0.02]** |
| Heterogeneity: Tau² = 0.00; Chi² = 0.37, df = 1 (P = 0.54); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 2.22 (P = 0.03) | | | | | | | | |
| **3.6.2 Total symptom score at end of treatment (Medium: 12-51wks)** | | | | | | | | |
| Kuipers1997 | 19.87 | 8.46 | 23 | 22.67 | 7.43 | 24 | 9.8% | -0.35 [-0.92, 0.23] |
| GARETY2007NCP | 57.63 | 15.21 | 90 | 59.66 | 17.27 | 90 | 14.9% | -0.12 [-0.42, 0.17] |
| BARROWCLOUGH2006 | 57.78 | 13.15 | 54 | 61.44 | 15.83 | 45 | 12.9% | -0.25 [-0.65, 0.15] |
| LECOMTE2008 | 35.9 | 8.4 | 36 | 38.4 | 13.9 | 20 | 10.2% | -0.23 [-0.78, 0.32] |
| DURHAM2003 | 96.2 | 17.7 | 22 | 90.6 | 17.5 | 19 | 9.2% | 0.31 [-0.31, 0.93] |
| ENGLAND2007 | 36.9 | 9.6 | 44 | 50.1 | 7.8 | 21 | 9.7% | -1.44 [-2.02, -0.86] |
| Sensky2000 | 20.5 | 12.89 | 46 | 22.9 | 17.23 | 44 | 12.6% | -0.16 [-0.57, 0.26] |
| GARETY2007CP | 54.09 | 12.49 | 21 | 58.35 | 14.03 | 23 | 9.5% | -0.31 [-0.91, 0.28] |
| STARTUP2004 | 30.2 | 10 | 34 | 36.9 | 12.1 | 32 | 11.2% | -0.60 [-1.09, -0.10] |
| **Subtotal (95% CI)** | | | **370** | | | **318** | **100.0%** | **-0.34 [-0.60, -0.07]** |
| Heterogeneity: Tau² = 0.10; Chi² = 22.00, df = 8 (P = 0.005); I² = 64% | | | | | | | | |
| Test for overall effect: Z = 2.49 (P = 0.01) | | | | | | | | |
| **3.6.4 Total symptom score at end of treatment (Medium: ENGLAND2007 removed)** | | | | | | | | |
| LECOMTE2008 | 35.9 | 8.4 | 36 | 38.4 | 13.9 | 20 | 8.4% | -0.23 [-0.78, 0.32] |
| BARROWCLOUGH2006 | 57.78 | 13.15 | 54 | 61.44 | 15.83 | 45 | 16.0% | -0.25 [-0.65, 0.15] |
| Kuipers1997 | 19.87 | 8.46 | 23 | 22.67 | 7.43 | 24 | 7.6% | -0.35 [-0.92, 0.23] |
| Sensky2000 | 20.5 | 12.89 | 46 | 22.9 | 17.23 | 44 | 14.7% | -0.16 [-0.57, 0.26] |
| STARTUP2004 | 30.2 | 10 | 34 | 36.9 | 12.1 | 32 | 10.3% | -0.60 [-1.09, -0.10] |
| GARETY2007NCP | 57.63 | 15.21 | 90 | 59.66 | 17.27 | 90 | 29.4% | -0.12 [-0.42, 0.17] |
| GARETY2007CP | 54.09 | 12.49 | 21 | 58.35 | 14.03 | 23 | 7.1% | -0.31 [-0.91, 0.28] |
| DURHAM2003 | 96.2 | 17.7 | 22 | 90.6 | 17.5 | 19 | 6.6% | 0.31 [-0.31, 0.93] |
| **Subtotal (95% CI)** | | | **326** | | | **297** | **100.0%** | **-0.21 [-0.37, -0.05]** |
| Heterogeneity: Tau² = 0.00; Chi² = 5.89, df = 7 (P = 0.55); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 2.58 (P = 0.010) | | | | | | | | |
| **3.6.5 Total symptom score at end of treatment (Long >51wks)** | | | | | | | | |
| JACKSON2005 | 15.23 | 8.98 | 45 | 14.76 | 8.11 | 46 | 100.0% | 0.05 [-0.36, 0.47] |
| **Subtotal (95% CI)** | | | **45** | | | **46** | **100.0%** | **0.05 [-0.36, 0.47]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.26 (P = 0.79) | | | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**3.7 Mental State: 1. Total symptom score (up to 6 months FU) (lower = better)**

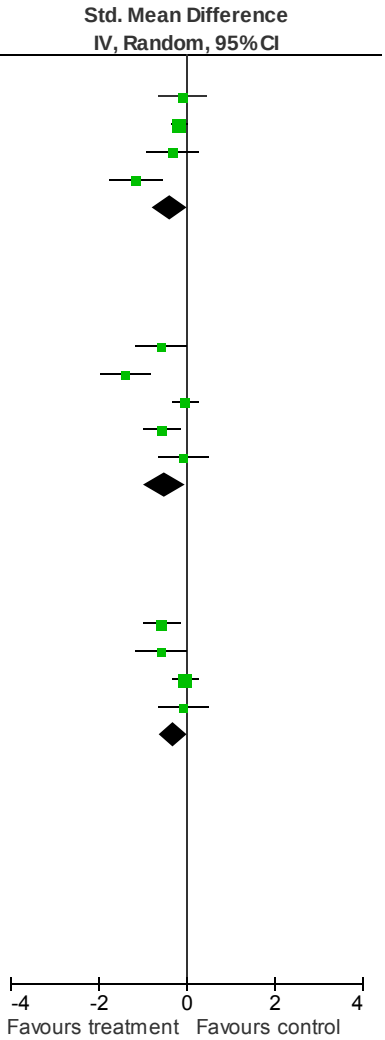
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.7.1 Mental State: Continuous measures - total symptoms (Short: 0-11wks)** | | | | | | | | |
| Lewis2002 | 61.73 | 19.69 | 78 | 64.38 | 16.79 | 60 | 37.3% | -0.14 [-0.48, 0.19] |
| **Subtotal (95% CI)** | | | **78** | | | **60** | **37.3%** | **-0.14 [-0.48, 0.19]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.83 (P = 0.41) | | | | | | | | |
| **3.7.2 Mental State: Continuous measures - total symptoms (Medium 12-51wks)** | | | | | | | | |
| DURHAM2003 | 87 | 23.1 | 21 | 88.8 | 18 | 17 | 10.4% | -0.08 [-0.72, 0.56] |
| LECOMTE2008 | 33.4 | 7.8 | 32 | 39.3 | 10.9 | 13 | 9.7% | -0.66 [-1.32, -0.00] |
| STARTUP2004 | 28.2 | 9 | 33 | 36.1 | 11 | 30 | 16.0% | -0.78 [-1.29, -0.27] |
| BARROWCLOUGH2006 | 54.87 | 13.07 | 52 | 56.96 | 14.08 | 45 | 26.5% | -0.15 [-0.55, 0.25] |
| **Subtotal (95% CI)** | | | **138** | | | **105** | **62.7%** | **-0.38 [-0.64, -0.12]** |
| Heterogeneity: Chi² = 5.08, df = 3 (P = 0.17); I² = 41% | | | | | | | | |
| Test for overall effect: Z = 2.87 (P = 0.004) | | | | | | | | |
| **3.7.3 Mental State: Continuous measures - total symptoms (Long: >51wks)** | | | | | | | | |
| **Subtotal (95% CI)** | | | **0** | | | **0** | | **Not estimable** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Not applicable | | | | | | | | |
| **Total (95% CI)** | | | **216** | | | **165** | **100.0%** | **-0.29 [-0.50, -0.09]** |
| Heterogeneity: Chi² = 6.29, df = 4 (P = 0.18); I² = 36% | | | | | | | | |
| Test for overall effect: Z = 2.78 (P = 0.005) | | | | | | | | |
| Test for subgroup differences: Chi² = 1.20, df = 1 (P = 0.27), I² = 17.0% | | | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**3.8 Mental State: 1. Total symptom score (at 9-18 months FU) (lower = better)**

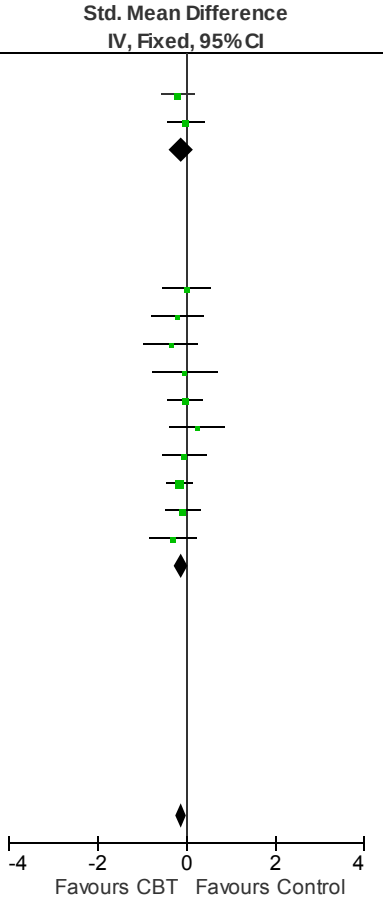
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.8.1 Mental State: Continuous measures - total symptoms (Short: 0-11 wks) (all data)** | | | | | | | | |
| LEWIS2002M | 71.2 | 15.8 | 25 | 73.2 | 21.9 | 26 | 22.6% | -0.10 [-0.65, 0.45] |
| Turkington2002 | 18.13 | 12.66 | 257 | 20.67 | 14.54 | 165 | 35.6% | -0.19 [-0.38, 0.01] |
| LEWIS2002N | 51.5 | 7.5 | 24 | 54.5 | 10.1 | 21 | 21.2% | -0.33 [-0.92, 0.26] |
| LEWIS2002L | 53.7 | 13.3 | 26 | 69.5 | 13.6 | 23 | 20.6% | -1.16 [-1.77, -0.55] |
| **Subtotal (95% CI)** | | | **332** | | | **235** | **100.0%** | **-0.40 [-0.80, 0.00]** |
| Heterogeneity: Tau² = 0.11; Chi² = 9.18, df = 3 (P = 0.03); I² = 67% | | | | | | | | |
| Test for overall effect: Z = 1.94 (P = 0.05) | | | | | | | | |
| **3.8.2 Mental State: Continuous measures - total symptoms (Medium: 12-51wks)** | | | | | | | | |
| Kuipers1997 | 18.78 | 8.19 | 23 | 23.5 | 7.42 | 24 | 18.3% | -0.59 [-1.18, -0.01] |
| ENGLAND2007 | 36.3 | 10.1 | 44 | 50.1 | 8.7 | 21 | 18.5% | -1.41 [-1.99, -0.83] |
| GARETY2007NCP | 56.68 | 12.98 | 87 | 57.32 | 15.43 | 85 | 23.4% | -0.04 [-0.34, 0.25] |
| Sensky2000 | 15.1 | 11.53 | 46 | 26.6 | 25.19 | 44 | 21.3% | -0.59 [-1.01, -0.16] |
| GARETY2007CP | 54.41 | 16.7 | 22 | 56.04 | 18.02 | 24 | 18.5% | -0.09 [-0.67, 0.49] |
| **Subtotal (95% CI)** | | | **222** | | | **198** | **100.0%** | **-0.52 [-0.99, -0.06]** |
| Heterogeneity: Tau² = 0.22; Chi² = 19.43, df = 4 (P = 0.0006); I² = 79% | | | | | | | | |
| Test for overall effect: Z = 2.21 (P = 0.03) | | | | | | | | |
| **3.8.3 Mental State: Continuous measures - total symptoms (Medium:) (england removed)** | | | | | | | | |
| Sensky2000 | 15.1 | 11.53 | 46 | 26.6 | 25.19 | 44 | 26.9% | -0.59 [-1.01, -0.16] |
| Kuipers1997 | 18.78 | 8.19 | 23 | 23.5 | 7.42 | 24 | 18.6% | -0.59 [-1.18, -0.01] |
| GARETY2007NCP | 56.68 | 12.98 | 87 | 57.32 | 15.43 | 85 | 35.5% | -0.04 [-0.34, 0.25] |
| GARETY2007CP | 54.41 | 16.7 | 22 | 56.04 | 18.02 | 24 | 18.9% | -0.09 [-0.67, 0.49] |
| **Subtotal (95% CI)** | | | **178** | | | **177** | **100.0%** | **-0.30 [-0.62, 0.01]** |
| Heterogeneity: Tau² = 0.05; Chi² = 5.86, df = 3 (P = 0.12); I² = 49% | | | | | | | | |
| Test for overall effect: Z = 1.88 (P = 0.06) | | | | | | | | |
| **3.8.4 Mental State: Continuous measures - total symptoms (Long: >51wks)** | | | | | | | | |
| **Subtotal (95% CI)** | | | **0** | | | **0** | | **Not estimable** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Not applicable | | | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**3.9 Mental state: 2. Continuous measures - positive symptoms (at end of treatment) (lower = better)**

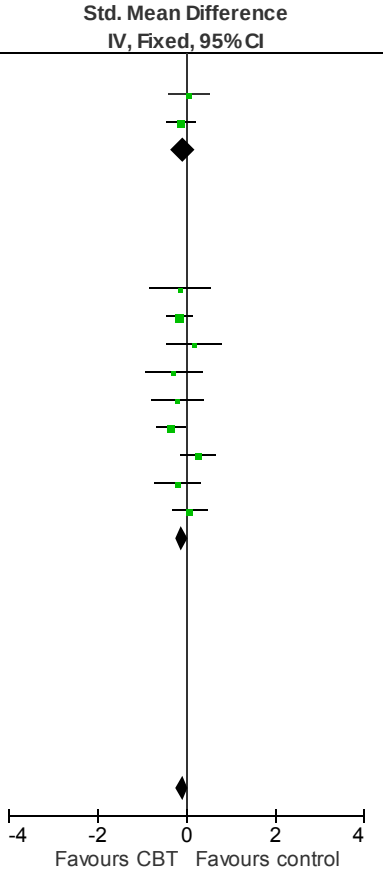
| Study or Subgroup | CBT Mean | CBT SD | CBT Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.9.1 Positive symptom score (Short: 0-11wks)** | | | | | | | | |
| Lewis2002 | 14.94 | 6.61 | 52 | 16.31 | 6.9 | 59 | 12.3% | -0.20 [-0.57, 0.17] |
| BECHDOLF2004 | 11.3 | 4.2 | 40 | 11.4 | 4.5 | 48 | 9.8% | -0.02 [-0.44, 0.40] |
| **Subtotal (95% CI)** | | | **92** | | | **107** | **22.1%** | **-0.12 [-0.40, 0.16]** |
| Heterogeneity: Chi² = 0.39, df = 1 (P = 0.53); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.86 (P = 0.39) | | | | | | | | |
| **3.9.2 Positive symptom score (Medium 12-51wks)** | | | | | | | | |
| LECOMTE2008 | 1.7 | 0.73 | 36 | 1.7 | 0.99 | 20 | 5.8% | 0.00 [-0.55, 0.55] |
| GARETY2007CP | 13.95 | 5.69 | 21 | 15.09 | 5.23 | 23 | 4.9% | -0.21 [-0.80, 0.39] |
| RECTOR2003 | 12 | 4 | 24 | 13.9 | 6.7 | 18 | 4.5% | -0.35 [-0.97, 0.27] |
| CATHER2005 | 10.93 | 3.33 | 15 | 11.08 | 3.44 | 13 | 3.1% | -0.04 [-0.79, 0.70] |
| BARROWCLOUGH2006 | 16.04 | 5 | 54 | 16.2 | 4.34 | 45 | 11.0% | -0.03 [-0.43, 0.36] |
| PENADES2006 | 6.2 | 2.4 | 20 | 5.7 | 1.7 | 20 | 4.4% | 0.24 [-0.39, 0.86] |
| JACKSON2007 | 7.45 | 4.05 | 31 | 7.65 | 4.03 | 31 | 6.9% | -0.05 [-0.55, 0.45] |
| GARETY2007NCP | 15.39 | 6.37 | 90 | 16.49 | 6.47 | 90 | 20.1% | -0.17 [-0.46, 0.12] |
| LECLERC2000 | 2.29 | 0.89 | 55 | 2.37 | 1.01 | 44 | 10.9% | -0.08 [-0.48, 0.31] |
| VALMAGGIA2005 | 15.09 | 3.91 | 35 | 16.28 | 3.76 | 23 | 6.1% | -0.30 [-0.83, 0.22] |
| **Subtotal (95% CI)** | | | **381** | | | **327** | **77.9%** | **-0.11 [-0.26, 0.04]** |
| Heterogeneity: Chi² = 2.96, df = 9 (P = 0.97); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.46 (P = 0.14) | | | | | | | | |
| **3.9.3 Positive symptom score (Long: >51wks)** | | | | | | | | |
| **Subtotal (95% CI)** | | | **0** | | | **0** | | **Not estimable** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Not applicable | | | | | | | | |
| **Total (95% CI)** | | | **473** | | | **434** | **100.0%** | **-0.11 [-0.24, 0.02]** |
| Heterogeneity: Chi² = 3.35, df = 11 (P = 0.99); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.69 (P = 0.09) | | | | | | | | |
| Test for subgroup differences: Chi² = 0.01, df = 1 (P = 0.94), I² = 0% | | | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**3.10 Mental state: 2. Continuous measures - positive symptoms (up to 12 months FU) (lower = better)**

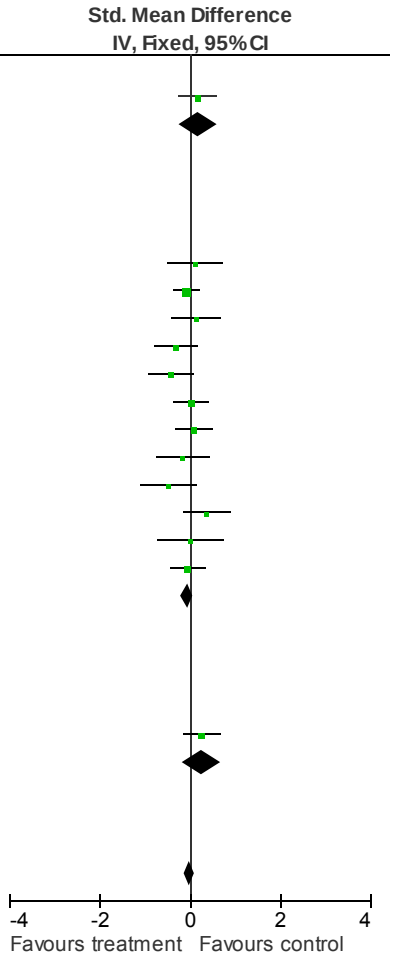
| Study or Subgroup | CBT Mean | CBT SD | CBT Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.10.1 Positive symptom score (Short: 0-11wks)** | | | | | | | | |
| BECHDOLF2004 | 11.6 | 4.3 | 31 | 11.4 | 4.8 | 40 | 7.5% | 0.04 [-0.43, 0.51] |
| Lewis2002 | 13.03 | 5.06 | 78 | 13.67 | 5.33 | 60 | 14.6% | -0.12 [-0.46, 0.21] |
| **Subtotal (95% CI)** | | | **109** | | | **100** | **22.1%** | **-0.07 [-0.34, 0.21]** |
| Heterogeneity: Chi² = 0.32, df = 1 (P = 0.57); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.48 (P = 0.63) | | | | | | | | |
| **3.10.2 Positive symptom score (Medium: 12-51wks)** | | | | | | | | |
| RECTOR2003 | 10.9 | 3.4 | 21 | 11.5 | 4.7 | 13 | 3.4% | -0.15 [-0.84, 0.54] |
| GARETY2007NCP | 15.39 | 6.37 | 90 | 16.49 | 6.47 | 90 | 19.3% | -0.17 [-0.46, 0.12] |
| PENADES2006 | 6.2 | 2.4 | 20 | 5.8 | 2.2 | 20 | 4.3% | 0.17 [-0.45, 0.79] |
| LECOMTE2008 | 1.7 | 0.68 | 32 | 1.9 | 0.66 | 13 | 3.9% | -0.29 [-0.94, 0.36] |
| GARETY2007CP | 13.95 | 5.69 | 21 | 15.09 | 5.23 | 23 | 4.7% | -0.21 [-0.80, 0.39] |
| GUMLEY2003 | 8.85 | 2.09 | 72 | 9.88 | 3.61 | 72 | 15.3% | -0.35 [-0.68, -0.02] |
| BARROWCLOUGH2006 | 16.5 | 4.88 | 52 | 15.3 | 4.24 | 46 | 10.4% | 0.26 [-0.14, 0.66] |
| VALMAGGIA2005 | 14.64 | 3.7 | 35 | 15.44 | 3.94 | 23 | 5.9% | -0.21 [-0.74, 0.32] |
| LECLERC2000 | 2.22 | 0.83 | 55 | 2.15 | 0.99 | 44 | 10.5% | 0.08 [-0.32, 0.47] |
| **Subtotal (95% CI)** | | | **398** | | | **344** | **77.9%** | **-0.11 [-0.25, 0.04]** |
| Heterogeneity: Chi² = 7.64, df = 8 (P = 0.47); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.42 (P = 0.16) | | | | | | | | |
| **3.10.3 Positive symptom score (Long: >51wks)** | | | | | | | | |
| **Subtotal (95% CI)** | | | **0** | | | **0** | | **Not estimable** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Not applicable | | | | | | | | |
| **Total (95% CI)** | | | **507** | | | **444** | **100.0%** | **-0.10 [-0.23, 0.03]** |
| Heterogeneity: Chi² = 8.02, df = 10 (P = 0.63); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.48 (P = 0.14) | | | | | | | | |
| Test for subgroup differences: Chi² = 0.06, df = 1 (P = 0.80), I² = 0% | | | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**3.11 Mental state: 3. Continuous measures - negative symptoms (at end of treatment) (lower = better)**

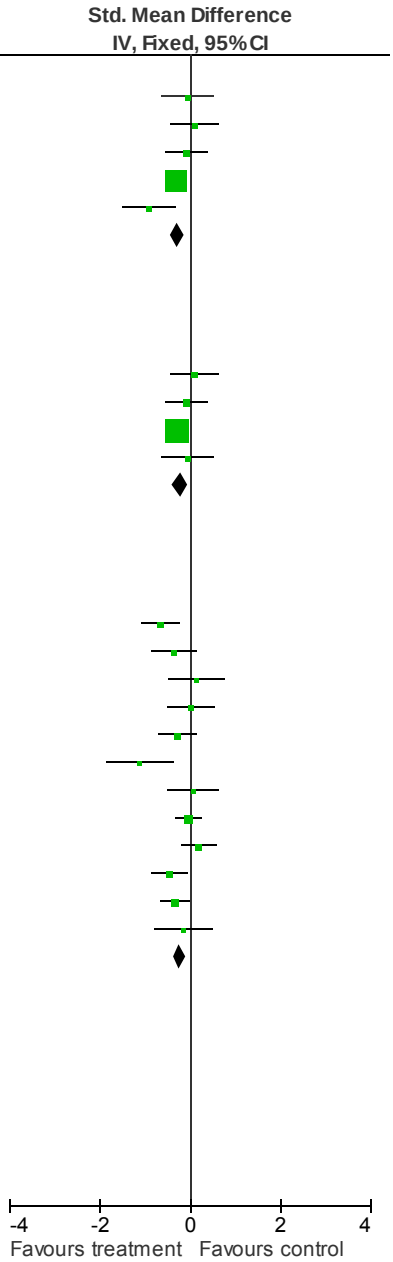
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.11.1 Negative symptom score (Short: 0-12wks)** | | | | | | | | |
| BECHDOLF2004 | 13.9 | 4.5 | 40 | 13.1 | 5.2 | 48 | 8.5% | 0.16 [-0.26, 0.58] |
| **Subtotal (95% CI)** | | | **40** | | | **48** | **8.5%** | **0.16 [-0.26, 0.58]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.76 (P = 0.45) | | | | | | | | |
| **3.11.2 Negative symptom score (Medium 12-51 wks)** | | | | | | | | |
| PENADES2006 | 13.1 | 4.2 | 20 | 12.6 | 4.7 | 20 | 3.9% | 0.11 [-0.51, 0.73] |
| GARETY2007NCP | 12.06 | 4.92 | 90 | 12.62 | 6.32 | 90 | 17.6% | -0.10 [-0.39, 0.19] |
| LECOMTE2008 | 1.6 | 0.71 | 36 | 1.5 | 0.86 | 20 | 5.0% | 0.13 [-0.42, 0.68] |
| STARTUP2004 | 5.7 | 4 | 34 | 7 | 4.1 | 32 | 6.4% | -0.32 [-0.80, 0.17] |
| JACKSON2007 | 17.67 | 10.19 | 31 | 22.88 | 12.87 | 31 | 5.9% | -0.44 [-0.95, 0.06] |
| LECLERC2000 | 2.09 | 0.85 | 55 | 2.08 | 0.8 | 44 | 9.6% | 0.01 [-0.38, 0.41] |
| Sensky2000 | 21.95 | 16.53 | 44 | 20.68 | 20.93 | 44 | 8.6% | 0.07 [-0.35, 0.48] |
| GARETY2007CP | 12.33 | 4.94 | 21 | 13.26 | 5.58 | 23 | 4.3% | -0.17 [-0.77, 0.42] |
| RECTOR2003 | 13.1 | 4.5 | 24 | 16 | 7.2 | 18 | 3.9% | -0.49 [-1.11, 0.13] |
| VALMAGGIA2005 | 12.95 | 3.51 | 35 | 11.74 | 2.91 | 23 | 5.3% | 0.36 [-0.17, 0.89] |
| CATHER2005 | 14.87 | 4.97 | 15 | 14.92 | 5.72 | 13 | 2.7% | -0.01 [-0.75, 0.73] |
| BARROWCLOUGH2006 | 13 | 4.81 | 54 | 13.31 | 5.22 | 45 | 9.6% | -0.06 [-0.46, 0.33] |
| **Subtotal (95% CI)** | | | **459** | | | **403** | **82.7%** | **-0.07 [-0.21, 0.06]** |
| Heterogeneity: Chi² = 9.00, df = 11 (P = 0.62); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.04 (P = 0.30) | | | | | | | | |
| **3.11.3 Negative symptom score (Long >51wks)** | | | | | | | | |
| JACKSON2005 | 18.84 | 12.61 | 45 | 15.61 | 13.36 | 46 | 8.8% | 0.25 [-0.17, 0.66] |
| **Subtotal (95% CI)** | | | **45** | | | **46** | **8.8%** | **0.25 [-0.17, 0.66]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.17 (P = 0.24) | | | | | | | | |
| **Total (95% CI)** | | | **544** | | | **497** | **100.0%** | **-0.02 [-0.15, 0.10]** |
| Heterogeneity: Chi² = 11.89, df = 13 (P = 0.54); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.38 (P = 0.70) | | | | | | | | |
| Test for subgroup differences: Chi² = 2.88, df = 2 (P = 0.24), I² = 30.6% | | | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**3.12 Mental state: 3. Continuous measures - negative symptoms (up to 24 months FU) (lower = better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.12.1 Negative symptoms (Short: 0-11wks) (all data)** | | | | | | | | |
| LEWIS2002N | 12.2 | 2.9 | 24 | 12.4 | 3.3 | 21 | 7.4% | -0.06 [-0.65, 0.52] |
| LEWIS2002M | 18 | 5.9 | 25 | 17.4 | 7.1 | 27 | 8.5% | 0.09 [-0.45, 0.63] |
| BECHDOLF2004 | 12.5 | 4 | 31 | 13 | 6.1 | 40 | 11.5% | -0.09 [-0.56, 0.38] |
| Turkington2002 | 3.24 | 2.7 | 257 | 4.13 | 3.06 | 165 | 65.4% | -0.31 [-0.51, -0.12] |
| LEWIS2002L | 12.8 | 4.3 | 26 | 17.6 | 5.8 | 23 | 7.2% | -0.93 [-1.53, -0.34] |
| **Subtotal (95% CI)** | | | **363** | | | **276** | **100.0%** | **-0.28 [-0.44, -0.12]** |
| Heterogeneity: Chi² = 7.68, df = 4 (P = 0.10); I² = 48% | | | | | | | | |
| Test for overall effect: Z = 3.44 (P = 0.0006) | | | | | | | | |
| **3.12.2 Negative symptoms (Short: 0-11wks) (LewisL removed)** | | | | | | | | |
| LEWIS2002M | 18 | 5.9 | 25 | 17.4 | 7.1 | 27 | 9.2% | 0.09 [-0.45, 0.63] |
| BECHDOLF2004 | 12.5 | 4 | 31 | 13 | 6.1 | 40 | 12.4% | -0.09 [-0.56, 0.38] |
| Turkington2002 | 3.24 | 2.7 | 257 | 4.13 | 3.06 | 165 | 70.5% | -0.31 [-0.51, -0.12] |
| LEWIS2002N | 12.2 | 2.9 | 24 | 12.4 | 3.3 | 21 | 7.9% | -0.06 [-0.65, 0.52] |
| **Subtotal (95% CI)** | | | **337** | | | **253** | **100.0%** | **-0.23 [-0.39, -0.06]** |
| Heterogeneity: Chi² = 2.63, df = 3 (P = 0.45); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 2.71 (P = 0.007) | | | | | | | | |
| **3.12.3 Negative symptoms (Medium: 12-51wks)** | | | | | | | | |
| STARTUP2004 | 4.32 | 3.77 | 47 | 7.09 | 4.39 | 43 | 9.0% | -0.67 [-1.10, -0.25] |
| JACKSON2007 | 14.66 | 10.9 | 31 | 19.55 | 14.79 | 31 | 6.4% | -0.37 [-0.87, 0.13] |
| PENADES2006 | 12.9 | 3.8 | 20 | 12.3 | 4.9 | 20 | 4.2% | 0.13 [-0.49, 0.75] |
| VALMAGGIA2005 | 11.76 | 3.42 | 35 | 11.72 | 2.61 | 23 | 5.9% | 0.01 [-0.51, 0.54] |
| Sensky2000 | 18.16 | 17.19 | 44 | 25.07 | 27.39 | 44 | 9.2% | -0.30 [-0.72, 0.12] |
| RECTOR2003 | 10.9 | 4 | 21 | 16.5 | 6 | 13 | 2.9% | -1.13 [-1.88, -0.38] |
| GARETY2007CP | 12.18 | 4.38 | 22 | 11.88 | 5.19 | 25 | 5.0% | 0.06 [-0.51, 0.63] |
| GARETY2007NCP | 11.64 | 4.83 | 87 | 11.91 | 5.21 | 85 | 18.2% | -0.05 [-0.35, 0.25] |
| LECLERC2000 | 2.03 | 0.82 | 55 | 1.89 | 0.66 | 44 | 10.3% | 0.18 [-0.21, 0.58] |
| BARROWCLOUGH2006 | 10.71 | 3.82 | 52 | 12.82 | 5.23 | 45 | 9.9% | -0.46 [-0.87, -0.06] |
| GUMLEY2003 | 10.55 | 4.07 | 72 | 12.22 | 5.36 | 72 | 15.0% | -0.35 [-0.68, -0.02] |
| LECOMTE2008 | 1.4 | 0.63 | 32 | 1.5 | 0.58 | 13 | 3.9% | -0.16 [-0.80, 0.49] |
| **Subtotal (95% CI)** | | | **518** | | | **458** | **100.0%** | **-0.23 [-0.36, -0.10]** |
| Heterogeneity: Chi² = 20.58, df = 11 (P = 0.04); I² = 47% | | | | | | | | |
| Test for overall effect: Z = 3.55 (P = 0.0004) | | | | | | | | |
| **3.12.10 Negative symptoms (Long: >51wks)** | | | | | | | | |
| **Subtotal (95% CI)** | | | **0** | | | **0** | | **Not estimable** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Not applicable | | | | | | | | |

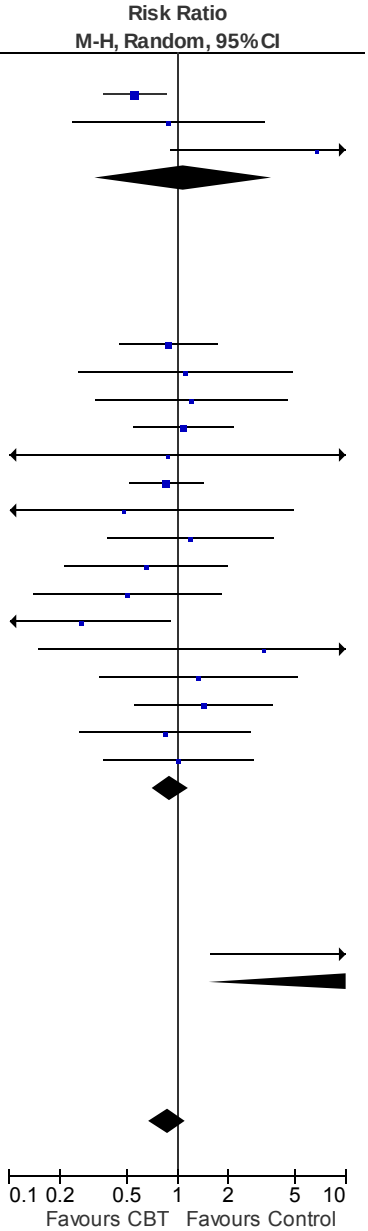



Test for subgroup differences: Chi² = 0.26, df = 2 (P = 0.88), I² = 0%

# Psychological clinical evidence: CBT (subgroup analyses)

**3.15 Treatment acceptability: 1. Leaving the study early (at end of treatment)**

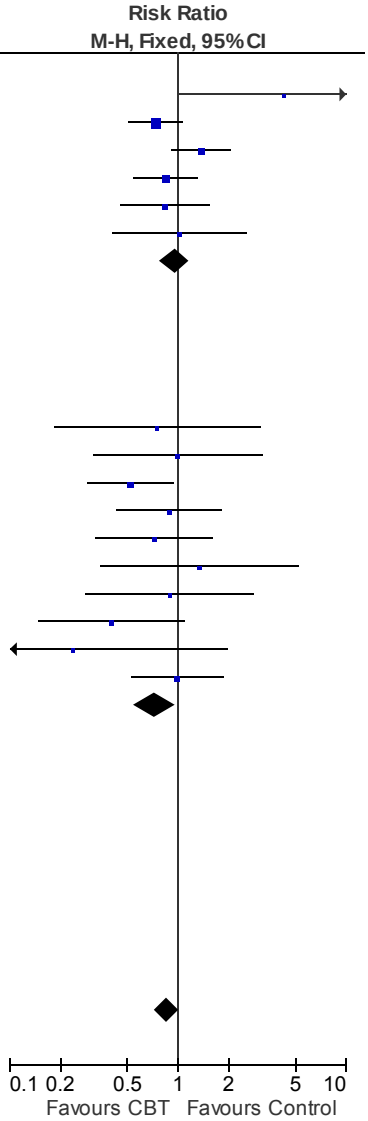
| Study or Subgroup | CBT Events | CBT Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **3.15.1 at end of treatment (Short: 0-11 wks)** | | | | | | |
| Turkington2002 | 32 | 257 | 37 | 165 | 17.7% | 0.56 [0.36, 0.85] |
| WYKES2005 | 4 | 45 | 4 | 40 | 3.3% | 0.89 [0.24, 3.32] |
| Tarrier1998 | 8 | 33 | 1 | 28 | 1.5% | 6.79 [0.90, 51.01] |
| **Subtotal (95% CI)** | | **335** | | **233** | **22.4%** | **1.09 [0.33, 3.64]** |
| Total events | 44 | | 42 | | | |
| Heterogeneity: Tau² = 0.75; Chi² = 6.23, df = 2 (P = 0.04); I² = 68% | | | | | | |
| Test for overall effect: Z = 0.14 (P = 0.89) | | | | | | |
| **3.15.2 at end of treatment (Medium: 12-51wks)** | | | | | | |
| Drury1996 | 10 | 30 | 12 | 32 | 10.0% | 0.89 [0.45, 1.75] |
| TROWER2004 | 3 | 18 | 3 | 20 | 2.7% | 1.11 [0.26, 4.82] |
| RECTOR2003 | 5 | 29 | 3 | 21 | 3.3% | 1.21 [0.32, 4.50] |
| STARTUP2004 | 13 | 47 | 11 | 43 | 9.7% | 1.08 [0.54, 2.15] |
| CATHER2005 | 1 | 16 | 1 | 14 | 0.9% | 0.88 [0.06, 12.73] |
| GARETY2007 | 22 | 133 | 27 | 140 | 14.6% | 0.86 [0.51, 1.43] |
| DURHAM2003 | 1 | 22 | 2 | 21 | 1.1% | 0.48 [0.05, 4.88] |
| GUMLEY2003 | 6 | 72 | 5 | 72 | 4.2% | 1.20 [0.38, 3.76] |
| Kuipers1997 | 4 | 28 | 7 | 32 | 4.4% | 0.65 [0.21, 2.00] |
| JACKSON2007 | 3 | 31 | 6 | 31 | 3.4% | 0.50 [0.14, 1.82] |
| BARROWCLOUGH2006 | 3 | 57 | 11 | 56 | 3.8% | 0.27 [0.08, 0.91] |
| Haddock1999 | 1 | 10 | 0 | 11 | 0.6% | 3.27 [0.15, 72.23] |
| PENADES2006 | 4 | 20 | 3 | 20 | 3.1% | 1.33 [0.34, 5.21] |
| Sensky2000 | 9 | 46 | 6 | 44 | 5.9% | 1.43 [0.56, 3.70] |
| LECOMTE2008 | 6 | 48 | 4 | 27 | 4.0% | 0.84 [0.26, 2.73] |
| VALMAGGIA2005 | 7 | 36 | 5 | 26 | 5.1% | 1.01 [0.36, 2.83] |
| **Subtotal (95% CI)** | | **643** | | **610** | **76.8%** | **0.90 [0.70, 1.16]** |
| Total events | 98 | | 106 | | | |
| Heterogeneity: Tau² = 0.00; Chi² = 8.00, df = 15 (P = 0.92); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.79 (P = 0.43) | | | | | | |
| **3.15.3 at end of treatment (Long; >51wks)** | | | | | | |
| JACKSON2005 | 12 | 45 | 0 | 46 | 0.8% | 25.54 [1.56, 418.93] |
| **Subtotal (95% CI)** | | **45** | | **46** | **0.8%** | **25.54 [1.56, 418.93]** |
| Total events | 12 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 2.27 (P = 0.02) | | | | | | |
| **Total (95% CI)** | | **1023** | | **889** | **100.0%** | **0.87 [0.68, 1.12]** |
| Total events | 154 | | 148 | | | |
| Heterogeneity: Tau² = 0.04; Chi² = 22.26, df = 19 (P = 0.27); I² = 15% | | | | | | |
| Test for overall effect: Z = 1.05 (P = 0.29) | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**3.16 Treatment acceptability: 1. Leaving the study early (at FU)**

| Study or Subgroup | CBT Events | CBT Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.16.1 FU (Short: 0-11wks)** | | | | | | |
| Tarrier1998 | 10 | 33 | 2 | 28 | 1.1% | 4.24 [1.01, 17.77] |
| Turkington2002 | 46 | 257 | 40 | 165 | 23.8% | 0.74 [0.51, 1.08] |
| BECHDOLF2004 | 24 | 40 | 21 | 48 | 9.3% | 1.37 [0.91, 2.06] |
| Lewis2002 | 26 | 101 | 31 | 102 | 15.1% | 0.85 [0.54, 1.32] |
| Drury1996 | 11 | 30 | 14 | 32 | 6.6% | 0.84 [0.45, 1.55] |
| WYKES2005 | 8 | 45 | 7 | 40 | 3.6% | 1.02 [0.40, 2.55] |
| **Subtotal (95% CI)** | | **506** | | **415** | **59.4%** | **0.96 [0.77, 1.18]** |
| Total events | 125 | | 115 | | | |
| Heterogeneity: Chi² = 9.45, df = 5 (P = 0.09); I² = 47% | | | | | | |
| Test for overall effect: Z = 0.42 (P = 0.67) | | | | | | |
| **3.16.2 FU (Medium: 12-51wks)** | | | | | | |
| JACKSON2007 | 3 | 31 | 4 | 31 | 2.0% | 0.75 [0.18, 3.08] |
| BACH2002 | 5 | 40 | 5 | 40 | 2.4% | 1.00 [0.31, 3.19] |
| LECOMTE2008 | 13 | 48 | 14 | 27 | 8.7% | 0.52 [0.29, 0.94] |
| VALMAGGIA2005 | 11 | 36 | 9 | 26 | 5.1% | 0.88 [0.43, 1.82] |
| RECTOR2003 | 8 | 29 | 8 | 21 | 4.5% | 0.72 [0.32, 1.62] |
| PENADES2006 | 4 | 20 | 3 | 20 | 1.5% | 1.33 [0.34, 5.21] |
| TROWER2004 | 4 | 18 | 5 | 20 | 2.3% | 0.89 [0.28, 2.81] |
| BARROWCLOUGH2006 | 5 | 57 | 10 | 46 | 5.4% | 0.40 [0.15, 1.10] |
| DURHAM2003 | 1 | 22 | 4 | 21 | 2.0% | 0.24 [0.03, 1.96] |
| STARTUP2004 | 14 | 47 | 13 | 43 | 6.6% | 0.99 [0.52, 1.85] |
| **Subtotal (95% CI)** | | **348** | | **295** | **40.6%** | **0.73 [0.55, 0.96]** |
| Total events | 68 | | 75 | | | |
| Heterogeneity: Chi² = 5.95, df = 9 (P = 0.74); I² = 0% | | | | | | |
| Test for overall effect: Z = 2.24 (P = 0.03) | | | | | | |
| **3.16.3 FU (Long: >51wks)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **Total (95% CI)** | | **854** | | **710** | **100.0%** | **0.86 [0.73, 1.02]** |
| Total events | 193 | | 190 | | | |
| Heterogeneity: Chi² = 17.77, df = 15 (P = 0.27); I² = 16% | | | | | | |
| Test for overall effect: Z = 1.72 (P = 0.08) | | | | | | |

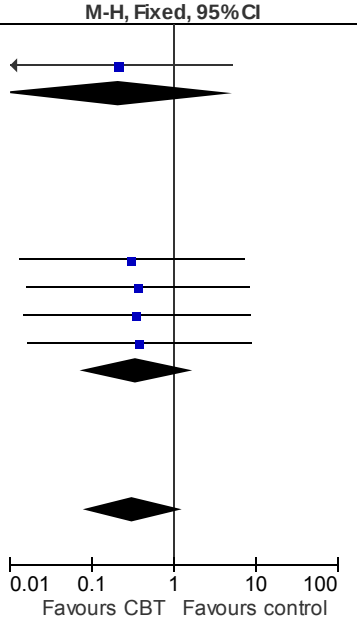



**4 CBT versus any control - subgroup analysis by number of sessions**

# Psychological clinical evidence: CBT (subgroup analyses)

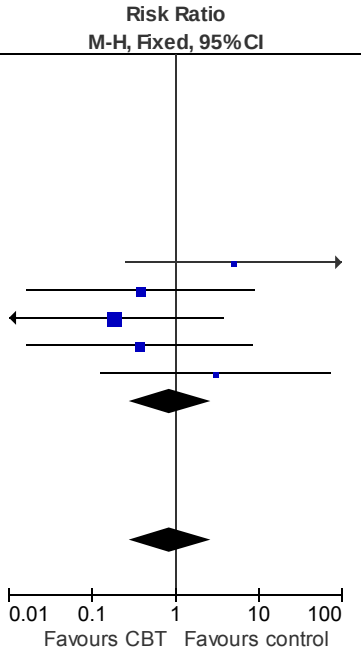
**4.1 Mortality (at end of treatment)**

| Study or Subgroup | CBT Events | CBT Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **4.1.1 Suicide: (Less: <16 planned sessions)** | | | | | | |
| Turkington2002 | 0 | 257 | 1 | 165 | 23.8% | 0.21 [0.01, 5.23] |
| **Subtotal (95% CI)** | | **257** | | **165** | **23.8%** | **0.21 [0.01, 5.23]** |
| Total events | 0 | | 1 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.94 (P = 0.34) | | | | | | |
| **4.1.2 Suicide: (More: =>16 planned sessions)** | | | | | | |
| STARTUP2004 | 0 | 47 | 1 | 43 | 20.4% | 0.31 [0.01, 7.31] |
| TROWER2004 | 0 | 18 | 1 | 20 | 18.6% | 0.37 [0.02, 8.51] |
| GARETY2007 | 0 | 133 | 1 | 140 | 19.0% | 0.35 [0.01, 8.53] |
| Kuipers1997 | 0 | 28 | 1 | 32 | 18.3% | 0.38 [0.02, 8.95] |
| **Subtotal (95% CI)** | | **226** | | **235** | **76.2%** | **0.35 [0.07, 1.70]** |
| Total events | 0 | | 4 | | | |
| Heterogeneity: Chi² = 0.01, df = 3 (P = 1.00); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.30 (P = 0.19) | | | | | | |
| **Total (95% CI)** | | **483** | | **400** | **100.0%** | **0.32 [0.08, 1.30]** |
| Total events | 0 | | 5 | | | |
| Heterogeneity: Chi² = 0.08, df = 4 (P = 1.00); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.59 (P = 0.11) | | | | | | |




**4.2 Mortality (at FU)**

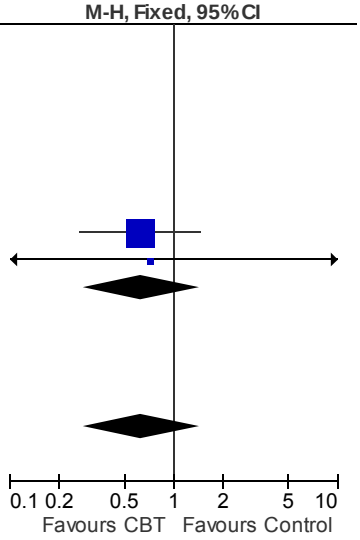
| Study or Subgroup | CBT Events | CBT Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **4.2.1 Suicide: at FU (up to 18 months after end of treatment) (Less: <16 planned sessions)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **4.2.2 Suicide: at FU (up to 18 months after end of treatment) (More: =>16 planned sessions)** | | | | | | |
| JACKSON2007 | 2 | 31 | 0 | 31 | 7.8% | 5.00 [0.25, 100.08] |
| Kuipers1997 | 0 | 28 | 1 | 32 | 21.8% | 0.38 [0.02, 8.95] |
| STARTUP2004 | 0 | 47 | 2 | 43 | 40.5% | 0.18 [0.01, 3.71] |
| TROWER2004 | 0 | 18 | 1 | 20 | 22.1% | 0.37 [0.02, 8.51] |
| Lewis2002 | 1 | 101 | 0 | 102 | 7.7% | 3.03 [0.12, 73.50] |
| **Subtotal (95% CI)** | | **225** | | **228** | **100.0%** | **0.86 [0.28, 2.65]** |
| Total events | 3 | | 4 | | | |
| Heterogeneity: Chi² = 3.48, df = 4 (P = 0.48); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.26 (P = 0.79) | | | | | | |
| **Total (95% CI)** | | **225** | | **228** | **100.0%** | **0.86 [0.28, 2.65]** |
| Total events | 3 | | 4 | | | |
| Heterogeneity: Chi² = 3.48, df = 4 (P = 0.48); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.26 (P = 0.79) | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

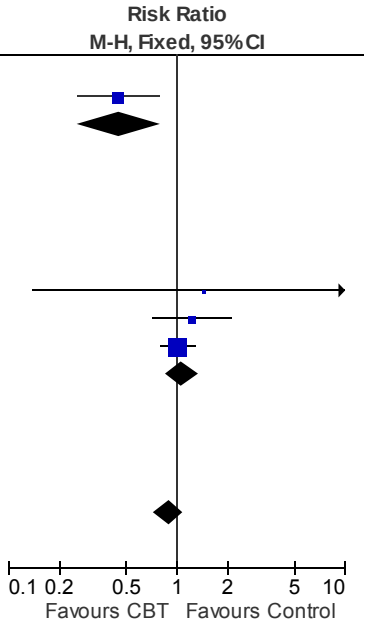
**4.3 Global state: 1. Relapse (at end of treatment)**

| Study or Subgroup | CBT Events | CBT Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **4.3.1 Relapse: (Less: <16 planned sessions)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **4.3.2 Relapse: (More: =>16 planned sessions)** | | | | | | |
| Kuipers1997 | 6 | 28 | 11 | 32 | 89.8% | 0.62 [0.26, 1.47] |
| VALMAGGIA2005 | 1 | 36 | 1 | 26 | 10.2% | 0.72 [0.05, 11.02] |
| **Subtotal (95% CI)** | | **64** | | **58** | **100.0%** | **0.63 [0.28, 1.44]** |
| Total events | 7 | | 12 | | | |
| Heterogeneity: Chi² = 0.01, df = 1 (P = 0.92); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.09 (P = 0.27) | | | | | | |
| **Total (95% CI)** | | **64** | | **58** | **100.0%** | **0.63 [0.28, 1.44]** |
| Total events | 7 | | 12 | | | |
| Heterogeneity: Chi² = 0.01, df = 1 (P = 0.92); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.09 (P = 0.27) | | | | | | |




**4.4 Global state: 1. Relapse (up to 24 months FU)**

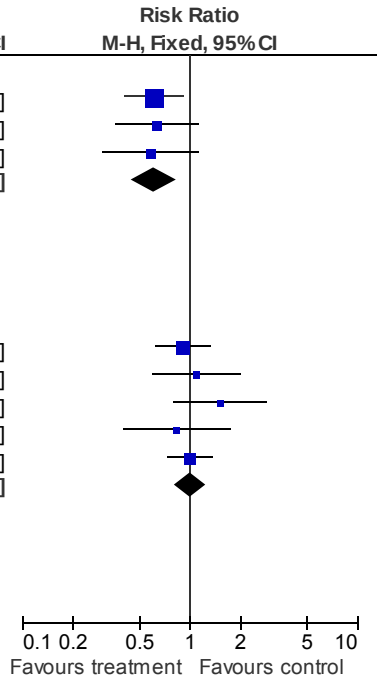
| Study or Subgroup | CBT Events | CBT Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **4.4.1 FU (up to 24 months) (Less: <16 planned sessions)** | | | | | | |
| GUMLEY2003 | 13 | 72 | 29 | 72 | 28.1% | 0.45 [0.25, 0.79] |
| **Subtotal (95% CI)** | | **72** | | **72** | **28.1%** | **0.45 [0.25, 0.79]** |
| Total events | 13 | | 29 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 2.77 (P = 0.006) | | | | | | |
| **4.4.2 FU (up to 24 months) (More: =>16 planned sessions)** | | | | | | |
| VALMAGGIA2005 | 2 | 36 | 1 | 26 | 1.1% | 1.44 [0.14, 15.10] |
| BARROWCLOUGH2006 | 20 | 57 | 16 | 56 | 15.7% | 1.23 [0.71, 2.12] |
| Lewis2002 | 57 | 101 | 57 | 102 | 55.1% | 1.01 [0.79, 1.29] |
| **Subtotal (95% CI)** | | **194** | | **184** | **71.9%** | **1.06 [0.85, 1.33]** |
| Total events | 79 | | 74 | | | |
| Heterogeneity: Chi² = 0.51, df = 2 (P = 0.78); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.54 (P = 0.59) | | | | | | |
| **Total (95% CI)** | | **266** | | **256** | **100.0%** | **0.89 [0.72, 1.10]** |
| Total events | 92 | | 103 | | | |
| Heterogeneity: Chi² = 8.16, df = 3 (P = 0.04); I² = 63% | | | | | | |
| Test for overall effect: Z = 1.08 (P = 0.28) | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**4.5 Service outcome: 1. Hospital admission (up to 24 months FU)**

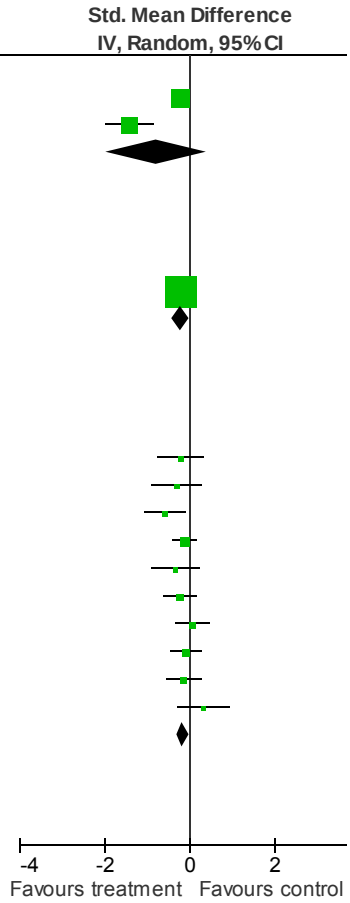
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **4.5.1 At FU (up to 24 months FU) (less: <16planned sessions)** | | | | | | |
| Turkington2002 | 36 | 257 | 38 | 165 | 54.9% | 0.61 [0.40, 0.92] |
| BACH2002 | 12 | 40 | 19 | 40 | 22.5% | 0.63 [0.36, 1.12] |
| GUMLEY2003 | 11 | 72 | 19 | 72 | 22.5% | 0.58 [0.30, 1.13] |
| **Subtotal (95% CI)** | | **369** | | **277** | **100.0%** | **0.61 [0.45, 0.82]** |
| Total events | 59 | | 76 | | | |
| Heterogeneity: Chi² = 0.04, df = 2 (P = 0.98); I² = 0% | | | | | | |
| Test for overall effect: Z = 3.26 (P = 0.001) | | | | | | |
| **4.5.2 At FU (up to 18 months FU) (More: =>16 planned sessions)** | | | | | | |
| Lewis2002 | 33 | 101 | 37 | 102 | 37.2% | 0.90 [0.62, 1.32] |
| JACKSON2007 | 13 | 31 | 12 | 31 | 12.1% | 1.08 [0.59, 1.99] |
| Tarrier1998 | 16 | 33 | 9 | 28 | 9.8% | 1.51 [0.79, 2.87] |
| BECHDOLF2004 | 9 | 40 | 13 | 48 | 11.9% | 0.83 [0.40, 1.74] |
| Sensky2000 | 29 | 46 | 28 | 44 | 28.9% | 0.99 [0.72, 1.36] |
| **Subtotal (95% CI)** | | **251** | | **253** | **100.0%** | **1.00 [0.81, 1.24]** |
| Total events | 100 | | 99 | | | |
| Heterogeneity: Chi² = 2.17, df = 4 (P = 0.70); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.00 (P = 1.00) | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**4.6 Mental State: 1. Total symptom score (end of treatment) (lower = better)**

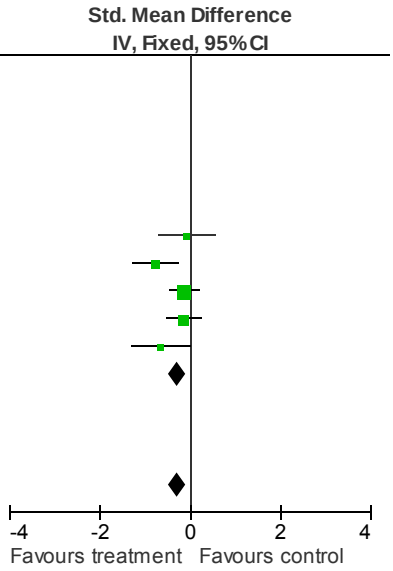
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **4.6.1 Total symptom score at end of treatment (Less: <16 planned sessions) (all data)** | | | | | | | | |
| Turkington2002 | 19.62 | 13.34 | 257 | 22.61 | 13.21 | 165 | 52.6% | -0.22 [-0.42, -0.03] |
| ENGLAND2007 | 36.9 | 9.6 | 44 | 50.1 | 7.8 | 21 | 47.4% | -1.44 [-2.02, -0.86] |
| **Subtotal (95% CI)** | | | **301** | | | **186** | **100.0%** | **-0.80 [-1.99, 0.39]** |
| Heterogeneity: Tau² = 0.69; Chi² = 15.14, df = 1 (P < 0.0001); I² = 93% | | | | | | | | |
| Test for overall effect: Z = 1.32 (P = 0.19) | | | | | | | | |
| **4.6.2 Total symptom score at end of treatment (Less: <16 planned sessions) (ENGLAND2007 removed)** | | | | | | | | |
| Turkington2002 | 19.62 | 13.34 | 257 | 22.61 | 13.21 | 165 | 100.0% | -0.22 [-0.42, -0.03] |
| **Subtotal (95% CI)** | | | **257** | | | **165** | **100.0%** | **-0.22 [-0.42, -0.03]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.24 (P = 0.02) | | | | | | | | |
| **4.6.3 Total symptom score at end of treatment (More: =>16 planned sessions)** | | | | | | | | |
| LECOMTE2008 | 35.9 | 8.4 | 36 | 38.4 | 13.9 | 20 | 6.3% | -0.23 [-0.78, 0.32] |
| GARETY2007CP | 54.09 | 12.49 | 21 | 58.35 | 14.03 | 23 | 5.3% | -0.31 [-0.91, 0.28] |
| STARTUP2004 | 30.2 | 10 | 34 | 36.9 | 12.1 | 32 | 7.8% | -0.60 [-1.09, -0.10] |
| GARETY2007NCP | 57.63 | 15.21 | 90 | 59.66 | 17.27 | 90 | 22.1% | -0.12 [-0.42, 0.17] |
| Kuipers1997 | 19.87 | 8.46 | 23 | 22.67 | 7.43 | 24 | 5.7% | -0.35 [-0.92, 0.23] |
| BARROWCLOUGH2006 | 57.78 | 13.15 | 54 | 61.44 | 15.83 | 45 | 12.0% | -0.25 [-0.65, 0.15] |
| JACKSON2005 | 15.23 | 8.98 | 45 | 14.76 | 8.11 | 46 | 11.2% | 0.05 [-0.36, 0.47] |
| Lewis2002 | 68.12 | 21.38 | 52 | 70.15 | 21.46 | 59 | 13.6% | -0.09 [-0.47, 0.28] |
| Sensky2000 | 20.5 | 12.89 | 46 | 22.9 | 17.23 | 44 | 11.0% | -0.16 [-0.57, 0.26] |
| DURHAM2003 | 96.2 | 17.7 | 22 | 90.6 | 17.5 | 19 | 5.0% | 0.31 [-0.31, 0.93] |
| **Subtotal (95% CI)** | | | **423** | | | **402** | **100.0%** | **-0.16 [-0.30, -0.03]** |
| Heterogeneity: Tau² = 0.00; Chi² = 7.41, df = 9 (P = 0.59); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 2.33 (P = 0.02) | | | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**4.7 Mental State: 1. Total symptom score (up to 6 months FU) (lower = better)**

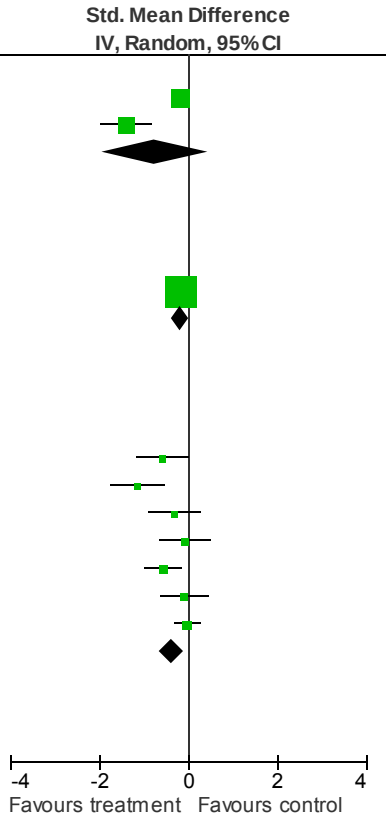
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **4.7.1 Total symptom score at end of treatment (Less: <16 planned sessions)** | | | | | | | | |
| **Subtotal (95% CI)** | | | **0** | | | **0** | | **Not estimable** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Not applicable | | | | | | | | |
| **4.7.2 Total symptom score at end of treatment (More: =>16 planned sessions)** | | | | | | | | |
| DURHAM2003 | 87 | 23.1 | 21 | 88.8 | 18 | 17 | 10.4% | -0.08 [-0.72, 0.56] |
| STARTUP2004 | 28.2 | 9 | 33 | 36.1 | 11 | 30 | 16.0% | -0.78 [-1.29, -0.27] |
| Lewis2002 | 61.73 | 19.69 | 78 | 64.38 | 16.79 | 60 | 37.3% | -0.14 [-0.48, 0.19] |
| BARROWCLOUGH2006 | 54.87 | 13.07 | 52 | 56.96 | 14.08 | 45 | 26.5% | -0.15 [-0.55, 0.25] |
| LECOMTE2008 | 33.4 | 7.8 | 32 | 39.3 | 10.9 | 13 | 9.7% | -0.66 [-1.32, -0.00] |
| **Subtotal (95% CI)** | | | **216** | | | **165** | **100.0%** | **-0.29 [-0.50, -0.09]** |
| Heterogeneity: Chi² = 6.29, df = 4 (P = 0.18); I² = 36% | | | | | | | | |
| Test for overall effect: Z = 2.78 (P = 0.005) | | | | | | | | |
| **Total (95% CI)** | | | **216** | | | **165** | **100.0%** | **-0.29 [-0.50, -0.09]** |
| Heterogeneity: Chi² = 6.29, df = 4 (P = 0.18); I² = 36% | | | | | | | | |
| Test for overall effect: Z = 2.78 (P = 0.005) | | | | | | | | |
| Test for subgroup differences: Not applicable | | | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**4.8 Mental State: 1. Total symptom score (at 9-18 months FU) (lower = better)**

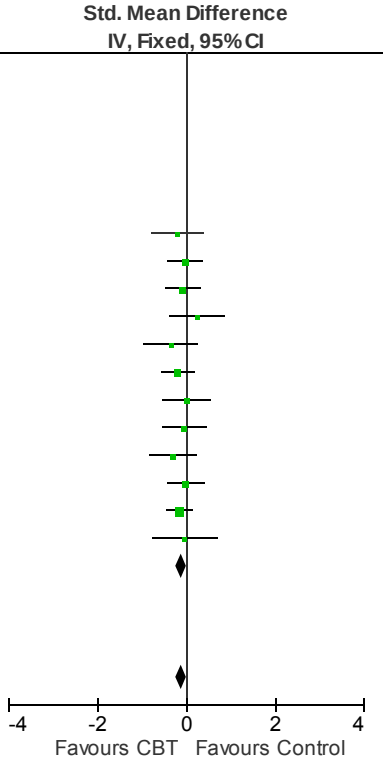
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **4.8.1 Total symptom score (Less: <16 planned sessions)** | | | | | | | | |
| Turkington2002 | 18.13 | 12.66 | 257 | 20.67 | 14.54 | 165 | 52.6% | -0.19 [-0.38, 0.01] |
| ENGLAND2007 | 36.3 | 10.1 | 44 | 50.1 | 8.7 | 21 | 47.4% | -1.41 [-1.99, -0.83] |
| **Subtotal (95% CI)** | | | **301** | | | **186** | **100.0%** | **-0.77 [-1.96, 0.43]** |
| Heterogeneity: Tau² = 0.70; Chi² = 15.41, df = 1 (P < 0.0001); I² = 94% | | | | | | | | |
| Test for overall effect: Z = 1.26 (P = 0.21) | | | | | | | | |
| **4.8.2 Total symptom score (Less: <16 planned sessions) (ENGLAND2007 removed)** | | | | | | | | |
| Turkington2002 | 18.13 | 12.66 | 257 | 20.67 | 14.54 | 165 | 100.0% | -0.19 [-0.38, 0.01] |
| **Subtotal (95% CI)** | | | **257** | | | **165** | **100.0%** | **-0.19 [-0.38, 0.01]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.89 (P = 0.06) | | | | | | | | |
| **4.8.3 Total symptom score (More: >16 planned sessions)** | | | | | | | | |
| Kuipers1997 | 18.78 | 8.19 | 23 | 23.5 | 7.42 | 24 | 12.5% | -0.59 [-1.18, -0.01] |
| LEWIS2002L | 53.7 | 13.3 | 26 | 69.5 | 13.6 | 23 | 12.0% | -1.16 [-1.77, -0.55] |
| LEWIS2002N | 51.5 | 7.5 | 24 | 54.5 | 10.1 | 21 | 12.4% | -0.33 [-0.92, 0.26] |
| GARETY2007CP | 54.41 | 16.7 | 22 | 56.04 | 18.02 | 24 | 12.7% | -0.09 [-0.67, 0.49] |
| Sensky2000 | 15.1 | 11.53 | 46 | 26.6 | 25.19 | 44 | 16.7% | -0.59 [-1.01, -0.16] |
| LEWIS2002M | 71.2 | 15.8 | 25 | 73.2 | 21.9 | 26 | 13.4% | -0.10 [-0.65, 0.45] |
| GARETY2007NCP | 56.68 | 12.98 | 87 | 57.32 | 15.43 | 85 | 20.3% | -0.04 [-0.34, 0.25] |
| **Subtotal (95% CI)** | | | **253** | | | **247** | **100.0%** | **-0.39 [-0.68, -0.10]** |
| Heterogeneity: Tau² = 0.08; Chi² = 14.06, df = 6 (P = 0.03); I² = 57% | | | | | | | | |
| Test for overall effect: Z = 2.63 (P = 0.008) | | | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**4.9 Mental state: 2. Continuous measures - positive symptoms (at end of treatment) (lower = better)**

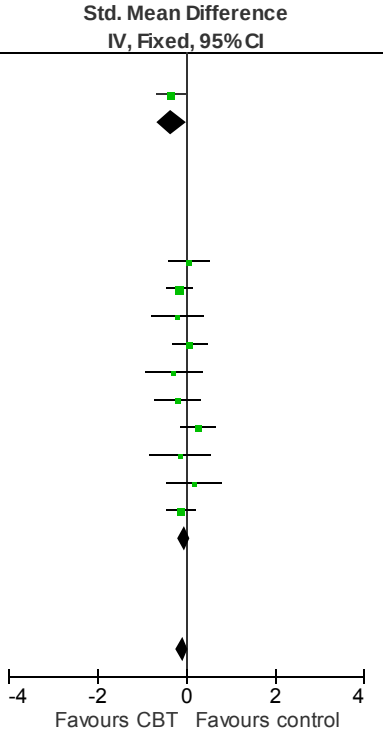
| Study or Subgroup | CBT Mean | CBT SD | CBT Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **4.9.1 Positive symptom score (Less: <16 planned sessions)** | | | | | | | | |
| **Subtotal (95% CI)** | | | **0** | | | **0** | | **Not estimable** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Not applicable | | | | | | | | |
| **4.9.3 Positive symptom score (More: =>16 planned sessions)** | | | | | | | | |
| GARETY2007CP | 13.95 | 5.69 | 21 | 15.09 | 5.23 | 23 | 4.9% | -0.21 [-0.80, 0.39] |
| BARROWCLOUGH2006 | 16.04 | 5 | 54 | 16.2 | 4.34 | 45 | 11.0% | -0.03 [-0.43, 0.36] |
| LECLERC2000 | 2.29 | 0.89 | 55 | 2.37 | 1.01 | 44 | 10.9% | -0.08 [-0.48, 0.31] |
| PENADES2006 | 6.2 | 2.4 | 20 | 5.7 | 1.7 | 20 | 4.4% | 0.24 [-0.39, 0.86] |
| RECTOR2003 | 12 | 4 | 24 | 13.9 | 6.7 | 18 | 4.5% | -0.35 [-0.97, 0.27] |
| Lewis2002 | 14.94 | 6.61 | 52 | 16.31 | 6.9 | 59 | 12.3% | -0.20 [-0.57, 0.17] |
| LECOMTE2008 | 1.7 | 0.73 | 36 | 1.7 | 0.99 | 20 | 5.8% | 0.00 [-0.55, 0.55] |
| JACKSON2007 | 7.45 | 4.05 | 31 | 7.65 | 4.03 | 31 | 6.9% | -0.05 [-0.55, 0.45] |
| VALMAGGIA2005 | 15.09 | 3.91 | 35 | 16.28 | 3.76 | 23 | 6.1% | -0.30 [-0.83, 0.22] |
| BECHDOLF2004 | 11.3 | 4.2 | 40 | 11.4 | 4.5 | 48 | 9.8% | -0.02 [-0.44, 0.40] |
| GARETY2007NCP | 15.39 | 6.37 | 90 | 16.49 | 6.47 | 90 | 20.1% | -0.17 [-0.46, 0.12] |
| CATHER2005 | 10.93 | 3.33 | 15 | 11.08 | 3.44 | 13 | 3.1% | -0.04 [-0.79, 0.70] |
| **Subtotal (95% CI)** | | | **473** | | | **434** | **100.0%** | **-0.11 [-0.24, 0.02]** |
| Heterogeneity: Chi² = 3.35, df = 11 (P = 0.99); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.69 (P = 0.09) | | | | | | | | |
| **Total (95% CI)** | | | **473** | | | **434** | **100.0%** | **-0.11 [-0.24, 0.02]** |
| Heterogeneity: Chi² = 3.35, df = 11 (P = 0.99); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.69 (P = 0.09) | | | | | | | | |
| Test for subgroup differences: Not applicable | | | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**4.10 Mental state: 2. Continuous measures - positive symptoms (up to 12 months FU) (lower = better)**

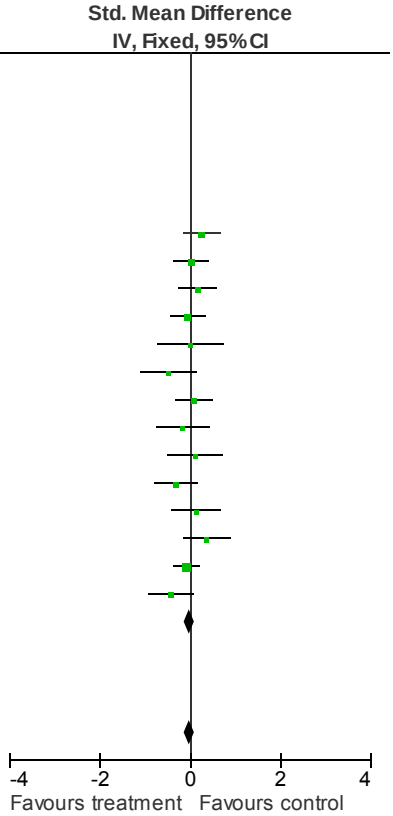
| Study or Subgroup | CBT Mean | CBT SD | CBT Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **4.10.1 Positive symptom score: (Less: <16 planned sessions)** | | | | | | | | |
| GUMLEY2003 | 8.85 | 2.09 | 72 | 9.88 | 3.61 | 72 | 15.3% | -0.35 [-0.68, -0.02] |
| **Subtotal (95% CI)** | | | **72** | | | **72** | **15.3%** | **-0.35 [-0.68, -0.02]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.07 (P = 0.04) | | | | | | | | |
| **4.10.2 Positive symptom score: (More: =>16 planned sessions)** | | | | | | | | |
| BECHDOLF2004 | 11.6 | 4.3 | 31 | 11.4 | 4.8 | 40 | 7.5% | 0.04 [-0.43, 0.51] |
| GARETY2007NCP | 15.39 | 6.37 | 90 | 16.49 | 6.47 | 90 | 19.3% | -0.17 [-0.46, 0.12] |
| GARETY2007CP | 13.95 | 5.69 | 21 | 15.09 | 5.23 | 23 | 4.7% | -0.21 [-0.80, 0.39] |
| LECLERC2000 | 2.22 | 0.83 | 55 | 2.15 | 0.99 | 44 | 10.5% | 0.08 [-0.32, 0.47] |
| LECOMTE2008 | 1.7 | 0.68 | 32 | 1.9 | 0.66 | 13 | 3.9% | -0.29 [-0.94, 0.36] |
| VALMAGGIA2005 | 14.64 | 3.7 | 35 | 15.44 | 3.94 | 23 | 5.9% | -0.21 [-0.74, 0.32] |
| BARROWCLOUGH2006 | 16.5 | 4.88 | 52 | 15.3 | 4.24 | 46 | 10.4% | 0.26 [-0.14, 0.66] |
| RECTOR2003 | 10.9 | 3.4 | 21 | 11.5 | 4.7 | 13 | 3.4% | -0.15 [-0.84, 0.54] |
| PENADES2006 | 6.2 | 2.4 | 20 | 5.8 | 2.2 | 20 | 4.3% | 0.17 [-0.45, 0.79] |
| Lewis2002 | 13.03 | 5.06 | 78 | 13.67 | 5.33 | 60 | 14.6% | -0.12 [-0.46, 0.21] |
| **Subtotal (95% CI)** | | | **435** | | | **372** | **84.7%** | **-0.05 [-0.19, 0.09]** |
| Heterogeneity: Chi² = 5.39, df = 9 (P = 0.80); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.73 (P = 0.47) | | | | | | | | |
| **Total (95% CI)** | | | **507** | | | **444** | **100.0%** | **-0.10 [-0.23, 0.03]** |
| Heterogeneity: Chi² = 8.02, df = 10 (P = 0.63); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.48 (P = 0.14) | | | | | | | | |
| Test for subgroup differences: Chi² = 2.62, df = 1 (P = 0.11), I² = 61.9% | | | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**4.11 Mental state: 3. Continuous measures - negative symptoms (at end of treatment) (lower = better)**

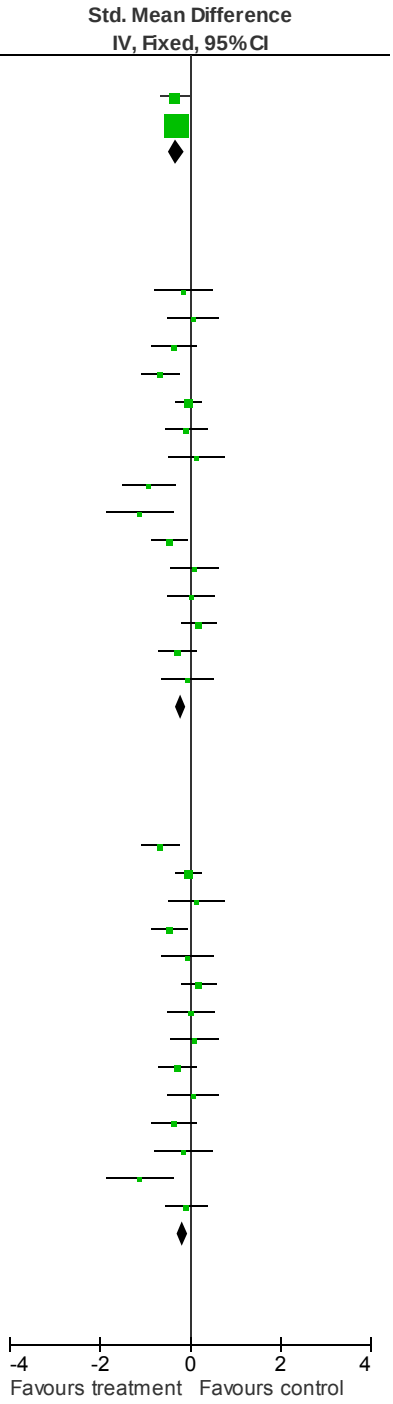
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **4.11.1 Negative symptom score (Less: <16 planned sessions)** | | | | | | | | |
| **Subtotal (95% CI)** | | | **0** | | | **0** | | **Not estimable** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Not applicable | | | | | | | | |
| **4.11.2 Negative symptom score (More: =>16 planned sessions)** | | | | | | | | |
| JACKSON2005 | 18.84 | 12.61 | 45 | 15.61 | 13.36 | 46 | 8.8% | 0.25 [-0.17, 0.66] |
| LECLERC2000 | 2.09 | 0.85 | 55 | 2.08 | 0.8 | 44 | 9.6% | 0.01 [-0.38, 0.41] |
| BECHDOLF2004 | 13.9 | 4.5 | 40 | 13.1 | 5.2 | 48 | 8.5% | 0.16 [-0.26, 0.58] |
| BARROWCLOUGH2006 | 13 | 4.81 | 54 | 13.31 | 5.22 | 45 | 9.6% | -0.06 [-0.46, 0.33] |
| CATHER2005 | 14.87 | 4.97 | 15 | 14.92 | 5.72 | 13 | 2.7% | -0.01 [-0.75, 0.73] |
| RECTOR2003 | 13.1 | 4.5 | 24 | 16 | 7.2 | 18 | 3.9% | -0.49 [-1.11, 0.13] |
| Sensky2000 | 21.95 | 16.53 | 44 | 20.68 | 20.93 | 44 | 8.6% | 0.07 [-0.35, 0.48] |
| GARETY2007CP | 12.33 | 4.94 | 21 | 13.26 | 5.58 | 23 | 4.3% | -0.17 [-0.77, 0.42] |
| PENADES2006 | 13.1 | 4.2 | 20 | 12.6 | 4.7 | 20 | 3.9% | 0.11 [-0.51, 0.73] |
| STARTUP2004 | 5.7 | 4 | 34 | 7 | 4.1 | 32 | 6.4% | -0.32 [-0.80, 0.17] |
| LECOMTE2008 | 1.6 | 0.71 | 36 | 1.5 | 0.86 | 20 | 5.0% | 0.13 [-0.42, 0.68] |
| VALMAGGIA2005 | 12.95 | 3.51 | 35 | 11.74 | 2.91 | 23 | 5.3% | 0.36 [-0.17, 0.89] |
| GARETY2007NCP | 12.06 | 4.92 | 90 | 12.62 | 6.32 | 90 | 17.6% | -0.10 [-0.39, 0.19] |
| JACKSON2007 | 17.67 | 10.19 | 31 | 22.88 | 12.87 | 31 | 5.9% | -0.44 [-0.95, 0.06] |
| **Subtotal (95% CI)** | | | **544** | | | **497** | **100.0%** | **-0.02 [-0.15, 0.10]** |
| Heterogeneity: Chi² = 11.89, df = 13 (P = 0.54); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.38 (P = 0.70) | | | | | | | | |
| **Total (95% CI)** | | | **544** | | | **497** | **100.0%** | **-0.02 [-0.15, 0.10]** |
| Heterogeneity: Chi² = 11.89, df = 13 (P = 0.54); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.38 (P = 0.70) | | | | | | | | |
| Test for subgroup differences: Not applicable | | | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**4.12 Mental state: 3. Continuous measures - negative symptoms (up to 24 months FU) (lower = better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **4.12.1 Negative symptom score: (Less: <16 planned sessions)** | | | | | | | | |
| GUMLEY2003 | 10.55 | 4.07 | 72 | 12.22 | 5.36 | 72 | 26.3% | -0.35 [-0.68, -0.02] |
| Turkington2002 | 3.24 | 2.7 | 257 | 4.13 | 3.06 | 165 | 73.7% | -0.31 [-0.51, -0.12] |
| **Subtotal (95% CI)** | | | **329** | | | **237** | **100.0%** | **-0.32 [-0.49, -0.15]** |
| Heterogeneity: Chi² = 0.04, df = 1 (P = 0.85); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 3.74 (P = 0.0002) | | | | | | | | |
| **4.12.2 Negative symptom score: (More: =>16 planned sessions) (all data)** | | | | | | | | |
| LECOMTE2008 | 1.4 | 0.63 | 32 | 1.5 | 0.58 | 13 | 3.6% | -0.16 [-0.80, 0.49] |
| GARETY2007CP | 12.18 | 4.38 | 22 | 11.88 | 5.19 | 25 | 4.6% | 0.06 [-0.51, 0.63] |
| JACKSON2007 | 14.66 | 10.9 | 31 | 19.55 | 14.79 | 31 | 6.0% | -0.37 [-0.87, 0.13] |
| STARTUP2004 | 4.32 | 3.77 | 47 | 7.09 | 4.39 | 43 | 8.4% | -0.67 [-1.10, -0.25] |
| GARETY2007NCP | 11.64 | 4.83 | 87 | 11.91 | 5.21 | 85 | 17.0% | -0.05 [-0.35, 0.25] |
| BECHDOLF2004 | 12.5 | 4 | 31 | 13 | 6.1 | 40 | 6.9% | -0.09 [-0.56, 0.38] |
| PENADES2006 | 12.9 | 3.8 | 20 | 12.3 | 4.9 | 20 | 3.9% | 0.13 [-0.49, 0.75] |
| LEWIS2002L | 12.8 | 4.3 | 26 | 17.6 | 5.8 | 23 | 4.3% | -0.93 [-1.53, -0.34] |
| RECTOR2003 | 10.9 | 4 | 21 | 16.5 | 6 | 13 | 2.7% | -1.13 [-1.88, -0.38] |
| BARROWCLOUGH2006 | 10.71 | 3.82 | 52 | 12.82 | 5.23 | 45 | 9.3% | -0.46 [-0.87, -0.06] |
| LEWIS2002M | 18 | 5.9 | 25 | 17.4 | 7.1 | 27 | 5.1% | 0.09 [-0.45, 0.63] |
| VALMAGGIA2005 | 11.76 | 3.42 | 35 | 11.72 | 2.61 | 23 | 5.5% | 0.01 [-0.51, 0.54] |
| LECLERC2000 | 2.03 | 0.82 | 55 | 1.89 | 0.66 | 44 | 9.6% | 0.18 [-0.21, 0.58] |
| Sensky2000 | 18.16 | 17.19 | 44 | 25.07 | 27.39 | 44 | 8.6% | -0.30 [-0.72, 0.12] |
| LEWIS2002N | 12.2 | 2.9 | 24 | 12.4 | 3.3 | 21 | 4.4% | -0.06 [-0.65, 0.52] |
| **Subtotal (95% CI)** | | | **552** | | | **497** | **100.0%** | **-0.21 [-0.33, -0.09]** |
| Heterogeneity: Chi² = 27.36, df = 14 (P = 0.02); I² = 49% | | | | | | | | |
| Test for overall effect: Z = 3.36 (P = 0.0008) | | | | | | | | |
| **4.12.3 Negative symptom score: (More: =>16 planned sessions) (LewisL removed)** | | | | | | | | |
| STARTUP2004 | 4.32 | 3.77 | 47 | 7.09 | 4.39 | 43 | 8.8% | -0.67 [-1.10, -0.25] |
| GARETY2007NCP | 11.64 | 4.83 | 87 | 11.91 | 5.21 | 85 | 17.7% | -0.05 [-0.35, 0.25] |
| PENADES2006 | 12.9 | 3.8 | 20 | 12.3 | 4.9 | 20 | 4.1% | 0.13 [-0.49, 0.75] |
| BARROWCLOUGH2006 | 10.71 | 3.82 | 52 | 12.82 | 5.23 | 45 | 9.7% | -0.46 [-0.87, -0.06] |
| LEWIS2002N | 12.2 | 2.9 | 24 | 12.4 | 3.3 | 21 | 4.6% | -0.06 [-0.65, 0.52] |
| LECLERC2000 | 2.03 | 0.82 | 55 | 1.89 | 0.66 | 44 | 10.0% | 0.18 [-0.21, 0.58] |
| VALMAGGIA2005 | 11.76 | 3.42 | 35 | 11.72 | 2.61 | 23 | 5.7% | 0.01 [-0.51, 0.54] |
| LEWIS2002M | 18 | 5.9 | 25 | 17.4 | 7.1 | 27 | 5.4% | 0.09 [-0.45, 0.63] |
| Sensky2000 | 18.16 | 17.19 | 44 | 25.07 | 27.39 | 44 | 9.0% | -0.30 [-0.72, 0.12] |
| GARETY2007CP | 12.18 | 4.38 | 22 | 11.88 | 5.19 | 25 | 4.8% | 0.06 [-0.51, 0.63] |
| JACKSON2007 | 14.66 | 10.9 | 31 | 19.55 | 14.79 | 31 | 6.3% | -0.37 [-0.87, 0.13] |
| LECOMTE2008 | 1.4 | 0.63 | 32 | 1.5 | 0.58 | 13 | 3.8% | -0.16 [-0.80, 0.49] |
| RECTOR2003 | 10.9 | 4 | 21 | 16.5 | 6 | 13 | 2.8% | -1.13 [-1.88, -0.38] |
| BECHDOLF2004 | 12.5 | 4 | 31 | 13 | 6.1 | 40 | 7.2% | -0.09 [-0.56, 0.38] |
| **Subtotal (95% CI)** | | | **526** | | | **474** | **100.0%** | **-0.18 [-0.30, -0.05]** |
| Heterogeneity: Chi² = 21.40, df = 13 (P = 0.07); I² = 39% | | | | | | | | |
| Test for overall effect: Z = 2.78 (P = 0.005) | | | | | | | | |

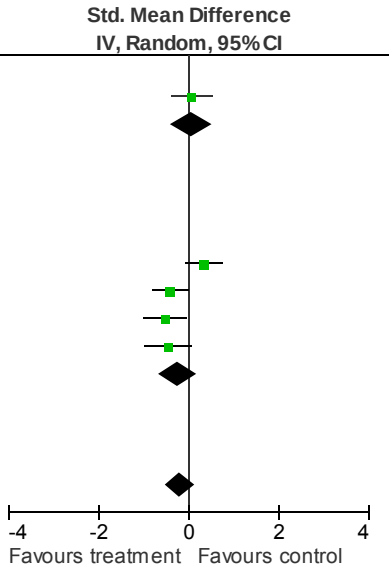



Test for subgroup differences: Chi² = 1.83, df = 2 (P = 0.40), I² = 0%

# Psychological clinical evidence: CBT (subgroup analyses)

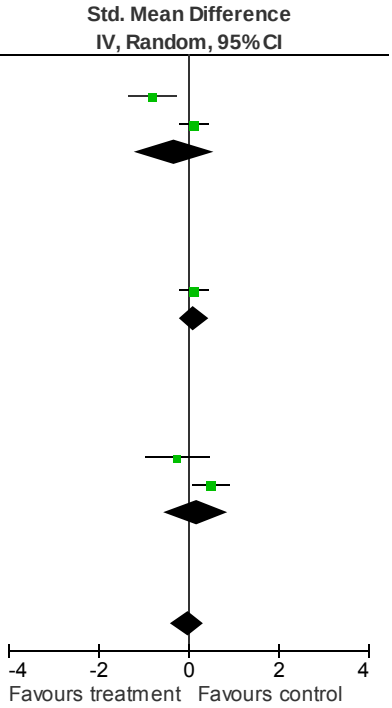
**4.13 Mental state: 4. Self-esteem (RSES, RSCQ) (at end of treatment) (higher=better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **4.13.1 Self-esteem: (Less: <16 planned sessions)** | | | | | | | | |
| WYKES2005 | -17.8 | 4 | 38 | -18 | 3.6 | 35 | 19.9% | 0.05 [-0.41, 0.51] |
| **Subtotal (95% CI)** | | | **38** | | | **35** | **19.9%** | **0.05 [-0.41, 0.51]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.22 (P = 0.82) | | | | | | | | |
| **4.13.2 Self-esteem: (More: =>16 planned sessions)** | | | | | | | | |
| BARROWCLOUGH2006 | -22.53 | 4.65 | 51 | -24.2 | 5.25 | 40 | 21.3% | 0.34 [-0.08, 0.75] |
| LECLERC2000 | -32.06 | 5.18 | 55 | -29.52 | 6.79 | 44 | 21.8% | -0.42 [-0.82, -0.02] |
| LECOMTE2008 | -15.4 | 18.1 | 36 | -3.2 | 27.5 | 32 | 19.1% | -0.52 [-1.01, -0.04] |
| DURHAM2003 | -123.9 | 14.7 | 44 | -116.4 | 18.9 | 21 | 17.9% | -0.46 [-0.98, 0.07] |
| **Subtotal (95% CI)** | | | **186** | | | **137** | **80.1%** | **-0.26 [-0.67, 0.16]** |
| Heterogeneity: Tau² = 0.13; Chi² = 10.13, df = 3 (P = 0.02); I² = 70% | | | | | | | | |
| Test for overall effect: Z = 1.20 (P = 0.23) | | | | | | | | |
| **Total (95% CI)** | | | **224** | | | **172** | **100.0%** | **-0.19 [-0.53, 0.15]** |
| Heterogeneity: Tau² = 0.10; Chi² = 11.31, df = 4 (P = 0.02); I² = 65% | | | | | | | | |
| Test for overall effect: Z = 1.11 (P = 0.27) | | | | | | | | |




**4.14 Mental state: 4. Self-esteem (RSES, RSCQ) (up to 12 months Follow Up) (higher=better)**

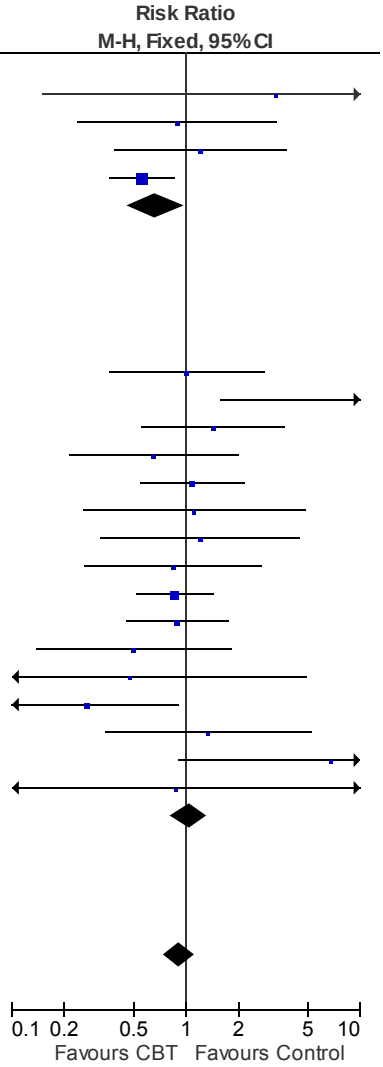
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **4.14.1 Self-esteem: (Less: <16 planned sessions) (all data)** | | | | | | | | |
| ENGLAND2007 | -128.6 | 16.7 | 44 | -114.7 | 17.3 | 21 | 17.9% | -0.81 [-1.35, -0.27] |
| GUMLEY2003 | -22.7 | 6.3 | 72 | -23.3 | 5.1 | 72 | 23.5% | 0.10 [-0.22, 0.43] |
| **Subtotal (95% CI)** | | | **116** | | | **93** | **41.3%** | **-0.33 [-1.23, 0.57]** |
| Heterogeneity: Tau² = 0.37; Chi² = 8.12, df = 1 (P = 0.004); I² = 88% | | | | | | | | |
| Test for overall effect: Z = 0.72 (P = 0.47) | | | | | | | | |
| **4.14.2 Self-esteem: (Less: <16 planned sessions) (ENGLAND2007 removed)** | | | | | | | | |
| GUMLEY2003 | -22.7 | 6.3 | 72 | -23.3 | 5.1 | 72 | 23.5% | 0.10 [-0.22, 0.43] |
| **Subtotal (95% CI)** | | | **72** | | | **72** | **23.5%** | **0.10 [-0.22, 0.43]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.62 (P = 0.53) | | | | | | | | |
| **4.14.3 Self-esteem: (More: =>16 planned sessions)** | | | | | | | | |
| LECOMTE2008 | -16.2 | 18.1 | 32 | -11.3 | 19.3 | 10 | 14.0% | -0.26 [-0.97, 0.45] |
| BARROWCLOUGH2006 | -22.2 | 4.84 | 51 | -24.33 | 3.87 | 43 | 21.2% | 0.48 [0.07, 0.89] |
| **Subtotal (95% CI)** | | | **83** | | | **53** | **35.2%** | **0.17 [-0.55, 0.88]** |
| Heterogeneity: Tau² = 0.19; Chi² = 3.10, df = 1 (P = 0.08); I² = 68% | | | | | | | | |
| Test for overall effect: Z = 0.46 (P = 0.65) | | | | | | | | |
| **Total (95% CI)** | | | **271** | | | **218** | **100.0%** | **-0.03 [-0.40, 0.34]** |
| Heterogeneity: Tau² = 0.13; Chi² = 14.92, df = 4 (P = 0.005); I² = 73% | | | | | | | | |
| Test for overall effect: Z = 0.17 (P = 0.87) | | | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**4.15 Treatment acceptability: 1. Leaving the study early (at end of treatment)**

| Study or Subgroup | CBT Events | CBT Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **4.15.1 at end of treatment (Less: <16 planned sessions)** | | | | | | |
| Haddock1999 | 1 | 10 | 0 | 11 | 0.3% | 3.27 [0.15, 72.23] |
| WYKES2005 | 4 | 45 | 4 | 40 | 2.7% | 0.89 [0.24, 3.32] |
| GUMLEY2003 | 6 | 72 | 5 | 72 | 3.1% | 1.20 [0.38, 3.76] |
| Turkington2002 | 32 | 257 | 37 | 165 | 28.4% | 0.56 [0.36, 0.85] |
| **Subtotal (95% CI)** | | **384** | | **288** | **34.5%** | **0.66 [0.46, 0.97]** |
| Total events | 43 | | 46 | | | |
| Heterogeneity: Chi² = 2.90, df = 3 (P = 0.41); I² = 0% | | | | | | |
| Test for overall effect: Z = 2.13 (P = 0.03) | | | | | | |
| **4.15.2 at end of treatment (More: =>16 planned sessions)** | | | | | | |
| VALMAGGIA2005 | 7 | 36 | 5 | 26 | 3.7% | 1.01 [0.36, 2.83] |
| JACKSON2005 | 12 | 45 | 0 | 46 | 0.3% | 25.54 [1.56, 418.93] |
| Sensky2000 | 9 | 46 | 6 | 44 | 3.9% | 1.43 [0.56, 3.70] |
| Kuipers1997 | 4 | 28 | 7 | 32 | 4.1% | 0.65 [0.21, 2.00] |
| STARTUP2004 | 13 | 47 | 11 | 43 | 7.2% | 1.08 [0.54, 2.15] |
| TROWER2004 | 3 | 18 | 3 | 20 | 1.8% | 1.11 [0.26, 4.82] |
| RECTOR2003 | 5 | 29 | 3 | 21 | 2.2% | 1.21 [0.32, 4.50] |
| LECOMTE2008 | 6 | 48 | 4 | 27 | 3.2% | 0.84 [0.26, 2.73] |
| GARETY2007 | 22 | 133 | 27 | 140 | 16.6% | 0.86 [0.51, 1.43] |
| Drury1996 | 10 | 30 | 12 | 32 | 7.3% | 0.89 [0.45, 1.75] |
| JACKSON2007 | 3 | 31 | 6 | 31 | 3.8% | 0.50 [0.14, 1.82] |
| DURHAM2003 | 1 | 22 | 2 | 21 | 1.3% | 0.48 [0.05, 4.88] |
| BARROWCLOUGH2006 | 3 | 57 | 11 | 56 | 7.0% | 0.27 [0.08, 0.91] |
| PENADES2006 | 4 | 20 | 3 | 20 | 1.9% | 1.33 [0.34, 5.21] |
| Tarrier1998 | 8 | 33 | 1 | 28 | 0.7% | 6.79 [0.90, 51.01] |
| CATHER2005 | 1 | 16 | 1 | 14 | 0.7% | 0.88 [0.06, 12.73] |
| **Subtotal (95% CI)** | | **639** | | **601** | **65.5%** | **1.04 [0.81, 1.32]** |
| Total events | 111 | | 102 | | | |
| Heterogeneity: Chi² = 16.89, df = 15 (P = 0.33); I² = 11% | | | | | | |
| Test for overall effect: Z = 0.28 (P = 0.78) | | | | | | |
| **Total (95% CI)** | | **1023** | | **889** | **100.0%** | **0.91 [0.74, 1.11]** |
| Total events | 154 | | 148 | | | |
| Heterogeneity: Chi² = 22.26, df = 19 (P = 0.27); I² = 15% | | | | | | |
| Test for overall effect: Z = 0.93 (P = 0.35) | | | | | | |



# Psychological clinical evidence: CBT (subgroup analyses)

**4.16 Treatment acceptability: 1. Leaving the study early (at FU)**

| Study or Subgroup | CBT Events | CBT Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **4.16.1 FU (Less: <16 planned sessions)** | | | | | | |
| WYKES2005 | 8 | 45 | 7 | 40 | 3.6% | 1.02 [0.40, 2.55] |
| BACH2002 | 5 | 40 | 5 | 40 | 2.4% | 1.00 [0.31, 3.19] |
| Turkington2002 | 46 | 257 | 40 | 165 | 23.8% | 0.74 [0.51, 1.08] |
| **Subtotal (95% CI)** | | **342** | | **245** | **29.8%** | **0.79 [0.57, 1.11]** |
| Total events | 59 | | 52 | | | |
| Heterogeneity: Chi² = 0.57, df = 2 (P = 0.75); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.36 (P = 0.17) | | | | | | |
| **4.16.2 FU (More: =<16 planned sessions)** | | | | | | |
| DURHAM2003 | 1 | 22 | 4 | 21 | 2.0% | 0.24 [0.03, 1.96] |
| RECTOR2003 | 8 | 29 | 8 | 21 | 4.5% | 0.72 [0.32, 1.62] |
| BECHDOLF2004 | 24 | 40 | 21 | 48 | 9.3% | 1.37 [0.91, 2.06] |
| JACKSON2007 | 3 | 31 | 4 | 31 | 2.0% | 0.75 [0.18, 3.08] |
| TROWER2004 | 4 | 18 | 5 | 20 | 2.3% | 0.89 [0.28, 2.81] |
| STARTUP2004 | 14 | 47 | 13 | 43 | 6.6% | 0.99 [0.52, 1.85] |
| BARROWCLOUGH2006 | 5 | 57 | 10 | 46 | 5.4% | 0.40 [0.15, 1.10] |
| VALMAGGIA2005 | 11 | 36 | 9 | 26 | 5.1% | 0.88 [0.43, 1.82] |
| Drury1996 | 11 | 30 | 14 | 32 | 6.6% | 0.84 [0.45, 1.55] |
| Lewis2002 | 26 | 101 | 31 | 102 | 15.1% | 0.85 [0.54, 1.32] |
| Tarrier1998 | 10 | 33 | 2 | 28 | 1.1% | 4.24 [1.01, 17.77] |
| LECOMTE2008 | 13 | 48 | 14 | 27 | 8.7% | 0.52 [0.29, 0.94] |
| PENADES2006 | 4 | 20 | 3 | 20 | 1.5% | 1.33 [0.34, 5.21] |
| **Subtotal (95% CI)** | | **512** | | **465** | **70.2%** | **0.89 [0.73, 1.08]** |
| Total events | 134 | | 138 | | | |
| Heterogeneity: Chi² = 16.73, df = 12 (P = 0.16); I² = 28% | | | | | | |
| Test for overall effect: Z = 1.15 (P = 0.25) | | | | | | |
| **Total (95% CI)** | | **854** | | **710** | **100.0%** | **0.86 [0.73, 1.02]** |
| Total events | 193 | | 190 | | | |
| Heterogeneity: Chi² = 17.77, df = 15 (P = 0.27); I² = 16% | | | | | | |
| Test for overall effect: Z = 1.72 (P = 0.08) | | | | | | |

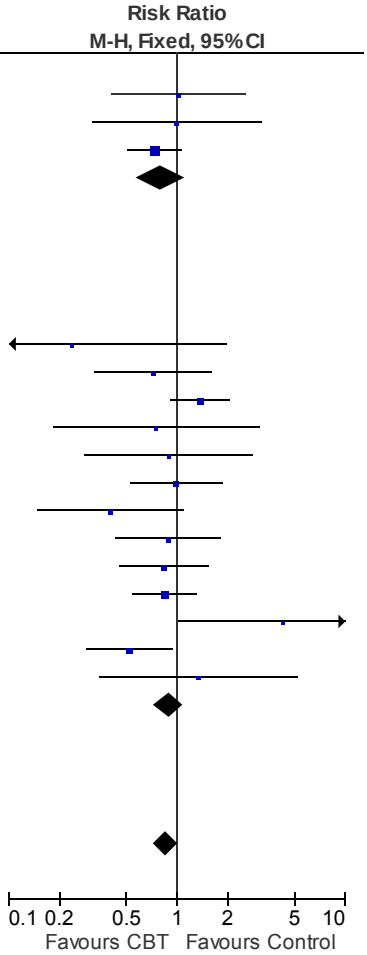


**Table 4: Studies included in the cognitive remediation review**

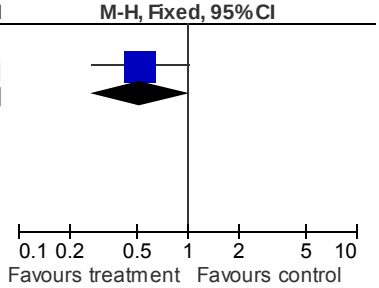
| Intervention | versus Comparator |
|---|---|
| | **Any control** |
| **CRT** | BELLUCCI2002<br>Hadaslidor2001<br>HOGARTY2004<br>Medalia1998<br>Medalia2000<br>PENADES2006<br>SILVERSTEIN2005<br>SPAULDING1999<br>TWAMLEY2008<br>VANDERGAAG2002<br>VELLIGAN2000<br>VELLIGAN2002<br>VELLIGAN2008A<br>VELLIGAN2008B<br>Wykes1999<br>WYKES2007A<br>WYKES2007B |
| | **Standard care** |
| **CRT** | BELLUCCI2002<br>Medalia2000<br>SILVERSTEIN2005<br>TWAMLEY2008<br>VELLIGAN2000<br>VELLIGAN2002<br>VELLIGAN2008A<br>VELLIGAN2008B<br>WYKES2007A<br>WYKES2007B |
| | **Other active treatments** |
| **CRT + non-standard care** | Hadaslidor2001<br>HOGARTY2004<br>Medalia1998<br>PENADES2006<br>SPAULDING1999<br>VANDERGAAG2002<br>VELLIGAN2008A<br>VELLIGAN2008B<br>Wykes1999 |

# Psychological clinical evidence: Cognitive remediation

**1 Cognitive remediation versus any control**

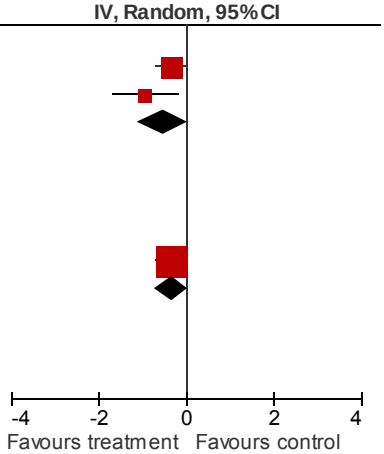
**1.2 Global state: 1. Relapse**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.2.1 Up to 12 months FU** | | | | | | |
| HOGARTY2004 | 11 | 67 | 17 | 54 | 100.0% | 0.52 [0.27, 1.02] |
| **Subtotal (95% CI)** | | **67** | | **54** | **100.0%** | **0.52 [0.27, 1.02]** |
| Total events | 11 | | 17 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.91 (P = 0.06) | | | | | | |



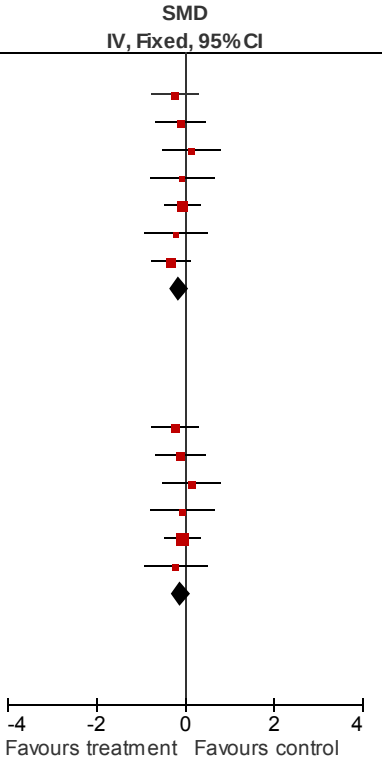

**1.3 Global state: 2. Global Assessment Scale**

| Study or Subgroup | SMD | SE | Treatment Total | Control Total | Weight | SMD IV, Random, 95% CI |
|---|---|---|---|---|---|---|
| **1.3.1 At end of treatment** | | | | | | |
| HOGARTY2004 | -0.343 | 0.1908 | 63 | 50 | 65.3% | -0.34 [-0.72, 0.03] |
| VELLIGAN2000 | -0.9483 | 0.3851 | 15 | 15 | 34.7% | -0.95 [-1.70, -0.19] |
| **Subtotal (95% CI)** | | | **78** | **65** | **100.0%** | **-0.55 [-1.12, 0.01]** |
| Heterogeneity: Tau² = 0.09; Chi² = 1.98, df = 1 (P = 0.16); I² = 50% | | | | | | |
| Test for overall effect: Z = 1.92 (P = 0.05) | | | | | | |
| **1.3.2 At end of treatment - VELLIGAN2000 removed** | | | | | | |
| HOGARTY2004 | -0.343 | 0.1908 | 63 | 50 | 100.0% | -0.34 [-0.72, 0.03] |
| **Subtotal (95% CI)** | | | **63** | **50** | **100.0%** | **-0.34 [-0.72, 0.03]** |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.80 (P = 0.07) | | | | | | |



**1.10 Mental state: 1. PANSS total symptoms (pooled across PANSS subscales) (end of treatment)**

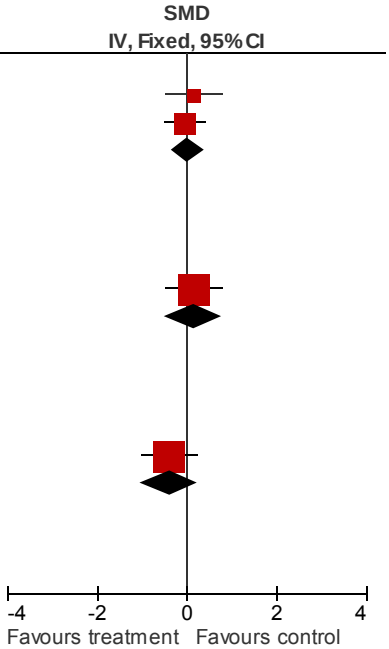
| Study or Subgroup | SMD | SE | Treatment Total | Control Total | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.10.1 Total symptoms (at end of treatment)** | | | | | | |
| Medalia1998 | -0.2365 | 0.2731 | 27 | 27 | 14.7% | -0.24 [-0.77, 0.30] |
| Medalia2000 | -0.109 | 0.291 | 36 | 18 | 12.9% | -0.11 [-0.68, 0.46] |
| PENADES2006 | 0.1438 | 0.3331 | 20 | 20 | 9.9% | 0.14 [-0.51, 0.80] |
| SILVERSTEIN2005 | -0.0787 | 0.3681 | 18 | 13 | 8.1% | -0.08 [-0.80, 0.64] |
| SPAULDING1999 | -0.076 | 0.2103 | 49 | 42 | 24.7% | -0.08 [-0.49, 0.34] |
| Wykes1999 | -0.2198 | 0.3662 | 15 | 15 | 8.2% | -0.22 [-0.94, 0.50] |
| WYKES2007A | -0.3154 | 0.2251 | 41 | 39 | 21.6% | -0.32 [-0.76, 0.13] |
| **Subtotal (95% CI)** | | | **206** | **174** | **100.0%** | **-0.15 [-0.35, 0.06]** |
| Heterogeneity: Chi² = 1.63, df = 6 (P = 0.95); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.39 (P = 0.16) | | | | | | |
| **1.10.2 Total symptoms (at end of treatment) (WYKES2007A removed - change score)** | | | | | | |
| Medalia1998 | -0.2365 | 0.2731 | 27 | 27 | 18.7% | -0.24 [-0.77, 0.30] |
| Medalia2000 | -0.109 | 0.291 | 36 | 18 | 16.5% | -0.11 [-0.68, 0.46] |
| PENADES2006 | 0.1438 | 0.3331 | 20 | 20 | 12.6% | 0.14 [-0.51, 0.80] |
| SILVERSTEIN2005 | -0.0787 | 0.3681 | 18 | 13 | 10.3% | -0.08 [-0.80, 0.64] |
| SPAULDING1999 | -0.076 | 0.2103 | 49 | 42 | 31.5% | -0.08 [-0.49, 0.34] |
| Wykes1999 | -0.2198 | 0.3662 | 15 | 15 | 10.4% | -0.22 [-0.94, 0.50] |
| **Subtotal (95% CI)** | | | **165** | **135** | **100.0%** | **-0.10 [-0.33, 0.13]** |
| Heterogeneity: Chi² = 0.91, df = 5 (P = 0.97); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.84 (P = 0.40) | | | | | | |




Test for subgroup differences: Chi² = 0.09, df = 1 (P = 0.77), I² = 0%

**1.11 Mental state: 1. PANSS total symptoms (pooled across PANSS subscales) (at FU)**

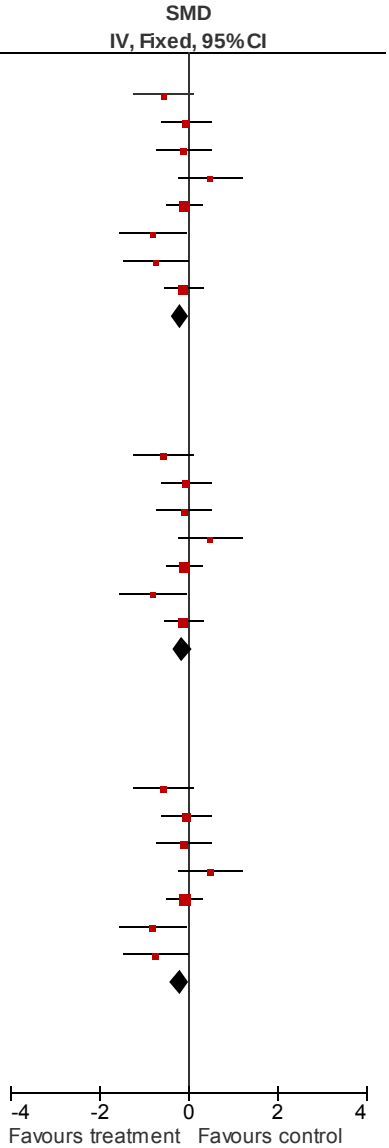
| Study or Subgroup | SMD | SE | Treatment Total | Control Total | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.11.1 At FU** | | | | | | |
| PENADES2006 | 0.1504 | 0.3272 | 20 | 20 | 34.5% | 0.15 [-0.49, 0.79] |
| WYKES2007A | -0.0523 | 0.2374 | 36 | 35 | 65.5% | -0.05 [-0.52, 0.41] |
| **Subtotal (95% CI)** | | | **56** | **55** | **100.0%** | **0.02 [-0.36, 0.39]** |
| Heterogeneity: Chi² = 0.25, df = 1 (P = 0.62); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.09 (P = 0.93) | | | | | | |
| **1.11.2 At FU (WYKES2007A removed - change score)** | | | | | | |
| PENADES2006 | 0.1504 | 0.3272 | 20 | 20 | 100.0% | 0.15 [-0.49, 0.79] |
| **Subtotal (95% CI)** | | | **20** | **20** | **100.0%** | **0.15 [-0.49, 0.79]** |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.46 (P = 0.65) | | | | | | |
| **1.11.3 Averaged across end of treatment and FU** | | | | | | |
| WYKES2007B | -0.4005 | 0.3198 | 21 | 19 | 100.0% | -0.40 [-1.03, 0.23] |
| **Subtotal (95% CI)** | | | **21** | **19** | **100.0%** | **-0.40 [-1.03, 0.23]** |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.25 (P = 0.21) | | | | | | |




Test for subgroup differences: Chi² = 1.70, df = 2 (P = 0.43), I² = 0%

**1.12 Mental state: 2. PANSS, SANS, Negative symptoms (end of treatment)**

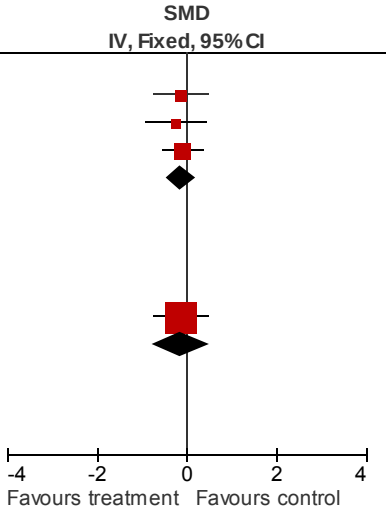
| Study or Subgroup | SMD | SE | Treatment Total | Control Total | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.12.1 At end of treatment (all data)** | | | | | | |
| BELLUCCI2002 | -0.5693 | 0.3499 | 17 | 17 | 8.7% | -0.57 [-1.26, 0.12] |
| Medalia2000 | -0.0616 | 0.2891 | 36 | 18 | 12.8% | -0.06 [-0.63, 0.51] |
| PENADES2006 | -0.1122 | 0.3165 | 20 | 20 | 10.7% | -0.11 [-0.73, 0.51] |
| SILVERSTEIN2005 | 0.4756 | 0.369 | 18 | 13 | 7.8% | 0.48 [-0.25, 1.20] |
| SPAULDING1999 | -0.094 | 0.2103 | 49 | 42 | 24.2% | -0.09 [-0.51, 0.32] |
| TWAMLEY2008 | -0.8171 | 0.3894 | 11 | 20 | 7.0% | -0.82 [-1.58, -0.05] |
| VELLIGAN2000 | -0.7489 | 0.3777 | 15 | 15 | 7.5% | -0.75 [-1.49, -0.01] |
| WYKES2007A | -0.1237 | 0.2239 | 41 | 39 | 21.3% | -0.12 [-0.56, 0.32] |
| **Subtotal (95% CI)** | | | **207** | **184** | **100.0%** | **-0.19 [-0.40, 0.01]** |
| Heterogeneity: Chi² = 9.76, df = 7 (P = 0.20); I² = 28% | | | | | | |
| Test for overall effect: Z = 1.89 (P = 0.06) | | | | | | |
| **1.12.2 At end of treatment (all data) - VELLIGAN2000 removed** | | | | | | |
| BELLUCCI2002 | -0.5693 | 0.3499 | 17 | 17 | 9.4% | -0.57 [-1.26, 0.12] |
| Medalia2000 | -0.0616 | 0.2891 | 36 | 18 | 13.8% | -0.06 [-0.63, 0.51] |
| PENADES2006 | -0.1122 | 0.3165 | 20 | 20 | 11.5% | -0.11 [-0.73, 0.51] |
| SILVERSTEIN2005 | 0.4756 | 0.369 | 18 | 13 | 8.5% | 0.48 [-0.25, 1.20] |
| SPAULDING1999 | -0.094 | 0.2103 | 49 | 42 | 26.1% | -0.09 [-0.51, 0.32] |
| TWAMLEY2008 | -0.8171 | 0.3894 | 11 | 20 | 7.6% | -0.82 [-1.58, -0.05] |
| WYKES2007A | -0.1237 | 0.2239 | 41 | 39 | 23.0% | -0.12 [-0.56, 0.32] |
| **Subtotal (95% CI)** | | | **192** | **169** | **100.0%** | **-0.15 [-0.36, 0.06]** |
| Heterogeneity: Chi² = 7.44, df = 6 (P = 0.28); I² = 19% | | | | | | |
| Test for overall effect: Z = 1.40 (P = 0.16) | | | | | | |
| **1.12.3 At end of treatment (WYKES2007A removed - Change score)** | | | | | | |
| BELLUCCI2002 | -0.5693 | 0.3499 | 17 | 17 | 11.1% | -0.57 [-1.26, 0.12] |
| Medalia2000 | -0.0616 | 0.2891 | 36 | 18 | 16.2% | -0.06 [-0.63, 0.51] |
| PENADES2006 | -0.1122 | 0.3165 | 20 | 20 | 13.5% | -0.11 [-0.73, 0.51] |
| SILVERSTEIN2005 | 0.4756 | 0.369 | 18 | 13 | 10.0% | 0.48 [-0.25, 1.20] |
| SPAULDING1999 | -0.094 | 0.2103 | 49 | 42 | 30.7% | -0.09 [-0.51, 0.32] |
| TWAMLEY2008 | -0.8171 | 0.3894 | 11 | 20 | 9.0% | -0.82 [-1.58, -0.05] |
| VELLIGAN2000 | -0.7489 | 0.3777 | 15 | 15 | 9.5% | -0.75 [-1.49, -0.01] |
| **Subtotal (95% CI)** | | | **166** | **145** | **100.0%** | **-0.21 [-0.44, 0.01]** |
| Heterogeneity: Chi² = 9.63, df = 6 (P = 0.14); I² = 38% | | | | | | |
| Test for overall effect: Z = 1.84 (P = 0.07) | | | | | | |




Test for subgroup differences: Chi² = 0.18, df = 2 (P = 0.92), I² = 0%

**1.13 Mental state: 2. PANSS, SANS, Negative symptoms (at FU)**

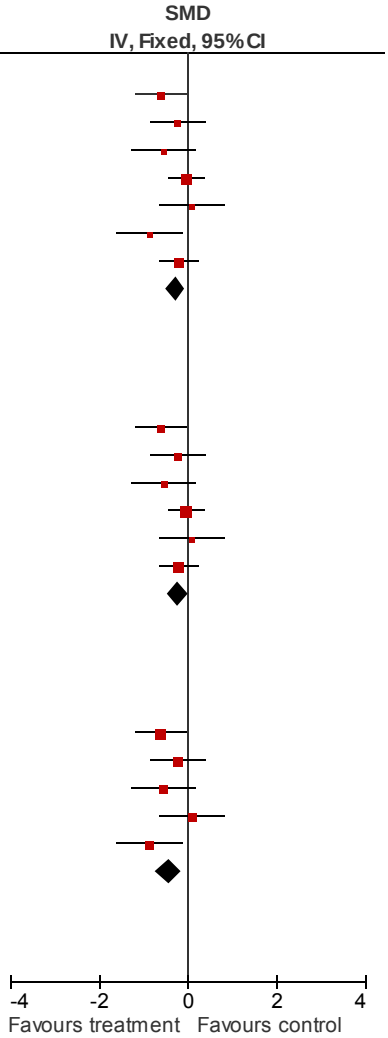
| Study or Subgroup | SMD | SE | Treatment Total | Control Total | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.13.1 At FU** | | | | | | |
| PENADES2006 | -0.1368 | 0.3166 | 20 | 20 | 27.7% | -0.14 [-0.76, 0.48] |
| TWAMLEY2008 | -0.2423 | 0.3462 | 14 | 21 | 23.1% | -0.24 [-0.92, 0.44] |
| WYKES2007A | -0.0984 | 0.2375 | 36 | 35 | 49.2% | -0.10 [-0.56, 0.37] |
| **Subtotal (95% CI)** | | | **70** | **76** | **100.0%** | **-0.14 [-0.47, 0.18]** |
| Heterogeneity: Chi² = 0.12, df = 2 (P = 0.94); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.85 (P = 0.39) | | | | | | |
| **1.13.2 At FU (WYKES2007A removed - change score)** | | | | | | |
| PENADES2006 | -0.1368 | 0.3166 | 20 | 20 | 100.0% | -0.14 [-0.76, 0.48] |
| **Subtotal (95% CI)** | | | **20** | **20** | **100.0%** | **-0.14 [-0.76, 0.48]** |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.43 (P = 0.67) | | | | | | |




Test for subgroup differences: Chi² = 0.00, df = 1 (P = 0.99), I² = 0%

**1.14 Mental state: 3. PANSS, SAPS, Positive symptoms**

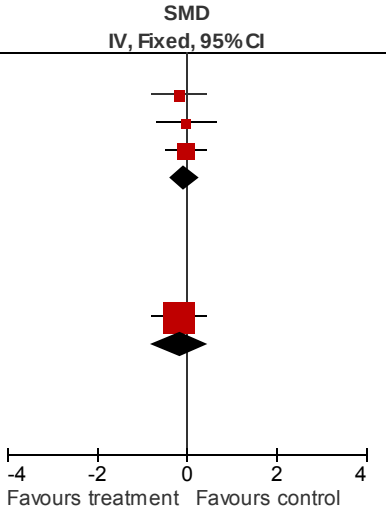
| Study or Subgroup | SMD | SE | Treatment Total | Control Total | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.14.1 At end of treatment** | | | | | | |
| Medalia2000 | -0.6243 | 0.2946 | 36 | 18 | 13.5% | -0.62 [-1.20, -0.05] |
| PENADES2006 | -0.2404 | 0.3174 | 20 | 20 | 11.7% | -0.24 [-0.86, 0.38] |
| SILVERSTEIN2005 | -0.55 | 0.3706 | 18 | 13 | 8.6% | -0.55 [-1.28, 0.18] |
| SPAULDING1999 | -0.047 | 0.2103 | 49 | 42 | 26.6% | -0.05 [-0.46, 0.37] |
| TWAMLEY2008 | 0.082 | 0.3755 | 11 | 20 | 8.3% | 0.08 [-0.65, 0.82] |
| VELLIGAN2000 | -0.8708 | 0.382 | 15 | 15 | 8.0% | -0.87 [-1.62, -0.12] |
| WYKES2007A | -0.22 | 0.2244 | 41 | 39 | 23.3% | -0.22 [-0.66, 0.22] |
| **Subtotal (95% CI)** | | | **190** | **167** | **100.0%** | **-0.29 [-0.50, -0.07]** |
| Heterogeneity: Chi² = 6.53, df = 6 (P = 0.37); I² = 8% | | | | | | |
| Test for overall effect: Z = 2.64 (P = 0.008) | | | | | | |
| **1.14.2 At end of treatment - VELLIGAN2000 removed** | | | | | | |
| Medalia2000 | -0.6243 | 0.2946 | 36 | 18 | 14.7% | -0.62 [-1.20, -0.05] |
| PENADES2006 | -0.2404 | 0.3174 | 20 | 20 | 12.7% | -0.24 [-0.86, 0.38] |
| SILVERSTEIN2005 | -0.55 | 0.3706 | 18 | 13 | 9.3% | -0.55 [-1.28, 0.18] |
| SPAULDING1999 | -0.047 | 0.2103 | 49 | 42 | 28.9% | -0.05 [-0.46, 0.37] |
| TWAMLEY2008 | 0.082 | 0.3755 | 11 | 20 | 9.1% | 0.08 [-0.65, 0.82] |
| WYKES2007A | -0.22 | 0.2244 | 41 | 39 | 25.4% | -0.22 [-0.66, 0.22] |
| **Subtotal (95% CI)** | | | **175** | **152** | **100.0%** | **-0.24 [-0.46, -0.01]** |
| Heterogeneity: Chi² = 3.99, df = 5 (P = 0.55); I² = 0% | | | | | | |
| Test for overall effect: Z = 2.08 (P = 0.04) | | | | | | |
| **1.14.3 At end of treatment (WYKES2007A removed - Change score)** | | | | | | |
| Medalia2000 | -0.6243 | 0.2946 | 36 | 18 | 27.0% | -0.62 [-1.20, -0.05] |
| PENADES2006 | -0.2404 | 0.3174 | 20 | 20 | 23.3% | -0.24 [-0.86, 0.38] |
| SILVERSTEIN2005 | -0.55 | 0.3706 | 18 | 13 | 17.1% | -0.55 [-1.28, 0.18] |
| TWAMLEY2008 | 0.082 | 0.3755 | 11 | 20 | 16.6% | 0.08 [-0.65, 0.82] |
| VELLIGAN2000 | -0.8708 | 0.382 | 15 | 15 | 16.1% | -0.87 [-1.62, -0.12] |
| **Subtotal (95% CI)** | | | **100** | **86** | **100.0%** | **-0.44 [-0.74, -0.14]** |
| Heterogeneity: Chi² = 4.08, df = 4 (P = 0.40); I² = 2% | | | | | | |
| Test for overall effect: Z = 2.90 (P = 0.004) | | | | | | |




Test for subgroup differences: Chi² = 1.23, df = 2 (P = 0.54), I² = 0%

**1.15 Mental state: 3. PANSS, SAPS, Positive symptoms (at FU)**

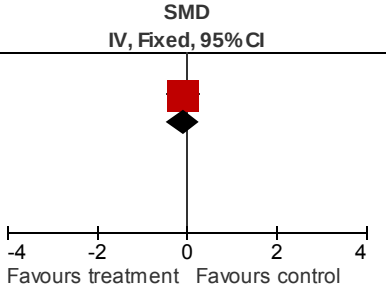
| Study or Subgroup | SMD | SE | Treatment Total | Control Total | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.15.1 At FU** | | | | | | |
| PENADES2006 | -0.1737 | 0.3168 | 20 | 20 | 27.6% | -0.17 [-0.79, 0.45] |
| TWAMLEY2008 | -0.018 | 0.345 | 14 | 21 | 23.3% | -0.02 [-0.69, 0.66] |
| WYKES2007A | -0.0178 | 0.2374 | 36 | 35 | 49.1% | -0.02 [-0.48, 0.45] |
| **Subtotal (95% CI)** | | | **70** | **76** | **100.0%** | **-0.06 [-0.39, 0.27]** |
| Heterogeneity: Chi² = 0.18, df = 2 (P = 0.92); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.37 (P = 0.71) | | | | | | |
| **1.15.2 At FU (WYKES2007A removed - change score)** | | | | | | |
| PENADES2006 | -0.1737 | 0.3168 | 20 | 20 | 100.0% | -0.17 [-0.79, 0.45] |
| **Subtotal (95% CI)** | | | **20** | **20** | **100.0%** | **-0.17 [-0.79, 0.45]** |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.55 (P = 0.58) | | | | | | |




Test for subgroup differences: Chi² = 0.10, df = 1 (P = 0.75), I² = 0%

**1.16 Mental state: 4. Symptom composite score**

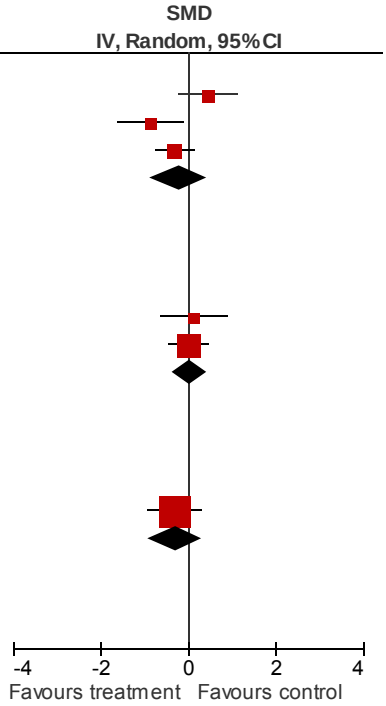
| Study or Subgroup | SMD | SE | Treatment Total | Control Total | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.16.2 At end of treatment** | | | | | | |
| HOGARTY2004 | -0.0928 | 0.1895 | 63 | 50 | 100.0% | -0.09 [-0.46, 0.28] |
| **Subtotal (95% CI)** | | | **63** | **50** | **100.0%** | **-0.09 [-0.46, 0.28]** |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.49 (P = 0.62) | | | | | | |




Test for subgroup differences: Not applicable

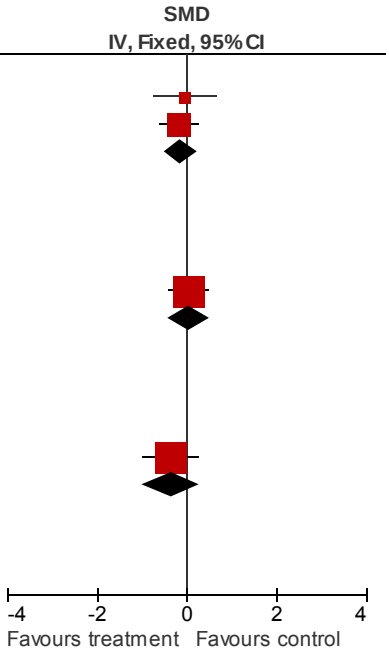
**1.17 Mental state: 5. Self esteem (RSES)**

| Study or Subgroup | SMD | SE | Treatment Total | Control Total | Weight | SMD IV, Random, 95% CI |
|---|---|---|---|---|---|---|
| **1.17.1 At end of treatment** | | | | | | |
| BELLUCCI2002 | 0.4456 | 0.3472 | 17 | 17 | 31.7% | 0.45 [-0.23, 1.13] |
| Wykes1999 | -0.8671 | 0.3887 | 14 | 15 | 29.1% | -0.87 [-1.63, -0.11] |
| WYKES2007A | -0.3171 | 0.2294 | 38 | 39 | 39.2% | -0.32 [-0.77, 0.13] |
| **Subtotal (95% CI)** | | | **69** | **71** | **100.0%** | **-0.24 [-0.89, 0.42]** |
| Heterogeneity: Tau² = 0.23; Chi² = 6.61, df = 2 (P = 0.04); I² = 70% | | | | | | |
| Test for overall effect: Z = 0.71 (P = 0.48) | | | | | | |
| **1.17.2 At FU** | | | | | | |
| Wykes1999 | 0.1056 | 0.3925 | 13 | 13 | 27.0% | 0.11 [-0.66, 0.87] |
| WYKES2007A | 0 | 0.239 | 35 | 35 | 73.0% | 0.00 [-0.47, 0.47] |
| **Subtotal (95% CI)** | | | **48** | **48** | **100.0%** | **0.03 [-0.37, 0.43]** |
| Heterogeneity: Tau² = 0.00; Chi² = 0.05, df = 1 (P = 0.82); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.14 (P = 0.89) | | | | | | |
| **1.17.3 Averaged across end of treatment and FU** | | | | | | |
| WYKES2007B | -0.3166 | 0.3186 | 21 | 19 | 100.0% | -0.32 [-0.94, 0.31] |
| **Subtotal (95% CI)** | | | **21** | **19** | **100.0%** | **-0.32 [-0.94, 0.31]** |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.99 (P = 0.32) | | | | | | |




**1.20 Psychosocial functioning: 1. Social Behaviour Scale**

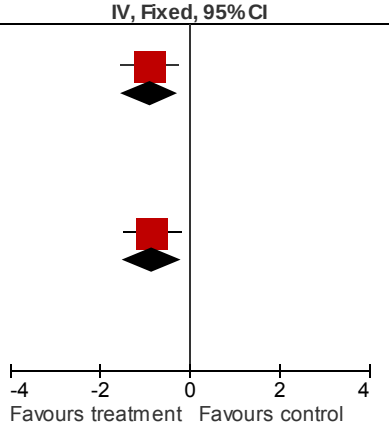
| Study or Subgroup | SMD | SE | Treatment Total | Control Total | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.20.1 At end of treatment** | | | | | | |
| Wykes1999 | -0.0565 | 0.3595 | 16 | 15 | 28.3% | -0.06 [-0.76, 0.65] |
| WYKES2007A | -0.1743 | 0.2256 | 41 | 38 | 71.7% | -0.17 [-0.62, 0.27] |
| **Subtotal (95% CI)** | | | **57** | **53** | **100.0%** | **-0.14 [-0.52, 0.23]** |
| Heterogeneity: Chi² = 0.08, df = 1 (P = 0.78); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.74 (P = 0.46) | | | | | | |
| **1.20.2 At FU** | | | | | | |
| WYKES2007A | 0.0352 | 0.2302 | 41 | 35 | 100.0% | 0.04 [-0.42, 0.49] |
| **Subtotal (95% CI)** | | | **41** | **35** | **100.0%** | **0.04 [-0.42, 0.49]** |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.15 (P = 0.88) | | | | | | |
| **1.20.3 Averaged across end of treatment and FU** | | | | | | |
| WYKES2007B | -0.361 | 0.3192 | 21 | 19 | 100.0% | -0.36 [-0.99, 0.26] |
| **Subtotal (95% CI)** | | | **21** | **19** | **100.0%** | **-0.36 [-0.99, 0.26]** |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.13 (P = 0.26) | | | | | | |




Test for subgroup differences: Chi² = 1.04, df = 2 (P = 0.60), I² = 0%

**1.21 Psychosocial functioning: 2. Life Skills Profile**

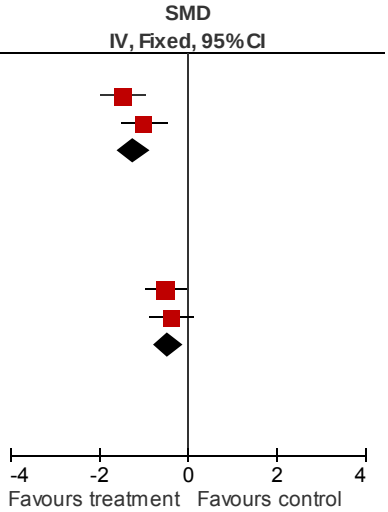
| Study or Subgroup | SMD | SE | Treatment Total | Control Total | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.21.1 At end of treatment** | | | | | | |
| PENADES2006 | -0.9027 | 0.3319 | 20 | 20 | 100.0% | -0.90 [-1.55, -0.25] |
| **Subtotal (95% CI)** | | | **20** | **20** | **100.0%** | **-0.90 [-1.55, -0.25]** |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 2.72 (P = 0.007) | | | | | | |
| **1.21.2 At FU** | | | | | | |
| PENADES2006 | -0.8424 | 0.33 | 20 | 20 | 100.0% | -0.84 [-1.49, -0.20] |
| **Subtotal (95% CI)** | | | **20** | **20** | **100.0%** | **-0.84 [-1.49, -0.20]** |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 2.55 (P = 0.01) | | | | | | |




Test for subgroup differences: Chi² = 0.02, df = 1 (P = 0.90), I² = 0%

**1.22 Psychosocial functioning: 3. SOFAs - VELLIGAN2008 only**

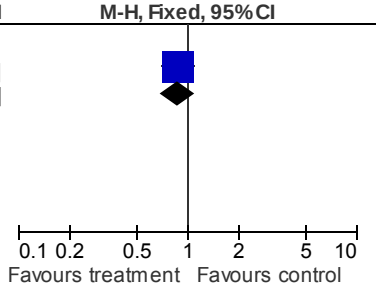
| Study or Subgroup | SMD | SE | Treatment Total | Control Total | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.22.1 At end of treatment** | | | | | | |
| VELLIGAN2008A | -1.4722 | 0.2605 | 36 | 39 | 51.4% | -1.47 [-1.98, -0.96] |
| VELLIGAN2008B | -1.0004 | 0.268 | 34 | 28 | 48.6% | -1.00 [-1.53, -0.48] |
| **Subtotal (95% CI)** | | | **70** | **67** | **100.0%** | **-1.24 [-1.61, -0.88]** |
| Heterogeneity: Chi² = 1.59, df = 1 (P = 0.21); I² = 37% | | | | | | |
| Test for overall effect: Z = 6.65 (P < 0.00001) | | | | | | |
| **1.22.2 At FU** | | | | | | |
| VELLIGAN2008A | -0.5116 | 0.2363 | 36 | 39 | 53.8% | -0.51 [-0.97, -0.05] |
| VELLIGAN2008B | -0.3779 | 0.255 | 34 | 29 | 46.2% | -0.38 [-0.88, 0.12] |
| **Subtotal (95% CI)** | | | **70** | **68** | **100.0%** | **-0.45 [-0.79, -0.11]** |
| Heterogeneity: Chi² = 0.15, df = 1 (P = 0.70); I² = 0% | | | | | | |
| Test for overall effect: Z = 2.60 (P = 0.009) | | | | | | |




Test for subgroup differences: Chi² = 9.69, df = 1 (P = 0.002), I² = 89.7%

**1.30 Psychosocial functioning: 4. Employment status (not in competitive employment) (at FU)**

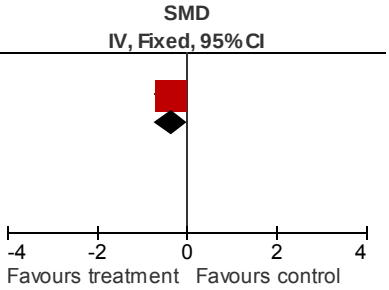
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.30.2 Not in competitive employment (up to 1 yr FU)** | | | | | | |
| Hadaslidor2001 | 27 | 36 | 31 | 36 | 100.0% | 0.87 [0.69, 1.10] |
| **Subtotal (95% CI)** | | **36** | | **36** | **100.0%** | **0.87 [0.69, 1.10]** |
| Total events | 27 | | 31 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.18 (P = 0.24) | | | | | | |



**1.36 Psychosocial functioning: 5. Employment (measures on major role adjustment inventory)**

| Study or Subgroup | SMD | SE | Treatment Total | Control Total | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.36.1 At end of treatment** | | | | | | |
| HOGARTY2004 | -0.3593 | 0.1909 | 63 | 50 | 100.0% | -0.36 [-0.73, 0.01] |
| **Subtotal (95% CI)** | | | **63** | **50** | **100.0%** | **-0.36 [-0.73, 0.01]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 1.88 (P = 0.06)




Test for subgroup differences: Not applicable

**1.60 Quality of Life**

| Study or Subgroup | SMD | SE | Treatment Total | Control Total | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.60.1 At end of treatment** | | | | | | |
| TWAMLEY2008 | 0.1363 | 0.3757 | 11 | 20 | 100.0% | 0.14 [-0.60, 0.87] |
| **Subtotal (95% CI)** | | | **11** | **20** | **100.0%** | **0.14 [-0.60, 0.87]** |

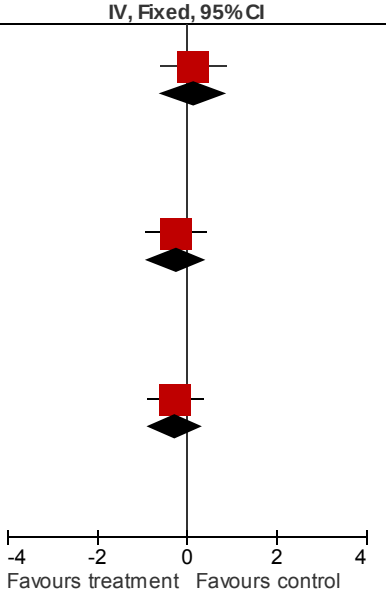
Heterogeneity: Not applicable
Test for overall effect: Z = 0.36 (P = 0.72)

| | | | | | | |
|---|---|---|---|---|---|---|
| **1.60.2 At FU** | | | | | | |
| TWAMLEY2008 | -0.2418 | 0.3462 | 14 | 21 | 100.0% | -0.24 [-0.92, 0.44] |
| **Subtotal (95% CI)** | | | **14** | **21** | **100.0%** | **-0.24 [-0.92, 0.44]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 0.70 (P = 0.48)

| | | | | | | |
|---|---|---|---|---|---|---|
| **1.60.3 Averaged across end of treatment and FU** | | | | | | |
| WYKES2007B | -0.2687 | 0.318 | 21 | 19 | 100.0% | -0.27 [-0.89, 0.35] |
| **Subtotal (95% CI)** | | | **21** | **19** | **100.0%** | **-0.27 [-0.89, 0.35]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 0.84 (P = 0.40)

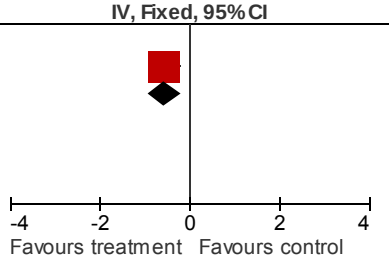



Test for subgroup differences: Chi² = 0.79, df = 2 (P = 0.67), I² = 0%

**1.80 Cognitive outcome: 1. Social Cognition**

| Study or Subgroup | SMD | SE | Treatment Total | Control Total | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.80.1 AT FU** | | | | | | |
| HOGARTY2004 | -0.5745 | 0.1866 | 67 | 54 | 100.0% | -0.57 [-0.94, -0.21] |
| **Subtotal (95% CI)** | | | **67** | **54** | **100.0%** | **-0.57 [-0.94, -0.21]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 3.08 (P = 0.002)

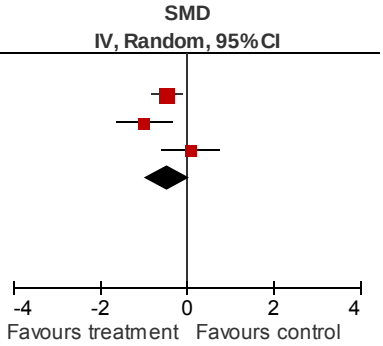



Test for subgroup differences: Not applicable

**1.81 Cognitive outcome: 2. Speed of Processing**

| Study or Subgroup | SMD | SE | Treatment Total | Control Total | Weight | SMD IV, Random, 95% CI |
|---|---|---|---|---|---|---|
| **1.81.1 at FU** | | | | | | |
| HOGARTY2004 | -0.468 | 0.1853 | 67 | 54 | 43.2% | -0.47 [-0.83, -0.10] |
| PENADES2006 | -0.9972 | 0.3353 | 20 | 20 | 28.8% | -1.00 [-1.65, -0.34] |
| TWAMLEY2008 | 0.083 | 0.345 | 14 | 21 | 28.0% | 0.08 [-0.59, 0.76] |
| **Subtotal (95% CI)** | | | **101** | **95** | **100.0%** | **-0.47 [-0.98, 0.04]** |

Heterogeneity: Tau² = 0.12; Chi² = 5.04, df = 2 (P = 0.08); I² = 60%
Test for overall effect: Z = 1.79 (P = 0.07)



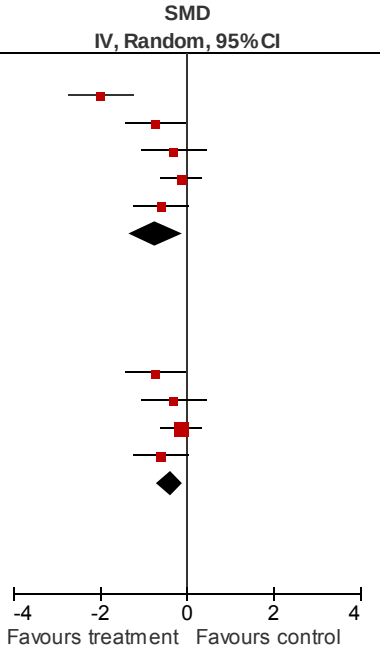

**1.82 Cognitive outcome: 3. Reasoning and problem solving**

| Study or Subgroup | SMD | SE | Treatment Total | Control Total | Weight | SMD IV, Random, 95% CI |
|---|---|---|---|---|---|---|
| **1.82.1 at FU** | | | | | | |
| PENADES2006 | -1.9958 | 0.387 | 20 | 20 | 18.7% | -2.00 [-2.75, -1.24] |
| TWAMLEY2008 | -0.73 | 0.356 | 14 | 21 | 19.6% | -0.73 [-1.43, -0.03] |
| Wykes1999 | -0.3142 | 0.3876 | 14 | 14 | 18.7% | -0.31 [-1.07, 0.45] |
| WYKES2007A | -0.1307 | 0.2469 | 35 | 31 | 22.6% | -0.13 [-0.61, 0.35] |
| WYKES2007B | -0.6045 | 0.3239 | 21 | 19 | 20.5% | -0.60 [-1.24, 0.03] |
| **Subtotal (95% CI)** | | | **104** | **105** | **100.0%** | **-0.73 [-1.34, -0.12]** |

Heterogeneity: Tau² = 0.37; Chi² = 17.29, df = 4 (P = 0.002); I² = 77%
Test for overall effect: Z = 2.34 (P = 0.02)

| Study or Subgroup | SMD | SE | Treatment Total | Control Total | Weight | SMD IV, Random, 95% CI |
|---|---|---|---|---|---|---|
| **1.82.2 at FU - PENADES2006 removed** | | | | | | |
| TWAMLEY2008 | -0.73 | 0.356 | 14 | 21 | 19.5% | -0.73 [-1.43, -0.03] |
| Wykes1999 | -0.3142 | 0.3876 | 14 | 14 | 16.4% | -0.31 [-1.07, 0.45] |
| WYKES2007A | -0.1307 | 0.2469 | 35 | 31 | 40.5% | -0.13 [-0.61, 0.35] |
| WYKES2007B | -0.6045 | 0.3239 | 21 | 19 | 23.5% | -0.60 [-1.24, 0.03] |
| **Subtotal (95% CI)** | | | **84** | **85** | **100.0%** | **-0.39 [-0.70, -0.08]** |

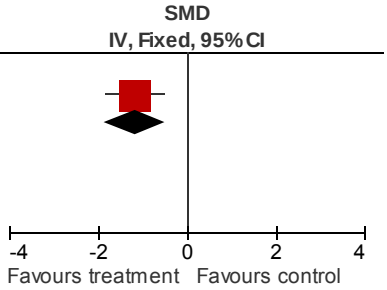
Heterogeneity: Tau² = 0.00; Chi² = 2.49, df = 3 (P = 0.48); I² = 0%
Test for overall effect: Z = 2.48 (P = 0.01)




**1.83 Cognitive outcome: 4. Visual learning and memory**

| Study or Subgroup | SMD | SE | Treatment Total | Control Total | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.83.1 at FU** | | | | | | |
| PENADES2006 | -1.188 | 0.343 | 20 | 20 | 100.0% | -1.19 [-1.86, -0.52] |
| **Subtotal (95% CI)** | | | **20** | **20** | **100.0%** | **-1.19 [-1.86, -0.52]** |

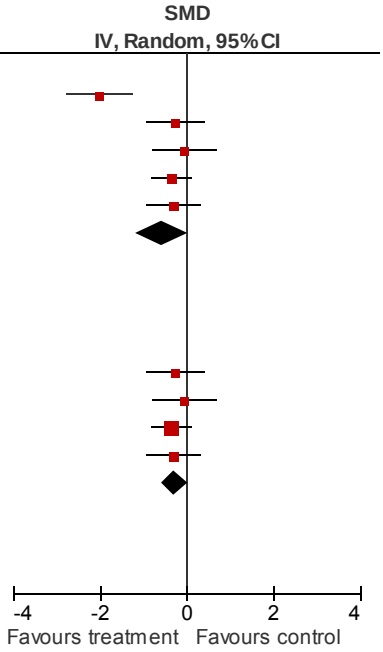
Heterogeneity: Not applicable
Test for overall effect: Z = 3.46 (P = 0.0005)




Test for subgroup differences: Not applicable

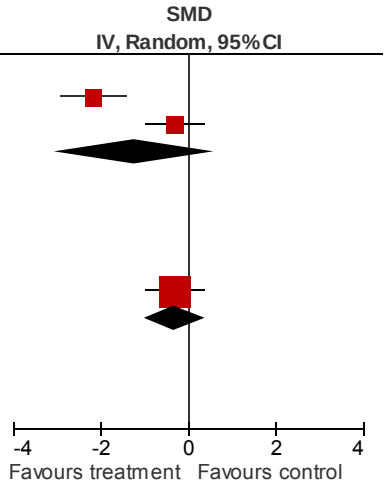
**1.84 Cognitive outcome: 5. Verbal working memory**

| Study or Subgroup | SMD | SE | Treatment Total | Control Total | Weight | SMD IV, Random, 95% CI |
|---|---|---|---|---|---|---|
| **1.84.1 at FU** | | | | | | |
| PENADES2006 | -2.0175 | 0.3884 | 20 | 20 | 18.5% | -2.02 [-2.78, -1.26] |
| TWAMLEY2008 | -0.279 | 0.347 | 14 | 21 | 19.7% | -0.28 [-0.96, 0.40] |
| Wykes1999 | -0.0548 | 0.378 | 14 | 14 | 18.8% | -0.05 [-0.80, 0.69] |
| WYKES2007A | -0.359 | 0.2411 | 36 | 34 | 22.6% | -0.36 [-0.83, 0.11] |
| WYKES2007B | -0.3134 | 0.3186 | 21 | 19 | 20.5% | -0.31 [-0.94, 0.31] |
| **Subtotal (95% CI)** | | | **105** | **108** | **100.0%** | **-0.58 [-1.19, 0.02]** |
| Heterogeneity: Tau² = 0.36; Chi² = 17.73, df = 4 (P = 0.001); I² = 77% | | | | | | |
| Test for overall effect: Z = 1.89 (P = 0.06) | | | | | | |
| **1.84.2 at FU - PENADES2006 removed** | | | | | | |
| TWAMLEY2008 | -0.279 | 0.347 | 14 | 21 | 19.6% | -0.28 [-0.96, 0.40] |
| Wykes1999 | -0.0548 | 0.378 | 14 | 14 | 16.5% | -0.05 [-0.80, 0.69] |
| WYKES2007A | -0.359 | 0.2411 | 36 | 34 | 40.6% | -0.36 [-0.83, 0.11] |
| WYKES2007B | -0.3134 | 0.3186 | 21 | 19 | 23.3% | -0.31 [-0.94, 0.31] |
| **Subtotal (95% CI)** | | | **85** | **88** | **100.0%** | **-0.28 [-0.58, 0.02]** |
| Heterogeneity: Tau² = 0.00; Chi² = 0.47, df = 3 (P = 0.92); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.84 (P = 0.07) | | | | | | |



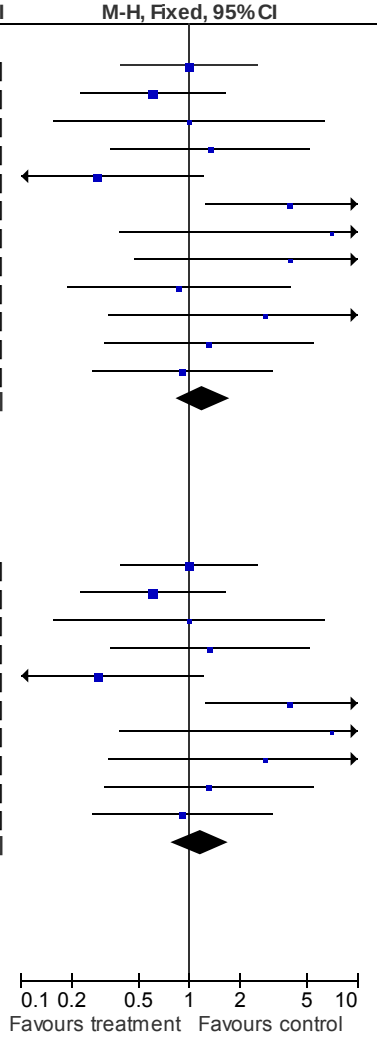

**1.86 Cognitive outcome: 6. Verbal learning and memory**

| Study or Subgroup | SMD | SE | Treatment Total | Control Total | Weight | SMD IV, Random, 95% CI |
|---|---|---|---|---|---|---|
| **1.86.1 at FU** | | | | | | |
| PENADES2006 | -2.1753 | 0.3884 | 20 | 20 | 49.6% | -2.18 [-2.94, -1.41] |
| TWAMLEY2008 | -0.326 | 0.35 | 14 | 21 | 50.4% | -0.33 [-1.01, 0.36] |
| **Subtotal (95% CI)** | | | **34** | **41** | **100.0%** | **-1.24 [-3.06, 0.57]** |
| Heterogeneity: Tau² = 1.57; Chi² = 12.51, df = 1 (P = 0.0004); I² = 92% | | | | | | |
| Test for overall effect: Z = 1.34 (P = 0.18) | | | | | | |
| **1.86.2 at FU - PENADES2006 removed** | | | | | | |
| TWAMLEY2008 | -0.326 | 0.35 | 14 | 21 | 100.0% | -0.33 [-1.01, 0.36] |
| **Subtotal (95% CI)** | | | **14** | **21** | **100.0%** | **-0.33 [-1.01, 0.36]** |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.93 (P = 0.35) | | | | | | |



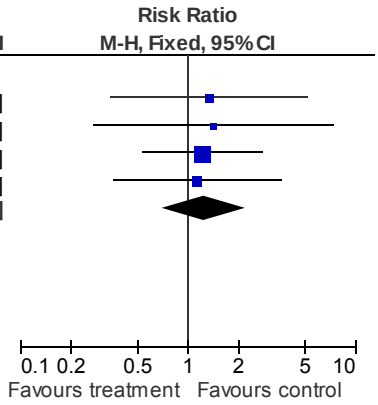
**1.90 leaving the study early (at end of treatment)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.90.1 All data** | | | | | | |
| Hadaslidor2001 | 7 | 36 | 7 | 36 | 16.0% | 1.00 [0.39, 2.56] |
| HOGARTY2004 | 6 | 67 | 8 | 54 | 20.3% | 0.60 [0.22, 1.64] |
| Medalia2000 | 2 | 20 | 2 | 20 | 4.6% | 1.00 [0.16, 6.42] |
| PENADES2006 | 4 | 20 | 3 | 20 | 6.9% | 1.33 [0.34, 5.21] |
| SILVERSTEIN2005 | 2 | 20 | 7 | 20 | 16.0% | 0.29 [0.07, 1.21] |
| TWAMLEY2008 | 11 | 25 | 3 | 27 | 6.6% | 3.96 [1.25, 12.57] |
| VANDERGAAG2002 | 3 | 21 | 0 | 21 | 1.1% | 7.00 [0.38, 127.69] |
| VELLIGAN2008A | 4 | 40 | 1 | 40 | 2.3% | 4.00 [0.47, 34.24] |
| VELLIGAN2008B | 3 | 37 | 3 | 32 | 7.4% | 0.86 [0.19, 3.99] |
| Wykes1999 | 3 | 17 | 1 | 16 | 2.4% | 2.82 [0.33, 24.43] |
| WYKES2007A | 4 | 43 | 3 | 42 | 6.9% | 1.30 [0.31, 5.47] |
| WYKES2007B | 4 | 21 | 4 | 19 | 9.6% | 0.90 [0.26, 3.12] |
| **Subtotal (95% CI)** | | **367** | | **347** | **100.0%** | **1.21 [0.83, 1.75]** |
| Total events | 53 | | 42 | | | |
| Heterogeneity: Chi² = 13.55, df = 11 (P = 0.26); I² = 19% | | | | | | |
| Test for overall effect: Z = 0.99 (P = 0.32) | | | | | | |
| **1.90.2 All data - VALLIGAN2008 removed** | | | | | | |
| Hadaslidor2001 | 7 | 36 | 7 | 36 | 17.7% | 1.00 [0.39, 2.56] |
| HOGARTY2004 | 6 | 67 | 8 | 54 | 22.4% | 0.60 [0.22, 1.64] |
| Medalia2000 | 2 | 20 | 2 | 20 | 5.1% | 1.00 [0.16, 6.42] |
| PENADES2006 | 4 | 20 | 3 | 20 | 7.6% | 1.33 [0.34, 5.21] |
| SILVERSTEIN2005 | 2 | 20 | 7 | 20 | 17.7% | 0.29 [0.07, 1.21] |
| TWAMLEY2008 | 11 | 25 | 3 | 27 | 7.3% | 3.96 [1.25, 12.57] |
| VANDERGAAG2002 | 3 | 21 | 0 | 21 | 1.3% | 7.00 [0.38, 127.69] |
| Wykes1999 | 3 | 17 | 1 | 16 | 2.6% | 2.82 [0.33, 24.43] |
| WYKES2007A | 4 | 43 | 3 | 42 | 7.7% | 1.30 [0.31, 5.47] |
| WYKES2007B | 4 | 21 | 4 | 19 | 10.6% | 0.90 [0.26, 3.12] |
| **Subtotal (95% CI)** | | **290** | | **275** | **100.0%** | **1.16 [0.79, 1.72]** |
| Total events | 46 | | 38 | | | |
| Heterogeneity: Chi² = 12.07, df = 9 (P = 0.21); I² = 25% | | | | | | |
| Test for overall effect: Z = 0.76 (P = 0.45) | | | | | | |




**1.91 Leaving the study early (up to 12 months FU)**

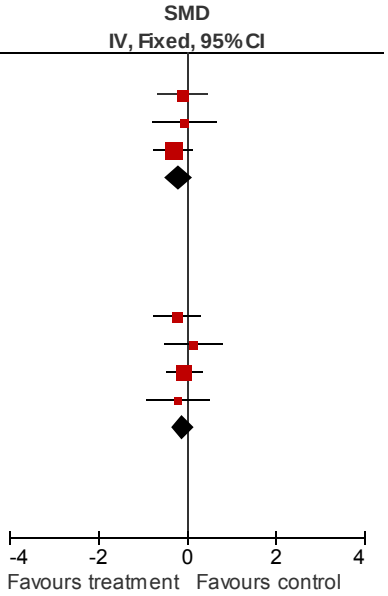
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.91.1 All data** | | | | | | |
| PENADES2006 | 4 | 20 | 3 | 20 | 17.3% | 1.33 [0.34, 5.21] |
| Wykes1999 | 3 | 17 | 2 | 16 | 11.9% | 1.41 [0.27, 7.38] |
| WYKES2007A | 10 | 43 | 8 | 42 | 46.6% | 1.22 [0.53, 2.79] |
| WYKES2007B | 5 | 21 | 4 | 19 | 24.2% | 1.13 [0.35, 3.60] |
| **Subtotal (95% CI)** | | **101** | | **97** | **100.0%** | **1.24 [0.70, 2.19]** |
| Total events | 22 | | 17 | | | |
| Heterogeneity: Chi² = 0.06, df = 3 (P = 1.00); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.75 (P = 0.45) | | | | | | |




**2 Grouped by comparison (selected critical outcomes)**

**2.10 Mental state: 1. PANSS total symptoms (pooled across PANSS subscales) (end of treatment)**

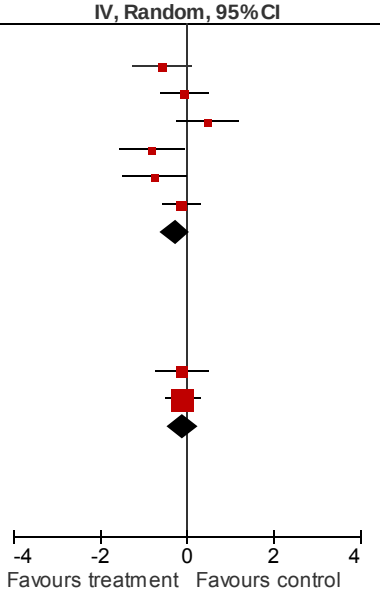
| Study or Subgroup | SMD | SE | Treatment Total | Control Total | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.10.1 Total symptoms (comparator: cognitive remediation versus standard care** | | | | | | |
| Medalia2000 | -0.109 | 0.291 | 36 | 18 | 30.3% | -0.11 [-0.68, 0.46] |
| SILVERSTEIN2005 | -0.0787 | 0.3681 | 18 | 13 | 19.0% | -0.08 [-0.80, 0.64] |
| WYKES2007A | -0.3154 | 0.2251 | 41 | 39 | 50.7% | -0.32 [-0.76, 0.13] |
| **Subtotal (95% CI)** | | | **95** | **70** | **100.0%** | **-0.21 [-0.52, 0.11]** |
| Heterogeneity: Chi² = 0.47, df = 2 (P = 0.79); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.30 (P = 0.19) | | | | | | |
| **2.10.2 Total symptoms (comparator: cognitive remediation versus other active)** | | | | | | |
| Medalia1998 | -0.2365 | 0.2731 | 27 | 27 | 25.5% | -0.24 [-0.77, 0.30] |
| PENADES2006 | 0.1438 | 0.3331 | 20 | 20 | 17.2% | 0.14 [-0.51, 0.80] |
| SPAULDING1999 | -0.076 | 0.2103 | 49 | 42 | 43.1% | -0.08 [-0.49, 0.34] |
| Wykes1999 | -0.2198 | 0.3662 | 15 | 15 | 14.2% | -0.22 [-0.94, 0.50] |
| **Subtotal (95% CI)** | | | **111** | **104** | **100.0%** | **-0.10 [-0.37, 0.17]** |
| Heterogeneity: Chi² = 0.91, df = 3 (P = 0.82); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.72 (P = 0.47) | | | | | | |




Test for subgroup differences: Chi² = 0.26, df = 1 (P = 0.61), I² = 0%

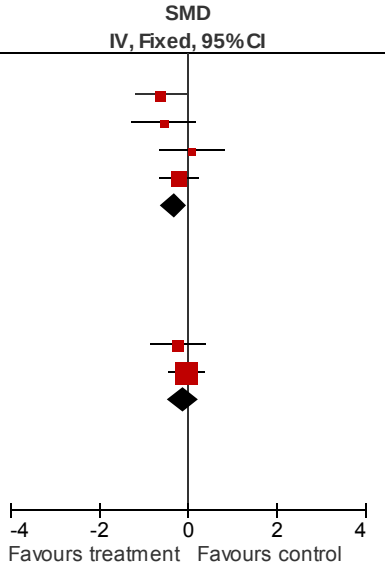
**2.12 Mental state: 2. PANSS, SANS, Negative symptoms (end of treatment)**

| Study or Subgroup | SMD | SE | Treatment Total | Control Total | Weight | SMD IV, Random, 95% CI |
|---|---|---|---|---|---|---|
| **2.12.1 At end of treatment (comparator: cognitive remediation versus standard care)** | | | | | | |
| BELLUCCI2002 | -0.5693 | 0.3499 | 17 | 17 | 15.4% | -0.57 [-1.26, 0.12] |
| Medalia2000 | -0.0616 | 0.2891 | 36 | 18 | 18.9% | -0.06 [-0.63, 0.51] |
| SILVERSTEIN2005 | 0.4756 | 0.369 | 18 | 13 | 14.5% | 0.48 [-0.25, 1.20] |
| TWAMLEY2008 | -0.8171 | 0.3894 | 11 | 20 | 13.6% | -0.82 [-1.58, -0.05] |
| VELLIGAN2000 | -0.7489 | 0.3777 | 15 | 15 | 14.1% | -0.75 [-1.49, -0.01] |
| WYKES2007A | -0.1237 | 0.2239 | 41 | 39 | 23.5% | -0.12 [-0.56, 0.32] |
| **Subtotal (95% CI)** | | | **138** | **122** | **100.0%** | **-0.28 [-0.63, 0.08]** |
| Heterogeneity: Tau² = 0.09; Chi² = 9.31, df = 5 (P = 0.10); I² = 46% | | | | | | |
| Test for overall effect: Z = 1.53 (P = 0.13) | | | | | | |
| **2.12.2 At end of treatment (comparator: cognitive remediation versus other active)** | | | | | | |
| PENADES2006 | -0.1122 | 0.3165 | 20 | 20 | 30.6% | -0.11 [-0.73, 0.51] |
| SPAULDING1999 | -0.094 | 0.2103 | 49 | 42 | 69.4% | -0.09 [-0.51, 0.32] |
| **Subtotal (95% CI)** | | | **69** | **62** | **100.0%** | **-0.10 [-0.44, 0.24]** |
| Heterogeneity: Tau² = 0.00; Chi² = 0.00, df = 1 (P = 0.96); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.57 (P = 0.57) | | | | | | |



**2.14 Mental state: 3. PANSS, SAPS, Positive symptoms (at end of treatment)**

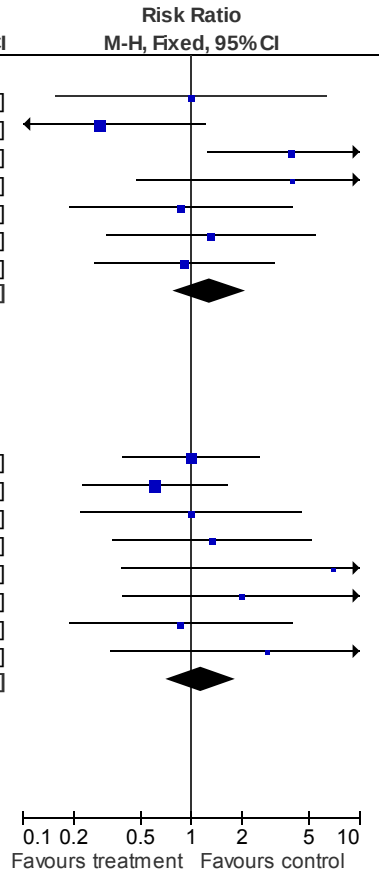
| Study or Subgroup | SMD | SE | Treatment Total | Control Total | Weight | SMD IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.14.1 At end of treatment (comparator: cognitive remediation versus standard care)** | | | | | | |
| Medalia2000 | -0.6243 | 0.2946 | 36 | 18 | 25.2% | -0.62 [-1.20, -0.05] |
| SILVERSTEIN2005 | -0.55 | 0.3706 | 18 | 13 | 15.9% | -0.55 [-1.28, 0.18] |
| TWAMLEY2008 | 0.082 | 0.3755 | 11 | 20 | 15.5% | 0.08 [-0.65, 0.82] |
| WYKES2007A | -0.22 | 0.2244 | 41 | 39 | 43.4% | -0.22 [-0.66, 0.22] |
| **Subtotal (95% CI)** | | | **106** | **90** | **100.0%** | **-0.33 [-0.62, -0.04]** |
| Heterogeneity: Chi² = 2.79, df = 3 (P = 0.42); I² = 0% | | | | | | |
| Test for overall effect: Z = 2.22 (P = 0.03) | | | | | | |
| **2.14.2 At end of treatment (comparator: cognitive remediation versus other active)** | | | | | | |
| PENADES2006 | -0.2404 | 0.3174 | 20 | 20 | 30.5% | -0.24 [-0.86, 0.38] |
| SPAULDING1999 | -0.047 | 0.2103 | 49 | 42 | 69.5% | -0.05 [-0.46, 0.37] |
| **Subtotal (95% CI)** | | | **69** | **62** | **100.0%** | **-0.11 [-0.45, 0.24]** |
| Heterogeneity: Chi² = 0.26, df = 1 (P = 0.61); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.60 (P = 0.55) | | | | | | |




Test for subgroup differences: Chi² = 0.93, df = 1 (P = 0.33), I² = 0%

**2.70 leaving the study early (at end of treatment)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.70.1 All data (comparator: cognitive remediation versus standard care)** | | | | | | |
| Medalia2000 | 2 | 20 | 2 | 20 | 8.6% | 1.00 [0.16, 6.42] |
| SILVERSTEIN2005 | 2 | 20 | 7 | 20 | 30.0% | 0.29 [0.07, 1.21] |
| TWAMLEY2008 | 11 | 25 | 3 | 27 | 12.4% | 3.96 [1.25, 12.57] |
| VELLIGAN2008A | 4 | 40 | 1 | 40 | 4.3% | 4.00 [0.47, 34.24] |
| VELLIGAN2008B | 3 | 37 | 3 | 32 | 13.8% | 0.86 [0.19, 3.99] |
| WYKES2007A | 4 | 43 | 3 | 42 | 13.0% | 1.30 [0.31, 5.47] |
| WYKES2007B | 4 | 21 | 4 | 19 | 18.0% | 0.90 [0.26, 3.12] |
| **Subtotal (95% CI)** | | **206** | | **200** | **100.0%** | **1.28 [0.78, 2.12]** |
| Total events | 30 | | 23 | | | |
| Heterogeneity: Chi² = 9.52, df = 6 (P = 0.15); I² = 37% | | | | | | |
| Test for overall effect: Z = 0.98 (P = 0.33) | | | | | | |
| **2.70.2 All data (comparator: cognitive remediation versus other active)** | | | | | | |
| Hadaslidor2001 | 7 | 36 | 7 | 36 | 24.5% | 1.00 [0.39, 2.56] |
| HOGARTY2004 | 6 | 67 | 8 | 54 | 31.0% | 0.60 [0.22, 1.64] |
| Medalia1998 | 3 | 30 | 3 | 30 | 10.5% | 1.00 [0.22, 4.56] |
| PENADES2006 | 4 | 20 | 3 | 20 | 10.5% | 1.33 [0.34, 5.21] |
| VANDERGAAG2002 | 3 | 21 | 0 | 21 | 1.7% | 7.00 [0.38, 127.69] |
| VELLIGAN2008A | 4 | 40 | 2 | 40 | 7.0% | 2.00 [0.39, 10.31] |
| VELLIGAN2008B | 3 | 37 | 3 | 32 | 11.2% | 0.86 [0.19, 3.99] |
| Wykes1999 | 3 | 17 | 1 | 16 | 3.6% | 2.82 [0.33, 24.43] |
| **Subtotal (95% CI)** | | **268** | | **249** | **100.0%** | **1.14 [0.71, 1.82]** |
| Total events | 33 | | 27 | | | |
| Heterogeneity: Chi² = 4.46, df = 7 (P = 0.72); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.54 (P = 0.59) | | | | | | |




**2.71 Leaving the study early (up to 12 months FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.71.1 All data (comparator: cognitive remediation versus standard care)** | | | | | | |
| WYKES2007A | 10 | 43 | 8 | 42 | 65.8% | 1.22 [0.53, 2.79] |
| WYKES2007B | 5 | 21 | 4 | 19 | 34.2% | 1.13 [0.35, 3.60] |
| **Subtotal (95% CI)** | | **64** | | **61** | **100.0%** | **1.19 [0.61, 2.33]** |
| Total events | 15 | | 12 | | | |
| Heterogeneity: Chi² = 0.01, df = 1 (P = 0.92); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.51 (P = 0.61) | | | | | | |
| **2.71.2 All data (comparator: cognitive remediation versus other active)** | | | | | | |
| PENADES2006 | 4 | 20 | 3 | 20 | 59.3% | 1.33 [0.34, 5.21] |
| Wykes1999 | 3 | 17 | 2 | 16 | 40.7% | 1.41 [0.27, 7.38] |
| **Subtotal (95% CI)** | | **37** | | **36** | **100.0%** | **1.37 [0.48, 3.91]** |
| Total events | 7 | | 5 | | | |
| Heterogeneity: Chi² = 0.00, df = 1 (P = 0.96); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.58 (P = 0.56) | | | | | | |

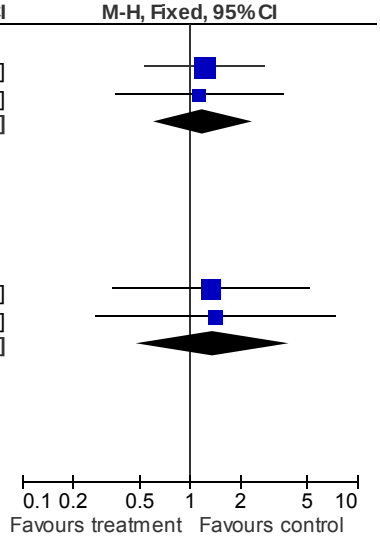


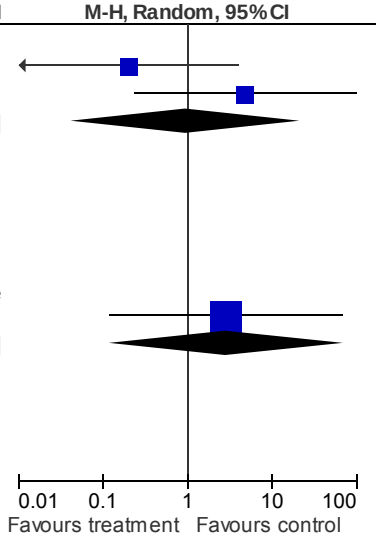
**Table 5: Studies included in the counselling and supportive therapy review**

| Intervention | versus Comparator |
|---|---|
| | **Any control** |
| **Counselling and Supportive Therapy** | Eckman1992<br>Falloon1981<br>Haddock1999<br>Herz2000<br>Hogarty1997<br>JACKSON2007<br>Kemp1996<br>Lewis2002<br>Marder1996<br>PATTERSON2006<br>PINTO1999<br>ROHRICHT2006<br>Sensky2000<br>SHIN2002<br>Stanton1984<br>Tarrier1998<br>VALMAGGIA2005 |
| | **Standard care** |
| **Counselling and Supportive Therapy** | Tarrier1998<br>Lewis2002 |
| | **Other active treatments** |
| **Counselling and Supportive Therapy** | Eckman1992<br>Falloon1981<br>Haddock1999<br>Herz2000<br>Hogarty1997<br>JACKSON2007<br>Kemp1996<br>Lewis2002<br>Marder1996<br>PATTERSON2006<br>PINTO1999<br>ROHRICHT2006<br>Sensky2000<br>SHIN2002<br>Stanton1984<br>Tarrier1998<br>VALMAGGIA2005 |

**1 Counselling and supportive therapy versus any control (critical outcomes)**

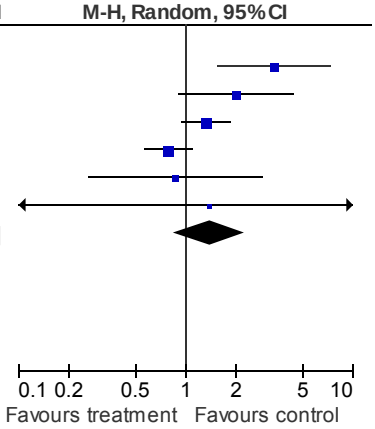
**1.1 Mortality**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **1.1.2 Suicide and probable suicide - up to 18 months FU** | | | | | | |
| JACKSON2007 | 0 | 31 | 2 | 31 | 50.2% | 0.20 [0.01, 4.00] |
| Lewis2002 | 2 | 106 | 0 | 102 | 49.8% | 4.81 [0.23, 99.05] |
| **Subtotal (95% CI)** | | **137** | | **133** | **100.0%** | **0.97 [0.04, 22.01]** |
| Total events | 2 | | 2 | | | |
| Heterogeneity: Tau² = 2.70; Chi² = 2.14, df = 1 (P = 0.14); I² = 53% | | | | | | |
| Test for overall effect: Z = 0.02 (P = 0.99) | | | | | | |
| **1.1.3 Died of natural causes/ accidents - up to 18 months FU** | | | | | | |
| Kemp1996 | 0 | 35 | 0 | 39 | | Not estimable |
| Lewis2002 | 1 | 106 | 0 | 102 | 100.0% | 2.89 [0.12, 70.08] |
| **Subtotal (95% CI)** | | **141** | | **141** | **100.0%** | **2.89 [0.12, 70.08]** |
| Total events | 1 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.65 (P = 0.51) | | | | | | |




**1.2 Global state: 1. Relapse**

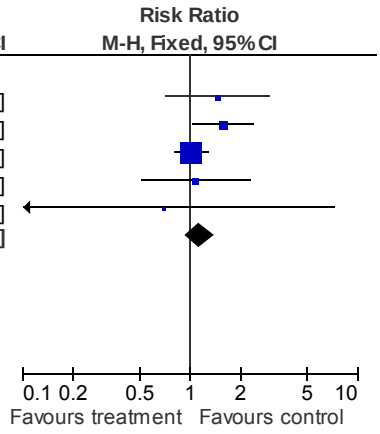
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **1.2.1 At end of treatment** | | | | | | |
| Falloon1981 | 16 | 19 | 5 | 20 | 16.9% | 3.37 [1.54, 7.38] |
| Herz2000 | 14 | 41 | 7 | 41 | 16.6% | 2.00 [0.90, 4.44] |
| Hogarty1997 | 35 | 53 | 24 | 48 | 26.6% | 1.32 [0.94, 1.86] |
| Marder1996 | 21 | 37 | 31 | 43 | 26.7% | 0.79 [0.56, 1.10] |
| Tarrier1998 | 4 | 26 | 5 | 28 | 10.5% | 0.86 [0.26, 2.86] |
| VALMAGGIA2005 | 1 | 26 | 1 | 36 | 2.8% | 1.38 [0.09, 21.14] |
| **Subtotal (95% CI)** | | **202** | | **216** | **100.0%** | **1.38 [0.86, 2.23]** |
| Total events | 91 | | 73 | | | |
| Heterogeneity: Tau² = 0.19; Chi² = 15.53, df = 5 (P = 0.008); I² = 68% | | | | | | |
| Test for overall effect: Z = 1.32 (P = 0.19) | | | | | | |



**1.3 Global State: 1. Relapse (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.3.1 Up to 18 months FU** | | | | | | |
| Haddock1999 | 8 | 11 | 5 | 10 | 5.8% | 1.45 [0.71, 2.98] |
| Kemp1996 | 24 | 35 | 17 | 39 | 17.9% | 1.57 [1.03, 2.40] |
| Lewis2002 | 60 | 106 | 57 | 102 | 64.7% | 1.01 [0.80, 1.29] |
| Tarrier1998 | 9 | 26 | 9 | 28 | 9.7% | 1.08 [0.51, 2.29] |
| VALMAGGIA2005 | 1 | 26 | 2 | 36 | 1.9% | 0.69 [0.07, 7.24] |
| **Subtotal (95% CI)** | | **204** | | **215** | **100.0%** | **1.14 [0.94, 1.38]** |
| Total events | 102 | | 90 | | | |

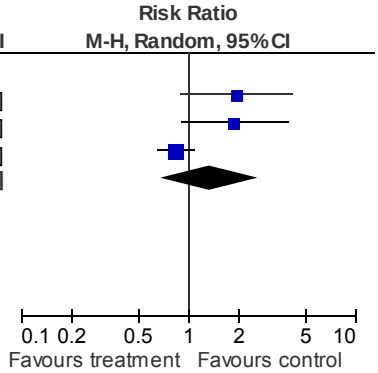
Heterogeneity: Chi² = 3.81, df = 4 (P = 0.43); I² = 0%
Test for overall effect: Z = 1.32 (P = 0.19)




**1.4 Service Outcome: 1. Rehospitalisation**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **1.4.1 At end of treatment** | | | | | | |
| Falloon1981 | 11 | 19 | 6 | 20 | 28.3% | 1.93 [0.89, 4.17] |
| Herz2000 | 15 | 41 | 8 | 41 | 29.1% | 1.88 [0.89, 3.93] |
| Stanton1984 | 41 | 76 | 57 | 88 | 42.6% | 0.83 [0.64, 1.08] |
| **Subtotal (95% CI)** | | **136** | | **149** | **100.0%** | **1.34 [0.69, 2.61]** |
| Total events | 67 | | 71 | | | |

Heterogeneity: Tau² = 0.25; Chi² = 7.87, df = 2 (P = 0.02); I² = 75%
Test for overall effect: Z = 0.86 (P = 0.39)



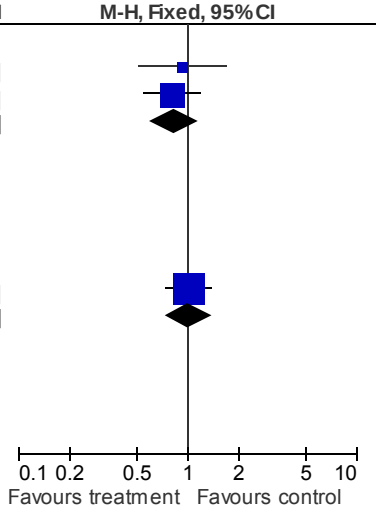

**1.5 Service Outcome: 1. Rehospitalisation (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.5.1 Up to 18 months FU** | | | | | | |
| JACKSON2007 | 12 | 31 | 13 | 31 | 25.6% | 0.92 [0.50, 1.69] |
| Lewis2002 | 31 | 106 | 37 | 102 | 74.4% | 0.81 [0.54, 1.19] |
| **Subtotal (95% CI)** | | **137** | | **133** | **100.0%** | **0.84 [0.60, 1.16]** |
| Total events | 43 | | 50 | | | |

Heterogeneity: Chi² = 0.14, df = 1 (P = 0.71); I² = 0%
Test for overall effect: Z = 1.06 (P = 0.29)

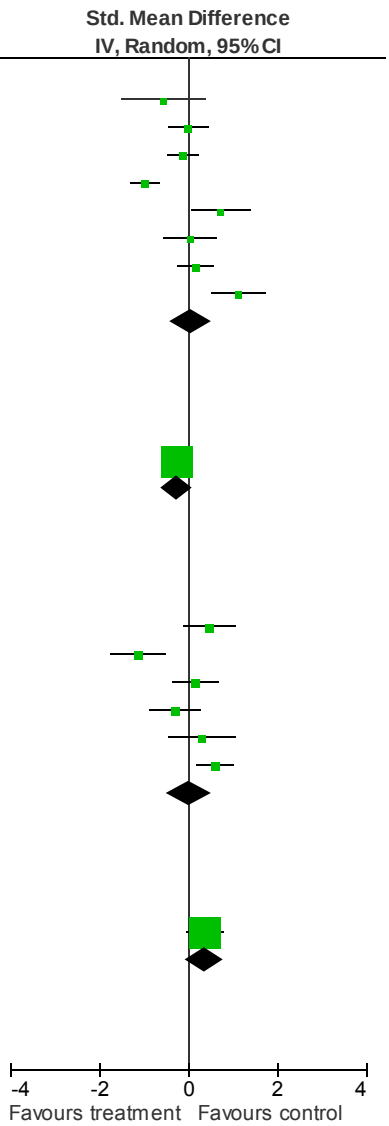
| | | | | | | |
|---|---|---|---|---|---|---|
| **1.5.2 Up to 5 years FU** | | | | | | |
| Sensky2000 | 28 | 44 | 29 | 46 | 100.0% | 1.01 [0.74, 1.38] |
| **Subtotal (95% CI)** | | **44** | | **46** | **100.0%** | **1.01 [0.74, 1.38]** |
| Total events | 28 | | 29 | | | |

Heterogeneity: Not applicable
Test for overall effect: Z = 0.06 (P = 0.95)



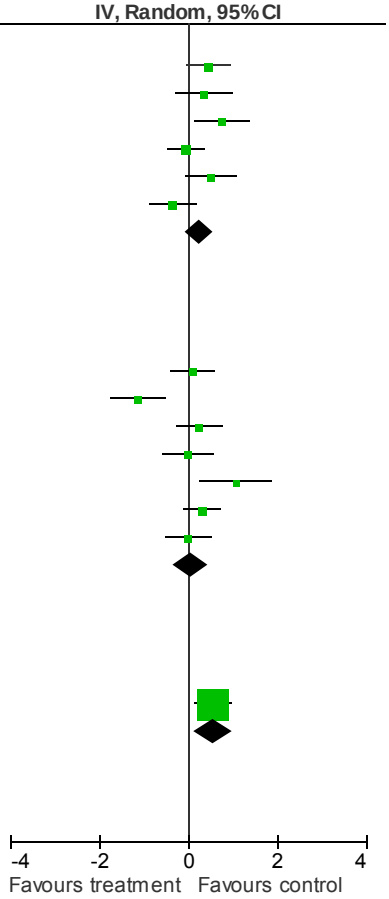
**1.6 Mental state: 1. Continuous measures - total symptom score (lower=better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.6.1 PANSS, BPRS, CPRS- at end of treatment** | | | | | | | | |
| Haddock1999 | 38.3 | 17.4 | 10 | 46.8 | 8.75 | 8 | 9.3% | -0.57 [-1.52, 0.39] |
| Kemp1996 | 37.4 | 8.5 | 35 | 37.6 | 10.1 | 39 | 13.3% | -0.02 [-0.48, 0.44] |
| Lewis2002 | 67.25 | 18.52 | 64 | 70.15 | 21.46 | 59 | 13.9% | -0.14 [-0.50, 0.21] |
| PATTERSON2006 | 59.1 | 2.7 | 76 | 61.8 | 2.7 | 82 | 14.1% | -1.00 [-1.33, -0.66] |
| PINTO1999 | 45.7 | 11 | 18 | 38.1 | 9.7 | 19 | 11.6% | 0.72 [0.05, 1.39] |
| ROHRICHT2006 | 71.9 | 20.9 | 19 | 71.4 | 15.7 | 24 | 12.1% | 0.03 [-0.57, 0.63] |
| Sensky2000 | 22.9 | 17.23 | 44 | 20.5 | 12.89 | 46 | 13.6% | 0.16 [-0.26, 0.57] |
| SHIN2002 | 82.58 | 7.62 | 24 | 74.29 | 7.04 | 24 | 12.1% | 1.11 [0.50, 1.72] |
| **Subtotal (95% CI)** | | | **290** | | | **301** | **100.0%** | **0.03 [-0.44, 0.50]** |
| Heterogeneity: Tau² = 0.38; Chi² = 51.34, df = 7 (P < 0.00001); I² = 86% | | | | | | | | |
| Test for overall effect: Z = 0.11 (P = 0.91) | | | | | | | | |
| **1.6.3 PANSS, BPRS, CPRS Total up to 5 weeks FU** | | | | | | | | |
| Lewis2002 | 59.96 | 16.39 | 71 | 64.38 | 16.79 | 60 | 100.0% | -0.27 [-0.61, 0.08] |
| **Subtotal (95% CI)** | | | **71** | | | **60** | **100.0%** | **-0.27 [-0.61, 0.08]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.51 (P = 0.13) | | | | | | | | |
| **1.6.4 PANSS, BPRS, CPRS Total up to 18 months FU** | | | | | | | | |
| Kemp1996 | 14.8 | 4.1 | 20 | 12.5 | 5.6 | 25 | 16.6% | 0.45 [-0.14, 1.05] |
| LEWIS2002L | 53 | 14.6 | 23 | 69.5 | 13.6 | 23 | 16.1% | -1.15 [-1.78, -0.52] |
| LEWIS2002M | 76.6 | 21.7 | 30 | 73.2 | 21.9 | 26 | 17.4% | 0.15 [-0.37, 0.68] |
| LEWIS2002N | 51.4 | 9.6 | 26 | 54.5 | 10.1 | 21 | 16.8% | -0.31 [-0.89, 0.27] |
| ROHRICHT2006 | 74.4 | 17.1 | 12 | 70.3 | 10 | 15 | 14.4% | 0.29 [-0.47, 1.06] |
| Sensky2000 | 26.6 | 25.19 | 44 | 15.1 | 11.53 | 46 | 18.7% | 0.59 [0.16, 1.01] |
| **Subtotal (95% CI)** | | | **155** | | | **156** | **100.0%** | **0.02 [-0.49, 0.52]** |
| Heterogeneity: Tau² = 0.31; Chi² = 23.85, df = 5 (P = 0.0002); I² = 79% | | | | | | | | |
| Test for overall effect: Z = 0.06 (P = 0.95) | | | | | | | | |
| **1.6.5 BPRS PANSS, CPRS total - up to 5 years FU** | | | | | | | | |
| Sensky2000 | 29 | 14 | 44 | 24.4 | 11.7 | 44 | 100.0% | 0.35 [-0.07, 0.77] |
| **Subtotal (95% CI)** | | | **44** | | | **44** | **100.0%** | **0.35 [-0.07, 0.77]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.64 (P = 0.10) | | | | | | | | |



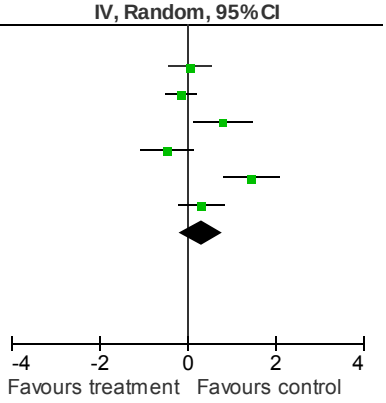
**1.7 Mental state: 2. Continuous measures - negative symptoms (lower = better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.7.1 SANS, PANSS - at end of treatment** | | | | | | | | |
| JACKSON2007 | 22.88 | 12.87 | 31 | 17.67 | 10.19 | 31 | 17.9% | 0.44 [-0.06, 0.95] |
| PINTO1999 | 53.5 | 19.1 | 18 | 46.9 | 19.4 | 19 | 13.9% | 0.34 [-0.31, 0.99] |
| ROHRICHT2006 | 23.3 | 7.4 | 19 | 18.9 | 4.3 | 24 | 14.6% | 0.74 [0.11, 1.36] |
| Sensky2000 | 20.68 | 20.93 | 44 | 21.95 | 16.53 | 44 | 20.7% | -0.07 [-0.48, 0.35] |
| SHIN2002 | 11.71 | 1.58 | 24 | 10.88 | 1.75 | 24 | 15.8% | 0.49 [-0.09, 1.06] |
| VALMAGGIA2005 | 11.74 | 2.91 | 23 | 12.95 | 3.51 | 35 | 17.1% | -0.36 [-0.89, 0.17] |
| **Subtotal (95% CI)** | | | **159** | | | **177** | **100.0%** | **0.23 [-0.09, 0.56]** |
| Heterogeneity: Tau² = 0.09; Chi² = 10.77, df = 5 (P = 0.06); I² = 54% | | | | | | | | |
| Test for overall effect: Z = 1.42 (P = 0.16) | | | | | | | | |
| **1.7.2 Up to 18 months FU** | | | | | | | | |
| JACKSON2007 | 7.55 | 4.76 | 31 | 7.2 | 4.08 | 31 | 15.3% | 0.08 [-0.42, 0.58] |
| LEWIS2002L | 11.8 | 4 | 23 | 17.6 | 5.8 | 23 | 13.4% | -1.14 [-1.77, -0.52] |
| LEWIS2002M | 18.9 | 5.9 | 30 | 17.4 | 7.1 | 27 | 15.0% | 0.23 [-0.29, 0.75] |
| LEWIS2002N | 12.3 | 3.5 | 26 | 12.4 | 3.3 | 21 | 14.2% | -0.03 [-0.60, 0.55] |
| ROHRICHT2006 | 23.2 | 6.3 | 12 | 18.2 | 2.5 | 15 | 10.8% | 1.06 [0.24, 1.88] |
| Sensky2000 | 25.07 | 27.39 | 44 | 18.16 | 17.19 | 44 | 16.4% | 0.30 [-0.12, 0.72] |
| VALMAGGIA2005 | 11.72 | 2.61 | 23 | 11.76 | 3.42 | 35 | 14.9% | -0.01 [-0.54, 0.51] |
| **Subtotal (95% CI)** | | | **189** | | | **196** | **100.0%** | **0.05 [-0.35, 0.45]** |
| Heterogeneity: Tau² = 0.20; Chi² = 21.68, df = 6 (P = 0.001); I² = 72% | | | | | | | | |
| Test for overall effect: Z = 0.25 (P = 0.80) | | | | | | | | |
| **1.7.3 SANS, PANSS - up to 5 years FU** | | | | | | | | |
| Sensky2000 | 33.1 | 22.6 | 44 | 22.8 | 14.5 | 46 | 100.0% | 0.54 [0.12, 0.96] |
| **Subtotal (95% CI)** | | | **44** | | | **46** | **100.0%** | **0.54 [0.12, 0.96]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.52 (P = 0.01) | | | | | | | | |



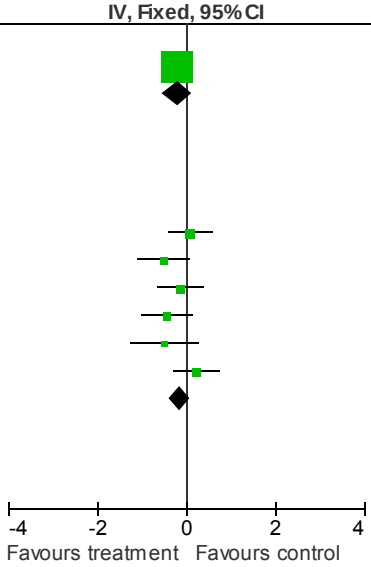

**1.8 Mental state: 3. Continuous measures - positive symptoms (lower = better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.8.1 SAPS, PANSS positive symptoms - at end of treatment** | | | | | | | | |
| JACKSON2007 | 7.65 | 4.03 | 31 | 7.45 | 4.05 | 31 | 17.4% | 0.05 [-0.45, 0.55] |
| Lewis2002 | 15.34 | 6.01 | 64 | 16.31 | 6.9 | 59 | 19.0% | -0.15 [-0.50, 0.20] |
| PINTO1999 | 29.9 | 12.1 | 18 | 17.9 | 17 | 19 | 15.2% | 0.79 [0.12, 1.46] |
| ROHRICHT2006 | 12.8 | 5.4 | 19 | 15.3 | 5.1 | 24 | 15.9% | -0.47 [-1.08, 0.14] |
| SHIN2002 | 18.46 | 1.79 | 24 | 15.08 | 2.75 | 24 | 15.6% | 1.43 [0.79, 2.07] |
| VALMAGGIA2005 | 16.28 | 3.76 | 23 | 15.09 | 3.91 | 35 | 17.0% | 0.30 [-0.22, 0.83] |
| **Subtotal (95% CI)** | | | **179** | | | **192** | **100.0%** | **0.30 [-0.19, 0.80]** |
| Heterogeneity: Tau² = 0.30; Chi² = 26.04, df = 5 (P < 0.0001); I² = 81% | | | | | | | | |
| Test for overall effect: Z = 1.19 (P = 0.23) | | | | | | | | |



**1.9 Mental state: 3. Continuous measures - positive symptoms (at FU)**

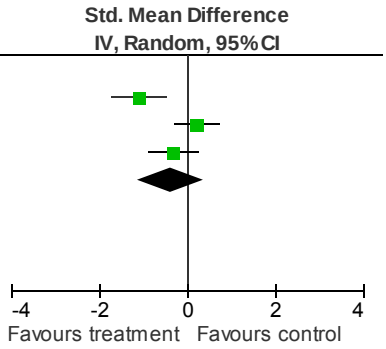
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.9.1 SAPS, PANSS positive symptoms - up to 5 weeks FU** | | | | | | | | |
| Lewis2002 | 12.58 | 4.8 | 71 | 13.67 | 5.33 | 60 | 100.0% | -0.21 [-0.56, 0.13] |
| **Subtotal (95% CI)** | | | **71** | | | **60** | **100.0%** | **-0.21 [-0.56, 0.13]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.22 (P = 0.22) | | | | | | | | |
| **1.9.2 SAPS, PANSS positive symptoms - up to18 months FU** | | | | | | | | |
| JACKSON2007 | 7.55 | 4.76 | 31 | 7.2 | 4.08 | 31 | 21.4% | 0.08 [-0.42, 0.58] |
| LEWIS2002L | 13.3 | 4.8 | 23 | 16.3 | 6.5 | 23 | 15.3% | -0.52 [-1.10, 0.07] |
| LEWIS2002M | 16.2 | 6.2 | 30 | 17.2 | 7.1 | 27 | 19.6% | -0.15 [-0.67, 0.37] |
| LEWIS2002N | 10.2 | 2.5 | 26 | 11.6 | 3.6 | 21 | 15.6% | -0.45 [-1.04, 0.13] |
| ROHRICHT2006 | 12.3 | 4 | 12 | 14.8 | 5.5 | 15 | 8.9% | -0.50 [-1.27, 0.28] |
| VALMAGGIA2005 | 15.44 | 3.94 | 23 | 14.64 | 3.7 | 35 | 19.1% | 0.21 [-0.32, 0.74] |
| **Subtotal (95% CI)** | | | **145** | | | **152** | **100.0%** | **-0.17 [-0.40, 0.06]** |
| Heterogeneity: Chi² = 5.84, df = 5 (P = 0.32); I² = 14% | | | | | | | | |
| Test for overall effect: Z = 1.42 (P = 0.16) | | | | | | | | |




Test for subgroup differences: Chi² = 0.05, df = 1 (P = 0.82), I² = 0%

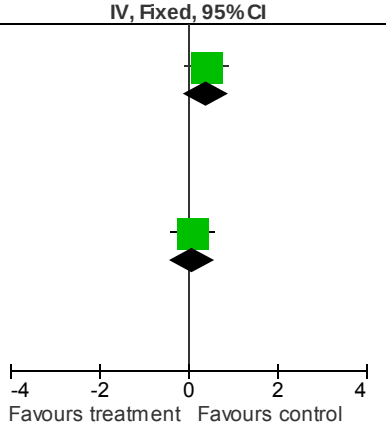
**1.10 Mental state: 4. Continuous measures - general symptoms (lower = better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.10.1 Up to 18 months FU** | | | | | | | | |
| LEWIS2002L | 27.9 | 7.4 | 23 | 35.7 | 6.3 | 23 | 32.2% | -1.12 [-1.74, -0.49] |
| LEWIS2002M | 41.5 | 12.2 | 30 | 39.1 | 11.2 | 27 | 34.6% | 0.20 [-0.32, 0.72] |
| LEWIS2002N | 28.9 | 4.7 | 26 | 30.5 | 5.1 | 21 | 33.3% | -0.32 [-0.90, 0.26] |
| **Subtotal (95% CI)** | | | **79** | | | **71** | **100.0%** | **-0.40 [-1.14, 0.35]** |
| Heterogeneity: Tau² = 0.35; Chi² = 10.06, df = 2 (P = 0.007); I² = 80% | | | | | | | | |
| Test for overall effect: Z = 1.05 (P = 0.30) | | | | | | | | |




**1.11 Psychosocial Functioning: 1. SOFAS (signs reversed)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.11.1 At end of treatment** | | | | | | | | |
| JACKSON2007 | -57.6 | 11.37 | 31 | -62.69 | 13.81 | 31 | 100.0% | 0.40 [-0.11, 0.90] |
| **Subtotal (95% CI)** | | | **31** | | | **31** | **100.0%** | **0.40 [-0.11, 0.90]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.55 (P = 0.12) | | | | | | | | |
| **1.11.2 Upto 1 year FU** | | | | | | | | |
| JACKSON2007 | -62.91 | 15.18 | 31 | -64.21 | 15.18 | 31 | 100.0% | 0.08 [-0.41, 0.58] |
| **Subtotal (95% CI)** | | | **31** | | | **31** | **100.0%** | **0.08 [-0.41, 0.58]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.33 (P = 0.74) | | | | | | | | |

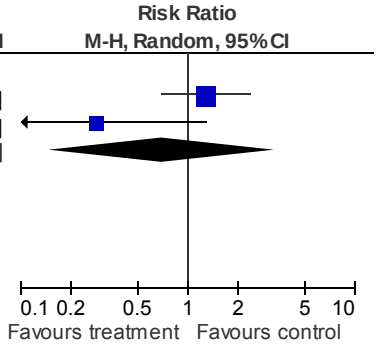



Test for subgroup differences: Chi² = 0.75, df = 1 (P = 0.39), I² = 0%

**1.12 Adherence: 1. Nonadherence with medication**

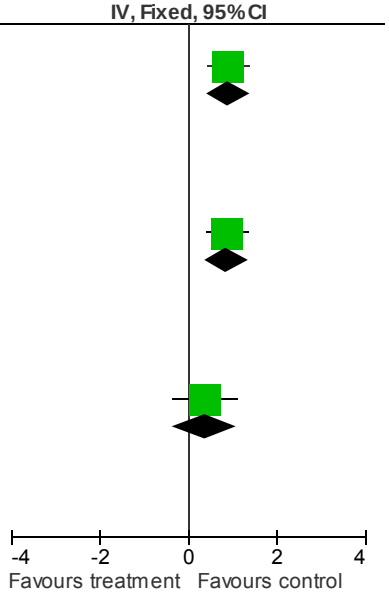
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **1.12.1 At end of treatment** | | | | | | |
| Falloon1981 | 11 | 19 | 9 | 20 | 59.5% | 1.29 [0.69, 2.39] |
| Herz2000 | 2 | 41 | 7 | 41 | 40.5% | 0.29 [0.06, 1.29] |
| **Subtotal (95% CI)** | | **60** | | **61** | **100.0%** | **0.70 [0.15, 3.31]** |
| Total events | 13 | | 16 | | | |

Heterogeneity: Tau² = 0.96; Chi² = 3.77, df = 1 (P = 0.05); I² = 73%
Test for overall effect: Z = 0.45 (P = 0.65)




**1.13 Adherence: 2. Continuous measures: DAI, Attitudes to medication (signs reversed)**

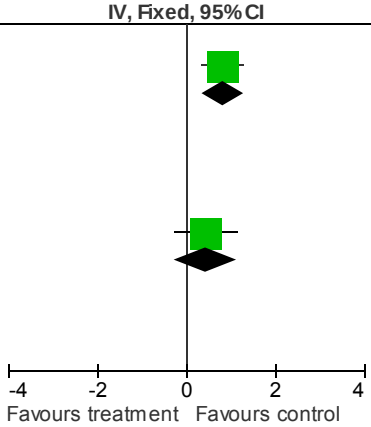
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.13.1 Attitudes to Medication Questionnaire: at end of treatment (2-3 weeks)** | | | | | | | | |
| Kemp1996 | -14.9 | 6.1 | 35 | -19.4 | 3.7 | 39 | 100.0% | 0.89 [0.41, 1.37] |
| **Subtotal (95% CI)** | | | **35** | | | **39** | **100.0%** | **0.89 [0.41, 1.37]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.65 (P = 0.0003) | | | | | | | | |
| **1.13.2 Drug Attitudes Inventory: at end of treatment (2-3 weeks)** | | | | | | | | |
| Kemp1996 | -45.7 | 8.5 | 35 | -52 | 5.9 | 39 | 100.0% | 0.86 [0.38, 1.34] |
| **Subtotal (95% CI)** | | | **35** | | | **39** | **100.0%** | **0.86 [0.38, 1.34]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.53 (P = 0.0004) | | | | | | | | |
| **1.13.3 Drug Attitudes Inventory: 18 month FU** | | | | | | | | |
| Kemp1996 | -48.2 | 8.5 | 13 | -50.9 | 6.2 | 16 | 100.0% | 0.36 [-0.38, 1.10] |
| **Subtotal (95% CI)** | | | **13** | | | **16** | **100.0%** | **0.36 [-0.38, 1.10]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.95 (P = 0.34) | | | | | | | | |




Test for subgroup differences: Chi² = 1.57, df = 2 (P = 0.46), I² = 0%

**1.14 Insight: 1. Schedule for Assessment of Insight (signs reversed)**

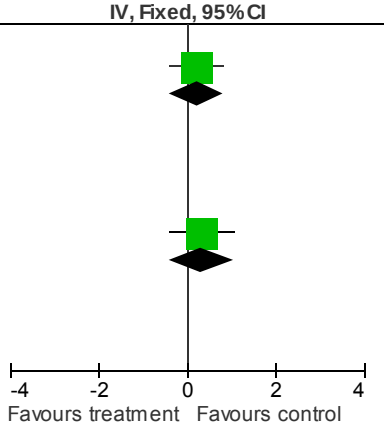
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.14.1 Schedule for Assessment of Insight: at end of treatment (2-3 weeks)** | | | | | | | | |
| Kemp1996 | -40.6 | 31.2 | 35 | -63 | 23.6 | 39 | 100.0% | 0.81 [0.33, 1.28] |
| **Subtotal (95% CI)** | | | **35** | | | **39** | **100.0%** | **0.81 [0.33, 1.28]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.33 (P = 0.0009) | | | | | | | | |
| **1.14.2 Schedule for Assessment of Insight: 18 month FU** | | | | | | | | |
| Kemp1996 | -55.3 | 42.5 | 15 | -70.7 | 24.4 | 16 | 100.0% | 0.44 [-0.28, 1.15] |
| **Subtotal (95% CI)** | | | **15** | | | **16** | **100.0%** | **0.44 [-0.28, 1.15]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.20 (P = 0.23) | | | | | | | | |




Test for subgroup differences: Chi² = 0.72, df = 1 (P = 0.40), I² = 0%

**1.15 Satisfaction with treatment: 1. Service user satisfaction (CAT) (signs reversed)**

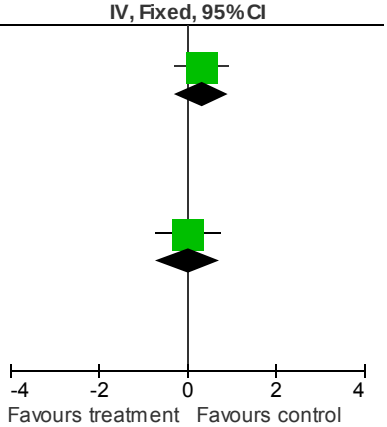
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.15.1 At end of treatment** | | | | | | | | |
| ROHRICHT2006 | -6.4 | 1.9 | 19 | -6.8 | 2 | 23 | 100.0% | 0.20 [-0.41, 0.81] |
| **Subtotal (95% CI)** | | | **19** | | | **23** | **100.0%** | **0.20 [-0.41, 0.81]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.65 (P = 0.52) | | | | | | | | |
| **1.15.2 Up to 4months FU** | | | | | | | | |
| ROHRICHT2006 | -6.7 | 1.8 | 12 | -7.3 | 1.9 | 17 | 100.0% | 0.31 [-0.43, 1.06] |
| **Subtotal (95% CI)** | | | **12** | | | **17** | **100.0%** | **0.31 [-0.43, 1.06]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.83 (P = 0.41) | | | | | | | | |




Test for subgroup differences: Chi² = 0.05, df = 1 (P = 0.82), I² = 0%

**1.16 Satisfaction with treatment: 2. Rating of the therapeutic relationship (signs reversed)**

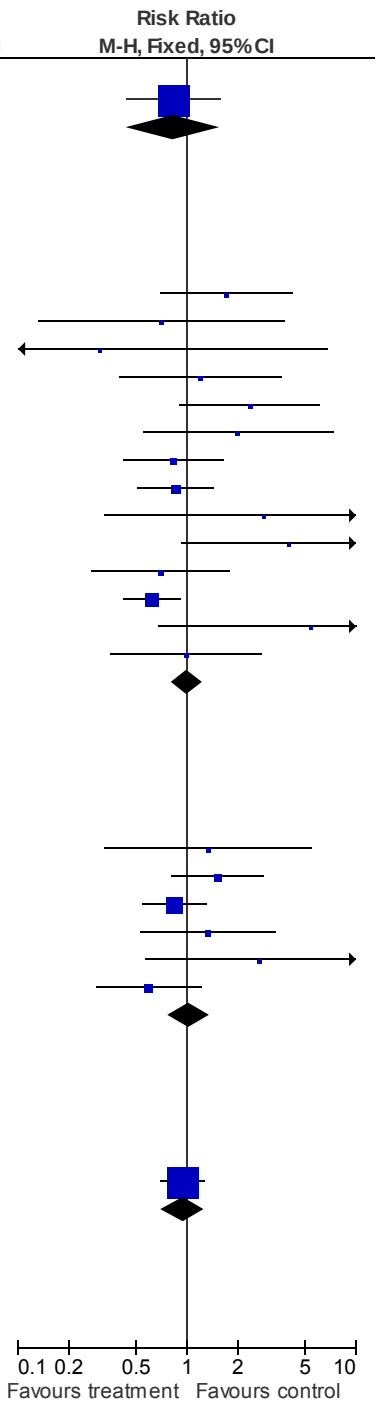
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.16.1 At end of treatment** | | | | | | | | |
| ROHRICHT2006 | -6.6 | 1.8 | 19 | -7.2 | 1.9 | 23 | 100.0% | 0.32 [-0.29, 0.93] |
| **Subtotal (95% CI)** | | | **19** | | | **23** | **100.0%** | **0.32 [-0.29, 0.93]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.02 (P = 0.31) | | | | | | | | |
| **1.16.2 Up to 4 months FU** | | | | | | | | |
| ROHRICHT2006 | -7.1 | 1.6 | 12 | -7.1 | 2.1 | 17 | 100.0% | 0.00 [-0.74, 0.74] |
| **Subtotal (95% CI)** | | | **12** | | | **17** | **100.0%** | **0.00 [-0.74, 0.74]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.00 (P = 1.00) | | | | | | | | |




Test for subgroup differences: Chi² = 0.42, df = 1 (P = 0.52), I² = 0%

**1.17 Treatment acceptability: 1. Leaving the study early for any reason**

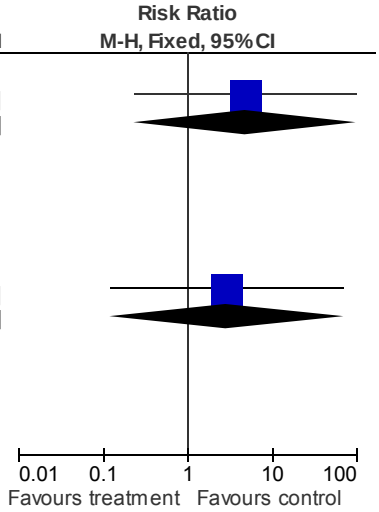
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.17.1 Did not receive intervention** | | | | | | |
| PATTERSON2006 | 14 | 99 | 18 | 106 | 100.0% | 0.83 [0.44, 1.58] |
| **Subtotal (95% CI)** | | **99** | | **106** | **100.0%** | **0.83 [0.44, 1.58]** |
| Total events | 14 | | 18 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.56 (P = 0.58) | | | | | | |
| **1.17.2 At end of treatment** | | | | | | |
| Eckman1992 | 9 | 21 | 5 | 20 | 4.3% | 1.71 [0.69, 4.24] |
| Falloon1981 | 2 | 19 | 3 | 20 | 2.4% | 0.70 [0.13, 3.75] |
| Haddock1999 | 0 | 11 | 1 | 10 | 1.3% | 0.31 [0.01, 6.74] |
| Herz2000 | 6 | 41 | 5 | 41 | 4.2% | 1.20 [0.40, 3.62] |
| Hogarty1997 | 13 | 53 | 5 | 48 | 4.4% | 2.35 [0.91, 6.12] |
| JACKSON2007 | 6 | 31 | 3 | 31 | 2.5% | 2.00 [0.55, 7.29] |
| Marder1996 | 10 | 37 | 14 | 43 | 10.8% | 0.83 [0.42, 1.64] |
| PATTERSON2006 | 20 | 99 | 25 | 106 | 20.1% | 0.86 [0.51, 1.44] |
| PINTO1999 | 3 | 21 | 1 | 20 | 0.9% | 2.86 [0.32, 25.24] |
| ROHRICHT2006 | 7 | 21 | 2 | 24 | 1.6% | 4.00 [0.93, 17.19] |
| Sensky2000 | 6 | 44 | 9 | 46 | 7.3% | 0.70 [0.27, 1.80] |
| Stanton1984 | 24 | 76 | 45 | 88 | 34.7% | 0.62 [0.42, 0.91] |
| Tarrier1998 | 5 | 26 | 1 | 28 | 0.8% | 5.38 [0.67, 43.08] |
| VALMAGGIA2005 | 5 | 26 | 7 | 36 | 4.9% | 0.99 [0.35, 2.77] |
| **Subtotal (95% CI)** | | **526** | | **561** | **100.0%** | **1.00 [0.80, 1.25]** |
| Total events | 116 | | 126 | | | |
| Heterogeneity: Chi² = 20.38, df = 13 (P = 0.09); I² = 36% | | | | | | |
| Test for overall effect: Z = 0.01 (P = 0.99) | | | | | | |
| **1.17.3 At FU (up to 18 months)** | | | | | | |
| JACKSON2007 | 4 | 31 | 3 | 31 | 4.6% | 1.33 [0.32, 5.47] |
| Kemp1996 | 15 | 35 | 11 | 39 | 15.9% | 1.52 [0.81, 2.85] |
| Lewis2002 | 27 | 106 | 31 | 102 | 48.4% | 0.84 [0.54, 1.30] |
| ROHRICHT2006 | 7 | 21 | 6 | 24 | 8.6% | 1.33 [0.53, 3.35] |
| Tarrier1998 | 5 | 26 | 2 | 28 | 2.9% | 2.69 [0.57, 12.69] |
| VALMAGGIA2005 | 9 | 36 | 11 | 26 | 19.6% | 0.59 [0.29, 1.22] |
| **Subtotal (95% CI)** | | **255** | | **250** | **100.0%** | **1.02 [0.76, 1.36]** |
| Total events | 67 | | 64 | | | |
| Heterogeneity: Chi² = 6.47, df = 5 (P = 0.26); I² = 23% | | | | | | |
| Test for overall effect: Z = 0.12 (P = 0.90) | | | | | | |
| **1.17.4 At FU (up to 5 years)** | | | | | | |
| Sensky2000 | 28 | 44 | 31 | 46 | 100.0% | 0.94 [0.70, 1.28] |
| **Subtotal (95% CI)** | | **44** | | **46** | **100.0%** | **0.94 [0.70, 1.28]** |
| Total events | 28 | | 31 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.37 (P = 0.71) | | | | | | |




**2 Counselling and supportive therapy versus standard care (critical outcomes)**

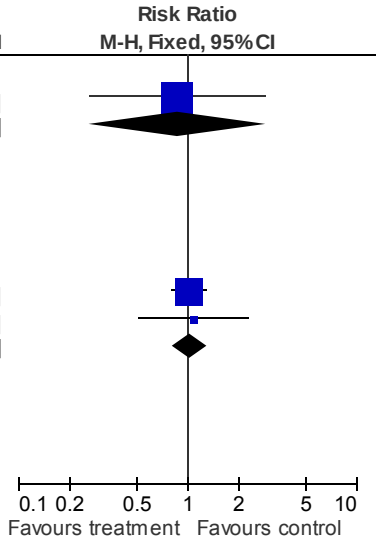
**2.1 Mortality**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.1.2 Suicide and probable suicide - up to 18 months FU** | | | | | | |
| Lewis2002 | 2 | 106 | 0 | 102 | 100.0% | 4.81 [0.23, 99.05] |
| **Subtotal (95% CI)** | | **106** | | **102** | **100.0%** | **4.81 [0.23, 99.05]** |
| Total events | 2 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.02 (P = 0.31) | | | | | | |
| **2.1.3 Died of natural causes/ accidents - up to 18 months FU** | | | | | | |
| Lewis2002 | 1 | 106 | 0 | 102 | 100.0% | 2.89 [0.12, 70.08] |
| **Subtotal (95% CI)** | | **106** | | **102** | **100.0%** | **2.89 [0.12, 70.08]** |
| Total events | 1 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.65 (P = 0.51) | | | | | | |



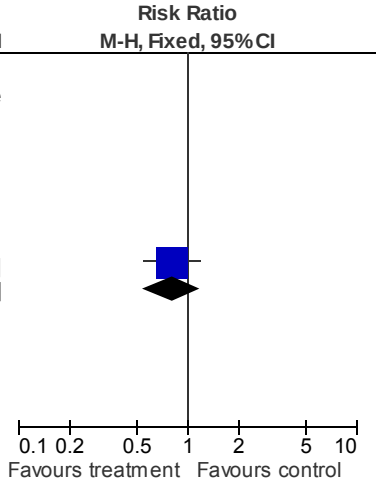

**2.2 Global State: 1. Relapse**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.2.1 At end of treatment** | | | | | | |
| Tarrier1998 | 4 | 26 | 5 | 28 | 100.0% | 0.86 [0.26, 2.86] |
| **Subtotal (95% CI)** | | **26** | | **28** | **100.0%** | **0.86 [0.26, 2.86]** |
| Total events | 4 | | 5 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.24 (P = 0.81) | | | | | | |
| **2.2.2 Up to 18 months FU** | | | | | | |
| Lewis2002 | 60 | 106 | 57 | 102 | 87.0% | 1.01 [0.80, 1.29] |
| Tarrier1998 | 9 | 26 | 9 | 28 | 13.0% | 1.08 [0.51, 2.29] |
| **Subtotal (95% CI)** | | **132** | | **130** | **100.0%** | **1.02 [0.81, 1.29]** |
| Total events | 69 | | 66 | | | |
| Heterogeneity: $Chi^2 = 0.02$, df = 1 (P = 0.88); $I^2 = 0\%$ | | | | | | |
| Test for overall effect: Z = 0.18 (P = 0.86) | | | | | | |



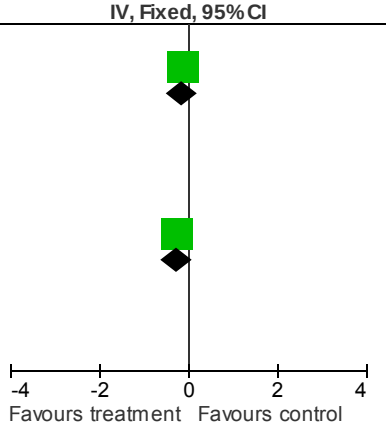
**2.3 Service Outcome: 1. Rehospitalisation**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.3.1 At end of treatment** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **2.3.2 Up to 18 months FU** | | | | | | |
| Lewis2002 | 31 | 106 | 37 | 102 | 100.0% | 0.81 [0.54, 1.19] |
| **Subtotal (95% CI)** | | **106** | | **102** | **100.0%** | **0.81 [0.54, 1.19]** |
| Total events | 31 | | 37 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.08 (P = 0.28) | | | | | | |




**2.4 Mental state: 1. Continuous measures - total symptom score (lower=better)**

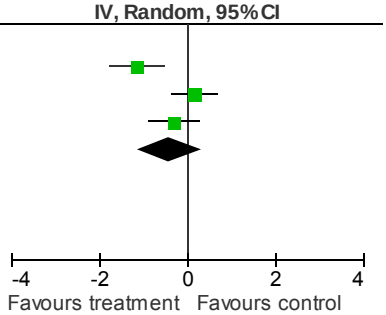
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.4.1 PANSS at end of treatment** | | | | | | | | |
| Lewis2002 | 67.25 | 18.52 | 64 | 70.15 | 21.46 | 59 | 100.0% | -0.14 [-0.50, 0.21] |
| **Subtotal (95% CI)** | | | **64** | | | **59** | **100.0%** | **-0.14 [-0.50, 0.21]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.80 (P = 0.42) | | | | | | | | |
| **2.4.3 PANSS total up to 5 weeks FU** | | | | | | | | |
| Lewis2002 | 59.96 | 16.39 | 71 | 64.38 | 16.79 | 60 | 100.0% | -0.27 [-0.61, 0.08] |
| **Subtotal (95% CI)** | | | **71** | | | **60** | **100.0%** | **-0.27 [-0.61, 0.08]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.51 (P = 0.13) | | | | | | | | |




Test for subgroup differences: Chi² = 0.23, df = 1 (P = 0.63), I² = 0%

**2.5 Mental state: 1. Continuous measures - total symptoms (at FU)**

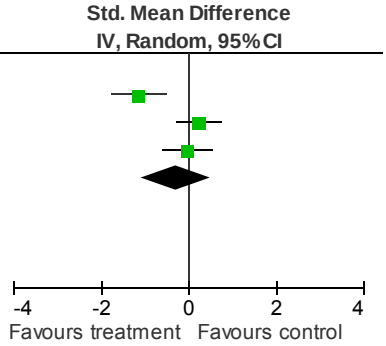
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.5.1 PANSS total up to 18 months FU** | | | | | | | | |
| LEWIS2002L | 53 | 14.6 | 23 | 69.5 | 13.6 | 23 | 32.1% | -1.15 [-1.78, -0.52] |
| LEWIS2002M | 76.6 | 21.7 | 30 | 73.2 | 21.9 | 26 | 34.6% | 0.15 [-0.37, 0.68] |
| LEWIS2002N | 51.4 | 9.6 | 26 | 54.5 | 10.1 | 21 | 33.3% | -0.31 [-0.89, 0.27] |
| **Subtotal (95% CI)** | | | **79** | | | **70** | **100.0%** | **-0.42 [-1.15, 0.32]** |
| Heterogeneity: Tau² = 0.34; Chi² = 9.76, df = 2 (P = 0.008); I² = 80% | | | | | | | | |
| Test for overall effect: Z = 1.12 (P = 0.26) | | | | | | | | |



**2.6 Mental state: 2. Continuous measures - negative symptoms (lower = better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.6.1 Up to 18 months FU** | | | | | | | | |
| LEWIS2002L | 11.8 | 4 | 23 | 17.6 | 5.8 | 23 | 32.3% | -1.14 [-1.77, -0.52] |
| LEWIS2002M | 18.9 | 5.9 | 30 | 17.4 | 7.1 | 27 | 34.4% | 0.23 [-0.29, 0.75] |
| LEWIS2002N | 12.3 | 3.5 | 26 | 12.4 | 3.3 | 21 | 33.3% | -0.03 [-0.60, 0.55] |
| **Subtotal (95% CI)** | | | **79** | | | **71** | **100.0%** | **-0.30 [-1.10, 0.50]** |

Heterogeneity: Tau² = 0.41; Chi² = 11.58, df = 2 (P = 0.003); I² = 83%
Test for overall effect: Z = 0.74 (P = 0.46)




**2.7 Mental state: 3. Continuous measures - positive symptoms (lower = better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.7.1 PANSS positive symptoms - at end of treatment** | | | | | | | | |
| Lewis2002 | 15.34 | 6.01 | 64 | 16.31 | 6.9 | 59 | 100.0% | -0.15 [-0.50, 0.20] |
| **Subtotal (95% CI)** | | | **64** | | | **59** | **100.0%** | **-0.15 [-0.50, 0.20]** |

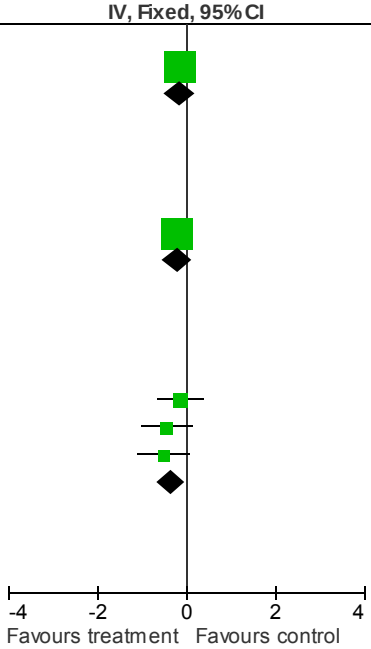
Heterogeneity: Not applicable
Test for overall effect: Z = 0.83 (P = 0.41)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **2.7.2 PANSS positive symptoms - up to 5 weeks FU** | | | | | | | | |
| Lewis2002 | 12.58 | 4.8 | 71 | 13.67 | 5.33 | 60 | 100.0% | -0.21 [-0.56, 0.13] |
| **Subtotal (95% CI)** | | | **71** | | | **60** | **100.0%** | **-0.21 [-0.56, 0.13]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 1.22 (P = 0.22)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **2.7.3 PANSS positive symptoms - up to18 months FU** | | | | | | | | |
| LEWIS2002M | 16.2 | 6.2 | 30 | 17.2 | 7.1 | 27 | 38.7% | -0.15 [-0.67, 0.37] |
| LEWIS2002N | 10.2 | 2.5 | 26 | 11.6 | 3.6 | 21 | 30.9% | -0.45 [-1.04, 0.13] |
| LEWIS2002L | 13.3 | 4.8 | 23 | 16.3 | 6.5 | 23 | 30.3% | -0.52 [-1.10, 0.07] |
| **Subtotal (95% CI)** | | | **79** | | | **71** | **100.0%** | **-0.35 [-0.68, -0.03]** |

Heterogeneity: Chi² = 1.00, df = 2 (P = 0.61); I² = 0%
Test for overall effect: Z = 2.14 (P = 0.03)

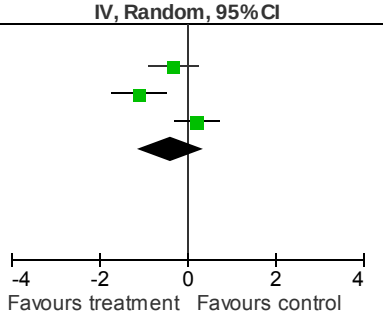



Test for subgroup differences: Chi² = 0.75, df = 2 (P = 0.69), I² = 0%

**2.8 Mental state: 4. Continuous measures - general symptoms (lower = better)**

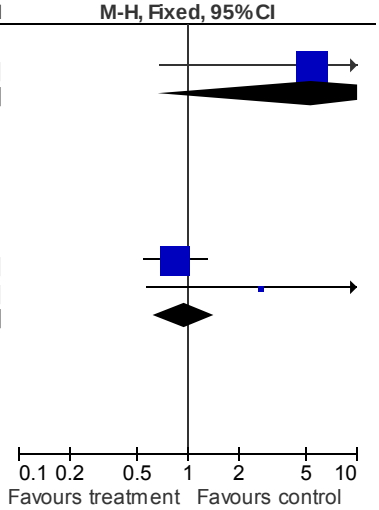
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.8.1 Up to 18 months FU** | | | | | | | | |
| LEWIS2002N | 28.9 | 4.7 | 26 | 30.5 | 5.1 | 21 | 33.3% | -0.32 [-0.90, 0.26] |
| LEWIS2002L | 27.9 | 7.4 | 23 | 35.7 | 6.3 | 23 | 32.2% | -1.12 [-1.74, -0.49] |
| LEWIS2002M | 41.5 | 12.2 | 30 | 39.1 | 11.2 | 27 | 34.6% | 0.20 [-0.32, 0.72] |
| **Subtotal (95% CI)** | | | **79** | | | **71** | **100.0%** | **-0.40 [-1.14, 0.35]** |

Heterogeneity: Tau² = 0.35; Chi² = 10.06, df = 2 (P = 0.007); I² = 80%
Test for overall effect: Z = 1.05 (P = 0.30)



**2.9 Treatment acceptability: 1. Leaving the study early for any reason**

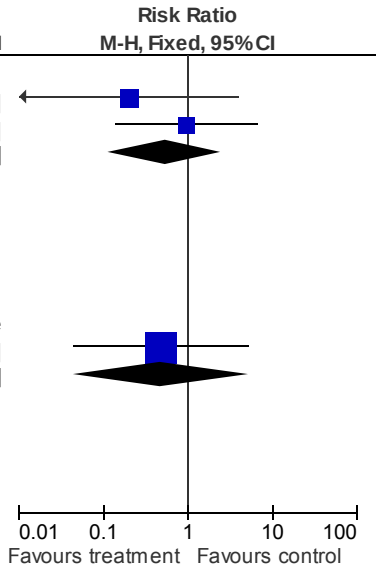
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.9.1 At end of treatment** | | | | | | |
| Tarrier1998 | 5 | 26 | 1 | 28 | 100.0% | 5.38 [0.67, 43.08] |
| **Subtotal (95% CI)** | | **26** | | **28** | **100.0%** | **5.38 [0.67, 43.08]** |
| Total events | 5 | | 1 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.59 (P = 0.11) | | | | | | |
| **2.9.2 At FU** | | | | | | |
| Lewis2002 | 27 | 106 | 31 | 102 | 94.3% | 0.84 [0.54, 1.30] |
| Tarrier1998 | 5 | 26 | 2 | 28 | 5.7% | 2.69 [0.57, 12.69] |
| **Subtotal (95% CI)** | | **132** | | **130** | **100.0%** | **0.94 [0.62, 1.43]** |
| Total events | 32 | | 33 | | | |
| Heterogeneity: Chi² = 2.04, df = 1 (P = 0.15); I² = 51% | | | | | | |
| Test for overall effect: Z = 0.27 (P = 0.79) | | | | | | |




**3 Counselling and supportive therapy versus other active treatments (critical outcomes)**

**3.1 Mortality**

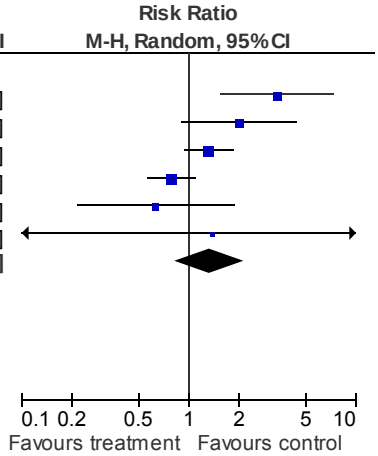
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.1.1 Suicide and probably suicide - up to 18 months FU** | | | | | | |
| JACKSON2007 | 0 | 31 | 2 | 31 | 55.0% | 0.20 [0.01, 4.00] |
| Lewis2002 | 2 | 106 | 2 | 101 | 45.0% | 0.95 [0.14, 6.64] |
| **Subtotal (95% CI)** | | **137** | | **132** | **100.0%** | **0.54 [0.12, 2.50]** |
| Total events | 2 | | 4 | | | |
| Heterogeneity: Chi² = 0.75, df = 1 (P = 0.39); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.79 (P = 0.43) | | | | | | |
| **3.1.3 Died of natural causes / accidents - at FU** | | | | | | |
| Kemp1996 | 0 | 35 | 0 | 39 | | Not estimable |
| Lewis2002 | 1 | 106 | 2 | 101 | 100.0% | 0.48 [0.04, 5.17] |
| **Subtotal (95% CI)** | | **141** | | **140** | **100.0%** | **0.48 [0.04, 5.17]** |
| Total events | 1 | | 2 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.61 (P = 0.54) | | | | | | |



**3.2 Global State: 1. Relapse (end of treatment)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **3.2.1 At end of treatment** | | | | | | |
| Falloon1981 | 16 | 19 | 5 | 20 | 16.8% | 3.37 [1.54, 7.38] |
| Herz2000 | 14 | 41 | 7 | 41 | 16.5% | 2.00 [0.90, 4.44] |
| Hogarty1997 | 35 | 53 | 24 | 48 | 25.9% | 1.32 [0.94, 1.86] |
| Marder1996 | 21 | 37 | 31 | 43 | 26.0% | 0.79 [0.56, 1.10] |
| Tarrier1998 | 4 | 26 | 8 | 33 | 12.0% | 0.63 [0.21, 1.88] |
| VALMAGGIA2005 | 1 | 26 | 1 | 36 | 2.9% | 1.38 [0.09, 21.14] |
| **Subtotal (95% CI)** | | **202** | | **221** | **100.0%** | **1.33 [0.82, 2.16]** |
| Total events | 91 | | 76 | | | |

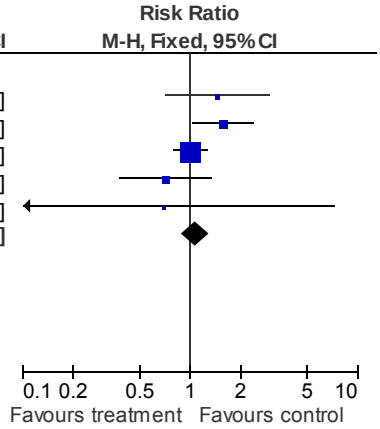
Heterogeneity: Tau² = 0.21; Chi² = 16.29, df = 5 (P = 0.006); I² = 69%
Test for overall effect: Z = 1.14 (P = 0.25)




**3.3 Global State: 1. Relapse (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.3.1 Up to 18 months FU** | | | | | | |
| Haddock1999 | 8 | 11 | 5 | 10 | 5.5% | 1.45 [0.71, 2.98] |
| Kemp1996 | 24 | 35 | 17 | 39 | 16.8% | 1.57 [1.03, 2.40] |
| Lewis2002 | 60 | 106 | 57 | 101 | 61.1% | 1.00 [0.79, 1.27] |
| Tarrier1998 | 9 | 26 | 16 | 33 | 14.8% | 0.71 [0.38, 1.35] |
| VALMAGGIA2005 | 1 | 26 | 2 | 36 | 1.8% | 0.69 [0.07, 7.24] |
| **Subtotal (95% CI)** | | **204** | | **219** | **100.0%** | **1.08 [0.89, 1.30]** |
| Total events | 102 | | 97 | | | |

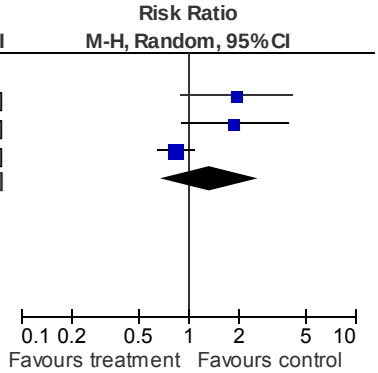
Heterogeneity: Chi² = 5.87, df = 4 (P = 0.21); I² = 32%
Test for overall effect: Z = 0.75 (P = 0.45)




**3.4 Service Outcomes: 1. Rehospitalisation**

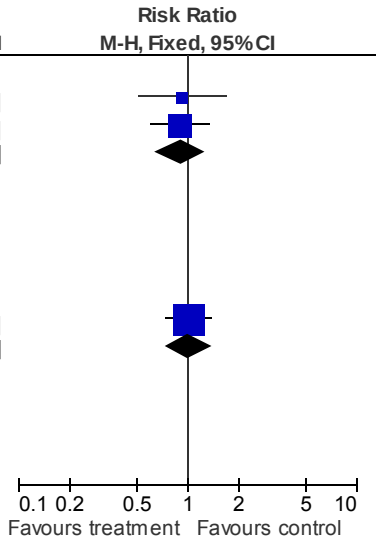
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **3.4.1 At end of treatment** | | | | | | |
| Falloon1981 | 11 | 19 | 6 | 20 | 28.3% | 1.93 [0.89, 4.17] |
| Herz2000 | 15 | 41 | 8 | 41 | 29.1% | 1.88 [0.89, 3.93] |
| Stanton1984 | 41 | 76 | 57 | 88 | 42.6% | 0.83 [0.64, 1.08] |
| **Subtotal (95% CI)** | | **136** | | **149** | **100.0%** | **1.34 [0.69, 2.61]** |
| Total events | 67 | | 71 | | | |

Heterogeneity: Tau² = 0.25; Chi² = 7.87, df = 2 (P = 0.02); I² = 75%
Test for overall effect: Z = 0.86 (P = 0.39)



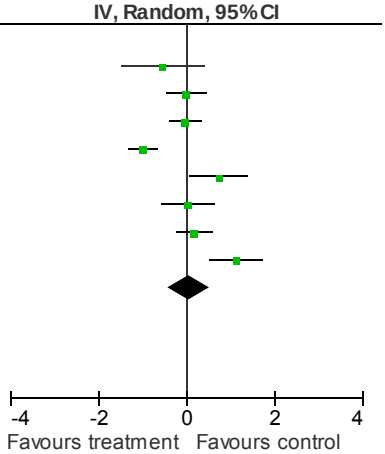
**3.5 Service Outcomes: 1. Rehospitalisation (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.5.1 Up to 18 months FU** | | | | | | |
| JACKSON2007 | 12 | 31 | 13 | 31 | 27.8% | 0.92 [0.50, 1.69] |
| Lewis2002 | 31 | 106 | 33 | 101 | 72.2% | 0.90 [0.60, 1.35] |
| **Subtotal (95% CI)** | | **137** | | **132** | **100.0%** | **0.90 [0.64, 1.27]** |
| Total events | 43 | | 46 | | | |
| Heterogeneity: Chi² = 0.01, df = 1 (P = 0.93); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.59 (P = 0.55) | | | | | | |
| **3.5.2 Up to 5 years FU** | | | | | | |
| Sensky2000 | 28 | 44 | 29 | 46 | 100.0% | 1.01 [0.74, 1.38] |
| **Subtotal (95% CI)** | | **44** | | **46** | **100.0%** | **1.01 [0.74, 1.38]** |
| Total events | 28 | | 29 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.06 (P = 0.95) | | | | | | |



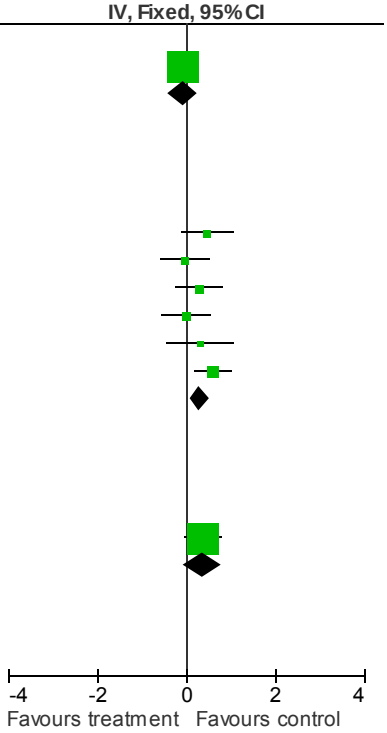

**3.6 Mental state: 1. Continuous measures - total symptom score (lower = better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.6.1 BPRS, PANSS, CPRS Total - at end of treatment** | | | | | | | | |
| Haddock1999 | 38.3 | 17.4 | 10 | 46.8 | 8.75 | 8 | 9.4% | -0.57 [-1.52, 0.39] |
| Kemp1996 | 37.4 | 8.5 | 35 | 37.6 | 10.1 | 39 | 13.3% | -0.02 [-0.48, 0.44] |
| Lewis2002 | 67.25 | 18.52 | 64 | 68.12 | 21.38 | 52 | 13.9% | -0.04 [-0.41, 0.32] |
| PATTERSON2006 | 59.1 | 2.7 | 76 | 61.8 | 2.7 | 82 | 14.1% | -1.00 [-1.33, -0.66] |
| PINTO1999 | 45.7 | 11 | 18 | 38.1 | 9.7 | 19 | 11.6% | 0.72 [0.05, 1.39] |
| ROHRICHT2006 | 71.9 | 20.9 | 19 | 71.4 | 15.7 | 24 | 12.2% | 0.03 [-0.57, 0.63] |
| Sensky2000 | 22.9 | 17.23 | 44 | 20.5 | 12.89 | 46 | 13.6% | 0.16 [-0.26, 0.57] |
| SHIN2002 | 82.58 | 7.62 | 24 | 74.29 | 7.04 | 24 | 12.1% | 1.11 [0.50, 1.72] |
| **Subtotal (95% CI)** | | | **290** | | | **294** | **100.0%** | **0.04 [-0.43, 0.51]** |
| Heterogeneity: Tau² = 0.39; Chi² = 51.59, df = 7 (P < 0.00001); I² = 86% | | | | | | | | |
| Test for overall effect: Z = 0.17 (P = 0.87) | | | | | | | | |



**3.7 Mental state: 1. Continuous measures - total symptom score (at FU)**

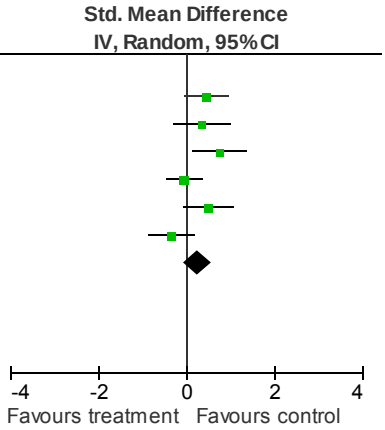
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.7.1 BPRS PANSS, CPRS total - up to 5weeks FU** | | | | | | | | |
| Lewis2002 | 59.96 | 16.39 | 71 | 61.73 | 19.69 | 78 | 100.0% | -0.10 [-0.42, 0.22] |
| **Subtotal (95% CI)** | | | **71** | | | **78** | **100.0%** | **-0.10 [-0.42, 0.22]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.59 (P = 0.56) | | | | | | | | |
| **3.7.2 BPRS/PANSS/CPRS: total symptom score at 1-18 mth FU** | | | | | | | | |
| Kemp1996 | 14.8 | 4.1 | 20 | 12.5 | 5.6 | 25 | 14.0% | 0.45 [-0.14, 1.05] |
| LEWIS2002L | 53 | 14.6 | 23 | 53.7 | 13.3 | 26 | 15.8% | -0.05 [-0.61, 0.51] |
| LEWIS2002M | 76.6 | 21.7 | 30 | 71.2 | 15.8 | 25 | 17.5% | 0.28 [-0.26, 0.81] |
| LEWIS2002N | 51.4 | 9.6 | 26 | 51.5 | 7.5 | 24 | 16.2% | -0.01 [-0.57, 0.54] |
| ROHRICHT2006 | 74.4 | 17.1 | 12 | 70.3 | 10 | 15 | 8.5% | 0.29 [-0.47, 1.06] |
| Sensky2000 | 26.6 | 25.19 | 44 | 15.1 | 11.53 | 46 | 27.9% | 0.59 [0.16, 1.01] |
| **Subtotal (95% CI)** | | | **155** | | | **161** | **100.0%** | **0.29 [0.07, 0.51]** |
| Heterogeneity: Chi² = 4.72, df = 5 (P = 0.45); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 2.55 (P = 0.01) | | | | | | | | |
| **3.7.3 BPRS PANSS, CPRS total - up to 5 years FU** | | | | | | | | |
| Sensky2000 | 29 | 14 | 44 | 24.4 | 11.7 | 44 | 100.0% | 0.35 [-0.07, 0.77] |
| **Subtotal (95% CI)** | | | **44** | | | **44** | **100.0%** | **0.35 [-0.07, 0.77]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.64 (P = 0.10) | | | | | | | | |




Test for subgroup differences: Chi² = 4.41, df = 2 (P = 0.11), I² = 54.7%

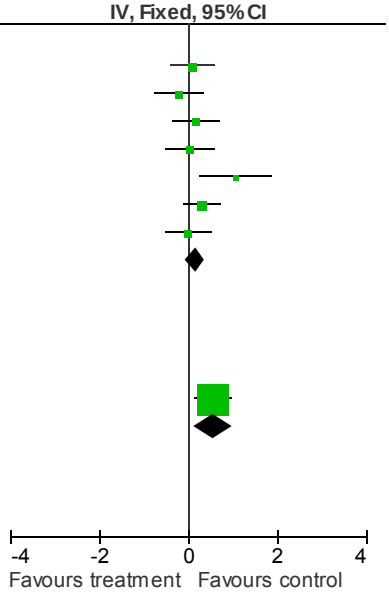
**3.8 Mental state: 2. Continuous measures - negative symptoms (lower=better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.8.1 SANS, PANSS - at end of treatment** | | | | | | | | |
| JACKSON2007 | 22.88 | 12.87 | 31 | 17.67 | 10.19 | 31 | 17.9% | 0.44 [-0.06, 0.95] |
| PINTO1999 | 53.5 | 19.1 | 18 | 46.9 | 19.4 | 19 | 13.9% | 0.34 [-0.31, 0.99] |
| ROHRICHT2006 | 23.3 | 7.4 | 19 | 18.9 | 4.3 | 24 | 14.6% | 0.74 [0.11, 1.36] |
| Sensky2000 | 20.68 | 20.93 | 44 | 21.95 | 16.53 | 44 | 20.7% | -0.07 [-0.48, 0.35] |
| SHIN2002 | 11.71 | 1.58 | 24 | 10.88 | 1.75 | 24 | 15.8% | 0.49 [-0.09, 1.06] |
| VALMAGGIA2005 | 11.74 | 2.91 | 23 | 12.95 | 3.51 | 35 | 17.1% | -0.36 [-0.89, 0.17] |
| **Subtotal (95% CI)** | | | **159** | | | **177** | **100.0%** | **0.23 [-0.09, 0.56]** |
| Heterogeneity: Tau² = 0.09; Chi² = 10.77, df = 5 (P = 0.06); I² = 54% | | | | | | | | |
| Test for overall effect: Z = 1.42 (P = 0.16) | | | | | | | | |



**3.9 Mental state: 2. Continuous measures - negative symptoms (at FU)**

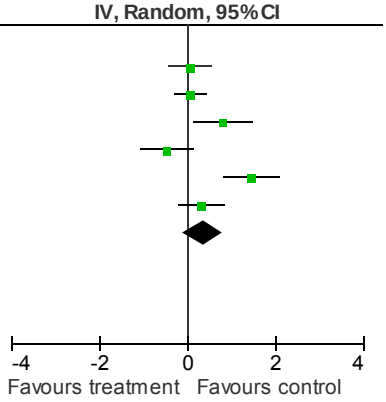
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.9.1 SANS, PANSS - up to 18 months FU** | | | | | | | | |
| JACKSON2007 | 7.55 | 4.76 | 31 | 7.2 | 4.08 | 31 | 16.3% | 0.08 [-0.42, 0.58] |
| LEWIS2002L | 11.8 | 4 | 23 | 12.8 | 4.3 | 26 | 12.7% | -0.24 [-0.80, 0.33] |
| LEWIS2002M | 18.9 | 5.9 | 30 | 18 | 5.9 | 25 | 14.3% | 0.15 [-0.38, 0.68] |
| LEWIS2002N | 12.3 | 3.5 | 26 | 12.2 | 2.9 | 24 | 13.1% | 0.03 [-0.52, 0.59] |
| ROHRICHT2006 | 23.2 | 6.3 | 12 | 18.2 | 2.5 | 15 | 6.0% | 1.06 [0.24, 1.88] |
| Sensky2000 | 25.07 | 27.39 | 44 | 18.16 | 17.19 | 44 | 22.9% | 0.30 [-0.12, 0.72] |
| VALMAGGIA2005 | 11.72 | 2.61 | 23 | 11.76 | 3.42 | 35 | 14.6% | -0.01 [-0.54, 0.51] |
| **Subtotal (95% CI)** | | | **189** | | | **200** | **100.0%** | **0.14 [-0.06, 0.34]** |
| Heterogeneity: Chi² = 7.65, df = 6 (P = 0.27); I² = 22% | | | | | | | | |
| Test for overall effect: Z = 1.35 (P = 0.18) | | | | | | | | |
| **3.9.2 SANS, PANSS - up to 5 years FU** | | | | | | | | |
| Sensky2000 | 33.1 | 22.6 | 44 | 22.8 | 14.5 | 46 | 100.0% | 0.54 [0.12, 0.96] |
| **Subtotal (95% CI)** | | | **44** | | | **46** | **100.0%** | **0.54 [0.12, 0.96]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.52 (P = 0.01) | | | | | | | | |




Test for subgroup differences: Chi² = 2.85, df = 1 (P = 0.09), I² = 64.9%

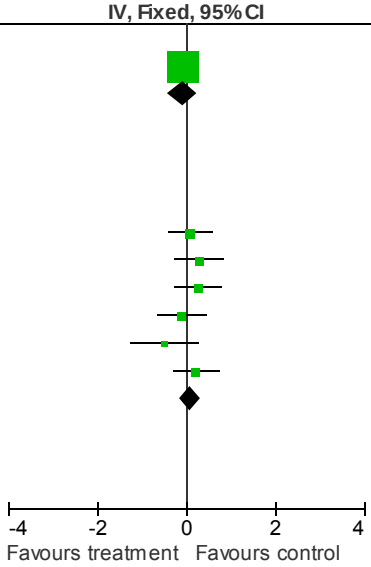
**3.10 Mental state: 3. Continuous measures - positive symptoms (lower = better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.10.1 SAPS PANSS - at end of treatment** | | | | | | | | |
| JACKSON2007 | 7.65 | 4.03 | 31 | 7.45 | 4.05 | 31 | 17.5% | 0.05 [-0.45, 0.55] |
| Lewis2002 | 15.34 | 6.01 | 64 | 14.94 | 6.61 | 52 | 19.2% | 0.06 [-0.30, 0.43] |
| PINTO1999 | 29.9 | 12.1 | 18 | 17.9 | 17 | 19 | 15.0% | 0.79 [0.12, 1.46] |
| ROHRICHT2006 | 12.8 | 5.4 | 19 | 15.3 | 5.1 | 24 | 15.9% | -0.47 [-1.08, 0.14] |
| SHIN2002 | 18.46 | 1.79 | 24 | 15.08 | 2.75 | 24 | 15.4% | 1.43 [0.79, 2.07] |
| VALMAGGIA2005 | 16.28 | 3.76 | 23 | 15.09 | 3.91 | 35 | 17.0% | 0.30 [-0.22, 0.83] |
| **Subtotal (95% CI)** | | | **179** | | | **185** | **100.0%** | **0.34 [-0.13, 0.80]** |
| Heterogeneity: Tau² = 0.26; Chi² = 22.60, df = 5 (P = 0.0004); I² = 78% | | | | | | | | |
| Test for overall effect: Z = 1.43 (P = 0.15) | | | | | | | | |



**3.11 Mental state: 3. Continuous measures - positive symptoms (at FU)**

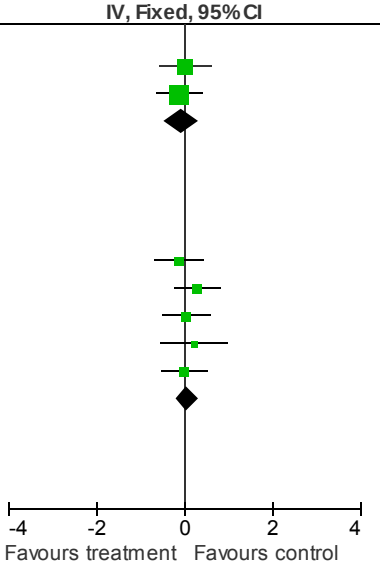
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.11.1 SAPS PANSS - up to 5 weeks FU** | | | | | | | | |
| Lewis2002 | 12.58 | 4.8 | 71 | 13.03 | 5.06 | 78 | 100.0% | -0.09 [-0.41, 0.23] |
| **Subtotal (95% CI)** | | | **71** | | | **78** | **100.0%** | **-0.09 [-0.41, 0.23]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.55 (P = 0.58) | | | | | | | | |
| **3.11.2 SAPS PANSS - up to 18 months FU** | | | | | | | | |
| JACKSON2007 | 7.55 | 4.76 | 31 | 7.2 | 4.08 | 31 | 21.0% | 0.08 [-0.42, 0.58] |
| LEWIS2002L | 13.3 | 4.8 | 23 | 12 | 4.3 | 26 | 16.4% | 0.28 [-0.28, 0.85] |
| LEWIS2002M | 16.2 | 6.2 | 30 | 14.8 | 4.1 | 25 | 18.3% | 0.26 [-0.28, 0.79] |
| LEWIS2002N | 10.2 | 2.5 | 26 | 10.5 | 2.5 | 24 | 16.9% | -0.12 [-0.67, 0.44] |
| ROHRICHT2006 | 12.3 | 4 | 12 | 14.8 | 5.5 | 15 | 8.7% | -0.50 [-1.27, 0.28] |
| VALMAGGIA2005 | 15.44 | 3.94 | 23 | 14.64 | 3.7 | 35 | 18.7% | 0.21 [-0.32, 0.74] |
| **Subtotal (95% CI)** | | | **145** | | | **156** | **100.0%** | **0.09 [-0.14, 0.31]** |
| Heterogeneity: Chi² = 3.76, df = 5 (P = 0.58); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.73 (P = 0.46) | | | | | | | | |




Test for subgroup differences: Chi² = 0.77, df = 1 (P = 0.38), I² = 0%

**3.12 Mental state: 4. Continuous measures - general symptoms (lower = better)**

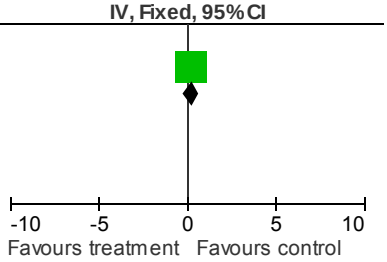
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.12.1 PANSS, BPRS - at end of treatment** | | | | | | | | |
| ROHRICHT2006 | 37.2 | 9.9 | 19 | 37.2 | 8.7 | 24 | 43.4% | 0.00 [-0.60, 0.60] |
| VALMAGGIA2005 | 29.58 | 6.16 | 23 | 30.4 | 6.28 | 35 | 56.6% | -0.13 [-0.66, 0.40] |
| **Subtotal (95% CI)** | | | **42** | | | **59** | **100.0%** | **-0.07 [-0.47, 0.32]** |
| Heterogeneity: Chi² = 0.10, df = 1 (P = 0.75); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.36 (P = 0.72) | | | | | | | | |
| **3.12.2 PANSS, BPRS - up to 18 months FU** | | | | | | | | |
| LEWIS2002L | 27.9 | 7.4 | 23 | 28.9 | 6.9 | 26 | 20.8% | -0.14 [-0.70, 0.42] |
| LEWIS2002M | 41.5 | 12.2 | 30 | 38.3 | 10.8 | 25 | 23.0% | 0.27 [-0.26, 0.81] |
| LEWIS2002N | 28.9 | 4.7 | 26 | 28.8 | 3.8 | 24 | 21.3% | 0.02 [-0.53, 0.58] |
| ROHRICHT2006 | 38.9 | 9.6 | 12 | 37.3 | 5.4 | 15 | 11.3% | 0.21 [-0.56, 0.97] |
| VALMAGGIA2005 | 29.62 | 4.65 | 23 | 29.74 | 6.34 | 35 | 23.7% | -0.02 [-0.55, 0.51] |
| **Subtotal (95% CI)** | | | **114** | | | **125** | **100.0%** | **0.06 [-0.20, 0.31]** |
| Heterogeneity: Chi² = 1.33, df = 4 (P = 0.86); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.44 (P = 0.66) | | | | | | | | |




Test for subgroup differences: Chi² = 0.30, df = 1 (P = 0.59), I² = 0%

**3.13 Mental state: 7. Continuous measures - symptoms of schizophrenia**

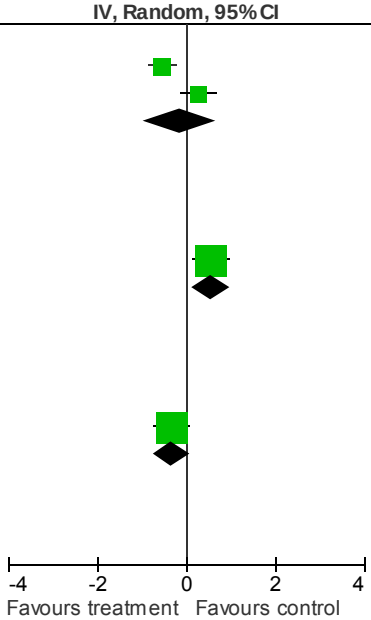
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.13.1 Up to 5 years FU** | | | | | | | | |
| Sensky2000 | 7.5 | 4.5 | 44 | 6.5 | 5.2 | 46 | 100.0% | 0.20 [-0.21, 0.62] |
| **Subtotal (95% CI)** | | | **44** | | | **46** | **100.0%** | **0.20 [-0.21, 0.62]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.96 (P = 0.34) | | | | | | | | |




Test for subgroup differences: Not applicable

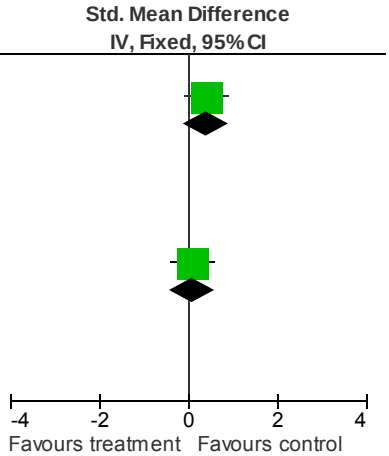
**3.14 Mental state: 8. Depression (MADRS, HAM-D) (lower=better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.14.1 MADRS, HAM-D: at end of treatment (9 months)** | | | | | | | | |
| PATTERSON2006 | 9.7 | 0.9 | 76 | 10.2 | 0.9 | 82 | 51.4% | -0.55 [-0.87, -0.23] |
| Sensky2000 | 6.05 | 5.42 | 44 | 4.83 | 3.58 | 46 | 48.6% | 0.26 [-0.15, 0.68] |
| **Subtotal (95% CI)** | | | **120** | | | **128** | **100.0%** | **-0.16 [-0.96, 0.65]** |
| Heterogeneity: Tau² = 0.30; Chi² = 9.38, df = 1 (P = 0.002); I² = 89% | | | | | | | | |
| Test for overall effect: Z = 0.38 (P = 0.70) | | | | | | | | |
| **3.14.2 MADRS: at FU (9 months after the end of treatment)** | | | | | | | | |
| Sensky2000 | 6.72 | 7.1 | 44 | 3.7 | 3.03 | 46 | 100.0% | 0.55 [0.13, 0.97] |
| **Subtotal (95% CI)** | | | **44** | | | **46** | **100.0%** | **0.55 [0.13, 0.97]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.57 (P = 0.01) | | | | | | | | |
| **3.14.3 MADRS: up to 5 years FU** | | | | | | | | |
| Sensky2000 | 5.5 | 4.3 | 44 | 7 | 4.6 | 46 | 100.0% | -0.33 [-0.75, 0.08] |
| **Subtotal (95% CI)** | | | **44** | | | **46** | **100.0%** | **-0.33 [-0.75, 0.08]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.57 (P = 0.12) | | | | | | | | |




**3.15 Psychosocial functioning: 1. SOFAS (signs reversed)**

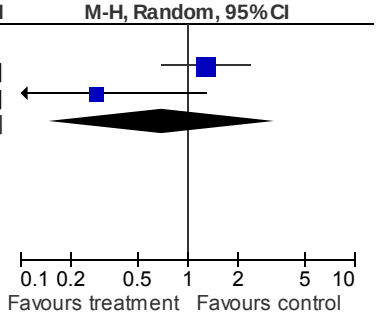
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.15.1 At end of treatment** | | | | | | | | |
| JACKSON2007 | -57.6 | 11.37 | 31 | -62.69 | 13.81 | 31 | 100.0% | 0.40 [-0.11, 0.90] |
| **Subtotal (95% CI)** | | | **31** | | | **31** | **100.0%** | **0.40 [-0.11, 0.90]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.55 (P = 0.12) | | | | | | | | |
| **3.15.2 Upto 1 year FU** | | | | | | | | |
| JACKSON2007 | -62.91 | 15.18 | 31 | -64.21 | 15.18 | 31 | 100.0% | 0.08 [-0.41, 0.58] |
| **Subtotal (95% CI)** | | | **31** | | | **31** | **100.0%** | **0.08 [-0.41, 0.58]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.33 (P = 0.74) | | | | | | | | |




Test for subgroup differences: Chi² = 0.75, df = 1 (P = 0.39), I² = 0%

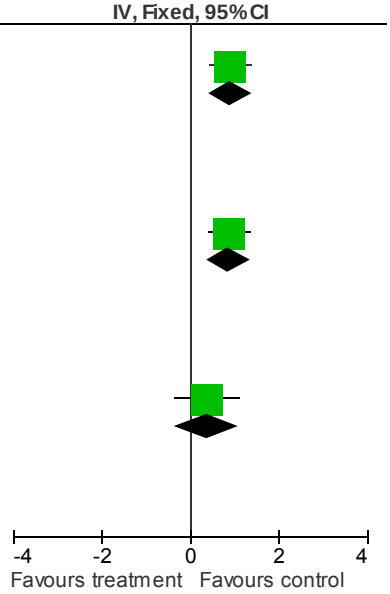
**3.16 Adherence: 1. Nonadherence with medication**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **3.16.1 At end of treatment** | | | | | | |
| Falloon1981 | 11 | 19 | 9 | 20 | 59.5% | 1.29 [0.69, 2.39] |
| Herz2000 | 2 | 41 | 7 | 41 | 40.5% | 0.29 [0.06, 1.29] |
| **Subtotal (95% CI)** | | **60** | | **61** | **100.0%** | **0.70 [0.15, 3.31]** |
| Total events | 13 | | 16 | | | |
| Heterogeneity: Tau² = 0.96; Chi² = 3.77, df = 1 (P = 0.05); I² = 73% | | | | | | |
| Test for overall effect: Z = 0.45 (P = 0.65) | | | | | | |



**3.17 Adherence: 2. Continuous measures: DAI, attitudes to medication (signs reversed)**

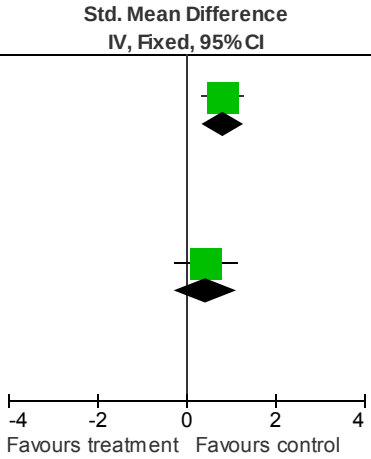
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.17.1 Attitudes to Medication Questionnaire: at end of treatment (2-3 weeks)** | | | | | | | | |
| Kemp1996 | -14.9 | 6.1 | 35 | -19.4 | 3.7 | 39 | 100.0% | 0.89 [0.41, 1.37] |
| **Subtotal (95% CI)** | | | **35** | | | **39** | **100.0%** | **0.89 [0.41, 1.37]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.65 (P = 0.0003) | | | | | | | | |
| **3.17.2 Drug Attitudes Inventory: at end of treatment (2-3 weeks)** | | | | | | | | |
| Kemp1996 | -45.7 | 8.5 | 35 | -52 | 5.9 | 39 | 100.0% | 0.86 [0.38, 1.34] |
| **Subtotal (95% CI)** | | | **35** | | | **39** | **100.0%** | **0.86 [0.38, 1.34]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.53 (P = 0.0004) | | | | | | | | |
| **3.17.3 Drug Attitudes Inventory: 18 month FU** | | | | | | | | |
| Kemp1996 | -48.2 | 8.5 | 13 | -50.9 | 6.2 | 16 | 100.0% | 0.36 [-0.38, 1.10] |
| **Subtotal (95% CI)** | | | **13** | | | **16** | **100.0%** | **0.36 [-0.38, 1.10]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.95 (P = 0.34) | | | | | | | | |




Test for subgroup differences: Chi² = 1.57, df = 2 (P = 0.46), I² = 0%

**3.18 Insight: 1. Schedule for Assessment of Insight (signs reversed)**

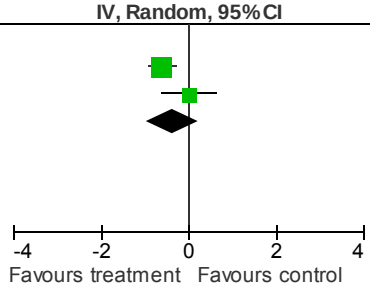
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.18.1 Schedule for Assessment of Insight: at end of treatment (2-3 weeks)** | | | | | | | | |
| Kemp1996 | -40.6 | 31.2 | 35 | -63 | 23.6 | 39 | 100.0% | 0.81 [0.33, 1.28] |
| **Subtotal (95% CI)** | | | **35** | | | **39** | **100.0%** | **0.81 [0.33, 1.28]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.33 (P = 0.0009) | | | | | | | | |
| **3.18.2 Schedule for Assessment of Insight: 18 month FU** | | | | | | | | |
| Kemp1996 | -55.3 | 42.5 | 15 | -70.7 | 24.4 | 16 | 100.0% | 0.44 [-0.28, 1.15] |
| **Subtotal (95% CI)** | | | **15** | | | **16** | **100.0%** | **0.44 [-0.28, 1.15]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.20 (P = 0.23) | | | | | | | | |




Test for subgroup differences: Chi² = 0.72, df = 1 (P = 0.40), I² = 0%

**3.19 Quality of Life: 1. MANSA, QWB - end of treatment (signs reversed)**

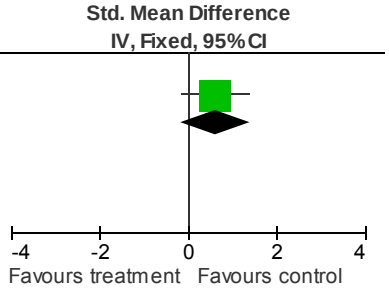
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.19.1 At end of treatment** | | | | | | | | |
| PATTERSON2006 | -55.9 | 1.5 | 76 | -55 | 1.4 | 82 | 60.0% | -0.62 [-0.94, -0.30] |
| ROHRICHT2006 | -4.1 | 0.8 | 18 | -4.1 | 0.7 | 21 | 40.0% | 0.00 [-0.63, 0.63] |
| **Subtotal (95% CI)** | | | **94** | | | **103** | **100.0%** | **-0.37 [-0.96, 0.22]** |
| Heterogeneity: Tau² = 0.13; Chi² = 2.94, df = 1 (P = 0.09); I² = 66% | | | | | | | | |
| Test for overall effect: Z = 1.23 (P = 0.22) | | | | | | | | |



**3.20 Quality of Life: 1. MANSA, QWB - FU (signs reversed)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.20.2 Up to 4months FU** | | | | | | | | |
| ROHRICHT2006 | -3.9 | 0.8 | 12 | -4.3 | 0.5 | 15 | 100.0% | 0.60 [-0.18, 1.38] |
| **Subtotal (95% CI)** | | | **12** | | | **15** | **100.0%** | **0.60 [-0.18, 1.38]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 1.50 (P = 0.13)




Test for subgroup differences: Not applicable

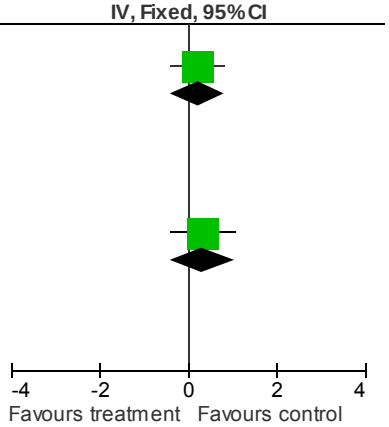
**3.21 Satisfaction with treatment - service user satisfaction (CAT) (signs reversed)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.21.1 At end of treatment** | | | | | | | | |
| ROHRICHT2006 | -6.4 | 1.9 | 19 | -6.8 | 2 | 23 | 100.0% | 0.20 [-0.41, 0.81] |
| **Subtotal (95% CI)** | | | **19** | | | **23** | **100.0%** | **0.20 [-0.41, 0.81]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 0.65 (P = 0.52)

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.21.2 Up to 4months FU** | | | | | | | | |
| ROHRICHT2006 | -6.7 | 1.8 | 12 | -7.3 | 1.9 | 17 | 100.0% | 0.31 [-0.43, 1.06] |
| **Subtotal (95% CI)** | | | **12** | | | **17** | **100.0%** | **0.31 [-0.43, 1.06]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 0.83 (P = 0.41)




Test for subgroup differences: Chi² = 0.05, df = 1 (P = 0.82), I² = 0%

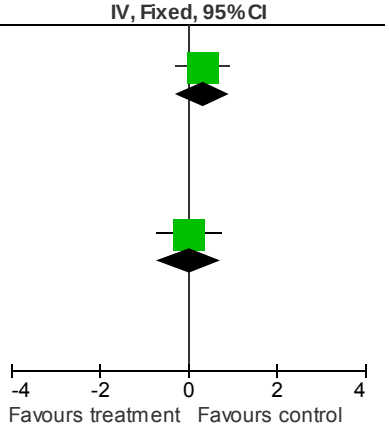
**3.22 Satisfaction with treatment - rating of the therapeutic relationship (signs reversed)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.22.1 At end of treatment** | | | | | | | | |
| ROHRICHT2006 | -6.6 | 1.8 | 19 | -7.2 | 1.9 | 23 | 100.0% | 0.32 [-0.29, 0.93] |
| **Subtotal (95% CI)** | | | **19** | | | **23** | **100.0%** | **0.32 [-0.29, 0.93]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 1.02 (P = 0.31)

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.22.2 Up to 4months FU** | | | | | | | | |
| ROHRICHT2006 | -7.1 | 1.6 | 12 | -7.1 | 2.1 | 17 | 100.0% | 0.00 [-0.74, 0.74] |
| **Subtotal (95% CI)** | | | **12** | | | **17** | **100.0%** | **0.00 [-0.74, 0.74]** |

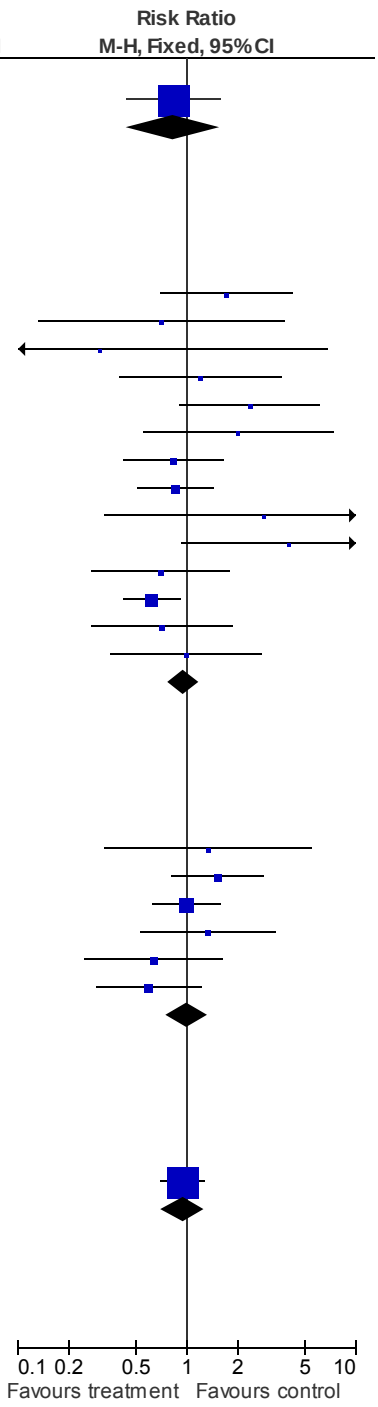
Heterogeneity: Not applicable
Test for overall effect: Z = 0.00 (P = 1.00)




Test for subgroup differences: Chi² = 0.42, df = 1 (P = 0.52), I² = 0%

**3.23 Treatment acceptability - leaving the study early for any reason**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.23.1 Did not receive intervention** | | | | | | |
| PATTERSON2006 | 14 | 99 | 18 | 106 | 100.0% | 0.83 [0.44, 1.58] |
| **Subtotal (95% CI)** | | **99** | | **106** | **100.0%** | **0.83 [0.44, 1.58]** |
| Total events | 14 | | 18 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.56 (P = 0.58) | | | | | | |
| **3.23.2 At end of treatment** | | | | | | |
| Eckman1992 | 9 | 21 | 5 | 20 | 4.0% | 1.71 [0.69, 4.24] |
| Falloon1981 | 2 | 19 | 3 | 20 | 2.3% | 0.70 [0.13, 3.75] |
| Haddock1999 | 0 | 11 | 1 | 10 | 1.2% | 0.31 [0.01, 6.74] |
| Herz2000 | 6 | 41 | 5 | 41 | 3.9% | 1.20 [0.40, 3.62] |
| Hogarty1997 | 13 | 53 | 5 | 48 | 4.1% | 2.35 [0.91, 6.12] |
| JACKSON2007 | 6 | 31 | 3 | 31 | 2.4% | 2.00 [0.55, 7.29] |
| Marder1996 | 10 | 37 | 14 | 43 | 10.2% | 0.83 [0.42, 1.64] |
| PATTERSON2006 | 20 | 99 | 25 | 106 | 19.0% | 0.86 [0.51, 1.44] |
| PINTO1999 | 3 | 21 | 1 | 20 | 0.8% | 2.86 [0.32, 25.24] |
| ROHRICHT2006 | 7 | 21 | 2 | 24 | 1.5% | 4.00 [0.93, 17.19] |
| Sensky2000 | 6 | 44 | 9 | 46 | 6.9% | 0.70 [0.27, 1.80] |
| Stanton1984 | 24 | 76 | 45 | 88 | 32.8% | 0.62 [0.42, 0.91] |
| Tarrier1998 | 5 | 26 | 9 | 33 | 6.2% | 0.71 [0.27, 1.85] |
| VALMAGGIA2005 | 5 | 26 | 7 | 36 | 4.6% | 0.99 [0.35, 2.77] |
| **Subtotal (95% CI)** | | **526** | | **566** | **100.0%** | **0.95 [0.77, 1.18]** |
| Total events | 116 | | 134 | | | |
| Heterogeneity: Chi² = 17.70, df = 13 (P = 0.17); I² = 27% | | | | | | |
| Test for overall effect: Z = 0.47 (P = 0.64) | | | | | | |
| **3.23.3 At FU (up to 18 months)** | | | | | | |
| JACKSON2007 | 4 | 31 | 3 | 31 | 4.5% | 1.33 [0.32, 5.47] |
| Kemp1996 | 15 | 35 | 11 | 39 | 15.5% | 1.52 [0.81, 2.85] |
| Lewis2002 | 27 | 106 | 26 | 101 | 39.6% | 0.99 [0.62, 1.57] |
| ROHRICHT2006 | 7 | 21 | 6 | 24 | 8.3% | 1.33 [0.53, 3.35] |
| Tarrier1998 | 5 | 26 | 10 | 33 | 13.1% | 0.63 [0.25, 1.63] |
| VALMAGGIA2005 | 9 | 36 | 11 | 26 | 19.0% | 0.59 [0.29, 1.22] |
| **Subtotal (95% CI)** | | **255** | | **254** | **100.0%** | **0.99 [0.75, 1.32]** |
| Total events | 67 | | 67 | | | |
| Heterogeneity: Chi² = 5.16, df = 5 (P = 0.40); I² = 3% | | | | | | |
| Test for overall effect: Z = 0.05 (P = 0.96) | | | | | | |
| **3.23.4 At FU (up to 5 years)** | | | | | | |
| Sensky2000 | 28 | 44 | 31 | 46 | 100.0% | 0.94 [0.70, 1.28] |
| **Subtotal (95% CI)** | | **44** | | **46** | **100.0%** | **0.94 [0.70, 1.28]** |
| Total events | 28 | | 31 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.37 (P = 0.71) | | | | | | |

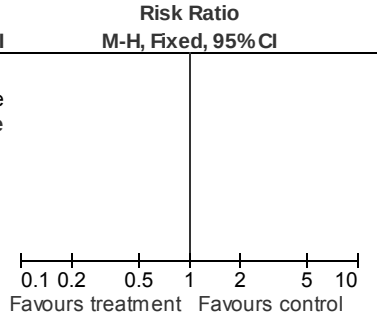


# Psychological clinical evidence: Counselling and supportive therapy (subgroup analyses)

**1 Group versus individual counselling and supportive therapy**

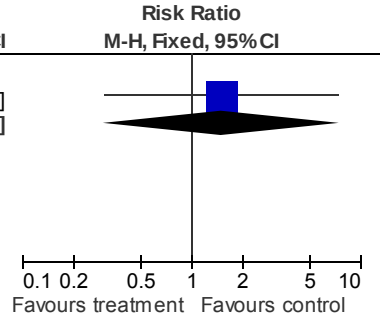
**1.2 Service outcomes: 1. Readmission**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.2.1 At end of treatment (18 weeks)** | | | | | | |
| Donlon 1973 | 0 | 12 | 0 | 12 | | Not estimable |
| **Subtotal (95% CI)** | | **12** | | **12** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |




**1.3 Treatment acceptability: 1. Leaving the study early for any reason**

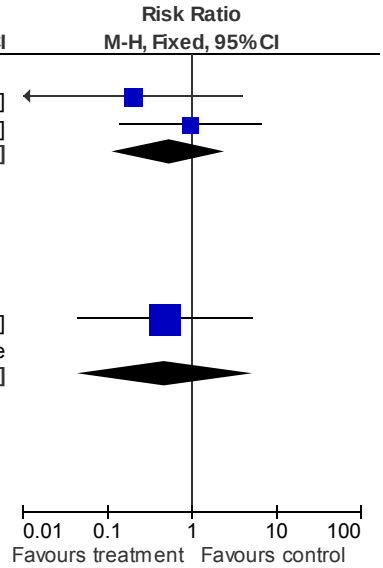
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.3.1 At end of treatment (18 weeks)** | | | | | | |
| Donlon 1973 | 3 | 12 | 2 | 12 | 100.0% | 1.50 [0.30, 7.43] |
| **Subtotal (95% CI)** | | **12** | | **12** | **100.0%** | **1.50 [0.30, 7.43]** |
| Total events | 3 | | 2 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.50 (P = 0.62) | | | | | | |




**2 Counselling and supportive therapy versus CBT**

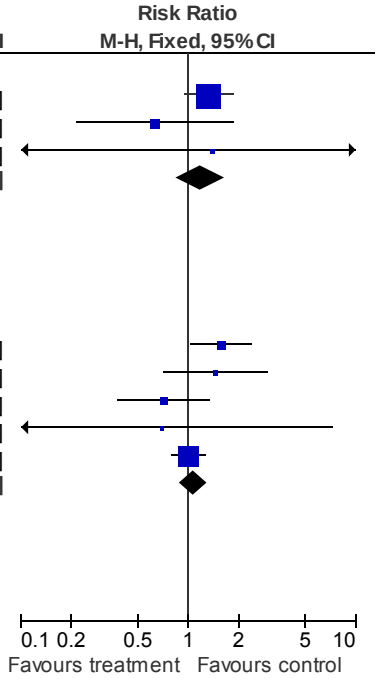
**2.1 Mortality**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.1.1 Suicide and probably suicide - up to 18 months FU** | | | | | | |
| JACKSON2007 | 0 | 31 | 2 | 31 | 55.0% | 0.20 [0.01, 4.00] |
| Lewis 2002 | 2 | 106 | 2 | 101 | 45.0% | 0.95 [0.14, 6.64] |
| **Subtotal (95% CI)** | | **137** | | **132** | **100.0%** | **0.54 [0.12, 2.50]** |
| Total events | 2 | | 4 | | | |
| Heterogeneity: Chi² = 0.75, df = 1 (P = 0.39); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.79 (P = 0.43) | | | | | | |
| **2.1.3 Died of natural causes / accidents - at FU** | | | | | | |
| Lewis 2002 | 1 | 106 | 2 | 101 | 100.0% | 0.48 [0.04, 5.17] |
| Kemp 1996 | 0 | 35 | 0 | 39 | | Not estimable |
| **Subtotal (95% CI)** | | **141** | | **140** | **100.0%** | **0.48 [0.04, 5.17]** |
| Total events | 1 | | 2 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.61 (P = 0.54) | | | | | | |



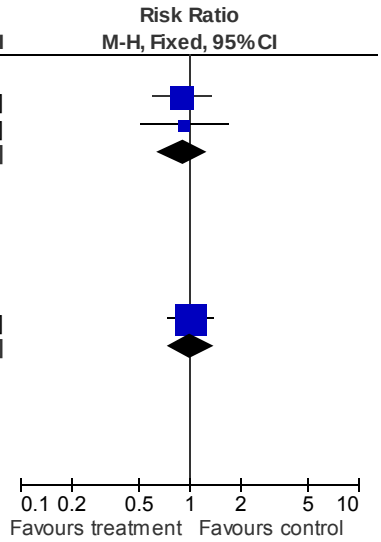
**2.3 Global State: 1. Relapse**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.3.1 At end of treatment** | | | | | | |
| Hogarty 1997 | 35 | 53 | 24 | 48 | 76.1% | 1.32 [0.94, 1.86] |
| Tarrier 1998 | 4 | 26 | 8 | 33 | 21.3% | 0.63 [0.21, 1.88] |
| VALMAGGIA2005 | 1 | 26 | 1 | 36 | 2.5% | 1.38 [0.09, 21.14] |
| **Subtotal (95% CI)** | | **105** | | **117** | **100.0%** | **1.18 [0.84, 1.64]** |
| Total events | 40 | | 33 | | | |
| Heterogeneity: Chi² = 1.70, df = 2 (P = 0.43); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.95 (P = 0.34) | | | | | | |
| **2.3.2 Up to 18 months FU** | | | | | | |
| Kemp 1996 | 24 | 35 | 17 | 39 | 16.8% | 1.57 [1.03, 2.40] |
| Haddock 1999 | 8 | 11 | 5 | 10 | 5.5% | 1.45 [0.71, 2.98] |
| Tarrier 1998 | 9 | 26 | 16 | 33 | 14.8% | 0.71 [0.38, 1.35] |
| VALMAGGIA2005 | 1 | 26 | 2 | 36 | 1.8% | 0.69 [0.07, 7.24] |
| Lewis 2002 | 60 | 106 | 57 | 101 | 61.1% | 1.00 [0.79, 1.27] |
| **Subtotal (95% CI)** | | **204** | | **219** | **100.0%** | **1.08 [0.89, 1.30]** |
| Total events | 102 | | 97 | | | |
| Heterogeneity: Chi² = 5.87, df = 4 (P = 0.21); I² = 32% | | | | | | |
| Test for overall effect: Z = 0.75 (P = 0.45) | | | | | | |




**2.5 Service Outcomes: 1. Rehospitalisation**

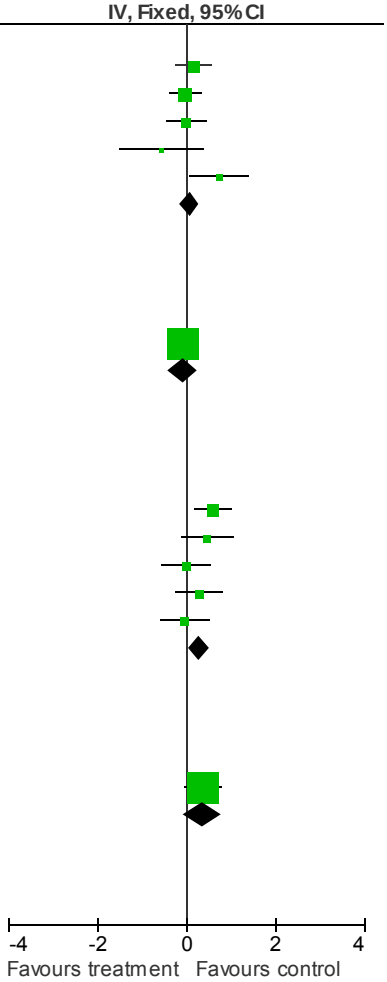
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.5.2 Up to 18months FU** | | | | | | |
| Lewis 2002 | 31 | 106 | 33 | 101 | 72.2% | 0.90 [0.60, 1.35] |
| JACKSON2007 | 12 | 31 | 13 | 31 | 27.8% | 0.92 [0.50, 1.69] |
| **Subtotal (95% CI)** | | **137** | | **132** | **100.0%** | **0.90 [0.64, 1.27]** |
| Total events | 43 | | 46 | | | |
| Heterogeneity: Chi² = 0.01, df = 1 (P = 0.93); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.59 (P = 0.55) | | | | | | |
| **2.5.3 Up to 5 years FU** | | | | | | |
| Sensky 2000 | 28 | 44 | 29 | 46 | 100.0% | 1.01 [0.74, 1.38] |
| **Subtotal (95% CI)** | | **44** | | **46** | **100.0%** | **1.01 [0.74, 1.38]** |
| Total events | 28 | | 29 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.06 (P = 0.95) | | | | | | |



# Psychological clinical evidence: Counselling and supportive therapy (subgroup analyses)

**2.7 Mental state: 1. Continuous measures - total symptom score (lower = better)**

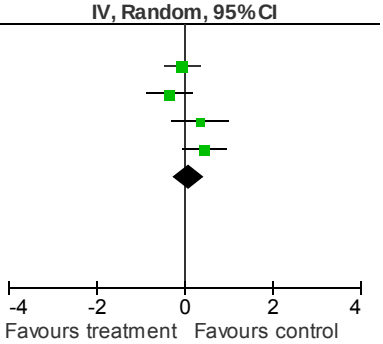
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.7.1 BPRS, PANSS, CPRS Total - at end of treatment** | | | | | | | | |
| Sensky 2000 | 22.9 | 17.23 | 44 | 20.5 | 12.89 | 46 | 27.2% | 0.16 [-0.26, 0.57] |
| Lewis 2002 | 67.25 | 18.52 | 64 | 68.12 | 21.38 | 52 | 34.8% | -0.04 [-0.41, 0.32] |
| Kemp 1996 | 37.4 | 8.5 | 35 | 37.6 | 10.1 | 39 | 22.4% | -0.02 [-0.48, 0.44] |
| Haddock 1999 | 38.3 | 17.4 | 10 | 46.8 | 8.75 | 8 | 5.1% | -0.57 [-1.52, 0.39] |
| PINTO1999 | 45.7 | 11 | 18 | 38.1 | 9.7 | 19 | 10.5% | 0.72 [0.05, 1.39] |
| **Subtotal (95% CI)** | | | **171** | | | **164** | **100.0%** | **0.07 [-0.15, 0.28]** |
| Heterogeneity: Chi² = 6.03, df = 4 (P = 0.20); I² = 34% | | | | | | | | |
| Test for overall effect: Z = 0.63 (P = 0.53) | | | | | | | | |
| **2.7.2 BPRS PANSS, CPRS total - up to 5 weeks FU** | | | | | | | | |
| Lewis 2002 | 59.96 | 16.39 | 71 | 61.73 | 19.69 | 78 | 100.0% | -0.10 [-0.42, 0.22] |
| **Subtotal (95% CI)** | | | **71** | | | **78** | **100.0%** | **-0.10 [-0.42, 0.22]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.59 (P = 0.56) | | | | | | | | |
| **2.7.3 BPRS/PANSS/CPRS: total symptom score at 1-18 mth FU** | | | | | | | | |
| Sensky 2000 | 26.6 | 25.19 | 44 | 15.1 | 11.53 | 46 | 30.5% | 0.59 [0.16, 1.01] |
| Kemp 1996 | 14.8 | 4.1 | 20 | 12.5 | 5.6 | 25 | 15.3% | 0.45 [-0.14, 1.05] |
| LEWIS2002N | 51.4 | 9.6 | 26 | 51.5 | 7.5 | 24 | 17.7% | -0.01 [-0.57, 0.54] |
| LEWIS2002M | 76.6 | 21.7 | 30 | 71.2 | 15.8 | 25 | 19.1% | 0.28 [-0.26, 0.81] |
| LEWIS2002L | 53 | 14.6 | 23 | 53.7 | 13.3 | 26 | 17.3% | -0.05 [-0.61, 0.51] |
| **Subtotal (95% CI)** | | | **143** | | | **146** | **100.0%** | **0.29 [0.06, 0.52]** |
| Heterogeneity: Chi² = 4.72, df = 4 (P = 0.32); I² = 15% | | | | | | | | |
| Test for overall effect: Z = 2.44 (P = 0.01) | | | | | | | | |
| **2.7.4 BPRS PANSS, CPRS total - up to 5 years FU** | | | | | | | | |
| Sensky 2000 | 29 | 14 | 44 | 24.4 | 11.7 | 44 | 100.0% | 0.35 [-0.07, 0.77] |
| **Subtotal (95% CI)** | | | **44** | | | **44** | **100.0%** | **0.35 [-0.07, 0.77]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.64 (P = 0.10) | | | | | | | | |




Test for subgroup differences: Chi² = 5.08, df = 3 (P = 0.17), I² = 41.0%

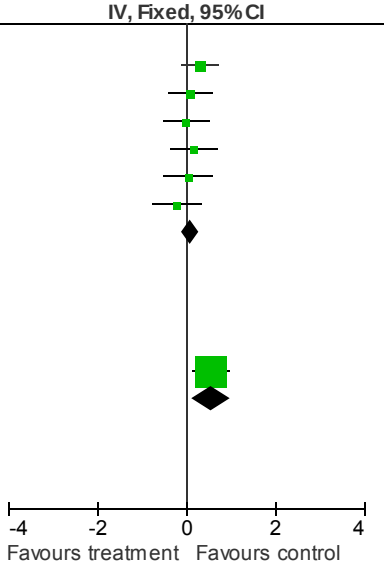
**2.8 Mental state: 2. Continuous measures - negative symptoms (lower = better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.8.1 SANS, PANSS - at end of treatment** | | | | | | | | |
| Sensky 2000 | 20.68 | 20.93 | 44 | 21.95 | 16.53 | 44 | 30.7% | -0.07 [-0.48, 0.35] |
| VALMAGGIA2005 | 11.74 | 2.91 | 23 | 12.95 | 3.51 | 35 | 24.4% | -0.36 [-0.89, 0.17] |
| PINTO1999 | 53.5 | 19.1 | 18 | 46.9 | 19.4 | 19 | 19.2% | 0.34 [-0.31, 0.99] |
| JACKSON2007 | 22.88 | 12.87 | 31 | 17.67 | 10.19 | 31 | 25.7% | 0.44 [-0.06, 0.95] |
| **Subtotal (95% CI)** | | | **116** | | | **129** | **100.0%** | **0.07 [-0.29, 0.43]** |
| Heterogeneity: Tau² = 0.06; Chi² = 5.70, df = 3 (P = 0.13); I² = 47% | | | | | | | | |
| Test for overall effect: Z = 0.38 (P = 0.70) | | | | | | | | |



**2.9 Mental state: 2. Continuous measures - negative symptoms (at FU)**

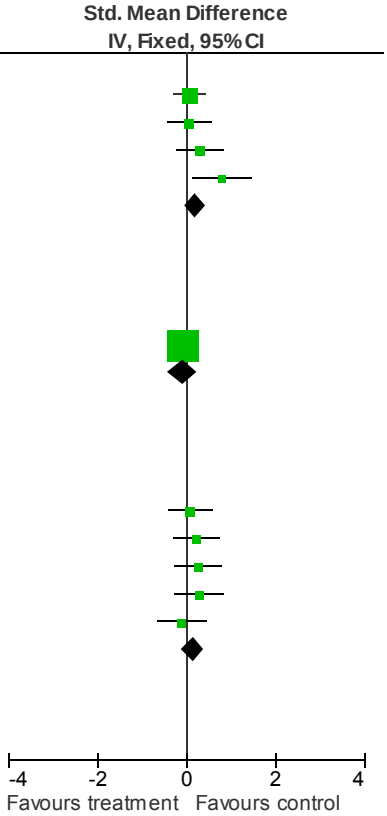
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.9.1 SANS, PANSS - up to 18 months FU** | | | | | | | | |
| Sensky 2000 | 25.07 | 27.39 | 44 | 18.16 | 17.19 | 44 | 24.4% | 0.30 [-0.12, 0.72] |
| JACKSON2007 | 7.55 | 4.76 | 31 | 7.2 | 4.08 | 31 | 17.3% | 0.08 [-0.42, 0.58] |
| VALMAGGIA2005 | 11.72 | 2.61 | 23 | 11.76 | 3.42 | 35 | 15.5% | -0.01 [-0.54, 0.51] |
| LEWIS2002M | 18.9 | 5.9 | 30 | 18 | 5.9 | 25 | 15.2% | 0.15 [-0.38, 0.68] |
| LEWIS2002N | 12.3 | 3.5 | 26 | 12.2 | 2.9 | 24 | 14.0% | 0.03 [-0.52, 0.59] |
| LEWIS2002L | 11.8 | 4 | 23 | 12.8 | 4.3 | 26 | 13.6% | -0.24 [-0.80, 0.33] |
| **Subtotal (95% CI)** | | | **177** | | | **185** | **100.0%** | **0.08 [-0.13, 0.29]** |
| Heterogeneity: Chi² = 2.48, df = 5 (P = 0.78); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.75 (P = 0.45) | | | | | | | | |
| **2.9.2 SANS, PANSS - up to 5 years FU** | | | | | | | | |
| Sensky 2000 | 33.1 | 22.6 | 44 | 22.8 | 14.5 | 46 | 100.0% | 0.54 [0.12, 0.96] |
| **Subtotal (95% CI)** | | | **44** | | | **46** | **100.0%** | **0.54 [0.12, 0.96]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.52 (P = 0.01) | | | | | | | | |




Test for subgroup differences: Chi² = 3.70, df = 1 (P = 0.05), I² = 73.0%

**2.10 Mental state: 3. Continuous measures - positive symptom score (lower = better)**

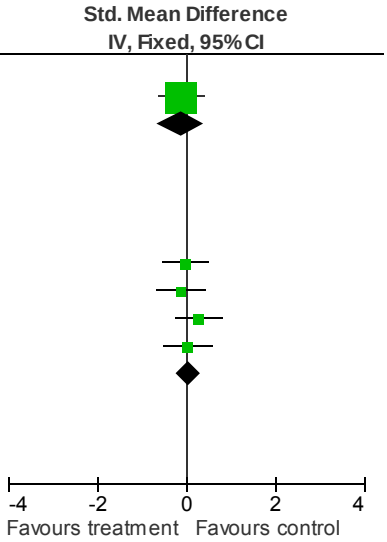
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.10.1 SAPS PANSS - at end of treatment** | | | | | | | | |
| Lewis 2002 | 15.34 | 6.01 | 64 | 14.94 | 6.61 | 52 | 43.2% | 0.06 [-0.30, 0.43] |
| JACKSON2007 | 7.65 | 4.03 | 31 | 7.45 | 4.05 | 31 | 23.3% | 0.05 [-0.45, 0.55] |
| VALMAGGIA2005 | 16.28 | 3.76 | 23 | 15.09 | 3.91 | 35 | 20.7% | 0.30 [-0.22, 0.83] |
| PINTO1999 | 29.9 | 12.1 | 18 | 17.9 | 17 | 19 | 12.8% | 0.79 [0.12, 1.46] |
| **Subtotal (95% CI)** | | | **136** | | | **137** | **100.0%** | **0.20 [-0.04, 0.44]** |
| Heterogeneity: Chi² = 4.02, df = 3 (P = 0.26); I² = 25% | | | | | | | | |
| Test for overall effect: Z = 1.65 (P = 0.10) | | | | | | | | |
| **2.10.2 SAPS PANSS - up to 5 weeks FU** | | | | | | | | |
| Lewis 2002 | 12.58 | 4.8 | 71 | 13.03 | 5.06 | 78 | 100.0% | -0.09 [-0.41, 0.23] |
| **Subtotal (95% CI)** | | | **71** | | | **78** | **100.0%** | **-0.09 [-0.41, 0.23]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.55 (P = 0.58) | | | | | | | | |
| **2.10.3 SAPS PANSS - up to 18 months FU** | | | | | | | | |
| JACKSON2007 | 7.55 | 4.76 | 31 | 7.2 | 4.08 | 31 | 23.0% | 0.08 [-0.42, 0.58] |
| VALMAGGIA2005 | 15.44 | 3.94 | 23 | 14.64 | 3.7 | 35 | 20.5% | 0.21 [-0.32, 0.74] |
| LEWIS2002M | 16.2 | 6.2 | 30 | 14.8 | 4.1 | 25 | 20.1% | 0.26 [-0.28, 0.79] |
| LEWIS2002L | 13.3 | 4.8 | 23 | 12 | 4.3 | 26 | 17.9% | 0.28 [-0.28, 0.85] |
| LEWIS2002N | 10.2 | 2.5 | 26 | 10.5 | 2.5 | 24 | 18.5% | -0.12 [-0.67, 0.44] |
| **Subtotal (95% CI)** | | | **133** | | | **141** | **100.0%** | **0.14 [-0.10, 0.38]** |
| Heterogeneity: Chi² = 1.38, df = 4 (P = 0.85); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.16 (P = 0.25) | | | | | | | | |




Test for subgroup differences: Chi² = 2.13, df = 2 (P = 0.34), I² = 6.1%

**2.12 Mental state: 4. Continuous measures - general symptom score (lower = better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.12.1 PANSS, BPRS - at end of treatment** | | | | | | | | |
| VALMAGGIA2005 | 29.58 | 6.16 | 23 | 30.4 | 6.28 | 35 | 100.0% | -0.13 [-0.66, 0.40] |
| **Subtotal (95% CI)** | | | **23** | | | **35** | **100.0%** | **-0.13 [-0.66, 0.40]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.48 (P = 0.63) | | | | | | | | |
| **2.12.2 PANSS, BPRS - up to 18 months FU** | | | | | | | | |
| VALMAGGIA2005 | 29.62 | 4.65 | 23 | 29.74 | 6.34 | 35 | 26.7% | -0.02 [-0.55, 0.51] |
| LEWIS2002L | 27.9 | 7.4 | 23 | 28.9 | 6.9 | 26 | 23.4% | -0.14 [-0.70, 0.42] |
| LEWIS2002M | 41.5 | 12.2 | 30 | 38.3 | 10.8 | 25 | 26.0% | 0.27 [-0.26, 0.81] |
| LEWIS2002N | 28.9 | 4.7 | 26 | 28.8 | 3.8 | 24 | 24.0% | 0.02 [-0.53, 0.58] |
| **Subtotal (95% CI)** | | | **102** | | | **110** | **100.0%** | **0.04 [-0.23, 0.31]** |
| Heterogeneity: Chi² = 1.17, df = 3 (P = 0.76); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.28 (P = 0.78) | | | | | | | | |

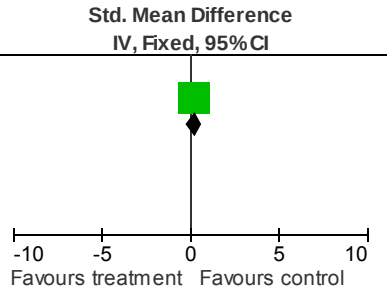



Test for subgroup differences: Chi² = 0.31, df = 1 (P = 0.58), I² = 0%

**2.14 Mental state: 5. Continuous measures - symptoms of schizophrenia**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.14.1 Up to 5 years FU** | | | | | | | | |
| Sensky 2000 | 7.5 | 4.5 | 44 | 6.5 | 5.2 | 46 | 100.0% | 0.20 [-0.21, 0.62] |
| **Subtotal (95% CI)** | | | **44** | | | **46** | **100.0%** | **0.20 [-0.21, 0.62]** |

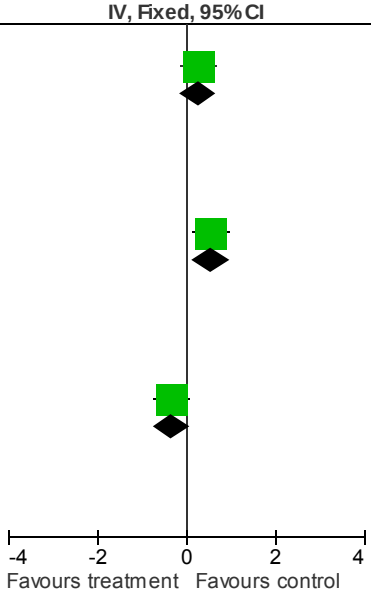
Heterogeneity: Not applicable
Test for overall effect: Z = 0.96 (P = 0.34)




Test for subgroup differences: Not applicable

**2.16 Mental state: 6. Depression (MADRS, HAM-D) (lower = better)**

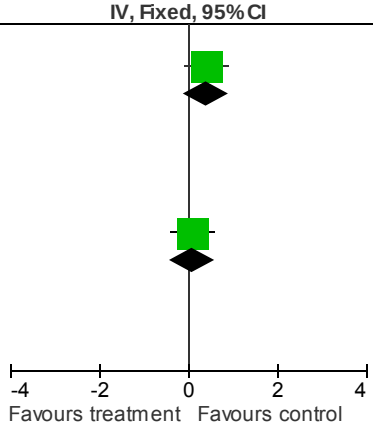
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.16.1 MADRS, HAM-D: at end of treatment (9 months)** | | | | | | | | |
| Sensky 2000 | 6.05 | 5.42 | 44 | 4.83 | 3.58 | 46 | 100.0% | 0.26 [-0.15, 0.68] |
| **Subtotal (95% CI)** | | | **44** | | | **46** | **100.0%** | **0.26 [-0.15, 0.68]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.25 (P = 0.21) | | | | | | | | |
| **2.16.2 MADRS: at FU (9 months after the end of treatment)** | | | | | | | | |
| Sensky 2000 | 6.72 | 7.1 | 44 | 3.7 | 3.03 | 46 | 100.0% | 0.55 [0.13, 0.97] |
| **Subtotal (95% CI)** | | | **44** | | | **46** | **100.0%** | **0.55 [0.13, 0.97]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.57 (P = 0.01) | | | | | | | | |
| **2.16.3 MADRS: up to 5 years FU** | | | | | | | | |
| Sensky 2000 | 5.5 | 4.3 | 44 | 7 | 4.6 | 46 | 100.0% | -0.33 [-0.75, 0.08] |
| **Subtotal (95% CI)** | | | **44** | | | **46** | **100.0%** | **-0.33 [-0.75, 0.08]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.57 (P = 0.12) | | | | | | | | |




Test for subgroup differences: Chi² = 8.99, df = 2 (P = 0.01), I² = 77.7%

**2.17 Psychosocial Functioning: 1. SOFAS (signs reversed)**

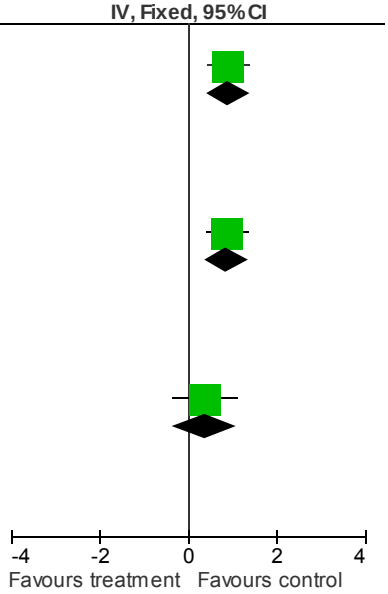
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.17.1 At end of treatment** | | | | | | | | |
| JACKSON2007 | -57.6 | 11.37 | 31 | -62.69 | 13.81 | 31 | 100.0% | 0.40 [-0.11, 0.90] |
| **Subtotal (95% CI)** | | | **31** | | | **31** | **100.0%** | **0.40 [-0.11, 0.90]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.55 (P = 0.12) | | | | | | | | |
| **2.17.2 Up to 1 years FU** | | | | | | | | |
| JACKSON2007 | -62.91 | 15.18 | 31 | -64.21 | 15.18 | 31 | 100.0% | 0.08 [-0.41, 0.58] |
| **Subtotal (95% CI)** | | | **31** | | | **31** | **100.0%** | **0.08 [-0.41, 0.58]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.33 (P = 0.74) | | | | | | | | |




Test for subgroup differences: Chi² = 0.75, df = 1 (P = 0.39), I² = 0%

**2.21 Adherence: 1. Continuous measures: DAI, attitudes to medication (signs reversed)**

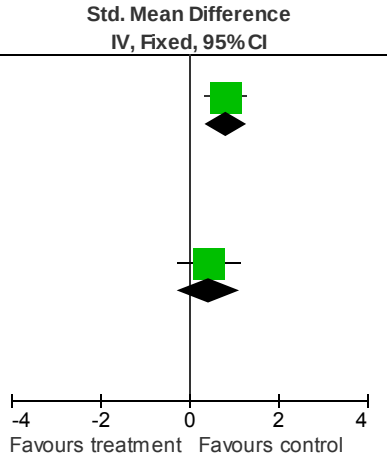
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.21.1 Attitudes to Medication Questionnaire: at end of treatment (2-3 weeks)** | | | | | | | | |
| Kemp 1996 | -14.9 | 6.1 | 35 | -19.4 | 3.7 | 39 | 100.0% | 0.89 [0.41, 1.37] |
| **Subtotal (95% CI)** | | | **35** | | | **39** | **100.0%** | **0.89 [0.41, 1.37]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.65 (P = 0.0003) | | | | | | | | |
| **2.21.2 Drug Attitudes Inventory: at end of treatment (2-3 weeks)** | | | | | | | | |
| Kemp 1996 | -45.7 | 8.5 | 35 | -52 | 5.9 | 39 | 100.0% | 0.86 [0.38, 1.34] |
| **Subtotal (95% CI)** | | | **35** | | | **39** | **100.0%** | **0.86 [0.38, 1.34]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.53 (P = 0.0004) | | | | | | | | |
| **2.21.3 Drug Attitudes Inventory: 18 months FU** | | | | | | | | |
| Kemp 1996 | -48.2 | 8.5 | 13 | -50.9 | 6.2 | 16 | 100.0% | 0.36 [-0.38, 1.10] |
| **Subtotal (95% CI)** | | | **13** | | | **16** | **100.0%** | **0.36 [-0.38, 1.10]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.95 (P = 0.34) | | | | | | | | |




Test for subgroup differences: Chi² = 1.57, df = 2 (P = 0.46), I² = 0%

**2.25 Insight: 1. Schedule for Assessment of Insight (signs reversed)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.25.1 Schedule for Assessment of Insight: at end of treatment (2-3 weeks)** | | | | | | | | |
| Kemp 1996 | -40.6 | 31.2 | 35 | -63 | 23.6 | 39 | 100.0% | 0.81 [0.33, 1.28] |
| **Subtotal (95% CI)** | | | **35** | | | **39** | **100.0%** | **0.81 [0.33, 1.28]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.33 (P = 0.0009) | | | | | | | | |
| **2.25.2 Schedule for Assessment of Insight: 18 months FU** | | | | | | | | |
| Kemp 1996 | -55.3 | 42.5 | 15 | -70.7 | 24.4 | 16 | 100.0% | 0.44 [-0.28, 1.15] |
| **Subtotal (95% CI)** | | | **15** | | | **16** | **100.0%** | **0.44 [-0.28, 1.15]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.20 (P = 0.23) | | | | | | | | |




Test for subgroup differences: Chi² = 0.72, df = 1 (P = 0.40), I² = 0%

**2.80 Treatment acceptability: 1. Leaving the study early for any reason**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.80.2 At end of treatment** | | | | | | |
| Haddock 1999 | 0 | 11 | 1 | 10 | 4.7% | 0.31 [0.01, 6.74] |
| Hogarty 1997 | 13 | 53 | 5 | 48 | 15.7% | 2.35 [0.91, 6.12] |
| Sensky 2000 | 6 | 44 | 9 | 46 | 26.3% | 0.70 [0.27, 1.80] |
| Tarrier 1998 | 5 | 26 | 9 | 33 | 23.7% | 0.71 [0.27, 1.85] |
| VALMAGGIA2005 | 5 | 26 | 7 | 36 | 17.6% | 0.99 [0.35, 2.77] |
| PINTO1999 | 3 | 21 | 1 | 20 | 3.1% | 2.86 [0.32, 25.24] |
| JACKSON2007 | 6 | 31 | 3 | 31 | 9.0% | 2.00 [0.55, 7.29] |
| **Subtotal (95% CI)** | | **212** | | **224** | **100.0%** | **1.18 [0.77, 1.80]** |
| Total events | 38 | | 35 | | | |
| Heterogeneity: Chi² = 6.41, df = 6 (P = 0.38); I² = 6% | | | | | | |
| Test for overall effect: Z = 0.75 (P = 0.46) | | | | | | |
| **2.80.3 At FU (up to 18 months)** | | | | | | |
| Kemp 1996 | 15 | 35 | 11 | 39 | 16.9% | 1.52 [0.81, 2.85] |
| Tarrier 1998 | 5 | 26 | 10 | 33 | 14.3% | 0.63 [0.25, 1.63] |
| JACKSON2007 | 4 | 31 | 3 | 31 | 4.9% | 1.33 [0.32, 5.47] |
| VALMAGGIA2005 | 9 | 36 | 11 | 26 | 20.7% | 0.59 [0.29, 1.22] |
| Lewis 2002 | 27 | 106 | 26 | 101 | 43.2% | 0.99 [0.62, 1.57] |
| **Subtotal (95% CI)** | | **234** | | **230** | **100.0%** | **0.96 [0.71, 1.30]** |
| Total events | 60 | | 61 | | | |
| Heterogeneity: Chi² = 4.74, df = 4 (P = 0.32); I² = 16% | | | | | | |
| Test for overall effect: Z = 0.25 (P = 0.80) | | | | | | |
| **2.80.4 At FU (up to 5 years)** | | | | | | |
| Sensky 2000 | 28 | 44 | 31 | 46 | 100.0% | 0.94 [0.70, 1.28] |
| **Subtotal (95% CI)** | | **44** | | **46** | **100.0%** | **0.94 [0.70, 1.28]** |
| Total events | 28 | | 31 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.37 (P = 0.71) | | | | | | |

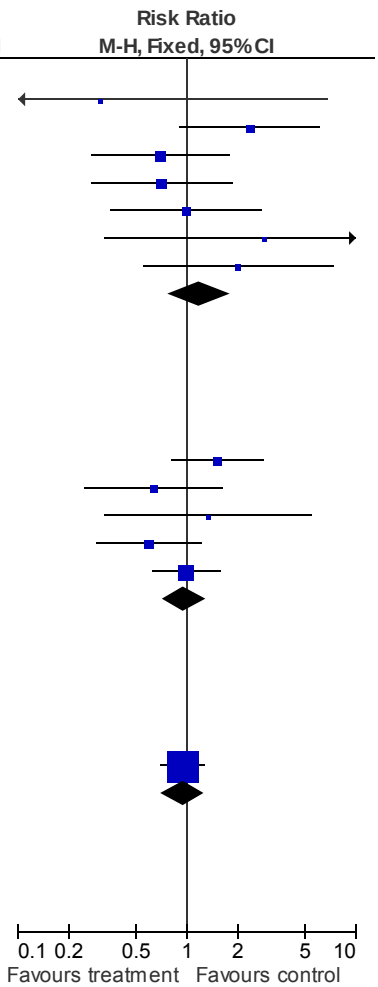


**Table 6: Studies included in the family intervention review**

| Intervention | versus Comparator |
|---|---|
| | **Any control** |
| **Family intervention** | Barrowclough1999<br>Bloch1995<br>BRADLEY2006<br>BRESSI2008<br>Buchkremer1995<br>CARRA2007<br>CHIEN2004A<br>CHIEN2004B<br>CHIEN2007<br>Dyck2000<br>Falloon1981<br>GARETY2008<br>Glynn1992<br>Goldstein1978<br>Herz2000 *<br>Hogarty1997<br>JENNER2004 *<br>KOPELOWICZ2003<br>LEAVEY2004<br>Leff1982<br>LI2005<br>LINSZEN1996 *<br>Lukoff1986 *<br>MAGLIANO2006<br>RAN2003<br>SO2006<br>SZMUKLER2003<br>Tarrier1988<br>VALENCIA2007 *<br>Vaughan1992<br>Xiong1994<br>Zhang1994 |
| | **Standard care** |
| **Family intervention** | Barrowclough1999<br>Bloch1995<br>BRADLEY2006<br>BRESSI2008<br>Buchkremer1995<br>CARRA2007<br>CHIEN2004A<br>CHIEN2004B<br>CHIEN2007<br>Dyck2000<br>GARETY2008<br>Glynn1992<br>Goldstein1978<br>JENNER2004<br>KOPELOWICZ2003<br>LEAVEY2004<br>Leff1982<br>LI2005 |

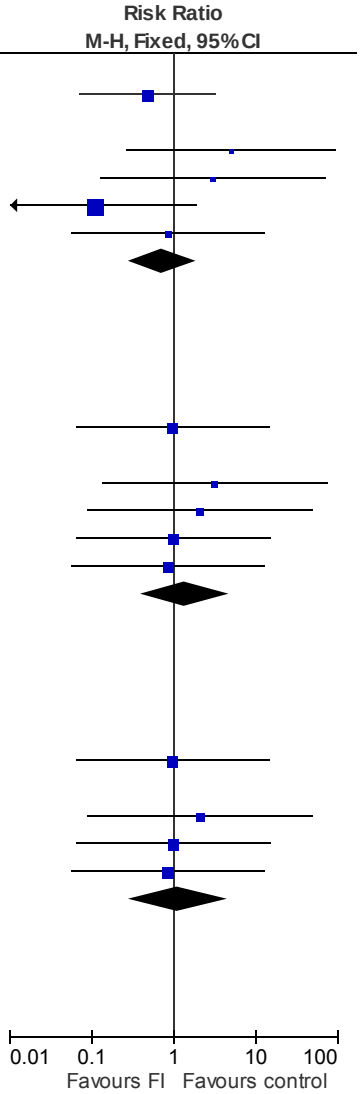
| | |
|---|---|
| | MAGLIANO2006<br>RAN2003<br>SO2006<br>Tarrier1988<br>VALENCIA2007<br>Vaughan1992<br>Xiong1994<br>Zhang1994 |
| | **Other active treatments** |
| **Family intervention** | CARRA2007<br>Falloon1981<br>GARETY2008<br>Herz2000<br>Hogarty1997<br>LINSZEN1996<br>Lukoff1986<br>SZMUKLER2003 |
| | **Single family intervention** |
| **Multiple family intervention** | Leff1989<br>McFarlane1995a<br>McFarlane1995b<br>MONTERO2001<br>Schooler1997 |

# Psychological clinical evidence: Family intervention

**1 Family intervention versus any control (critical outcomes)**

**1.1 Mortality**

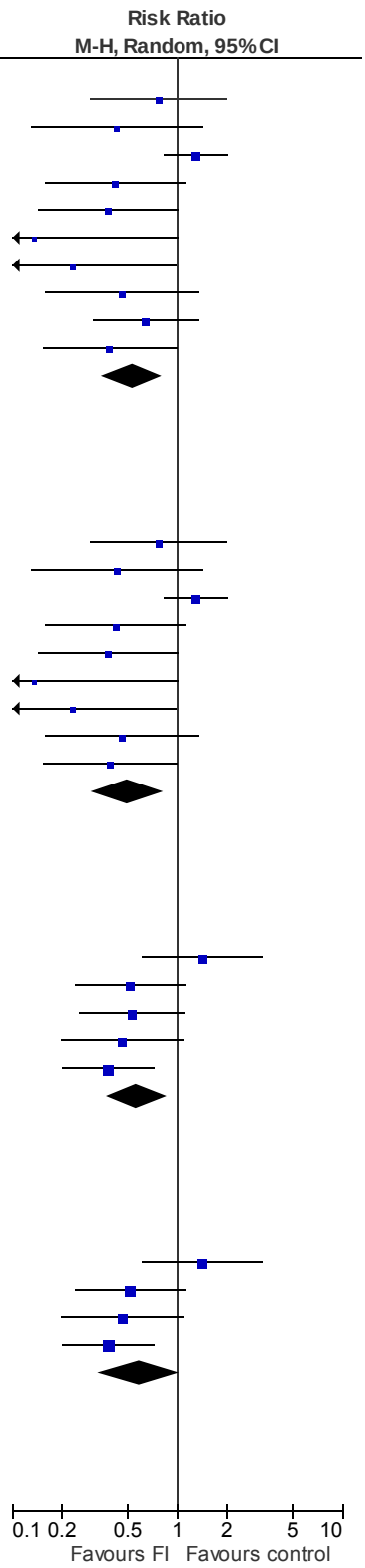
| | FI | | Control | | | Risk Ratio |
|---|---|---|---|---|---|---|
| **Study or Subgroup** | **Events** | **Total** | **Events** | **Total** | **Weight** | **M-H, Fixed, 95% CI** |
| **1.1.1 suicide** | | | | | | |
| Buchkremer1995 | 2 | 67 | 2 | 32 | 29.2% | 0.48 [0.07, 3.24] |
| GARETY2008 | 0 | 28 | 0 | 28 | | Not estimable |
| Leff1982 | 2 | 12 | 0 | 12 | 5.4% | 5.00 [0.27, 94.34] |
| Tarrier1988 | 1 | 32 | 0 | 32 | 5.4% | 3.00 [0.13, 71.00] |
| Vaughan1992 | 0 | 18 | 4 | 18 | 48.5% | 0.11 [0.01, 1.92] |
| Xiong1994 | 1 | 34 | 1 | 29 | 11.6% | 0.85 [0.06, 13.04] |
| **Subtotal (95% CI)** | | **191** | | **151** | **100.0%** | **0.72 [0.28, 1.88]** |
| Total events | 6 | | 7 | | | |
| Heterogeneity: Chi² = 4.29, df = 4 (P = 0.37); I² = 7% | | | | | | |
| Test for overall effect: Z = 0.67 (P = 0.51) | | | | | | |
| **1.1.2 other cause** | | | | | | |
| BRADLEY2006 | 1 | 30 | 1 | 29 | 24.4% | 0.97 [0.06, 14.74] |
| GARETY2008 | 0 | 28 | 0 | 28 | | Not estimable |
| JENNER2004* | 1 | 37 | 0 | 39 | 11.7% | 3.16 [0.13, 75.16] |
| MAGLIANO2006 | 1 | 42 | 0 | 29 | 14.1% | 2.09 [0.09, 49.65] |
| Tarrier1988 | 1 | 32 | 1 | 32 | 24.0% | 1.00 [0.07, 15.30] |
| Xiong1994 | 1 | 34 | 1 | 29 | 25.9% | 0.85 [0.06, 13.04] |
| **Subtotal (95% CI)** | | **203** | | **186** | **100.0%** | **1.36 [0.39, 4.75]** |
| Total events | 5 | | 3 | | | |
| Heterogeneity: Chi² = 0.56, df = 4 (P = 0.97); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.48 (P = 0.63) | | | | | | |
| **1.1.3 other cause - sensitivity analysis removing multimodal studies** | | | | | | |
| BRADLEY2006 | 1 | 30 | 1 | 29 | 27.6% | 0.97 [0.06, 14.74] |
| GARETY2008 | 0 | 28 | 0 | 28 | | Not estimable |
| MAGLIANO2006 | 1 | 42 | 0 | 29 | 16.0% | 2.09 [0.09, 49.65] |
| Tarrier1988 | 1 | 32 | 1 | 32 | 27.1% | 1.00 [0.07, 15.30] |
| Xiong1994 | 1 | 34 | 1 | 29 | 29.3% | 0.85 [0.06, 13.04] |
| **Subtotal (95% CI)** | | **166** | | **147** | **100.0%** | **1.12 [0.28, 4.51]** |
| Total events | 4 | | 3 | | | |
| Heterogeneity: Chi² = 0.21, df = 3 (P = 0.98); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.16 (P = 0.87) | | | | | | |



# Psychological clinical evidence: Family intervention

**1.2 Service outcomes: 1. Hospital admission (at end of treatment)**

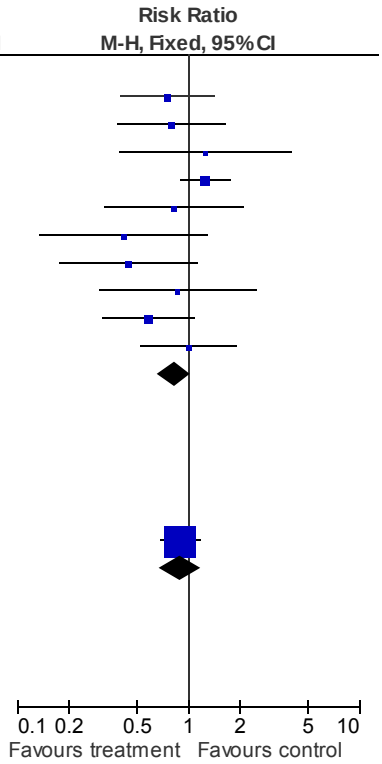
| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **1.2.1 1-12 months into treatment** | | | | | | |
| Barrowclough1999 | 6 | 38 | 8 | 39 | 10.5% | 0.77 [0.29, 2.01] |
| BRESSI2008 | 3 | 20 | 7 | 20 | 8.1% | 0.43 [0.13, 1.43] |
| Buchkremer1995 | 38 | 67 | 14 | 32 | 17.6% | 1.30 [0.83, 2.02] |
| Dyck2000 | 5 | 55 | 11 | 51 | 10.2% | 0.42 [0.16, 1.13] |
| Falloon1981 | 4 | 20 | 10 | 19 | 10.3% | 0.38 [0.14, 1.01] |
| Glynn1992 | 1 | 21 | 7 | 20 | 3.8% | 0.14 [0.02, 1.01] |
| KOPELOWICZ2003 | 2 | 39 | 10 | 45 | 6.3% | 0.23 [0.05, 0.99] |
| LI2005 | 4 | 38 | 10 | 44 | 9.3% | 0.46 [0.16, 1.36] |
| VALENCIA2007* | 9 | 49 | 14 | 49 | 13.3% | 0.64 [0.31, 1.34] |
| Xiong1994 | 5 | 34 | 11 | 29 | 10.8% | 0.39 [0.15, 0.99] |
| **Subtotal (95% CI)** | | **381** | | **348** | **100.0%** | **0.53 [0.34, 0.81]** |
| Total events | 77 | | 102 | | | |
| Heterogeneity: Tau² = 0.23; Chi² = 18.45, df = 9 (P = 0.03); I² = 51% | | | | | | |
| Test for overall effect: Z = 2.89 (P = 0.004) | | | | | | |
| **1.2.2 Sensitivity analysis removing multimodal studies** | | | | | | |
| Barrowclough1999 | 6 | 38 | 8 | 39 | 12.1% | 0.77 [0.29, 2.01] |
| BRESSI2008 | 3 | 20 | 7 | 20 | 9.7% | 0.43 [0.13, 1.43] |
| Buchkremer1995 | 38 | 67 | 14 | 32 | 18.4% | 1.30 [0.83, 2.02] |
| Dyck2000 | 5 | 55 | 11 | 51 | 11.8% | 0.42 [0.16, 1.13] |
| Falloon1981 | 4 | 20 | 10 | 19 | 12.0% | 0.38 [0.14, 1.01] |
| Glynn1992 | 1 | 21 | 7 | 20 | 4.9% | 0.14 [0.02, 1.01] |
| KOPELOWICZ2003 | 2 | 39 | 10 | 45 | 7.7% | 0.23 [0.05, 0.99] |
| LI2005 | 4 | 38 | 10 | 44 | 10.9% | 0.46 [0.16, 1.36] |
| Xiong1994 | 5 | 34 | 11 | 29 | 12.4% | 0.39 [0.15, 0.99] |
| **Subtotal (95% CI)** | | **332** | | **299** | **100.0%** | **0.50 [0.30, 0.83]** |
| Total events | 68 | | 88 | | | |
| Heterogeneity: Tau² = 0.31; Chi² = 18.58, df = 8 (P = 0.02); I² = 57% | | | | | | |
| Test for overall effect: Z = 2.70 (P = 0.007) | | | | | | |
| **1.2.3 13-24 months into treatment** | | | | | | |
| Dyck2000 | 12 | 53 | 7 | 44 | 17.6% | 1.42 [0.61, 3.30] |
| Falloon1981 | 6 | 20 | 11 | 19 | 19.8% | 0.52 [0.24, 1.12] |
| Herz2000* | 8 | 41 | 15 | 41 | 20.8% | 0.53 [0.25, 1.12] |
| Xiong1994 | 6 | 34 | 11 | 29 | 17.1% | 0.47 [0.20, 1.10] |
| Zhang1994 | 9 | 42 | 23 | 41 | 24.7% | 0.38 [0.20, 0.72] |
| **Subtotal (95% CI)** | | **190** | | **174** | **100.0%** | **0.57 [0.37, 0.87]** |
| Total events | 41 | | 67 | | | |
| Heterogeneity: Tau² = 0.09; Chi² = 6.33, df = 4 (P = 0.18); I² = 37% | | | | | | |
| Test for overall effect: Z = 2.58 (P = 0.010) | | | | | | |
| **1.2.4 Sensitivity analysis removing multimodal studies** | | | | | | |
| Dyck2000 | 12 | 53 | 7 | 44 | 23.0% | 1.42 [0.61, 3.30] |
| Falloon1981 | 6 | 20 | 11 | 19 | 25.1% | 0.52 [0.24, 1.12] |
| Xiong1994 | 6 | 34 | 11 | 29 | 22.4% | 0.47 [0.20, 1.10] |
| Zhang1994 | 9 | 42 | 23 | 41 | 29.5% | 0.38 [0.20, 0.72] |
| **Subtotal (95% CI)** | | **149** | | **133** | **100.0%** | **0.58 [0.33, 1.02]** |
| Total events | 33 | | 52 | | | |
| Heterogeneity: Tau² = 0.17; Chi² = 6.33, df = 3 (P = 0.10); I² = 53% | | | | | | |
| Test for overall effect: Z = 1.88 (P = 0.06) | | | | | | |



# Psychological clinical evidence: Family intervention

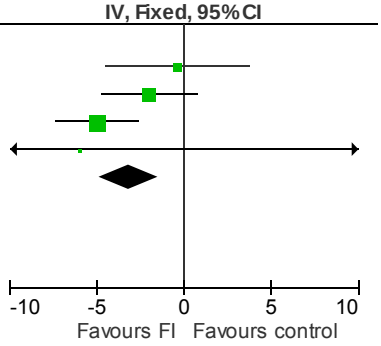
**1.3 Service outcomes: 1. Hospital admission - at FU**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.3.1 FU (up to 2 years) after end of treatment** | | | | | | |
| Barrowclough1999 | 11 | 38 | 15 | 39 | 12.7% | 0.75 [0.40, 1.42] |
| Bloch1995 | 9 | 32 | 11 | 31 | 9.6% | 0.79 [0.38, 1.64] |
| BRESSI2008 | 5 | 20 | 4 | 20 | 3.4% | 1.25 [0.39, 3.99] |
| Buchkremer1995 | 47 | 67 | 18 | 32 | 21.0% | 1.25 [0.88, 1.76] |
| CARRA2007 | 6 | 26 | 7 | 25 | 6.1% | 0.82 [0.32, 2.11] |
| Dyck2000 | 4 | 53 | 8 | 44 | 7.5% | 0.42 [0.13, 1.29] |
| KOPELOWICZ2003 | 5 | 39 | 13 | 45 | 10.4% | 0.44 [0.17, 1.13] |
| LEAVEY2004 | 6 | 57 | 6 | 49 | 5.5% | 0.86 [0.30, 2.49] |
| LI2005 | 10 | 38 | 20 | 44 | 15.9% | 0.58 [0.31, 1.08] |
| Vaughan1992 | 9 | 18 | 9 | 18 | 7.7% | 1.00 [0.52, 1.92] |
| **Subtotal (95% CI)** | | **388** | | **347** | **100.0%** | **0.82 [0.66, 1.02]** |
| Total events | 112 | | 111 | | | |
| Heterogeneity: Chi² = 10.89, df = 9 (P = 0.28); I² = 17% | | | | | | |
| Test for overall effect: Z = 1.78 (P = 0.08) | | | | | | |
| **1.3.2 up to 5 years after end of treatment** | | | | | | |
| Barrowclough1999 | 26 | 38 | 30 | 39 | 100.0% | 0.89 [0.67, 1.17] |
| **Subtotal (95% CI)** | | **38** | | **39** | **100.0%** | **0.89 [0.67, 1.17]** |
| Total events | 26 | | 30 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.83 (P = 0.41) | | | | | | |




**1.4 Service outcomes: 2. Duration of rehospitalisation (days)**

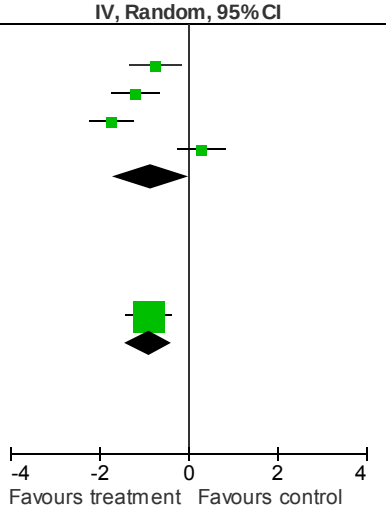
| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.4.1 end of treatment** | | | | | | | | |
| CHIEN2004A | 25.65 | 6.01 | 24 | 26.02 | 8.42 | 24 | 16.2% | -0.37 [-4.51, 3.77] |
| CHIEN2004B | 17.1 | 5.1 | 32 | 19.1 | 6.1 | 31 | 35.8% | -2.00 [-4.78, 0.78] |
| CHIEN2007 | 14.1 | 5.1 | 42 | 19.1 | 6.1 | 42 | 47.9% | -5.00 [-7.40, -2.60] |
| GARETY2008 | 29.67 | 46.18 | 27 | 35.62 | 92.63 | 26 | 0.2% | -5.95 [-45.59, 33.69] |
| **Subtotal (95% CI)** | | | **125** | | | **123** | **100.0%** | **-3.18 [-4.84, -1.52]** |
| Heterogeneity: Chi² = 4.68, df = 3 (P = 0.20); I² = 36% | | | | | | | | |
| Test for overall effect: Z = 3.75 (P = 0.0002) | | | | | | | | |




Test for subgroup differences: Not applicable

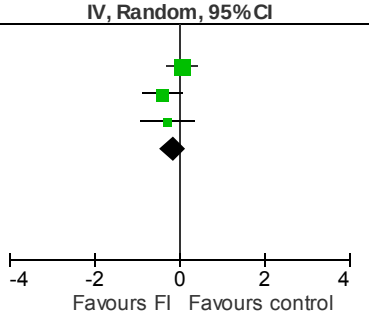
**1.5 Service outcomes: 2. Duration of rehospitalisation (days) - at FU**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.5.1 FU (up to 12 months) after end of treatment** | | | | | | | | |
| CHIEN2004A | 22.85 | 8.27 | 24 | 29.52 | 9.1 | 24 | 24.6% | -0.75 [-1.34, -0.17] |
| CHIEN2004B | 15 | 4.3 | 32 | 20.8 | 5.2 | 31 | 25.0% | -1.20 [-1.74, -0.66] |
| CHIEN2007 | 12.4 | 4.3 | 42 | 20.8 | 5.2 | 42 | 25.3% | -1.74 [-2.25, -1.24] |
| GARETY2008 | 30.33 | 73.39 | 27 | 13.88 | 39.79 | 26 | 25.0% | 0.27 [-0.27, 0.81] |
| **Subtotal (95% CI)** | | | **125** | | | **123** | **100.0%** | **-0.86 [-1.72, -0.00]** |
| Heterogeneity: Tau² = 0.69; Chi² = 30.19, df = 3 (P < 0.00001); I² = 90% | | | | | | | | |
| Test for overall effect: Z = 1.96 (P = 0.05) | | | | | | | | |
| **1.5.2 FU (18 months) after end of treatment** | | | | | | | | |
| CHIEN2004B | 14 | 7.6 | 32 | 20.8 | 7.2 | 31 | 100.0% | -0.91 [-1.43, -0.39] |
| **Subtotal (95% CI)** | | | **32** | | | **31** | **100.0%** | **-0.91 [-1.43, -0.39]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.42 (P = 0.0006) | | | | | | | | |



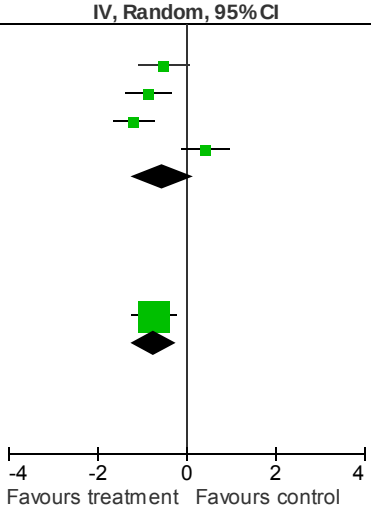

**1.6 Service outcomes: 3. Number of rehospitalisation**

| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.6.1 at end of treatment** | | | | | | | | |
| CHIEN2004A | 1.78 | 0.58 | 24 | 1.72 | 0.71 | 24 | 47.8% | 0.06 [-0.31, 0.43] |
| CHIEN2004B | 1.8 | 0.8 | 32 | 2.2 | 1.1 | 31 | 32.5% | -0.40 [-0.88, 0.08] |
| CHIEN2007 | 3.1 | 1.5 | 42 | 3.4 | 1.5 | 42 | 19.8% | -0.30 [-0.94, 0.34] |
| **Subtotal (95% CI)** | | | **98** | | | **97** | **100.0%** | **-0.16 [-0.47, 0.15]** |
| Heterogeneity: Tau² = 0.02; Chi² = 2.53, df = 2 (P = 0.28); I² = 21% | | | | | | | | |
| Test for overall effect: Z = 1.03 (P = 0.30) | | | | | | | | |



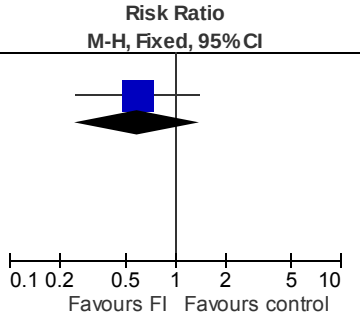
**1.7 Service outcomes: 3. Number of rehospitalisation - at FU**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.7.1 FU (up to 12 months) after end of treatment** | | | | | | | | |
| CHIEN2004A | 1.34 | 0.61 | 24 | 1.75 | 0.91 | 24 | 24.3% | -0.52 [-1.10, 0.06] |
| CHIEN2004B | 1.5 | 0.7 | 32 | 2.2 | 0.9 | 31 | 25.1% | -0.86 [-1.38, -0.34] |
| CHIEN2007 | 2 | 1 | 42 | 3.6 | 1.6 | 42 | 25.8% | -1.19 [-1.65, -0.72] |
| GARETY2008 | 0.96 | 2.08 | 27 | 0.31 | 0.55 | 26 | 24.7% | 0.42 [-0.13, 0.96] |
| **Subtotal (95% CI)** | | | **125** | | | **123** | **100.0%** | **-0.55 [-1.23, 0.14]** |
| Heterogeneity: Tau² = 0.42; Chi² = 20.56, df = 3 (P = 0.0001); I² = 85% | | | | | | | | |
| Test for overall effect: Z = 1.56 (P = 0.12) | | | | | | | | |
| **1.7.2 FU (18 months) after end of treatment** | | | | | | | | |
| CHIEN2004B | 1.1 | 0.6 | 32 | 2 | 1.6 | 31 | 100.0% | -0.74 [-1.25, -0.23] |
| **Subtotal (95% CI)** | | | **32** | | | **31** | **100.0%** | **-0.74 [-1.25, -0.23]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.84 (P = 0.005) | | | | | | | | |



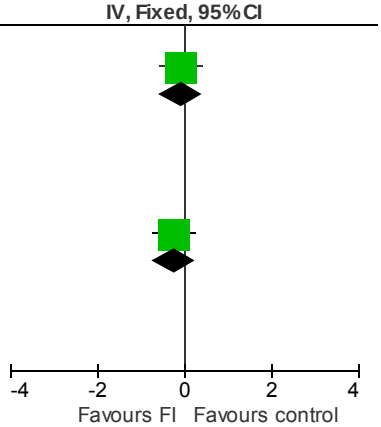

**1.8 Service outcomes: 4. Crisis Care Service use**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.8.1 1-12 months into treatment** | | | | | | |
| Dyck2000 | 7 | 55 | 11 | 51 | 100.0% | 0.59 [0.25, 1.41] |
| **Subtotal (95% CI)** | | **55** | | **51** | **100.0%** | **0.59 [0.25, 1.41]** |
| Total events | 7 | | 11 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.19 (P = 0.23) | | | | | | |




**1.9 Service outcomes: 5. Mental health service needs and use**

| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.9.1 Family Support Services Index - at end of treatment** | | | | | | | | |
| CHIEN2004B | 3.7 | 1.1 | 32 | 3.8 | 1 | 31 | 100.0% | -0.09 [-0.59, 0.40] |
| **Subtotal (95% CI)** | | | **32** | | | **31** | **100.0%** | **-0.09 [-0.59, 0.40]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.37 (P = 0.71) | | | | | | | | |
| **1.9.2 Family Support Services Index - FU (up to 12 months) after end of treatment** | | | | | | | | |
| CHIEN2004B | 3.8 | 0.5 | 32 | 4 | 1 | 31 | 100.0% | -0.25 [-0.75, 0.24] |
| **Subtotal (95% CI)** | | | **32** | | | **31** | **100.0%** | **-0.25 [-0.75, 0.24]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.99 (P = 0.32) | | | | | | | | |




Test for subgroup differences: Chi² = 0.19, df = 1 (P = 0.66), I² = 0%

### 1.10 Service outcomes: 6. Outpatient treatment (hours) - data skewed

*1.10.1 1-12 months into treatment*

| Study ID | FI: mean (SD) | Control: mean (SD) | F from ANCOVA |
|---|---|---|---|
| Dyck2000 | 79.3 (94.6) | 53.6 (74.2) | F(1,89)=7.1,p<.05 |

*1.10.2 13-24 months into treatment*

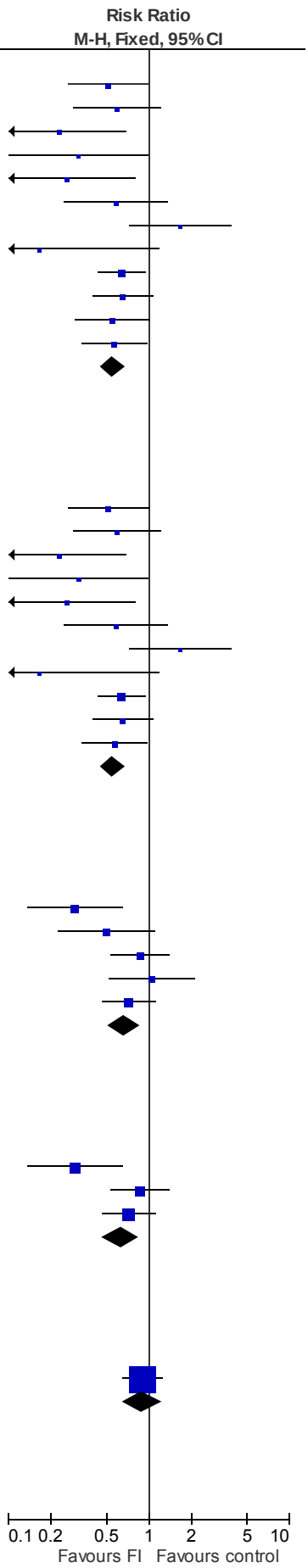
| Study ID | FI: mean (SD) | Control: mean (SD) | F from ANCOVA |
|---|---|---|---|
| Dyck2000 | 39.9 (71.0) | 27.2 (51.9) | F(1,89)=4.0,p<.05 |

*1.10.3 up to 1 year FU*

| Study ID | FI: mean (SD) | Control: mean (SD) | F from ANCOVA |
|---|---|---|---|
| Dyck2000 | 14.0 (15.8) | 25.2 (33.5) | p>.05 |

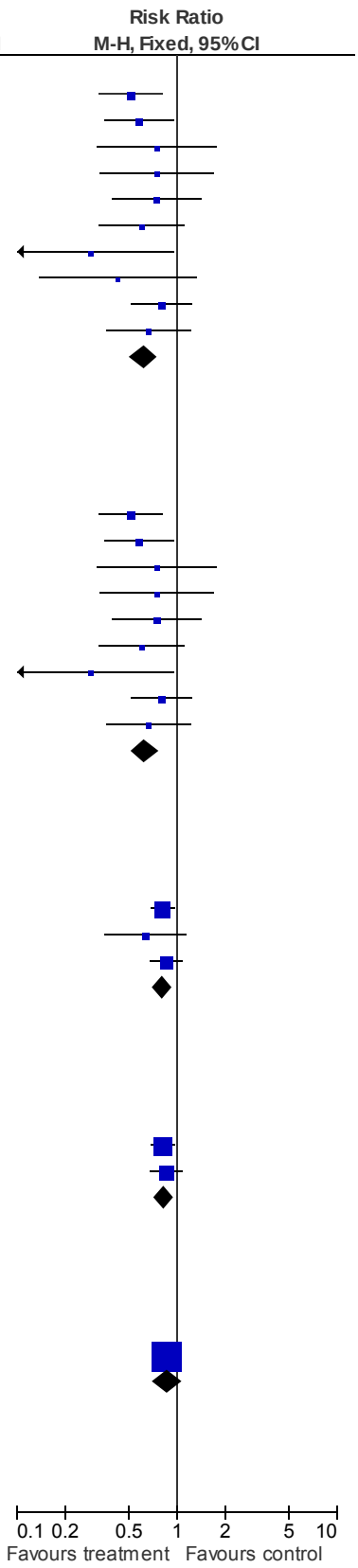
**1.11 Global state: 1. Relapse**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.11.1 1-12 months into treatment** | | | | | | |
| Barrowclough1999 | 9 | 38 | 18 | 39 | 9.8% | 0.51 [0.26, 1.00] |
| BRADLEY2006 | 8 | 30 | 13 | 29 | 7.3% | 0.59 [0.29, 1.22] |
| BRESSI2008 | 3 | 20 | 13 | 20 | 7.2% | 0.23 [0.08, 0.69] |
| Falloon1981 | 3 | 20 | 9 | 19 | 5.1% | 0.32 [0.10, 1.00] |
| Glynn1992 | 3 | 21 | 11 | 20 | 6.2% | 0.26 [0.08, 0.80] |
| Goldstein1978 | 7 | 52 | 12 | 52 | 6.6% | 0.58 [0.25, 1.36] |
| Hogarty1997 | 10 | 24 | 6 | 24 | 3.3% | 1.67 [0.72, 3.86] |
| Leff1982 | 1 | 12 | 6 | 12 | 3.3% | 0.17 [0.02, 1.18] |
| RAN2003 | 22 | 57 | 32 | 53 | 18.3% | 0.64 [0.43, 0.95] |
| Tarrier1988 | 13 | 32 | 20 | 32 | 11.0% | 0.65 [0.40, 1.07] |
| VALENCIA2007* | 11 | 49 | 20 | 49 | 11.0% | 0.55 [0.30, 1.02] |
| Xiong1994 | 12 | 34 | 18 | 29 | 10.7% | 0.57 [0.33, 0.97] |
| **Subtotal (95% CI)** | | **389** | | **378** | **100.0%** | **0.55 [0.45, 0.67]** |
| Total events | 102 | | 178 | | | |
| Heterogeneity: Chi² = 14.24, df = 11 (P = 0.22); I² = 23% | | | | | | |
| Test for overall effect: Z = 5.94 (P < 0.00001) | | | | | | |
| **1.11.2 Sensitivity analysis removing multimodal studies** | | | | | | |
| Barrowclough1999 | 9 | 38 | 18 | 39 | 11.0% | 0.51 [0.26, 1.00] |
| BRADLEY2006 | 8 | 30 | 13 | 29 | 8.2% | 0.59 [0.29, 1.22] |
| BRESSI2008 | 3 | 20 | 13 | 20 | 8.1% | 0.23 [0.08, 0.69] |
| Falloon1981 | 3 | 20 | 9 | 19 | 5.7% | 0.32 [0.10, 1.00] |
| Glynn1992 | 3 | 21 | 11 | 20 | 7.0% | 0.26 [0.08, 0.80] |
| Goldstein1978 | 7 | 52 | 12 | 52 | 7.4% | 0.58 [0.25, 1.36] |
| Hogarty1997 | 10 | 24 | 6 | 24 | 3.7% | 1.67 [0.72, 3.86] |
| Leff1982 | 1 | 12 | 6 | 12 | 3.7% | 0.17 [0.02, 1.18] |
| RAN2003 | 22 | 57 | 32 | 53 | 20.6% | 0.64 [0.43, 0.95] |
| Tarrier1988 | 13 | 32 | 20 | 32 | 12.4% | 0.65 [0.40, 1.07] |
| Xiong1994 | 12 | 34 | 18 | 29 | 12.1% | 0.57 [0.33, 0.97] |
| **Subtotal (95% CI)** | | **340** | | **329** | **100.0%** | **0.55 [0.45, 0.68]** |
| Total events | 91 | | 158 | | | |
| Heterogeneity: Chi² = 14.24, df = 10 (P = 0.16); I² = 30% | | | | | | |
| Test for overall effect: Z = 5.64 (P < 0.00001) | | | | | | |
| **1.11.3 13-24 months into treatment** | | | | | | |
| Falloon1981 | 5 | 20 | 16 | 19 | 21.4% | 0.30 [0.14, 0.65] |
| Herz2000* | 7 | 41 | 14 | 41 | 18.3% | 0.50 [0.23, 1.11] |
| Hogarty1997 | 13 | 24 | 15 | 24 | 19.6% | 0.87 [0.54, 1.40] |
| LINSZEN1996* | 11 | 37 | 11 | 39 | 14.0% | 1.05 [0.52, 2.13] |
| Xiong1994 | 16 | 34 | 19 | 29 | 26.8% | 0.72 [0.46, 1.12] |
| **Subtotal (95% CI)** | | **156** | | **152** | **100.0%** | **0.66 [0.51, 0.87]** |
| Total events | 52 | | 75 | | | |
| Heterogeneity: Chi² = 7.49, df = 4 (P = 0.11); I² = 47% | | | | | | |
| Test for overall effect: Z = 3.02 (P = 0.003) | | | | | | |
| **1.11.4 Sensitivity analysis removing multimodal studies** | | | | | | |
| Falloon1981 | 5 | 20 | 16 | 19 | 31.6% | 0.30 [0.14, 0.65] |
| Hogarty1997 | 13 | 24 | 15 | 24 | 28.9% | 0.87 [0.54, 1.40] |
| Xiong1994 | 16 | 34 | 19 | 29 | 39.5% | 0.72 [0.46, 1.12] |
| **Subtotal (95% CI)** | | **78** | | **72** | **100.0%** | **0.63 [0.46, 0.85]** |
| Total events | 34 | | 50 | | | |
| Heterogeneity: Chi² = 5.59, df = 2 (P = 0.06); I² = 64% | | | | | | |
| Test for overall effect: Z = 3.03 (P = 0.002) | | | | | | |
| **1.11.5 25-48 months into treatment** | | | | | | |
| Hogarty1997 | 17 | 24 | 19 | 24 | 100.0% | 0.89 [0.64, 1.24] |
| **Subtotal (95% CI)** | | **24** | | **24** | **100.0%** | **0.89 [0.64, 1.24]** |
| Total events | 17 | | 19 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.66 (P = 0.51) | | | | | | |



**1.12 Global state: 1. Relapse - at FU**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.12.1 FU (4-24 months) after end of treatment** | | | | | | |
| Barrowclough1999 | 14 | 38 | 28 | 39 | 19.6% | 0.51 [0.32, 0.81] |
| BRADLEY2006 | 12 | 30 | 20 | 29 | 14.4% | 0.58 [0.35, 0.96] |
| BRESSI2008 | 6 | 20 | 8 | 20 | 5.7% | 0.75 [0.32, 1.77] |
| CARRA2007 | 7 | 26 | 9 | 25 | 6.5% | 0.75 [0.33, 1.70] |
| Goldstein1978 | 12 | 52 | 16 | 52 | 11.3% | 0.75 [0.39, 1.43] |
| Leff1982 | 6 | 12 | 10 | 12 | 7.1% | 0.60 [0.32, 1.12] |
| LI2005 | 3 | 38 | 12 | 44 | 7.9% | 0.29 [0.09, 0.95] |
| Lukoff1986* | 3 | 14 | 7 | 14 | 5.0% | 0.43 [0.14, 1.33] |
| Tarrier1988 | 16 | 32 | 20 | 32 | 14.2% | 0.80 [0.52, 1.24] |
| Vaughan1992 | 8 | 18 | 12 | 18 | 8.5% | 0.67 [0.36, 1.23] |
| **Subtotal (95% CI)** | | **280** | | **285** | **100.0%** | **0.62 [0.50, 0.75]** |
| Total events | 87 | | 142 | | | |
| Heterogeneity: Chi² = 4.82, df = 9 (P = 0.85); I² = 0% | | | | | | |
| Test for overall effect: Z = 4.71 (P < 0.00001) | | | | | | |
| **1.12.2 Sensitivity analysis removing multimodal studies** | | | | | | |
| Barrowclough1999 | 14 | 38 | 28 | 39 | 20.6% | 0.51 [0.32, 0.81] |
| BRADLEY2006 | 12 | 30 | 20 | 29 | 15.1% | 0.58 [0.35, 0.96] |
| BRESSI2008 | 6 | 20 | 8 | 20 | 6.0% | 0.75 [0.32, 1.77] |
| CARRA2007 | 7 | 26 | 9 | 25 | 6.8% | 0.75 [0.33, 1.70] |
| Goldstein1978 | 12 | 52 | 16 | 52 | 11.9% | 0.75 [0.39, 1.43] |
| Leff1982 | 6 | 12 | 10 | 12 | 7.4% | 0.60 [0.32, 1.12] |
| LI2005 | 3 | 38 | 12 | 44 | 8.3% | 0.29 [0.09, 0.95] |
| Tarrier1988 | 16 | 32 | 20 | 32 | 14.9% | 0.80 [0.52, 1.24] |
| Vaughan1992 | 8 | 18 | 12 | 18 | 8.9% | 0.67 [0.36, 1.23] |
| **Subtotal (95% CI)** | | **266** | | **271** | **100.0%** | **0.63 [0.51, 0.77]** |
| Total events | 84 | | 135 | | | |
| Heterogeneity: Chi² = 4.34, df = 8 (P = 0.83); I² = 0% | | | | | | |
| Test for overall effect: Z = 4.49 (P < 0.00001) | | | | | | |
| **1.12.3 FU (2-5 years) after end of treatment** | | | | | | |
| Barrowclough1999 | 30 | 38 | 38 | 39 | 49.0% | 0.81 [0.68, 0.96] |
| Lukoff1986* | 7 | 14 | 11 | 14 | 14.4% | 0.64 [0.35, 1.15] |
| Tarrier1988 | 24 | 32 | 28 | 32 | 36.6% | 0.86 [0.67, 1.09] |
| **Subtotal (95% CI)** | | **84** | | **85** | **100.0%** | **0.80 [0.69, 0.93]** |
| Total events | 61 | | 77 | | | |
| Heterogeneity: Chi² = 0.90, df = 2 (P = 0.64); I² = 0% | | | | | | |
| Test for overall effect: Z = 2.97 (P = 0.003) | | | | | | |
| **1.12.4 Sensitivity analysis removing multimodal studies** | | | | | | |
| Barrowclough1999 | 30 | 38 | 38 | 39 | 57.3% | 0.81 [0.68, 0.96] |
| Tarrier1988 | 24 | 32 | 28 | 32 | 42.7% | 0.86 [0.67, 1.09] |
| **Subtotal (95% CI)** | | **70** | | **71** | **100.0%** | **0.83 [0.72, 0.96]** |
| Total events | 54 | | 66 | | | |
| Heterogeneity: Chi² = 0.15, df = 1 (P = 0.70); I² = 0% | | | | | | |
| Test for overall effect: Z = 2.56 (P = 0.01) | | | | | | |
| **1.12.5 FU (7 years) after end of treatment** | | | | | | |
| Tarrier1988 | 25 | 32 | 29 | 32 | 100.0% | 0.86 [0.70, 1.07] |
| **Subtotal (95% CI)** | | **32** | | **32** | **100.0%** | **0.86 [0.70, 1.07]** |
| Total events | 25 | | 29 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.36 (P = 0.18) | | | | | | |

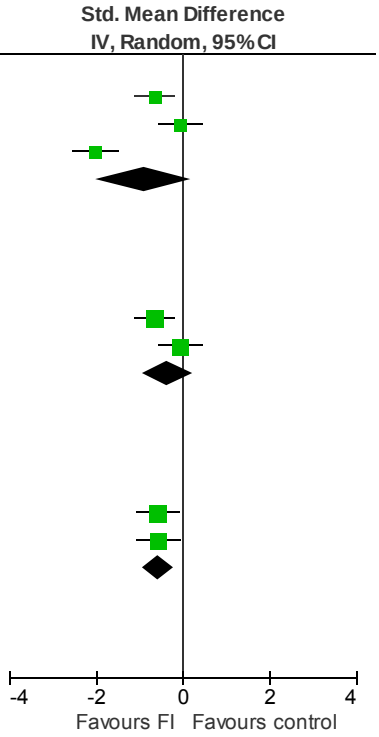


### 1.13 Global state: 2. Relapse-Kaplan-Meier survival curves for time to relapse (at end of treatment)

| Study ID | FI | Control | Statistics |
|---|---|---|---|
| BRADLEY2006 | 890 days | 642 days | log rank=5.22, df=1, p=.02 |

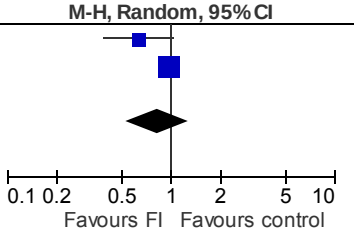
### 1.14 Global state: 3. Global Assessment Scale, GAF (higher = better)

| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.14.1 End of treatment** | | | | | | | | |
| Barrowclough1999 | -48.08 | 9.05 | 37 | -41.57 | 10.49 | 37 | 33.7% | -0.66 [-1.13, -0.19] |
| LI2005 | -77.1 | 10.2 | 31 | -76.4 | 13.6 | 29 | 33.3% | -0.06 [-0.56, 0.45] |
| VALENCIA2007* | -66 | 8.9 | 43 | -44.9 | 11.6 | 39 | 33.0% | -2.03 [-2.57, -1.50] |
| **Subtotal (95% CI)** | | | **111** | | | **105** | **100.0%** | **-0.91 [-2.01, 0.19]** |
| Heterogeneity: Tau² = 0.88; Chi² = 28.66, df = 2 (P < 0.00001); I² = 93% | | | | | | | | |
| Test for overall effect: Z = 1.62 (P = 0.10) | | | | | | | | |
| **1.14.2 Sensitivity analysis removing multimodal studies** | | | | | | | | |
| Barrowclough1999 | -48.08 | 9.05 | 37 | -41.57 | 10.49 | 37 | 51.3% | -0.66 [-1.13, -0.19] |
| LI2005 | -77.1 | 10.2 | 31 | -76.4 | 13.6 | 29 | 48.7% | -0.06 [-0.56, 0.45] |
| **Subtotal (95% CI)** | | | **68** | | | **66** | **100.0%** | **-0.37 [-0.95, 0.22]** |
| Heterogeneity: Tau² = 0.12; Chi² = 2.90, df = 1 (P = 0.09); I² = 66% | | | | | | | | |
| Test for overall effect: Z = 1.22 (P = 0.22) | | | | | | | | |
| **1.14.3 FU (12 months) after end of treatment** | | | | | | | | |
| Barrowclough1999 | -48.5 | 8.81 | 34 | -42.67 | 10.88 | 30 | 51.5% | -0.59 [-1.09, -0.08] |
| LI2005 | -78 | 10.3 | 31 | -70.2 | 15.9 | 29 | 48.5% | -0.58 [-1.10, -0.06] |
| **Subtotal (95% CI)** | | | **65** | | | **59** | **100.0%** | **-0.58 [-0.94, -0.22]** |
| Heterogeneity: Tau² = 0.00; Chi² = 0.00, df = 1 (P = 0.98); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 3.17 (P = 0.002) | | | | | | | | |



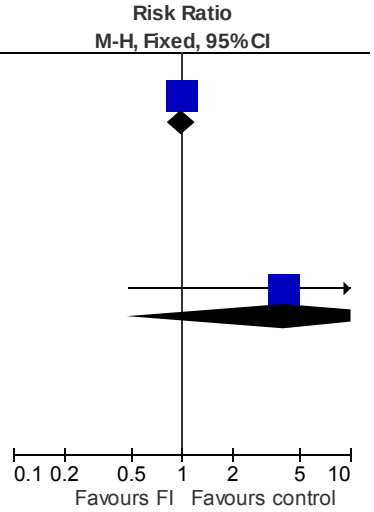

### 1.15 Global state: 4. No significant improvement (worse-case scenario)

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| Falloon1981 | 10 | 20 | 15 | 19 | 36.5% | 0.63 [0.39, 1.04] |
| RAN2003 | 48 | 57 | 46 | 53 | 63.5% | 0.97 [0.83, 1.13] |
| **Total (95% CI)** | | **77** | | **72** | **100.0%** | **0.83 [0.54, 1.29]** |
| Total events | 58 | | 61 | | | |
| Heterogeneity: Tau² = 0.07; Chi² = 3.06, df = 1 (P = 0.08); I² = 67% | | | | | | |
| Test for overall effect: Z = 0.83 (P = 0.40) | | | | | | |



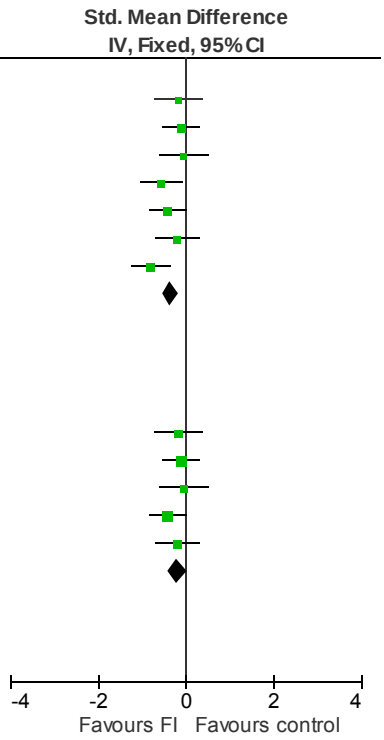
**1.16 Global state: 5. Non-remission/ non-recovery (worse-case scenario)**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.16.1 end of treatment (based on definition of recovery)** | | | | | | |
| RAN2003 | 45 | 57 | 42 | 53 | 100.0% | 1.00 [0.82, 1.21] |
| **Subtotal (95% CI)** | | **57** | | **53** | **100.0%** | **1.00 [0.82, 1.21]** |
| Total events | 45 | | 42 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.04 (P = 0.97) | | | | | | |
| **1.16.2 FU (12 months) after end of treatment (based on definition of partial remission)** | | | | | | |
| GARETY2008 | 4 | 28 | 1 | 28 | 100.0% | 4.00 [0.48, 33.58] |
| **Subtotal (95% CI)** | | **28** | | **28** | **100.0%** | **4.00 [0.48, 33.58]** |
| Total events | 4 | | 1 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.28 (P = 0.20) | | | | | | |




**1.17 Mental state: 1. Symptom severity - total symptoms (end of treatment) (lower = less severe)**

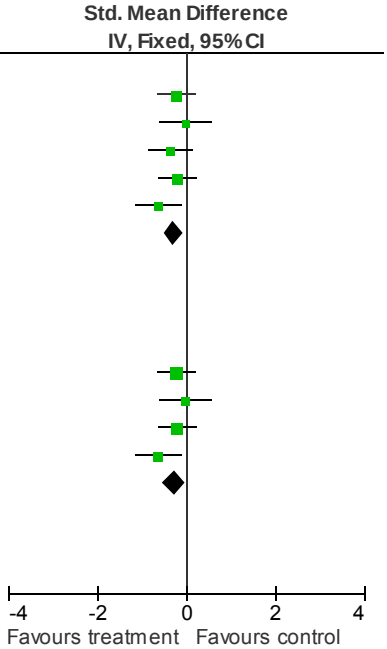
| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.17.1 End of treatment: Total symptoms (BPRS, PANSS)** | | | | | | | | |
| BRADLEY2006 | 44.12 | 8.82 | 25 | 46 | 10.44 | 25 | 10.7% | -0.19 [-0.75, 0.36] |
| CHIEN2007 | 10 | 4 | 42 | 10.5 | 4.1 | 42 | 18.1% | -0.12 [-0.55, 0.31] |
| GARETY2008 | 57.46 | 15.53 | 24 | 58.3 | 14.03 | 23 | 10.1% | -0.06 [-0.63, 0.52] |
| JENNER2004* | 52.5 | 15.3 | 35 | 62.4 | 18.9 | 34 | 14.3% | -0.57 [-1.05, -0.09] |
| KOPELOWICZ2003 | 51.9 | 14.7 | 39 | 58.2 | 14.8 | 45 | 17.6% | -0.42 [-0.86, 0.01] |
| LI2005 | 22.8 | 3.3 | 31 | 23.8 | 5.6 | 29 | 12.9% | -0.22 [-0.72, 0.29] |
| VALENCIA2007* | 46.9 | 14.6 | 43 | 60.4 | 18.2 | 39 | 16.2% | -0.81 [-1.27, -0.36] |
| **Subtotal (95% CI)** | | | **239** | | | **237** | **100.0%** | **-0.36 [-0.55, -0.18]** |
| Heterogeneity: Chi² = 7.63, df = 6 (P = 0.27); I² = 21% | | | | | | | | |
| Test for overall effect: Z = 3.92 (P < 0.0001) | | | | | | | | |
| **1.17.2 Sensitivity analysis removing multimodal studies** | | | | | | | | |
| BRADLEY2006 | 44.12 | 8.82 | 25 | 46 | 10.44 | 25 | 15.5% | -0.19 [-0.75, 0.36] |
| CHIEN2007 | 10 | 4 | 42 | 10.5 | 4.1 | 42 | 26.1% | -0.12 [-0.55, 0.31] |
| GARETY2008 | 57.46 | 15.53 | 24 | 58.3 | 14.03 | 23 | 14.6% | -0.06 [-0.63, 0.52] |
| KOPELOWICZ2003 | 51.9 | 14.7 | 39 | 58.2 | 14.8 | 45 | 25.4% | -0.42 [-0.86, 0.01] |
| LI2005 | 22.8 | 3.3 | 31 | 23.8 | 5.6 | 29 | 18.5% | -0.22 [-0.72, 0.29] |
| **Subtotal (95% CI)** | | | **161** | | | **164** | **100.0%** | **-0.22 [-0.44, 0.00]** |
| Heterogeneity: Chi² = 1.37, df = 4 (P = 0.85); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.95 (P = 0.05) | | | | | | | | |




Test for subgroup differences: Chi² = 1.03, df = 1 (P = 0.31), I² = 3.3%

**1.18 Mental state: 1. Symptom severity - total symptoms (at FU) (lower = less severe)**

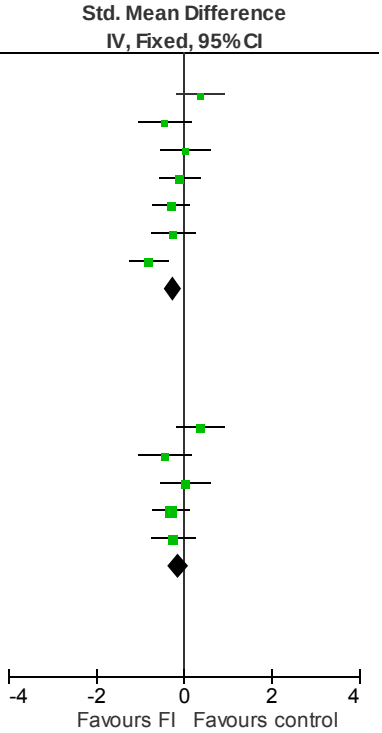
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.18.1 Up to 12 months after end of treatment (PANSS, BPRS)** | | | | | | | | |
| CHIEN2007 | 9.7 | 4.8 | 42 | 10.9 | 4.9 | 42 | 25.4% | -0.25 [-0.67, 0.18] |
| GARETY2008 | 55.5 | 15.26 | 20 | 56.04 | 18.02 | 24 | 13.3% | -0.03 [-0.62, 0.56] |
| JENNER2004* | 51.1 | 15.8 | 31 | 57.3 | 17.4 | 32 | 18.8% | -0.37 [-0.87, 0.13] |
| KOPELOWICZ2003 | 54.3 | 12.8 | 39 | 57.6 | 15.7 | 45 | 25.3% | -0.23 [-0.66, 0.20] |
| LI2005 | 22.7 | 3.7 | 31 | 26.5 | 7.4 | 29 | 17.3% | -0.65 [-1.17, -0.13] |
| **Subtotal (95% CI)** | | | **163** | | | **172** | **100.0%** | **-0.30 [-0.52, -0.09]** |
| Heterogeneity: Chi² = 2.75, df = 4 (P = 0.60); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 2.76 (P = 0.006) | | | | | | | | |
| **1.18.2 Sensitivity analysis removing multimodal studies** | | | | | | | | |
| CHIEN2007 | 9.7 | 4.8 | 42 | 10.9 | 4.9 | 42 | 31.2% | -0.25 [-0.67, 0.18] |
| GARETY2008 | 55.5 | 15.26 | 20 | 56.04 | 18.02 | 24 | 16.4% | -0.03 [-0.62, 0.56] |
| KOPELOWICZ2003 | 54.3 | 12.8 | 39 | 57.6 | 15.7 | 45 | 31.1% | -0.23 [-0.66, 0.20] |
| LI2005 | 22.7 | 3.7 | 31 | 26.5 | 7.4 | 29 | 21.3% | -0.65 [-1.17, -0.13] |
| **Subtotal (95% CI)** | | | **132** | | | **140** | **100.0%** | **-0.29 [-0.53, -0.05]** |
| Heterogeneity: Chi² = 2.67, df = 3 (P = 0.45); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 2.37 (P = 0.02) | | | | | | | | |




Test for subgroup differences: Chi² = 0.01, df = 1 (P = 0.93), I² = 0%

**1.19 Mental state: 2. Symptom severity - negative symptoms (end of treatment) (lower = less severe)**

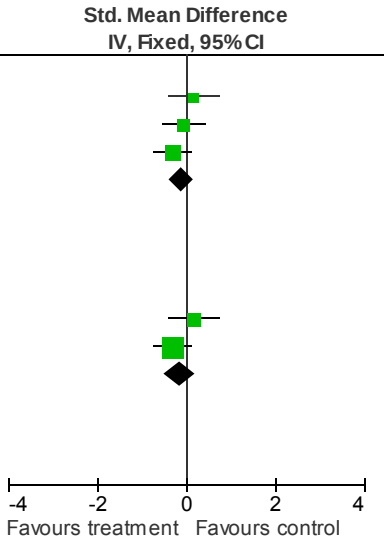
| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.19.1 End of treatment: negative symptoms (SANS, BPRS, PANSS)** | | | | | | | | |
| BRADLEY2006 | 32.78 | 15.31 | 25 | 26.94 | 15.59 | 25 | 11.6% | 0.37 [-0.19, 0.93] |
| Dyck2000 | 7.2 | 2 | 21 | 8.4 | 3.1 | 21 | 9.6% | -0.45 [-1.06, 0.16] |
| GARETY2008 | 13.38 | 5.81 | 24 | 13.26 | 5.58 | 23 | 11.1% | 0.02 [-0.55, 0.59] |
| JENNER2004* | 11.8 | 6.9 | 35 | 12.6 | 7.2 | 34 | 16.3% | -0.11 [-0.58, 0.36] |
| KOPELOWICZ2003 | 16.2 | 6.4 | 39 | 18.2 | 6.7 | 45 | 19.5% | -0.30 [-0.73, 0.13] |
| MAGLIANO2006 | 2.2 | 1 | 36 | 2.5 | 1.3 | 26 | 14.1% | -0.26 [-0.77, 0.25] |
| VALENCIA2007* | 13 | 5.7 | 43 | 17.9 | 6.2 | 39 | 17.8% | -0.82 [-1.27, -0.36] |
| **Subtotal (95% CI)** | | | **223** | | | **213** | **100.0%** | **-0.26 [-0.45, -0.07]** |
| Heterogeneity: Chi² = 12.44, df = 6 (P = 0.05); I² = 52% | | | | | | | | |
| Test for overall effect: Z = 2.65 (P = 0.008) | | | | | | | | |
| **1.19.2 Sensitivity analysis removing multimodal studies** | | | | | | | | |
| BRADLEY2006 | 32.78 | 15.31 | 25 | 26.94 | 15.59 | 25 | 17.6% | 0.37 [-0.19, 0.93] |
| Dyck2000 | 7.2 | 2 | 21 | 8.4 | 3.1 | 21 | 14.6% | -0.45 [-1.06, 0.16] |
| GARETY2008 | 13.38 | 5.81 | 24 | 13.26 | 5.58 | 23 | 16.8% | 0.02 [-0.55, 0.59] |
| KOPELOWICZ2003 | 16.2 | 6.4 | 39 | 18.2 | 6.7 | 45 | 29.6% | -0.30 [-0.73, 0.13] |
| MAGLIANO2006 | 2.2 | 1 | 36 | 2.5 | 1.3 | 26 | 21.4% | -0.26 [-0.77, 0.25] |
| **Subtotal (95% CI)** | | | **145** | | | **140** | **100.0%** | **-0.14 [-0.38, 0.09]** |
| Heterogeneity: Chi² = 5.27, df = 4 (P = 0.26); I² = 24% | | | | | | | | |
| Test for overall effect: Z = 1.19 (P = 0.23) | | | | | | | | |




Test for subgroup differences: Chi² = 0.56, df = 1 (P = 0.46), I² = 0%

**1.20 Mental state: 2. Symptom severity - negative symptoms (at FU) (lower = less severe)**

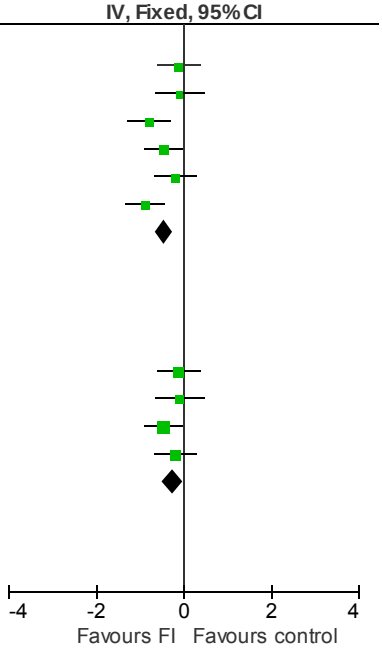
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.20.1 up to 12 months after end of treatment: negative symptoms (PANSS, BPRS)** | | | | | | | | |
| GARETY2008 | 12.95 | 8.09 | 21 | 11.88 | 5.19 | 25 | 23.8% | 0.16 [-0.42, 0.74] |
| JENNER2004* | 11 | 6.3 | 31 | 11.4 | 6.1 | 32 | 33.0% | -0.06 [-0.56, 0.43] |
| KOPELOWICZ2003 | 16.8 | 5.6 | 39 | 18.8 | 6.9 | 45 | 43.2% | -0.31 [-0.74, 0.12] |
| **Subtotal (95% CI)** | | | **91** | | | **102** | **100.0%** | **-0.12 [-0.40, 0.16]** |
| Heterogeneity: Chi² = 1.70, df = 2 (P = 0.43); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.82 (P = 0.41) | | | | | | | | |
| **1.20.2 Sensitivity analysis removing multimodal studies** | | | | | | | | |
| GARETY2008 | 12.95 | 8.09 | 21 | 11.88 | 5.19 | 25 | 35.5% | 0.16 [-0.42, 0.74] |
| KOPELOWICZ2003 | 16.8 | 5.6 | 39 | 18.8 | 6.9 | 45 | 64.5% | -0.31 [-0.74, 0.12] |
| **Subtotal (95% CI)** | | | **60** | | | **70** | **100.0%** | **-0.15 [-0.49, 0.20]** |
| Heterogeneity: Chi² = 1.62, df = 1 (P = 0.20); I² = 38% | | | | | | | | |
| Test for overall effect: Z = 0.82 (P = 0.41) | | | | | | | | |




Test for subgroup differences: Chi² = 0.01, df = 1 (P = 0.91), I² = 0%

**1.21 Mental state: 3. Symptom severity - positive symptoms (end of treatment) (lower = less severe)**

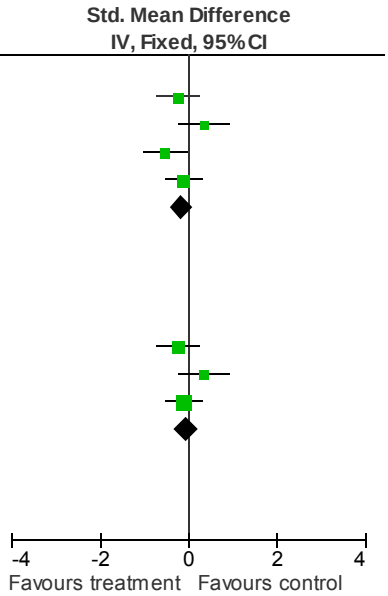
| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.21.1 End of treatment: positive symptoms (PANSS, BPRS)** | | | | | | | | |
| CHIEN2004B | 10 | 4 | 32 | 10.5 | 4.1 | 31 | 16.0% | -0.12 [-0.62, 0.37] |
| GARETY2008 | 14.54 | 5.24 | 24 | 15.09 | 5.23 | 23 | 11.9% | -0.10 [-0.68, 0.47] |
| JENNER2004* | 11.9 | 3.9 | 35 | 15.9 | 5.9 | 34 | 16.2% | -0.79 [-1.28, -0.30] |
| KOPELOWICZ2003 | 10.9 | 4.9 | 39 | 13.3 | 5.3 | 45 | 20.7% | -0.46 [-0.90, -0.03] |
| MAGLIANO2006 | 2.1 | 1 | 36 | 2.3 | 0.9 | 29 | 16.3% | -0.21 [-0.70, 0.28] |
| VALENCIA2007* | 9.7 | 3.1 | 43 | 13.2 | 4.6 | 39 | 18.9% | -0.89 [-1.35, -0.44] |
| **Subtotal (95% CI)** | | | **209** | | | **201** | **100.0%** | **-0.46 [-0.66, -0.26]** |
| Heterogeneity: Chi² = 9.54, df = 5 (P = 0.09); I² = 48% | | | | | | | | |
| Test for overall effect: Z = 4.54 (P < 0.00001) | | | | | | | | |
| **1.21.2 Sensitivity analysis removing multimodal studies** | | | | | | | | |
| CHIEN2004B | 10 | 4 | 32 | 10.5 | 4.1 | 31 | 24.7% | -0.12 [-0.62, 0.37] |
| GARETY2008 | 14.54 | 5.24 | 24 | 15.09 | 5.23 | 23 | 18.4% | -0.10 [-0.68, 0.47] |
| KOPELOWICZ2003 | 10.9 | 4.9 | 39 | 13.3 | 5.3 | 45 | 31.9% | -0.46 [-0.90, -0.03] |
| MAGLIANO2006 | 2.1 | 1 | 36 | 2.3 | 0.9 | 29 | 25.1% | -0.21 [-0.70, 0.28] |
| **Subtotal (95% CI)** | | | **131** | | | **128** | **100.0%** | **-0.25 [-0.49, -0.00]** |
| Heterogeneity: Chi² = 1.48, df = 3 (P = 0.69); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.99 (P = 0.05) | | | | | | | | |




Test for subgroup differences: Chi² = 1.70, df = 1 (P = 0.19), I² = 41.1%

**1.22 Mental State: 3. Symptom severity - positive symptoms (at FU) (lower = less severe)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.22.1 FU (up to months) after end of treatment: positive symptoms (PANSS, BPRS)** | | | | | | | | |
| CHIEN2004B | 9.7 | 4.8 | 32 | 10.9 | 4.9 | 31 | 24.8% | -0.24 [-0.74, 0.25] |
| GARETY2008 | 16.52 | 6.9 | 21 | 14.24 | 6.11 | 25 | 17.9% | 0.35 [-0.24, 0.93] |
| JENNER2004* | 11.2 | 4.4 | 31 | 14 | 5.8 | 32 | 24.1% | -0.54 [-1.04, -0.03] |
| KOPELOWICZ2003 | 11.4 | 5.8 | 39 | 12.1 | 5.7 | 45 | 33.2% | -0.12 [-0.55, 0.31] |
| **Subtotal (95% CI)** | | | **123** | | | **133** | **100.0%** | **-0.17 [-0.42, 0.08]** |
| Heterogeneity: Chi² = 5.16, df = 3 (P = 0.16); I² = 42% | | | | | | | | |
| Test for overall effect: Z = 1.33 (P = 0.18) | | | | | | | | |
| **1.22.2 Sensitivity analysis removing MM studies** | | | | | | | | |
| CHIEN2004B | 9.7 | 4.8 | 32 | 10.9 | 4.9 | 31 | 32.7% | -0.24 [-0.74, 0.25] |
| GARETY2008 | 16.52 | 6.9 | 21 | 14.24 | 6.11 | 25 | 23.5% | 0.35 [-0.24, 0.93] |
| KOPELOWICZ2003 | 11.4 | 5.8 | 39 | 12.1 | 5.7 | 45 | 43.7% | -0.12 [-0.55, 0.31] |
| **Subtotal (95% CI)** | | | **92** | | | **101** | **100.0%** | **-0.05 [-0.34, 0.23]** |
| Heterogeneity: Chi² = 2.45, df = 2 (P = 0.29); I² = 18% | | | | | | | | |
| Test for overall effect: Z = 0.35 (P = 0.72) | | | | | | | | |

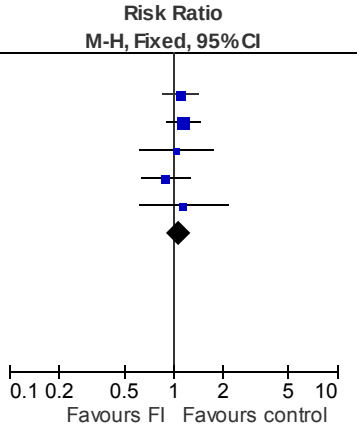



Test for subgroup differences: Chi² = 0.37, df = 1 (P = 0.54), I² = 0%

**1.23 Psychosocial functioning: 1. Unemployment (at end of treatment)**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.23.1 at 6-12 months** | | | | | | |
| BRADLEY2006 | 25 | 30 | 22 | 29 | 23.6% | 1.10 [0.85, 1.43] |
| Buchkremer1995 | 55 | 67 | 23 | 32 | 32.9% | 1.14 [0.89, 1.46] |
| Falloon1981 | 12 | 20 | 11 | 19 | 11.9% | 1.04 [0.61, 1.75] |
| Glynn1992 | 15 | 21 | 16 | 20 | 17.3% | 0.89 [0.63, 1.26] |
| RAN2003 | 16 | 57 | 13 | 53 | 14.2% | 1.14 [0.61, 2.15] |
| **Subtotal (95% CI)** | | **195** | | **153** | **100.0%** | **1.08 [0.92, 1.26]** |
| Total events | 123 | | 85 | | | |

Heterogeneity: Chi² = 1.41, df = 4 (P = 0.84); I² = 0%
Test for overall effect: Z = 0.89 (P = 0.37)



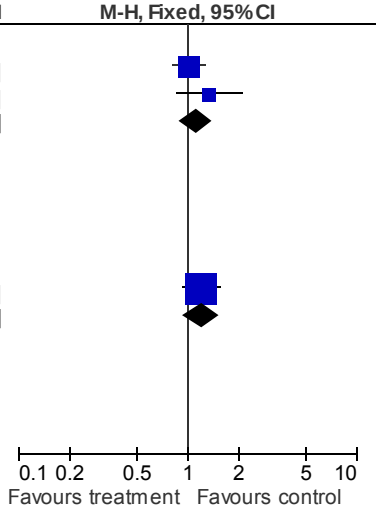

**1.24 Psychosocial functioning: 1. Unemployment (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.24.1 FU (12-18 months) after end of treatment** | | | | | | |
| BRADLEY2006 | 25 | 30 | 24 | 29 | 64.8% | 1.01 [0.80, 1.27] |
| CARRA2007 | 18 | 26 | 13 | 25 | 35.2% | 1.33 [0.84, 2.10] |
| **Subtotal (95% CI)** | | **56** | | **54** | **100.0%** | **1.12 [0.90, 1.40]** |
| Total events | 43 | | 37 | | | |

Heterogeneity: Chi² = 1.38, df = 1 (P = 0.24); I² = 28%
Test for overall effect: Z = 1.00 (P = 0.32)

| | | | | | | |
|---|---|---|---|---|---|---|
| **1.24.2 FU (3 years) after end of treatment** | | | | | | |
| Buchkremer1995 | 55 | 67 | 22 | 32 | 100.0% | 1.19 [0.92, 1.55] |
| **Subtotal (95% CI)** | | **67** | | **32** | **100.0%** | **1.19 [0.92, 1.55]** |
| Total events | 55 | | 22 | | | |

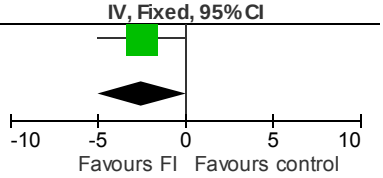
Heterogeneity: Not applicable
Test for overall effect: Z = 1.34 (P = 0.18)




**1.25 Psychosocial functioning: 2. Time in employment at one year**

| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| Xiong1994 | -5.6 | 5 | 33 | -3.1 | 5.1 | 28 | 100.0% | -2.50 [-5.05, 0.05] |
| **Total (95% CI)** | | | **33** | | | **28** | **100.0%** | **-2.50 [-5.05, 0.05]** |

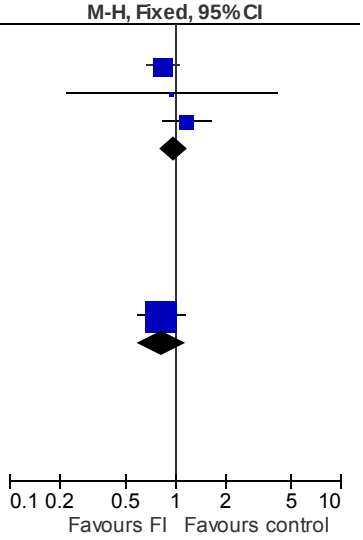
Heterogeneity: Not applicable
Test for overall effect: Z = 1.93 (P = 0.05)



# Psychological clinical evidence: Family intervention

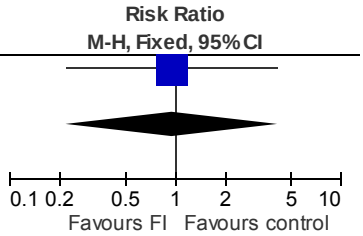
**1.26 Psychosocial functioning: 4. Not able to live independently**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.26.1 by 1 year** | | | | | | |
| Buchkremer1995 | 46 | 67 | 26 | 32 | 56.5% | 0.85 [0.67, 1.07] |
| Falloon1981 | 3 | 20 | 3 | 19 | 4.9% | 0.95 [0.22, 4.14] |
| LEAVEY2004 | 31 | 47 | 22 | 39 | 38.6% | 1.17 [0.83, 1.65] |
| **Subtotal (95% CI)** | | **134** | | **90** | **100.0%** | **0.98 [0.80, 1.19]** |
| Total events | 80 | | 51 | | | |
| Heterogeneity: Chi² = 2.54, df = 2 (P = 0.28); I² = 21% | | | | | | |
| Test for overall effect: Z = 0.24 (P = 0.81) | | | | | | |
| **1.26.2 by 3 years** | | | | | | |
| Buchkremer1995 | 36 | 67 | 21 | 32 | 100.0% | 0.82 [0.59, 1.14] |
| **Subtotal (95% CI)** | | **67** | | **32** | **100.0%** | **0.82 [0.59, 1.14]** |
| Total events | 36 | | 21 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.17 (P = 0.24) | | | | | | |



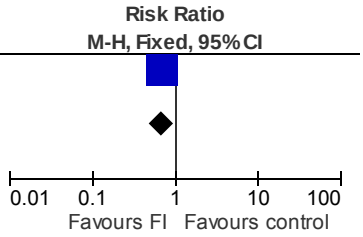

**1.27 Psychosocial functioning: 5. Imprisonment**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| Falloon1981 | 3 | 20 | 3 | 19 | 100.0% | 0.95 [0.22, 4.14] |
| **Total (95% CI)** | | **20** | | **19** | **100.0%** | **0.95 [0.22, 4.14]** |
| Total events | 3 | | 3 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.07 (P = 0.95) | | | | | | |



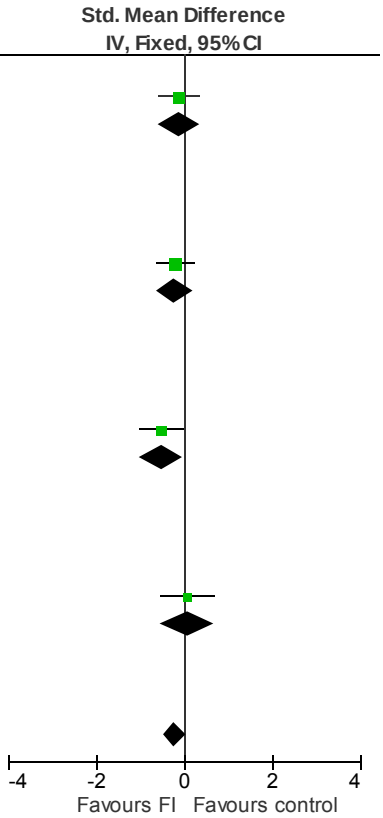

**1.28 Psychosocial functioning: 6. Social impairment**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| Falloon1981 | 13 | 20 | 18 | 19 | 100.0% | 0.69 [0.49, 0.96] |
| **Total (95% CI)** | | **20** | | **19** | **100.0%** | **0.69 [0.49, 0.96]** |
| Total events | 13 | | 18 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 2.18 (P = 0.03) | | | | | | |



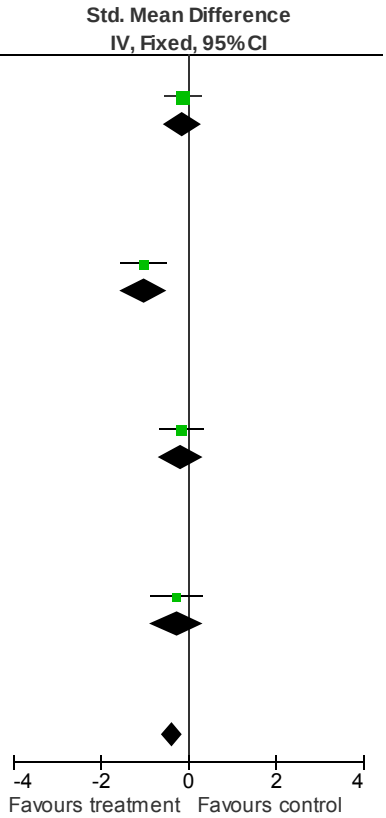
**1.29 Psychosocial functioning: 7. Social functioning (higher = better) (end of treatment)**

| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.29.1 1-12 months into treatment (Social Functioning Scale)** | | | | | | | | |
| Barrowclough1999 | -101.12 | 11.76 | 34 | -99.52 | 11.41 | 35 | 27.2% | -0.14 [-0.61, 0.34] |
| **Subtotal (95% CI)** | | | **34** | | | **35** | **27.2%** | **-0.14 [-0.61, 0.34]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.57 (P = 0.57) | | | | | | | | |
| **1.29.2 1-12 months into treatment (Independent Living Skills Survey)** | | | | | | | | |
| KOPELOWICZ2003 | -6.49 | 2.24 | 39 | -6.02 | 2.06 | 45 | 32.8% | -0.22 [-0.65, 0.21] |
| **Subtotal (95% CI)** | | | **39** | | | **45** | **32.8%** | **-0.22 [-0.65, 0.21]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.99 (P = 0.32) | | | | | | | | |
| **1.29.3 1-12 months into treatment (SLSF - social functioning sub-scale)** | | | | | | | | |
| CHIEN2004B | -46.1 | 16.1 | 32 | -38.5 | 12 | 31 | 24.0% | -0.53 [-1.03, -0.02] |
| **Subtotal (95% CI)** | | | **32** | | | **31** | **24.0%** | **-0.53 [-1.03, -0.02]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.06 (P = 0.04) | | | | | | | | |
| **1.29.4 1-12 months into treatment (Time Budget)** | | | | | | | | |
| GARETY2008 | -50.14 | 16.38 | 22 | -51.53 | 25.76 | 19 | 16.1% | 0.06 [-0.55, 0.68] |
| **Subtotal (95% CI)** | | | **22** | | | **19** | **16.1%** | **0.06 [-0.55, 0.68]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.20 (P = 0.84) | | | | | | | | |
| **Total (95% CI)** | | | **127** | | | **130** | **100.0%** | **-0.22 [-0.47, 0.02]** |
| Heterogeneity: Chi² = 2.38, df = 3 (P = 0.50); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.79 (P = 0.07) | | | | | | | | |
| Test for subgroup differences: Chi² = 2.38, df = 3 (P = 0.50), I² = 0% | | | | | | | | |



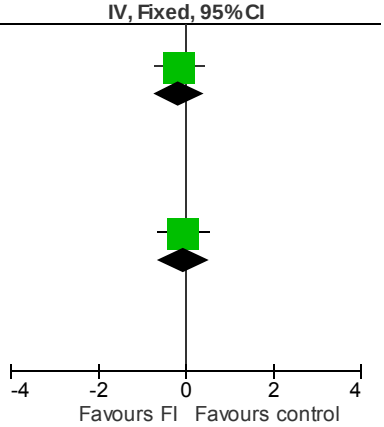
**1.30 Psychosocial functioning 7. Social functioning (higher = better) (at FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.30.1 FU (6 months) after end of treatment (Independent Living Skills Survey)** | | | | | | | | |
| KOPELOWICZ2003 | -6.41 | 2.66 | 39 | -6.06 | 2.19 | 45 | 34.7% | -0.14 [-0.57, 0.29] |
| **Subtotal (95% CI)** | | | **39** | | | **45** | **34.7%** | **-0.14 [-0.57, 0.29]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.65 (P = 0.51) | | | | | | | | |
| **1.30.2 FU (12 months) after end of treatment (Specific Level of Functioning Scale - SF sub-scale)** | | | | | | | | |
| CHIEN2004B | -53.8 | 13.5 | 32 | -38 | 16.8 | 31 | 23.0% | -1.03 [-1.55, -0.50] |
| **Subtotal (95% CI)** | | | **32** | | | **31** | **23.0%** | **-1.03 [-1.55, -0.50]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.81 (P = 0.0001) | | | | | | | | |
| **1.30.3 FU (12 months) after end of treatment (Social Functioning Scale)** | | | | | | | | |
| Barrowclough1999 | -102.93 | 10.69 | 32 | -101.03 | 11.04 | 28 | 24.8% | -0.17 [-0.68, 0.34] |
| **Subtotal (95% CI)** | | | **32** | | | **28** | **24.8%** | **-0.17 [-0.68, 0.34]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.67 (P = 0.51) | | | | | | | | |
| **1.30.4 FU (12 months) after end of treatment (Time Budget)** | | | | | | | | |
| GARETY2008 | -59.79 | 20.03 | 19 | -53.54 | 23.7 | 24 | 17.5% | -0.28 [-0.88, 0.33] |
| **Subtotal (95% CI)** | | | **19** | | | **24** | **17.5%** | **-0.28 [-0.88, 0.33]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.90 (P = 0.37) | | | | | | | | |
| **Total (95% CI)** | | | **122** | | | **128** | **100.0%** | **-0.38 [-0.63, -0.12]** |
| Heterogeneity: Chi² = 7.68, df = 3 (P = 0.05); I² = 61% | | | | | | | | |
| Test for overall effect: Z = 2.92 (P = 0.003) | | | | | | | | |
| Test for subgroup differences: Chi² = 7.68, df = 3 (P = 0.05), I² = 60.9% | | | | | | | | |



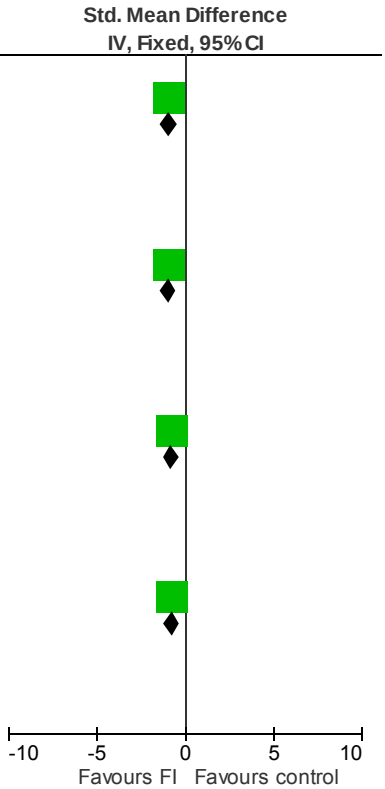

**1.31 Psychosocial functioning: 8. Social and Occupational Functioning Assessment Scale (higher = better)**

| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.31.1 end of treatment** | | | | | | | | |
| GARETY2008 | -55.58 | 13.09 | 24 | -53.26 | 14.96 | 23 | 100.0% | -0.16 [-0.74, 0.41] |
| **Subtotal (95% CI)** | | | **24** | | | **23** | **100.0%** | **-0.16 [-0.74, 0.41]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.56 (P = 0.58) | | | | | | | | |
| **1.31.2 FU (12 months) after end of treatment** | | | | | | | | |
| GARETY2008 | -58.37 | 20.26 | 19 | -57.04 | 16.83 | 25 | 100.0% | -0.07 [-0.67, 0.53] |
| **Subtotal (95% CI)** | | | **19** | | | **25** | **100.0%** | **-0.07 [-0.67, 0.53]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.23 (P = 0.82) | | | | | | | | |
| Test for subgroup differences: Chi² = 0.05, df = 1 (P = 0.83), I² = 0% | | | | | | | | |



**1.32 Psychosocial functioning: 9. Symptom management - skill acquisition (higher = better)**

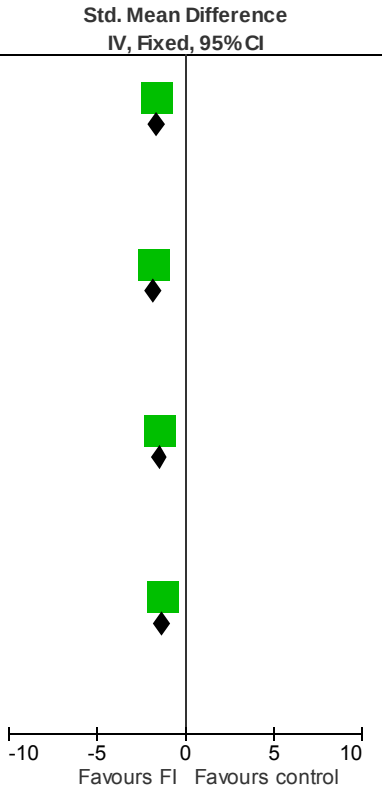
| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.32.1 1-12 months into treatment (Symptom Management Module)** | | | | | | | | |
| KOPELOWICZ2003 | -32.2 | 8.6 | 39 | -24.8 | 7.3 | 45 | 100.0% | -0.92 [-1.38, -0.47] |
| **Subtotal (95% CI)** | | | **39** | | | **45** | **100.0%** | **-0.92 [-1.38, -0.47]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 4.01 (P < 0.0001) | | | | | | | | |
| **1.32.2 1-12 months into treatment (Medication Management Module)** | | | | | | | | |
| KOPELOWICZ2003 | -24 | 6.6 | 39 | -17.9 | 6 | 45 | 100.0% | -0.96 [-1.42, -0.51] |
| **Subtotal (95% CI)** | | | **39** | | | **45** | **100.0%** | **-0.96 [-1.42, -0.51]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 4.15 (P < 0.0001) | | | | | | | | |
| **1.32.3 FU (6 months) after end of treatment (Symptom Management Module)** | | | | | | | | |
| KOPELOWICZ2003 | -31.9 | 8.4 | 39 | -25.5 | 7.7 | 45 | 100.0% | -0.79 [-1.24, -0.34] |
| **Subtotal (95% CI)** | | | **39** | | | **45** | **100.0%** | **-0.79 [-1.24, -0.34]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.47 (P = 0.0005) | | | | | | | | |
| **1.32.4 FU (6 months) after end of treatment (Medical Management Module)** | | | | | | | | |
| KOPELOWICZ2003 | -23.7 | 6.6 | 39 | -18.5 | 6.8 | 45 | 100.0% | -0.77 [-1.21, -0.32] |
| **Subtotal (95% CI)** | | | **39** | | | **45** | **100.0%** | **-0.77 [-1.21, -0.32]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.38 (P = 0.0007) | | | | | | | | |




Test for subgroup differences: Chi² = 0.53, df = 3 (P = 0.91), I² = 0%

**1.33 Psychosocial functioning: 11. Symptom management - skill generalisation (higher = better)**

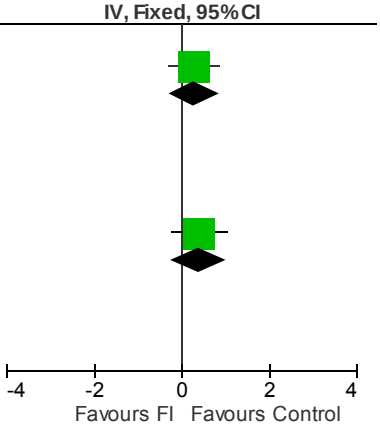
| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.33.1 1-12 months into treatment (Symptom Management Module)** | | | | | | | | |
| KOPELOWICZ2003 | -12.2 | 4.7 | 39 | -6 | 2.8 | 45 | 100.0% | -1.62 [-2.11, -1.12] |
| **Subtotal (95% CI)** | | | **39** | | | **45** | **100.0%** | **-1.62 [-2.11, -1.12]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 6.38 (P < 0.00001) | | | | | | | | |
| **1.33.2 1-12 months into treatment (Medication Management Module)** | | | | | | | | |
| KOPELOWICZ2003 | -30.2 | 6.1 | 39 | -21 | 3.9 | 45 | 100.0% | -1.81 [-2.32, -1.30] |
| **Subtotal (95% CI)** | | | **39** | | | **45** | **100.0%** | **-1.81 [-2.32, -1.30]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 6.92 (P < 0.00001) | | | | | | | | |
| **1.33.3 FU (6 months) after end of treatment (Symptom Management Module)** | | | | | | | | |
| KOPELOWICZ2003 | -11.4 | 4.8 | 39 | -5.9 | 2.4 | 45 | 100.0% | -1.47 [-1.95, -0.98] |
| **Subtotal (95% CI)** | | | **39** | | | **45** | **100.0%** | **-1.47 [-1.95, -0.98]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 5.93 (P < 0.00001) | | | | | | | | |
| **1.33.4 FU (6 months) after end of treatment (Medical Management Module)** | | | | | | | | |
| KOPELOWICZ2003 | -28.6 | 5.5 | 39 | -21.8 | 4.9 | 45 | 100.0% | -1.30 [-1.77, -0.83] |
| **Subtotal (95% CI)** | | | **39** | | | **45** | **100.0%** | **-1.30 [-1.77, -0.83]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 5.38 (P < 0.00001) | | | | | | | | |




Test for subgroup differences: Chi² = 2.22, df = 3 (P = 0.53), I² = 0%

**1.34 Quality of Life (higher = better)**

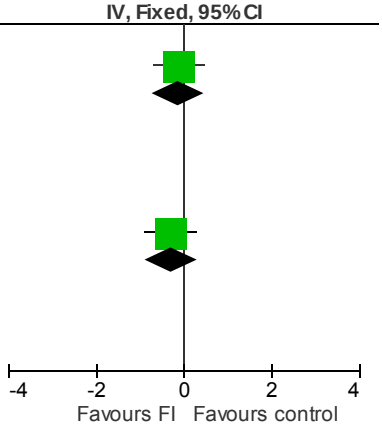
| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.34.1 at end of treatment (QOL scale: higher = better)** | | | | | | | | |
| BRADLEY2006 | -58.17 | 14.25 | 25 | -63.22 | 22.34 | 21 | 100.0% | 0.27 [-0.31, 0.85] |
| **Subtotal (95% CI)** | | | **25** | | | **21** | **100.0%** | **0.27 [-0.31, 0.85]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.91 (P = 0.36) | | | | | | | | |
| **1.34.2 FU (12 months) after end of treatment (EUROQOL: higher = better)** | | | | | | | | |
| GARETY2008 | -54.38 | 29.28 | 16 | -63.67 | 18.49 | 24 | 100.0% | 0.39 [-0.25, 1.03] |
| **Subtotal (95% CI)** | | | **16** | | | **24** | **100.0%** | **0.39 [-0.25, 1.03]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.20 (P = 0.23) | | | | | | | | |




Test for subgroup differences: Chi² = 0.07, df = 1 (P = 0.79), I² = 0%

**1.35 Depression: 1. BDI (lower = better)**

| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.35.1 Change from baseline (at 12 months)** | | | | | | | | |
| GARETY2008 | -8.26 | 12.3 | 23 | -6.95 | 7.49 | 21 | 100.0% | -0.12 [-0.72, 0.47] |
| **Subtotal (95% CI)** | | | **23** | | | **21** | **100.0%** | **-0.12 [-0.72, 0.47]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.41 (P = 0.68) | | | | | | | | |
| **1.35.2 FU (12 months) after end of treatment (change from baseline)** | | | | | | | | |
| GARETY2008 | -7.61 | 11.29 | 23 | -3.42 | 15.34 | 21 | 100.0% | -0.31 [-0.90, 0.29] |
| **Subtotal (95% CI)** | | | **23** | | | **21** | **100.0%** | **-0.31 [-0.90, 0.29]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.01 (P = 0.31) | | | | | | | | |




Test for subgroup differences: Chi² = 0.18, df = 1 (P = 0.67), I² = 0%

# Psychological clinical evidence: Family intervention

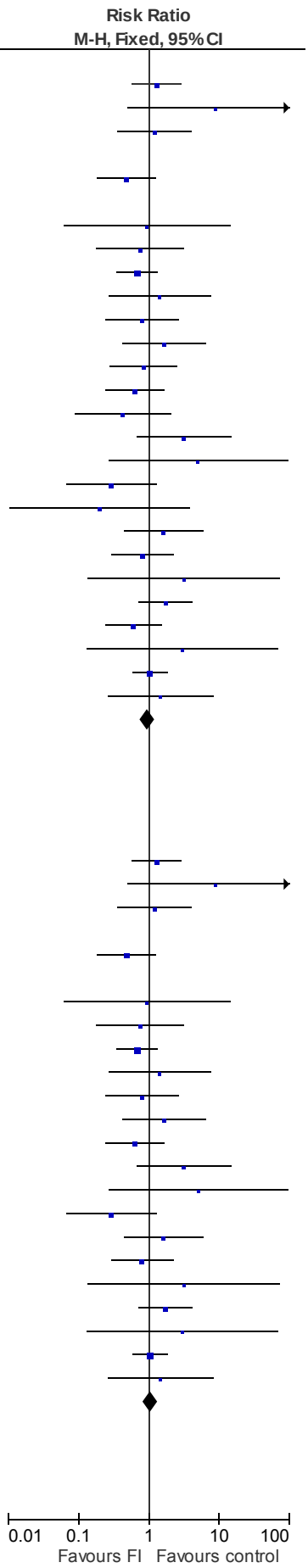
**1.36 Treatment acceptability: 1. Leaving the study early for any reason**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.36.1 At end of treatment** | | | | | | |
| Barrowclough1999 | 10 | 38 | 8 | 39 | 6.2% | 1.28 [0.57, 2.90] |
| Bloch1995 | 4 | 32 | 0 | 31 | 0.4% | 8.73 [0.49, 155.62] |
| BRADLEY2006 | 5 | 30 | 4 | 29 | 3.2% | 1.21 [0.36, 4.06] |
| BRESSI2008 | 0 | 20 | 0 | 20 | | Not estimable |
| Buchkremer1995 | 7 | 67 | 7 | 32 | 7.5% | 0.48 [0.18, 1.25] |
| CHIEN2004A | 0 | 24 | 0 | 24 | | Not estimable |
| CHIEN2004B | 1 | 33 | 1 | 31 | 0.8% | 0.94 [0.06, 14.38] |
| CHIEN2007 | 3 | 42 | 4 | 42 | 3.2% | 0.75 [0.18, 3.15] |
| Dyck2000 | 11 | 55 | 15 | 51 | 12.3% | 0.68 [0.35, 1.34] |
| Falloon1981 | 3 | 20 | 2 | 19 | 1.6% | 1.43 [0.27, 7.61] |
| GARETY2008 | 4 | 28 | 5 | 28 | 4.0% | 0.80 [0.24, 2.67] |
| Goldstein1978 | 5 | 52 | 3 | 52 | 2.4% | 1.67 [0.42, 6.62] |
| Herz2000* | 5 | 41 | 6 | 41 | 4.7% | 0.83 [0.28, 2.52] |
| Hogarty1997 | 5 | 24 | 8 | 24 | 6.3% | 0.63 [0.24, 1.64] |
| JENNER2004* | 2 | 37 | 5 | 39 | 3.8% | 0.42 [0.09, 2.04] |
| KOPELOWICZ2003 | 6 | 45 | 2 | 47 | 1.5% | 3.13 [0.67, 14.72] |
| Leff1982 | 2 | 12 | 0 | 12 | 0.4% | 5.00 [0.27, 94.34] |
| LI2005 | 2 | 38 | 8 | 44 | 5.9% | 0.29 [0.07, 1.28] |
| Lukoff1986* | 0 | 14 | 2 | 14 | 2.0% | 0.20 [0.01, 3.82] |
| MAGLIANO2006 | 6 | 36 | 3 | 29 | 2.6% | 1.61 [0.44, 5.89] |
| RAN2003 | 6 | 57 | 7 | 53 | 5.7% | 0.80 [0.29, 2.22] |
| SO2006 | 1 | 22 | 0 | 23 | 0.4% | 3.13 [0.13, 72.99] |
| Tarrier1988 | 10 | 31 | 6 | 32 | 4.7% | 1.72 [0.71, 4.16] |
| VALENCIA2007* | 6 | 49 | 10 | 49 | 7.9% | 0.60 [0.24, 1.52] |
| Vaughan1992 | 1 | 18 | 0 | 18 | 0.4% | 3.00 [0.13, 69.09] |
| Xiong1994 | 15 | 34 | 12 | 28 | 10.4% | 1.03 [0.58, 1.82] |
| Zhang1994 | 3 | 42 | 2 | 41 | 1.6% | 1.46 [0.26, 8.31] |
| **Subtotal (95% CI)** | | **941** | | **892** | **100.0%** | **0.95 [0.76, 1.19]** |
| Total events | 123 | | 120 | | | |

Heterogeneity: Chi² = 20.55, df = 24 (P = 0.67); I² = 0%
Test for overall effect: Z = 0.41 (P = 0.68)

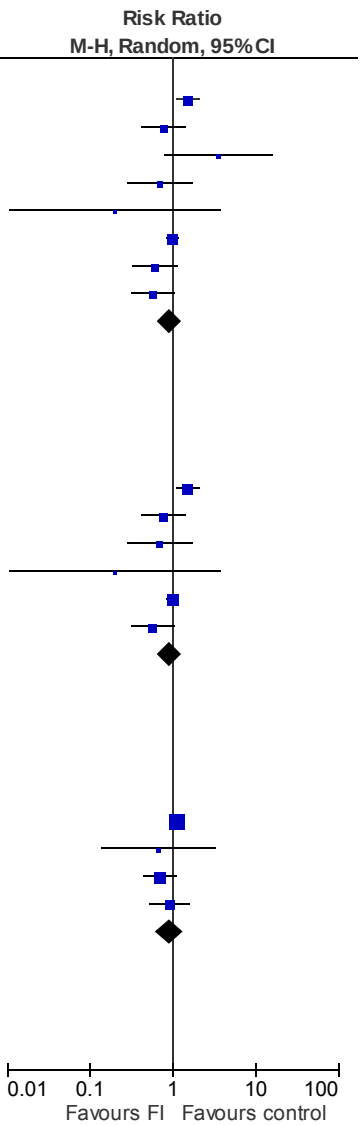
| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.36.2 Sensitivity analysis removing multimodal studies** | | | | | | |
| Barrowclough1999 | 10 | 38 | 8 | 39 | 7.7% | 1.28 [0.57, 2.90] |
| Bloch1995 | 4 | 32 | 0 | 31 | 0.5% | 8.73 [0.49, 155.62] |
| BRADLEY2006 | 5 | 30 | 4 | 29 | 3.9% | 1.21 [0.36, 4.06] |
| BRESSI2008 | 0 | 20 | 0 | 20 | | Not estimable |
| Buchkremer1995 | 7 | 67 | 7 | 32 | 9.2% | 0.48 [0.18, 1.25] |
| CHIEN2004A | 0 | 24 | 0 | 24 | | Not estimable |
| CHIEN2004B | 1 | 33 | 1 | 31 | 1.0% | 0.94 [0.06, 14.38] |
| CHIEN2007 | 3 | 42 | 4 | 42 | 3.9% | 0.75 [0.18, 3.15] |
| Dyck2000 | 11 | 55 | 15 | 51 | 15.1% | 0.68 [0.35, 1.34] |
| Falloon1981 | 3 | 20 | 2 | 19 | 2.0% | 1.43 [0.27, 7.61] |
| GARETY2008 | 4 | 28 | 5 | 28 | 4.8% | 0.80 [0.24, 2.67] |
| Goldstein1978 | 5 | 52 | 3 | 52 | 2.9% | 1.67 [0.42, 6.62] |
| Hogarty1997 | 5 | 24 | 8 | 24 | 7.8% | 0.63 [0.24, 1.64] |
| KOPELOWICZ2003 | 6 | 45 | 2 | 47 | 1.9% | 3.13 [0.67, 14.72] |
| Leff1982 | 2 | 12 | 0 | 12 | 0.5% | 5.00 [0.27, 94.34] |
| LI2005 | 2 | 38 | 8 | 44 | 7.2% | 0.29 [0.07, 1.28] |
| MAGLIANO2006 | 6 | 36 | 3 | 29 | 3.2% | 1.61 [0.44, 5.89] |
| RAN2003 | 6 | 57 | 7 | 53 | 7.0% | 0.80 [0.29, 2.22] |
| SO2006 | 1 | 22 | 0 | 23 | 0.5% | 3.13 [0.13, 72.99] |
| Tarrier1988 | 10 | 31 | 6 | 32 | 5.7% | 1.72 [0.71, 4.16] |
| Vaughan1992 | 1 | 18 | 0 | 18 | 0.5% | 3.00 [0.13, 69.09] |
| Xiong1994 | 15 | 34 | 12 | 28 | 12.8% | 1.03 [0.58, 1.82] |
| Zhang1994 | 3 | 42 | 2 | 41 | 2.0% | 1.46 [0.26, 8.31] |
| **Subtotal (95% CI)** | | **800** | | **749** | **100.0%** | **1.04 [0.82, 1.32]** |
| Total events | 110 | | 97 | | | |

Heterogeneity: Chi² = 17.37, df = 20 (P = 0.63); I² = 0%
Test for overall effect: Z = 0.31 (P = 0.76)



**1.37 Non-adherence to study medication**

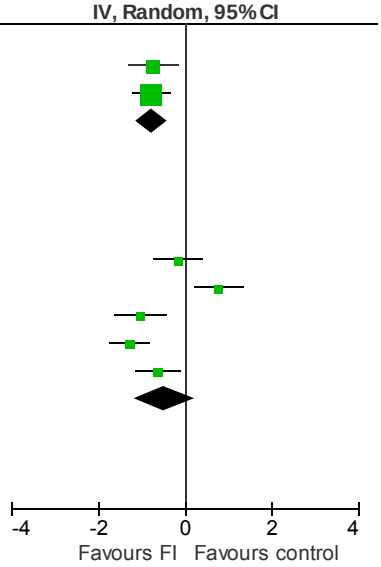
| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **1.37.1 at end of treatment** | | | | | | |
| BRESSI2008 | 18 | 18 | 13 | 20 | 20.8% | 1.51 [1.09, 2.10] |
| Falloon1981 | 9 | 20 | 11 | 19 | 13.6% | 0.78 [0.42, 1.44] |
| Herz2000* | 7 | 41 | 2 | 41 | 4.0% | 3.50 [0.77, 15.85] |
| KOPELOWICZ2003 | 6 | 39 | 10 | 45 | 8.7% | 0.69 [0.28, 1.73] |
| Leff1982 | 0 | 12 | 2 | 12 | 1.2% | 0.20 [0.01, 3.77] |
| RAN2003 | 47 | 57 | 44 | 53 | 24.5% | 0.99 [0.84, 1.18] |
| VALENCIA2007* | 11 | 49 | 18 | 49 | 13.3% | 0.61 [0.32, 1.16] |
| Zhang1994 | 11 | 42 | 19 | 41 | 13.9% | 0.57 [0.31, 1.04] |
| **Subtotal (95% CI)** | | **278** | | **280** | **100.0%** | **0.91 [0.65, 1.26]** |
| Total events | 109 | | 119 | | | |
| Heterogeneity: Tau² = 0.11; Chi² = 19.08, df = 7 (P = 0.008); I² = 63% | | | | | | |
| Test for overall effect: Z = 0.56 (P = 0.57) | | | | | | |
| **1.37.2 at end of treatment - sensitivity analysis removing multimodal studies** | | | | | | |
| BRESSI2008 | 18 | 18 | 13 | 20 | 25.4% | 1.51 [1.09, 2.10] |
| Falloon1981 | 9 | 20 | 11 | 19 | 16.3% | 0.78 [0.42, 1.44] |
| KOPELOWICZ2003 | 6 | 39 | 10 | 45 | 10.2% | 0.69 [0.28, 1.73] |
| Leff1982 | 0 | 12 | 2 | 12 | 1.4% | 0.20 [0.01, 3.77] |
| RAN2003 | 47 | 57 | 44 | 53 | 30.2% | 0.99 [0.84, 1.18] |
| Zhang1994 | 11 | 42 | 19 | 41 | 16.6% | 0.57 [0.31, 1.04] |
| **Subtotal (95% CI)** | | **188** | | **190** | **100.0%** | **0.91 [0.64, 1.30]** |
| Total events | 91 | | 99 | | | |
| Heterogeneity: Tau² = 0.10; Chi² = 14.49, df = 5 (P = 0.01); I² = 65% | | | | | | |
| Test for overall effect: Z = 0.51 (P = 0.61) | | | | | | |
| **1.37.3 at FU** | | | | | | |
| BRESSI2008 | 18 | 19 | 17 | 20 | 43.9% | 1.11 [0.90, 1.38] |
| Leff1982 | 2 | 12 | 3 | 12 | 4.7% | 0.67 [0.13, 3.30] |
| LI2005 | 15 | 38 | 25 | 44 | 27.8% | 0.69 [0.43, 1.11] |
| Vaughan1992 | 10 | 18 | 11 | 18 | 23.6% | 0.91 [0.52, 1.58] |
| **Subtotal (95% CI)** | | **87** | | **94** | **100.0%** | **0.91 [0.63, 1.31]** |
| Total events | 45 | | 56 | | | |
| Heterogeneity: Tau² = 0.07; Chi² = 6.38, df = 3 (P = 0.09); I² = 53% | | | | | | |
| Test for overall effect: Z = 0.51 (P = 0.61) | | | | | | |




**2 Family intervention versus any control (carer outcomes) (critical outcomes)**

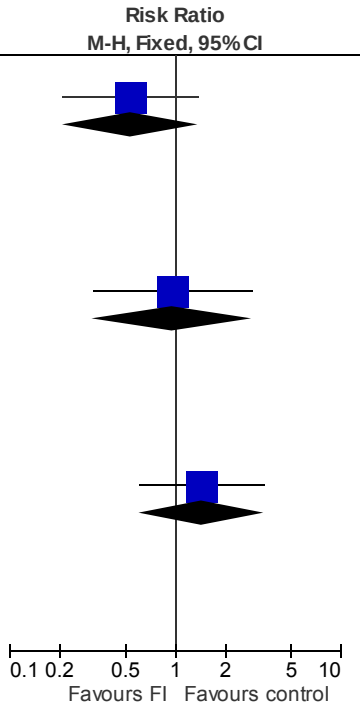
**2.1 Family outcome: 1. Burden (lower = better) (at end of treatment)**

| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.1.1 at end of treatment** | | | | | | | | |
| CHIEN2004A | 24.31 | 4.65 | 24 | 28.51 | 6.35 | 24 | 36.6% | -0.74 [-1.33, -0.16] |
| CHIEN2007 | 25.1 | 4.8 | 42 | 29.8 | 6.7 | 42 | 63.4% | -0.80 [-1.24, -0.35] |
| **Subtotal (95% CI)** | | | **66** | | | **66** | **100.0%** | **-0.78 [-1.13, -0.42]** |
| Heterogeneity: Tau² = 0.00; Chi² = 0.02, df = 1 (P = 0.88); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 4.30 (P < 0.0001) | | | | | | | | |
| **2.1.2 up to 18 months FU** | | | | | | | | |
| Bloch1995 | 11.3 | 7.6 | 25 | 12.6 | 7.1 | 22 | 19.8% | -0.17 [-0.75, 0.40] |
| BRADLEY2006 | 18.95 | 15.39 | 25 | 9.38 | 8.1 | 25 | 19.8% | 0.77 [0.19, 1.34] |
| CHIEN2004A | 21.01 | 5.21 | 24 | 28.02 | 7.81 | 24 | 19.5% | -1.04 [-1.64, -0.43] |
| CHIEN2007 | 21.4 | 6 | 42 | 30.2 | 7.5 | 42 | 20.7% | -1.28 [-1.76, -0.81] |
| Xiong1994 | 1.4 | 0.7 | 32 | 1.8 | 0.5 | 28 | 20.3% | -0.64 [-1.16, -0.12] |
| **Subtotal (95% CI)** | | | **148** | | | **141** | **100.0%** | **-0.48 [-1.19, 0.23]** |
| Heterogeneity: Tau² = 0.57; Chi² = 33.62, df = 4 (P < 0.00001); I² = 88% | | | | | | | | |
| Test for overall effect: Z = 1.33 (P = 0.18) | | | | | | | | |




**2.2 Family outcome: 1. Burden (number worsened) (at FU)**

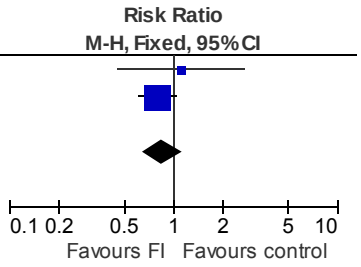
| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.2.1 Related to self-sufficiency at FU (12 months) after end of treatment** | | | | | | |
| CARRA2007 | 5 | 26 | 9 | 25 | 100.0% | 0.53 [0.21, 1.37] |
| **Subtotal (95% CI)** | | **26** | | **25** | **100.0%** | **0.53 [0.21, 1.37]** |
| Total events | 5 | | 9 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.30 (P = 0.19) | | | | | | |
| **2.2.2 Related to social functioning at FU (12 months) after end of treatment** | | | | | | |
| CARRA2007 | 5 | 26 | 5 | 25 | 100.0% | 0.96 [0.32, 2.92] |
| **Subtotal (95% CI)** | | **26** | | **25** | **100.0%** | **0.96 [0.32, 2.92]** |
| Total events | 5 | | 5 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.07 (P = 0.94) | | | | | | |
| **2.2.3 Subjective burden at FU (12 months) after end of treatment** | | | | | | |
| CARRA2007 | 9 | 26 | 6 | 25 | 100.0% | 1.44 [0.60, 3.46] |
| **Subtotal (95% CI)** | | **26** | | **25** | **100.0%** | **1.44 [0.60, 3.46]** |
| Total events | 9 | | 6 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.82 (P = 0.41) | | | | | | |



**2.3 Family outcome: 2. Patient coping poorly with key relatives**

| | FI | | Control | | | Risk Ratio |
|---|---|---|---|---|---|---|
| Study or Subgroup | Events | Total | Events | Total | Weight | M-H, Fixed, 95% CI |
| Falloon1981 | 7 | 20 | 6 | 19 | 18.3% | 1.11 [0.45, 2.70] |
| Bloch1995 | 22 | 32 | 27 | 31 | 81.7% | 0.79 [0.60, 1.03] |
| **Total (95% CI)** | | **52** | | **50** | **100.0%** | **0.85 [0.64, 1.13]** |
| Total events | 29 | | 33 | | | |

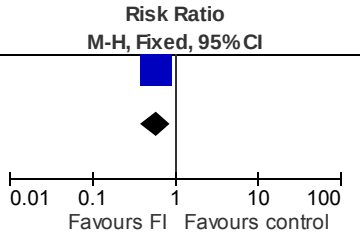
Heterogeneity: Chi² = 0.62, df = 1 (P = 0.43); I² = 0%
Test for overall effect: Z = 1.14 (P = 0.25)




**2.4 Family outcome: 3. Not understanding the patient a lot better (6 months)**

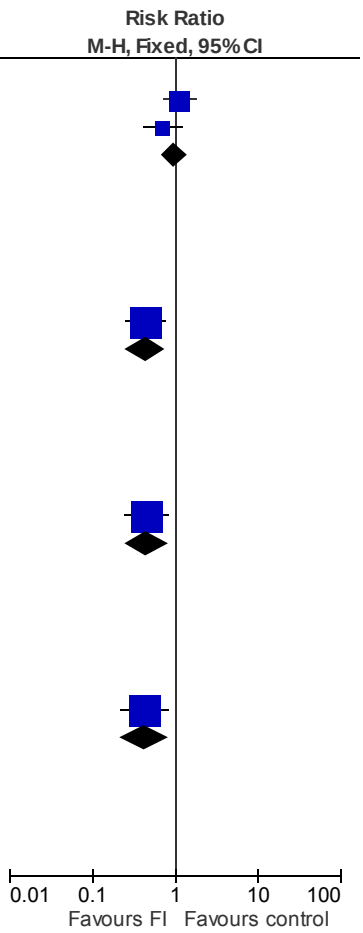
| | FI | | Control | | | Risk Ratio |
|---|---|---|---|---|---|---|
| Study or Subgroup | Events | Total | Events | Total | Weight | M-H, Fixed, 95% CI |
| Bloch1995 | 15 | 32 | 25 | 31 | 100.0% | 0.58 [0.39, 0.87] |
| **Total (95% CI)** | | **32** | | **31** | **100.0%** | **0.58 [0.39, 0.87]** |
| Total events | 15 | | 25 | | | |

Heterogeneity: Not applicable
Test for overall effect: Z = 2.61 (P = 0.009)



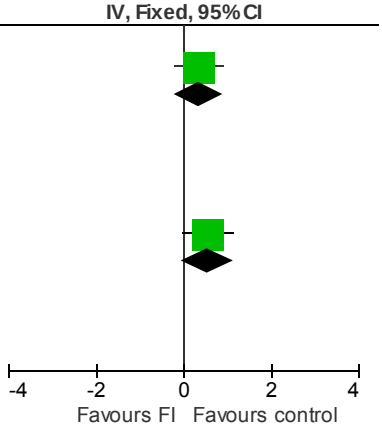
**2.5 Family outcome: 4. Emotion expressed**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.5.1 overall levels** | | | | | | |
| Tarrier1988 | 18 | 32 | 16 | 32 | 61.5% | 1.13 [0.71, 1.79] |
| Leff1982 | 7 | 12 | 10 | 12 | 38.5% | 0.70 [0.41, 1.20] |
| **Subtotal (95% CI)** | | **44** | | **44** | **100.0%** | **0.96 [0.67, 1.37]** |
| Total events | 25 | | 26 | | | |
| Heterogeneity: Chi² = 1.77, df = 1 (P = 0.18); I² = 43% | | | | | | |
| Test for overall effect: Z = 0.22 (P = 0.83) | | | | | | |
| **2.5.2 over involvement** | | | | | | |
| Tarrier1988 | 10 | 32 | 23 | 32 | 100.0% | 0.43 [0.25, 0.76] |
| **Subtotal (95% CI)** | | **32** | | **32** | **100.0%** | **0.43 [0.25, 0.76]** |
| Total events | 10 | | 23 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 2.93 (P = 0.003) | | | | | | |
| **2.5.3 criticism** | | | | | | |
| Tarrier1988 | 9 | 32 | 20 | 32 | 100.0% | 0.45 [0.24, 0.83] |
| **Subtotal (95% CI)** | | **32** | | **32** | **100.0%** | **0.45 [0.24, 0.83]** |
| Total events | 9 | | 20 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 2.54 (P = 0.01) | | | | | | |
| **2.5.4 hostility** | | | | | | |
| Tarrier1988 | 8 | 32 | 19 | 32 | 100.0% | 0.42 [0.22, 0.82] |
| **Subtotal (95% CI)** | | **32** | | **32** | **100.0%** | **0.42 [0.22, 0.82]** |
| Total events | 8 | | 19 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 2.55 (P = 0.01) | | | | | | |




**2.6 Family outcome: 5. General Health Questionnaire (lower = better)**

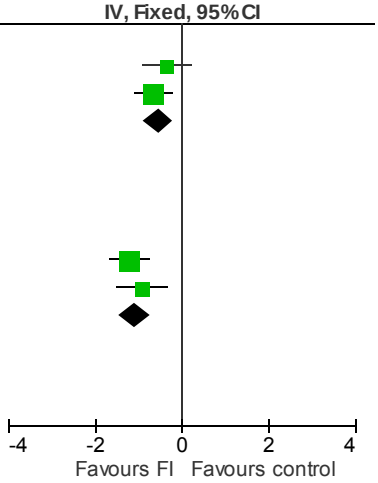
| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.6.1 end of treatment** | | | | | | | | |
| BRADLEY2006 | 9.26 | 4.63 | 25 | 7.66 | 4.85 | 24 | 100.0% | 0.33 [-0.23, 0.90] |
| **Subtotal (95% CI)** | | | **25** | | | **24** | **100.0%** | **0.33 [-0.23, 0.90]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.15 (P = 0.25) | | | | | | | | |
| **2.6.2 1-6 months FU** | | | | | | | | |
| Bloch1995 | 22.8 | 16.5 | 25 | 15.5 | 8.7 | 22 | 100.0% | 0.53 [-0.05, 1.12] |
| **Subtotal (95% CI)** | | | **25** | | | **22** | **100.0%** | **0.53 [-0.05, 1.12]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.79 (P = 0.07) | | | | | | | | |




Test for subgroup differences: Chi² = 0.24, df = 1 (P = 0.63), I² = 0%

**2.7 Family outcome: 6. Family functioning - FAD (lower = better)**

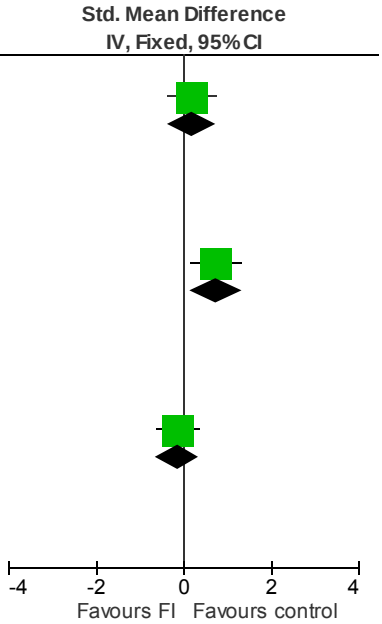
| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.7.1 at end of treatment** | | | | | | | | |
| CHIEN2004A | 16.71 | 4.12 | 24 | 18.41 | 5.28 | 24 | 37.3% | -0.35 [-0.92, 0.22] |
| CHIEN2007 | -16.7 | 5.7 | 42 | -13 | 5.1 | 42 | 62.7% | -0.68 [-1.12, -0.24] |
| **Subtotal (95% CI)** | | | **66** | | | **66** | **100.0%** | **-0.56 [-0.91, -0.21]** |
| Heterogeneity: Chi² = 0.78, df = 1 (P = 0.38); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 3.13 (P = 0.002) | | | | | | | | |
| **2.7.2 up to 3 months FU** | | | | | | | | |
| CHIEN2007 | -18.3 | 3.9 | 42 | -11.9 | 6.3 | 42 | 62.1% | -1.21 [-1.68, -0.74] |
| CHIEN2004A | 13.35 | 3.89 | 24 | 19.91 | 9.04 | 24 | 37.9% | -0.93 [-1.53, -0.33] |
| **Subtotal (95% CI)** | | | **66** | | | **66** | **100.0%** | **-1.10 [-1.47, -0.74]** |
| Heterogeneity: Chi² = 0.53, df = 1 (P = 0.46); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 5.87 (P < 0.00001) | | | | | | | | |




Test for subgroup differences: Chi² = 4.46, df = 1 (P = 0.03), I² = 77.6%

**2.8 Family outcome: 7. Family Support Service Index (lower = in need of/used less services)**

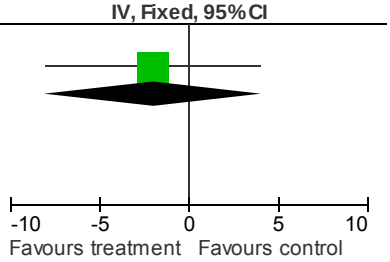
| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.8.1 at end of treatment** | | | | | | | | |
| CHIEN2004A | 5.76 | 1.01 | 24 | 5.57 | 1.02 | 24 | 100.0% | 0.18 [-0.38, 0.75] |
| **Subtotal (95% CI)** | | | **24** | | | **24** | **100.0%** | **0.18 [-0.38, 0.75]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.64 (P = 0.52) | | | | | | | | |
| **2.8.2 FU (3 months) after end of treatment** | | | | | | | | |
| CHIEN2004A | 6.07 | 0.98 | 24 | 5.21 | 1.3 | 24 | 100.0% | 0.73 [0.15, 1.32] |
| **Subtotal (95% CI)** | | | **24** | | | **24** | **100.0%** | **0.73 [0.15, 1.32]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.46 (P = 0.01) | | | | | | | | |
| **2.8.3 FU (18 months) after end of treatment** | | | | | | | | |
| CHIEN2004B | 3.8 | 0.09 | 32 | 4 | 1.9 | 31 | 100.0% | -0.15 [-0.64, 0.35] |
| **Subtotal (95% CI)** | | | **32** | | | **31** | **100.0%** | **-0.15 [-0.64, 0.35]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.59 (P = 0.56) | | | | | | | | |




Test for subgroup differences: Chi² = 5.10, df = 2 (P = 0.08), I² = 60.8%

**2.9 Family outcome: 8. Levels of Expressed Emotion (LEE Scale) - Change score**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.9.1 At end of treatment** | | | | | | | | |
| SO2006 | -5.15 | 7.36 | 13 | -3.13 | 9.25 | 16 | 100.0% | -2.02 [-8.07, 4.03] |
| **Subtotal (95% CI)** | | | **13** | | | **16** | **100.0%** | **-2.02 [-8.07, 4.03]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.65 (P = 0.51) | | | | | | | | |

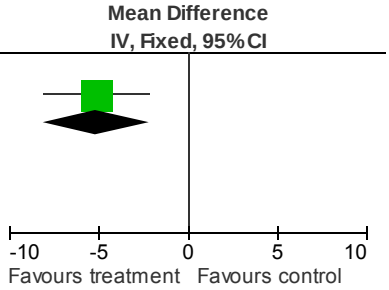



Test for subgroup differences: Not applicable

**2.10 Family outcome: 9. Knowledge of psychosis - Change score**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.10.1 At end of treatment** | | | | | | | | |
| SO2006 | -5.59 | 4.32 | 17 | -0.44 | 4.43 | 16 | 100.0% | -5.15 [-8.14, -2.16] |
| **Subtotal (95% CI)** | | | **17** | | | **16** | **100.0%** | **-5.15 [-8.14, -2.16]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 3.38 (P = 0.0007)



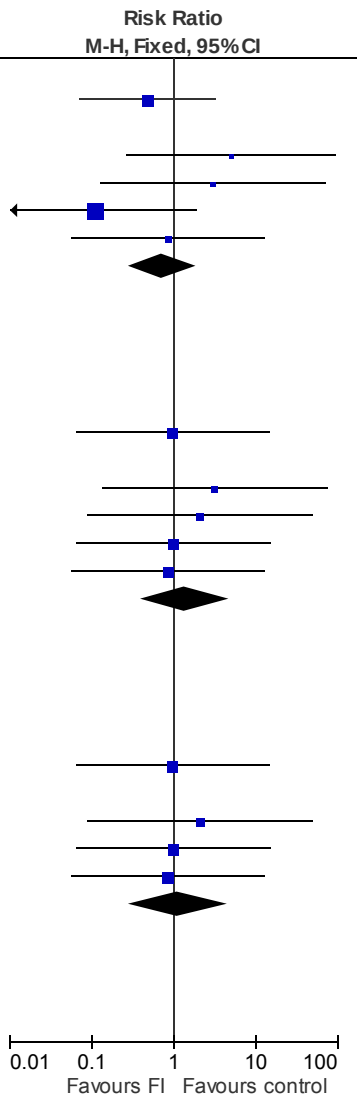

Test for subgroup differences: Not applicable

**3 Family intervention versus standard care (critical outcomes)**

# Psychological clinical evidence: Family intervention

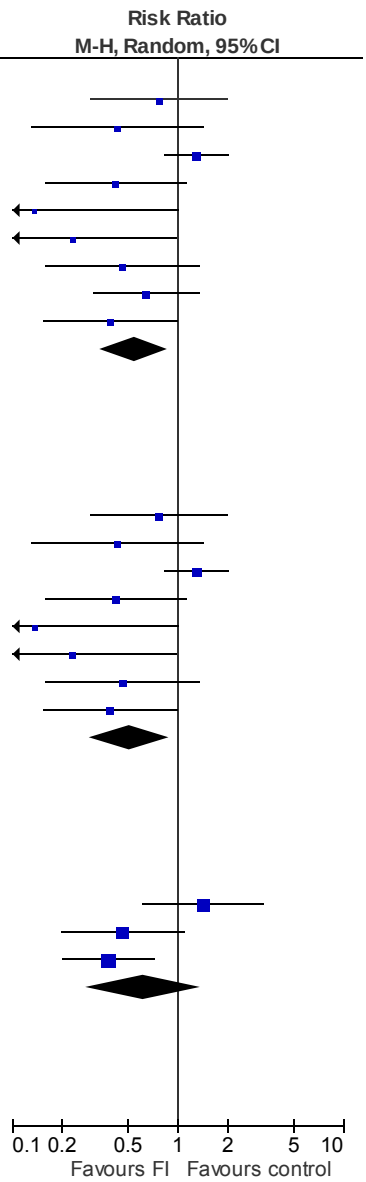
**3.1 Mortality**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.1.1 suicide** | | | | | | |
| Buchkremer1995 | 2 | 67 | 2 | 32 | 29.2% | 0.48 [0.07, 3.24] |
| GARETY2008 | 0 | 28 | 0 | 28 | | Not estimable |
| Leff1982 | 2 | 12 | 0 | 12 | 5.4% | 5.00 [0.27, 94.34] |
| Tarrier1988 | 1 | 32 | 0 | 32 | 5.4% | 3.00 [0.13, 71.00] |
| Vaughan1992 | 0 | 18 | 4 | 18 | 48.5% | 0.11 [0.01, 1.92] |
| Xiong1994 | 1 | 34 | 1 | 29 | 11.6% | 0.85 [0.06, 13.04] |
| **Subtotal (95% CI)** | | **191** | | **151** | **100.0%** | **0.72 [0.28, 1.88]** |
| Total events | 6 | | 7 | | | |
| Heterogeneity: Chi² = 4.29, df = 4 (P = 0.37); I² = 7% | | | | | | |
| Test for overall effect: Z = 0.67 (P = 0.51) | | | | | | |
| **3.1.2 other cause** | | | | | | |
| BRADLEY2006 | 1 | 30 | 1 | 29 | 24.4% | 0.97 [0.06, 14.74] |
| GARETY2008 | 0 | 28 | 0 | 28 | | Not estimable |
| JENNER2004* | 1 | 37 | 0 | 39 | 11.7% | 3.16 [0.13, 75.16] |
| MAGLIANO2006 | 1 | 42 | 0 | 29 | 14.1% | 2.09 [0.09, 49.65] |
| Tarrier1988 | 1 | 32 | 1 | 32 | 24.0% | 1.00 [0.07, 15.30] |
| Xiong1994 | 1 | 34 | 1 | 29 | 25.9% | 0.85 [0.06, 13.04] |
| **Subtotal (95% CI)** | | **203** | | **186** | **100.0%** | **1.36 [0.39, 4.75]** |
| Total events | 5 | | 3 | | | |
| Heterogeneity: Chi² = 0.56, df = 4 (P = 0.97); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.48 (P = 0.63) | | | | | | |
| **3.1.3 Sensitivity analysis removing multimodal studies** | | | | | | |
| BRADLEY2006 | 1 | 30 | 1 | 29 | 27.6% | 0.97 [0.06, 14.74] |
| GARETY2008 | 0 | 28 | 0 | 28 | | Not estimable |
| MAGLIANO2006 | 1 | 42 | 0 | 29 | 16.0% | 2.09 [0.09, 49.65] |
| Tarrier1988 | 1 | 32 | 1 | 32 | 27.1% | 1.00 [0.07, 15.30] |
| Xiong1994 | 1 | 34 | 1 | 29 | 29.3% | 0.85 [0.06, 13.04] |
| **Subtotal (95% CI)** | | **166** | | **147** | **100.0%** | **1.12 [0.28, 4.51]** |
| Total events | 4 | | 3 | | | |
| Heterogeneity: Chi² = 0.21, df = 3 (P = 0.98); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.16 (P = 0.87) | | | | | | |



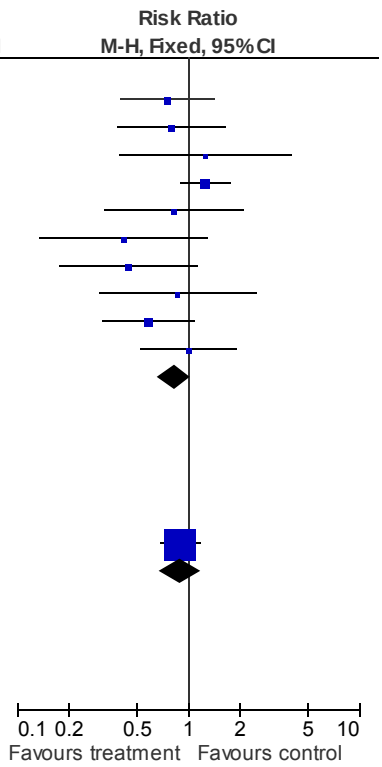
**3.2 Service outcomes: 1. Rehospitalisation (end of treatment)**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **3.2.1 1-12 months into treatment** | | | | | | |
| Barrowclough1999 | 6 | 38 | 8 | 39 | 11.7% | 0.77 [0.29, 2.01] |
| BRESSI2008 | 3 | 20 | 7 | 20 | 9.1% | 0.43 [0.13, 1.43] |
| Buchkremer1995 | 38 | 67 | 14 | 32 | 19.2% | 1.30 [0.83, 2.02] |
| Dyck2000 | 5 | 55 | 11 | 51 | 11.4% | 0.42 [0.16, 1.13] |
| Glynn1992 | 1 | 21 | 7 | 20 | 4.4% | 0.14 [0.02, 1.01] |
| KOPELOWICZ2003 | 2 | 39 | 10 | 45 | 7.1% | 0.23 [0.05, 0.99] |
| LI2005 | 4 | 38 | 10 | 44 | 10.4% | 0.46 [0.16, 1.36] |
| VALENCIA2007* | 9 | 49 | 14 | 49 | 14.7% | 0.64 [0.31, 1.34] |
| Xiong1994 | 5 | 34 | 11 | 29 | 12.0% | 0.39 [0.15, 0.99] |
| **Subtotal (95% CI)** | | **361** | | **329** | **100.0%** | **0.54 [0.34, 0.87]** |
| Total events | 73 | | 92 | | | |
| Heterogeneity: Tau² = 0.24; Chi² = 17.06, df = 8 (P = 0.03); I² = 53% | | | | | | |
| Test for overall effect: Z = 2.55 (P = 0.01) | | | | | | |
| **3.2.2 Sensitivity analysis removing multimodal studies** | | | | | | |
| Barrowclough1999 | 6 | 38 | 8 | 39 | 13.8% | 0.77 [0.29, 2.01] |
| BRESSI2008 | 3 | 20 | 7 | 20 | 11.2% | 0.43 [0.13, 1.43] |
| Buchkremer1995 | 38 | 67 | 14 | 32 | 20.3% | 1.30 [0.83, 2.02] |
| Dyck2000 | 5 | 55 | 11 | 51 | 13.5% | 0.42 [0.16, 1.13] |
| Glynn1992 | 1 | 21 | 7 | 20 | 5.8% | 0.14 [0.02, 1.01] |
| KOPELOWICZ2003 | 2 | 39 | 10 | 45 | 9.0% | 0.23 [0.05, 0.99] |
| LI2005 | 4 | 38 | 10 | 44 | 12.5% | 0.46 [0.16, 1.36] |
| Xiong1994 | 5 | 34 | 11 | 29 | 14.1% | 0.39 [0.15, 0.99] |
| **Subtotal (95% CI)** | | **312** | | **280** | **100.0%** | **0.51 [0.29, 0.89]** |
| Total events | 64 | | 78 | | | |
| Heterogeneity: Tau² = 0.34; Chi² = 17.16, df = 7 (P = 0.02); I² = 59% | | | | | | |
| Test for overall effect: Z = 2.37 (P = 0.02) | | | | | | |
| **3.2.3 13-24 months into treatment** | | | | | | |
| Dyck2000 | 12 | 53 | 7 | 44 | 31.6% | 1.42 [0.61, 3.30] |
| Xiong1994 | 6 | 34 | 11 | 29 | 31.1% | 0.47 [0.20, 1.10] |
| Zhang1994 | 9 | 42 | 23 | 41 | 37.3% | 0.38 [0.20, 0.72] |
| **Subtotal (95% CI)** | | **129** | | **114** | **100.0%** | **0.62 [0.28, 1.36]** |
| Total events | 27 | | 41 | | | |
| Heterogeneity: Tau² = 0.33; Chi² = 6.27, df = 2 (P = 0.04); I² = 68% | | | | | | |
| Test for overall effect: Z = 1.20 (P = 0.23) | | | | | | |



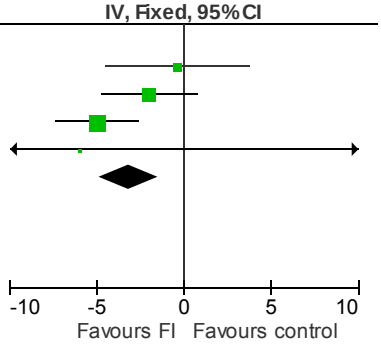
**3.3 Service outcomes: 1. Rehospitalisation (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.3.1 FU (up to 2 years) after end of treatment** | | | | | | |
| Barrowclough1999 | 11 | 38 | 15 | 39 | 12.7% | 0.75 [0.40, 1.42] |
| Bloch1995 | 9 | 32 | 11 | 31 | 9.6% | 0.79 [0.38, 1.64] |
| BRESSI2008 | 5 | 20 | 4 | 20 | 3.4% | 1.25 [0.39, 3.99] |
| Buchkremer1995 | 47 | 67 | 18 | 32 | 21.0% | 1.25 [0.88, 1.76] |
| CARRA2007 | 6 | 26 | 7 | 25 | 6.1% | 0.82 [0.32, 2.11] |
| Dyck2000 | 4 | 53 | 8 | 44 | 7.5% | 0.42 [0.13, 1.29] |
| KOPELOWICZ2003 | 5 | 39 | 13 | 45 | 10.4% | 0.44 [0.17, 1.13] |
| LEAVEY2004 | 6 | 57 | 6 | 49 | 5.5% | 0.86 [0.30, 2.49] |
| LI2005 | 10 | 38 | 20 | 44 | 15.9% | 0.58 [0.31, 1.08] |
| Vaughan1992 | 9 | 18 | 9 | 18 | 7.7% | 1.00 [0.52, 1.92] |
| **Subtotal (95% CI)** | | **388** | | **347** | **100.0%** | **0.82 [0.66, 1.02]** |
| Total events | 112 | | 111 | | | |
| Heterogeneity: Chi² = 10.89, df = 9 (P = 0.28); I² = 17% | | | | | | |
| Test for overall effect: Z = 1.78 (P = 0.08) | | | | | | |
| **3.3.2 up to 5 years after end of treatment** | | | | | | |
| Barrowclough1999 | 26 | 38 | 30 | 39 | 100.0% | 0.89 [0.67, 1.17] |
| **Subtotal (95% CI)** | | **38** | | **39** | **100.0%** | **0.89 [0.67, 1.17]** |
| Total events | 26 | | 30 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.83 (P = 0.41) | | | | | | |




**3.4 Service outcomes: 2. Duration of rehospitalisation (days)**

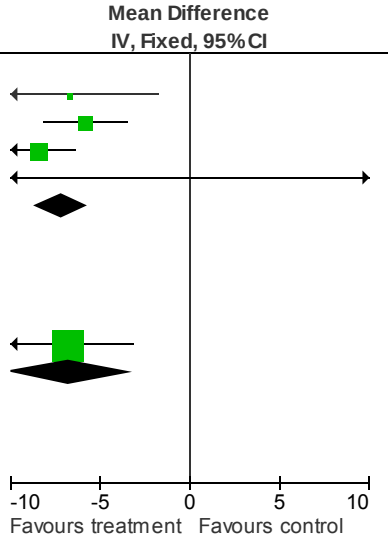
| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.4.1 end of treatment** | | | | | | | | |
| CHIEN2004A | 25.65 | 6.01 | 24 | 26.02 | 8.42 | 24 | 16.2% | -0.37 [-4.51, 3.77] |
| CHIEN2004B | 17.1 | 5.1 | 32 | 19.1 | 6.1 | 31 | 35.8% | -2.00 [-4.78, 0.78] |
| CHIEN2007 | 14.1 | 5.1 | 42 | 19.1 | 6.1 | 42 | 47.9% | -5.00 [-7.40, -2.60] |
| GARETY2008 | 29.67 | 46.18 | 27 | 35.62 | 92.63 | 26 | 0.2% | -5.95 [-45.59, 33.69] |
| **Subtotal (95% CI)** | | | **125** | | | **123** | **100.0%** | **-3.18 [-4.84, -1.52]** |
| Heterogeneity: Chi² = 4.68, df = 3 (P = 0.20); I² = 36% | | | | | | | | |
| Test for overall effect: Z = 3.75 (P = 0.0002) | | | | | | | | |




Test for subgroup differences: Not applicable

**3.5 Service outcomes: 2. Duration of rehospitalisation (days) (at FU)**

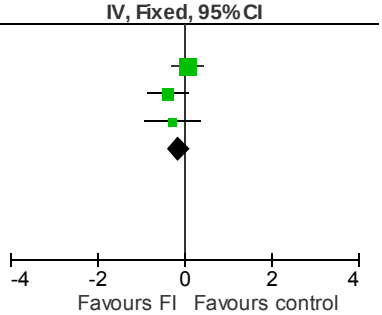
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.5.1 FU (up to 12 months) after end of treatment** | | | | | | | | |
| CHIEN2004A | 22.85 | 8.27 | 24 | 29.52 | 9.1 | 24 | 8.9% | -6.67 [-11.59, -1.75] |
| CHIEN2004B | 15 | 4.3 | 32 | 20.8 | 5.2 | 31 | 38.9% | -5.80 [-8.16, -3.44] |
| CHIEN2007 | 12.4 | 4.3 | 42 | 20.8 | 5.2 | 42 | 52.0% | -8.40 [-10.44, -6.36] |
| GARETY2008 | 30.33 | 73.39 | 27 | 13.88 | 39.79 | 26 | 0.2% | 16.45 [-15.18, 48.08] |
| **Subtotal (95% CI)** | | | **125** | | | **123** | **100.0%** | **-7.18 [-8.65, -5.71]** |
| Heterogeneity: Chi² = 4.87, df = 3 (P = 0.18); I² = 38% | | | | | | | | |
| Test for overall effect: Z = 9.57 (P < 0.00001) | | | | | | | | |
| **3.5.2 FU (18 months) after end of treatment** | | | | | | | | |
| CHIEN2004B | 14 | 7.6 | 32 | 20.8 | 7.2 | 31 | 100.0% | -6.80 [-10.45, -3.15] |
| **Subtotal (95% CI)** | | | **32** | | | **31** | **100.0%** | **-6.80 [-10.45, -3.15]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.65 (P = 0.0003) | | | | | | | | |




Test for subgroup differences: Chi² = 0.04, df = 1 (P = 0.85), I² = 0%

**3.6 Service outcomes: 3. Number of rehospitalisation**

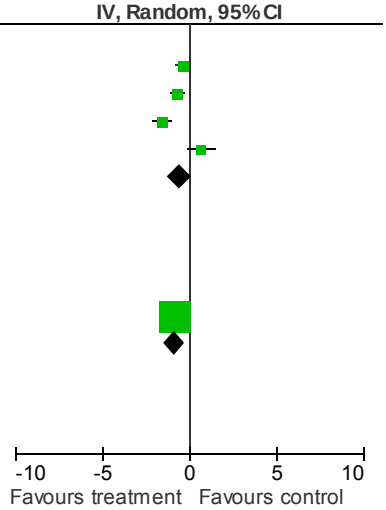
| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.6.1 at end of treatment** | | | | | | | | |
| CHIEN2004A | 1.78 | 0.58 | 24 | 1.72 | 0.71 | 24 | 52.1% | 0.06 [-0.31, 0.43] |
| CHIEN2004B | 1.8 | 0.8 | 32 | 2.2 | 1.1 | 31 | 30.9% | -0.40 [-0.88, 0.08] |
| CHIEN2007 | 3.1 | 1.5 | 42 | 3.4 | 1.5 | 42 | 17.0% | -0.30 [-0.94, 0.34] |
| **Subtotal (95% CI)** | | | **98** | | | **97** | **100.0%** | **-0.14 [-0.41, 0.12]** |
| Heterogeneity: Chi² = 2.53, df = 2 (P = 0.28); I² = 21% | | | | | | | | |
| Test for overall effect: Z = 1.06 (P = 0.29) | | | | | | | | |




Test for subgroup differences: Not applicable

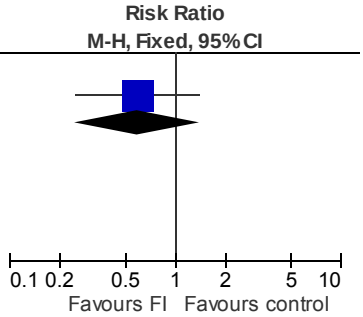
**3.7 Service outcomes: 3. Number of rehospitalisation (at FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.7.1 FU (up to 12 months) after end of treatment** | | | | | | | | |
| CHIEN2004A | 1.34 | 0.61 | 24 | 1.75 | 0.91 | 24 | 26.7% | -0.41 [-0.85, 0.03] |
| CHIEN2004B | 1.5 | 0.7 | 32 | 2.2 | 0.9 | 31 | 27.1% | -0.70 [-1.10, -0.30] |
| CHIEN2007 | 2 | 1 | 42 | 3.6 | 1.6 | 42 | 24.9% | -1.60 [-2.17, -1.03] |
| GARETY2008 | 0.96 | 2.08 | 27 | 0.31 | 0.55 | 26 | 21.3% | 0.65 [-0.16, 1.46] |
| **Subtotal (95% CI)** | | | **125** | | | **123** | **100.0%** | **-0.56 [-1.26, 0.15]** |
| Heterogeneity: Tau² = 0.43; Chi² = 21.69, df = 3 (P < 0.0001); I² = 86% | | | | | | | | |
| Test for overall effect: Z = 1.56 (P = 0.12) | | | | | | | | |
| **3.7.2 FU (18 months) after end of treatment** | | | | | | | | |
| CHIEN2004B | 1.1 | 0.6 | 32 | 2 | 1.6 | 31 | 100.0% | -0.90 [-1.50, -0.30] |
| **Subtotal (95% CI)** | | | **32** | | | **31** | **100.0%** | **-0.90 [-1.50, -0.30]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.94 (P = 0.003) | | | | | | | | |



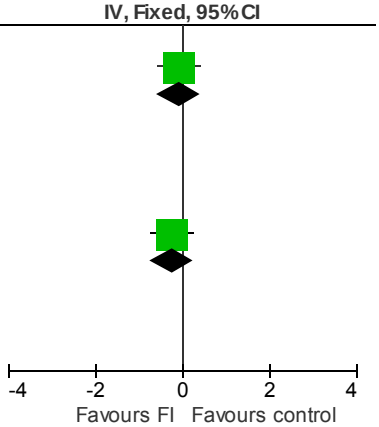

**3.8 Service outcomes: 4. Crisis Care Service use**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.8.1 1-12 months into treatment** | | | | | | |
| Dyck2000 | 7 | 55 | 11 | 51 | 100.0% | 0.59 [0.25, 1.41] |
| **Subtotal (95% CI)** | | **55** | | **51** | **100.0%** | **0.59 [0.25, 1.41]** |
| Total events | 7 | | 11 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.19 (P = 0.23) | | | | | | |




**3.9 Service outcomes: 5. Mental health service needs and use**

| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.9.1 Family Support Services Index - at end of treatment** | | | | | | | | |
| CHIEN2004B | 3.7 | 1.1 | 32 | 3.8 | 1 | 31 | 100.0% | -0.09 [-0.59, 0.40] |
| **Subtotal (95% CI)** | | | **32** | | | **31** | **100.0%** | **-0.09 [-0.59, 0.40]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.37 (P = 0.71) | | | | | | | | |
| **3.9.2 Family Support Services Index - FU (up to 12 months) after end of treatment** | | | | | | | | |
| CHIEN2004B | 3.8 | 0.5 | 32 | 4 | 1 | 31 | 100.0% | -0.25 [-0.75, 0.24] |
| **Subtotal (95% CI)** | | | **32** | | | **31** | **100.0%** | **-0.25 [-0.75, 0.24]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.99 (P = 0.32) | | | | | | | | |




Test for subgroup differences: Chi² = 0.19, df = 1 (P = 0.66), I² = 0%

### 3.10 Service outcomes: 6. Outpatient treatment (hours) - data skewed

*3.10.1 1-12 months into treatment*

| Study ID | FI: mean (SD) | Control: mean (SD) | F from ANCOVA |
|---|---|---|---|
| Dyck2000 | 79.3 (94.6) | 53.6 (74.2) | F(1,89)=7.1,p<.05 |

*3.10.2 13-24 months into treatment*

| Study ID | FI: mean (SD) | Control: mean (SD) | F from ANCOVA |
|---|---|---|---|
| Dyck2000 | 39.9 (71.0) | 27.2 (51.9) | F(1,89)=4.0,p<.05 |

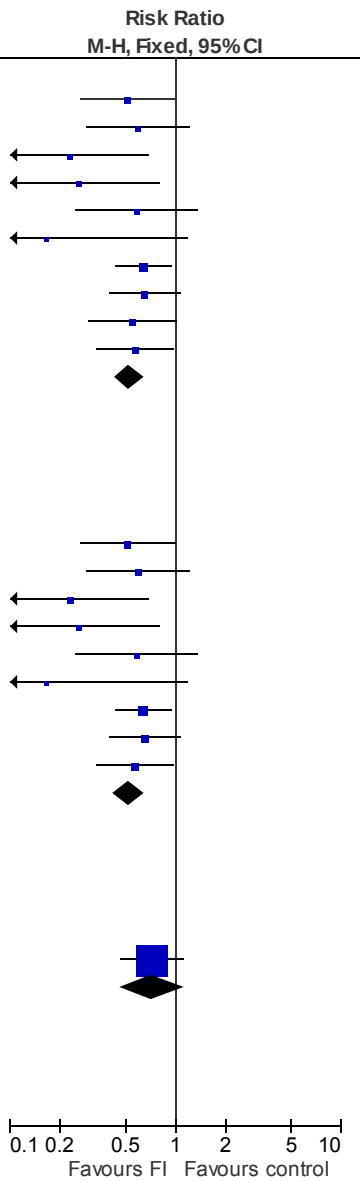
*3.10.3 up to 1 year FU*

| Study ID | FI: mean (SD) | Control: mean (SD) | F from ANCOVA |
|---|---|---|---|
| Dyck2000 | 14.0 (15.8) | 25.2 (33.5) | p>.05 |

# Psychological clinical evidence: Family intervention

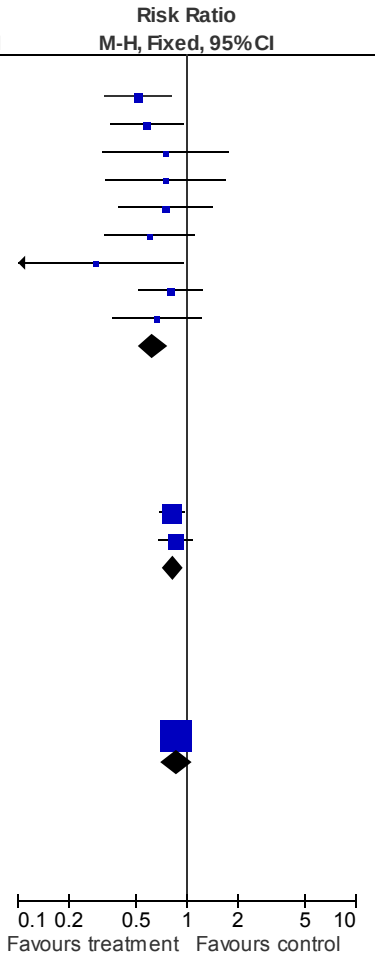
**3.11 Global state: 1. Relapse**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.11.1 1-12 months into treatment** | | | | | | |
| Barrowclough1999 | 9 | 38 | 18 | 39 | 10.7% | 0.51 [0.26, 1.00] |
| BRADLEY2006 | 8 | 30 | 13 | 29 | 8.0% | 0.59 [0.29, 1.22] |
| BRESSI2008 | 3 | 20 | 13 | 20 | 7.8% | 0.23 [0.08, 0.69] |
| Glynn1992 | 3 | 21 | 11 | 20 | 6.8% | 0.26 [0.08, 0.80] |
| Goldstein1978 | 7 | 52 | 12 | 52 | 7.2% | 0.58 [0.25, 1.36] |
| Leff1982 | 1 | 12 | 6 | 12 | 3.6% | 0.17 [0.02, 1.18] |
| RAN2003 | 22 | 57 | 32 | 53 | 20.0% | 0.64 [0.43, 0.95] |
| Tarrier1988 | 13 | 32 | 20 | 32 | 12.1% | 0.65 [0.40, 1.07] |
| VALENCIA2007* | 11 | 49 | 20 | 49 | 12.1% | 0.55 [0.30, 1.02] |
| Xiong1994 | 12 | 34 | 18 | 29 | 11.7% | 0.57 [0.33, 0.97] |
| **Subtotal (95% CI)** | | **345** | | **335** | **100.0%** | **0.53 [0.43, 0.65]** |
| Total events | 89 | | 163 | | | |
| Heterogeneity: Chi² = 6.96, df = 9 (P = 0.64); I² = 0% | | | | | | |
| Test for overall effect: Z = 6.11 (P < 0.00001) | | | | | | |
| **3.11.2 Sensitivity analysis removing multimodal studies** | | | | | | |
| Barrowclough1999 | 9 | 38 | 18 | 39 | 12.2% | 0.51 [0.26, 1.00] |
| BRADLEY2006 | 8 | 30 | 13 | 29 | 9.1% | 0.59 [0.29, 1.22] |
| BRESSI2008 | 3 | 20 | 13 | 20 | 8.9% | 0.23 [0.08, 0.69] |
| Glynn1992 | 3 | 21 | 11 | 20 | 7.7% | 0.26 [0.08, 0.80] |
| Goldstein1978 | 7 | 52 | 12 | 52 | 8.2% | 0.58 [0.25, 1.36] |
| Leff1982 | 1 | 12 | 6 | 12 | 4.1% | 0.17 [0.02, 1.18] |
| RAN2003 | 22 | 57 | 32 | 53 | 22.7% | 0.64 [0.43, 0.95] |
| Tarrier1988 | 13 | 32 | 20 | 32 | 13.7% | 0.65 [0.40, 1.07] |
| Xiong1994 | 12 | 34 | 18 | 29 | 13.3% | 0.57 [0.33, 0.97] |
| **Subtotal (95% CI)** | | **296** | | **286** | **100.0%** | **0.52 [0.42, 0.65]** |
| Total events | 78 | | 143 | | | |
| Heterogeneity: Chi² = 7.00, df = 8 (P = 0.54); I² = 0% | | | | | | |
| Test for overall effect: Z = 5.82 (P < 0.00001) | | | | | | |
| **3.11.3 13-24 months into treatment** | | | | | | |
| Xiong1994 | 16 | 34 | 19 | 29 | 100.0% | 0.72 [0.46, 1.12] |
| **Subtotal (95% CI)** | | **34** | | **29** | **100.0%** | **0.72 [0.46, 1.12]** |
| Total events | 16 | | 19 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.46 (P = 0.14) | | | | | | |



**3.12 Global state: 1. Relapse (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.12.1 FU (4-24 months) after end of treatment** | | | | | | |
| Barrowclough1999 | 14 | 38 | 28 | 39 | 20.6% | 0.51 [0.32, 0.81] |
| BRADLEY2006 | 12 | 30 | 20 | 29 | 15.1% | 0.58 [0.35, 0.96] |
| BRESSI2008 | 6 | 20 | 8 | 20 | 6.0% | 0.75 [0.32, 1.77] |
| CARRA2007 | 7 | 26 | 9 | 25 | 6.8% | 0.75 [0.33, 1.70] |
| Goldstein1978 | 12 | 52 | 16 | 52 | 11.9% | 0.75 [0.39, 1.43] |
| Leff1982 | 6 | 12 | 10 | 12 | 7.4% | 0.60 [0.32, 1.12] |
| LI2005 | 3 | 38 | 12 | 44 | 8.3% | 0.29 [0.09, 0.95] |
| Tarrier1988 | 16 | 32 | 20 | 32 | 14.9% | 0.80 [0.52, 1.24] |
| Vaughan1992 | 8 | 18 | 12 | 18 | 8.9% | 0.67 [0.36, 1.23] |
| **Subtotal (95% CI)** | | **266** | | **271** | **100.0%** | **0.63 [0.51, 0.77]** |
| Total events | 84 | | 135 | | | |
| Heterogeneity: Chi² = 4.34, df = 8 (P = 0.83); I² = 0% | | | | | | |
| Test for overall effect: Z = 4.49 (P < 0.00001) | | | | | | |
| **3.12.2 FU (5 years) after end of treatment** | | | | | | |
| Barrowclough1999 | 30 | 38 | 38 | 39 | 57.3% | 0.81 [0.68, 0.96] |
| Tarrier1988 | 24 | 32 | 28 | 32 | 42.7% | 0.86 [0.67, 1.09] |
| **Subtotal (95% CI)** | | **70** | | **71** | **100.0%** | **0.83 [0.72, 0.96]** |
| Total events | 54 | | 66 | | | |
| Heterogeneity: Chi² = 0.15, df = 1 (P = 0.70); I² = 0% | | | | | | |
| Test for overall effect: Z = 2.56 (P = 0.01) | | | | | | |
| **3.12.3 FU (7 years) after end of treatment** | | | | | | |
| Tarrier1988 | 25 | 32 | 29 | 32 | 100.0% | 0.86 [0.70, 1.07] |
| **Subtotal (95% CI)** | | **32** | | **32** | **100.0%** | **0.86 [0.70, 1.07]** |
| Total events | 25 | | 29 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.36 (P = 0.18) | | | | | | |

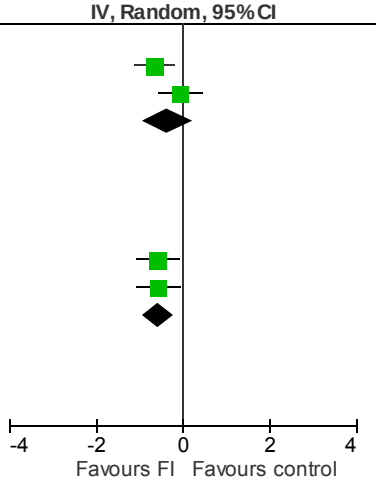



## 3.13 Global state: 2. Relapse-Kaplan-Meier survival curves for time to relapse (at end of treatment)

| Study ID | FI | Control | Statistics |
|---|---|---|---|
| BRADLEY2006 | 890 days | 642 days | log rank=5.22, df=1, p=.02 |

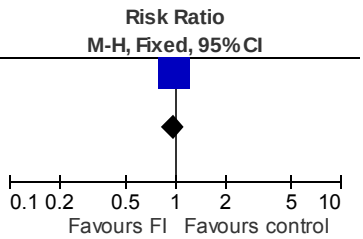
**3.14 Global state: 3. Global Assessment Scale, GAF (higher = better)**

| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.14.1 1-12 months into treatment** | | | | | | | | |
| Barrowclough1999 | -48.08 | 9.05 | 37 | -41.57 | 10.49 | 37 | 51.3% | -0.66 [-1.13, -0.19] |
| LI2005 | -77.1 | 10.2 | 31 | -76.4 | 13.6 | 29 | 48.7% | -0.06 [-0.56, 0.45] |
| **Subtotal (95% CI)** | | | **68** | | | **66** | **100.0%** | **-0.37 [-0.95, 0.22]** |
| Heterogeneity: Tau² = 0.12; Chi² = 2.90, df = 1 (P = 0.09); I² = 66% | | | | | | | | |
| Test for overall effect: Z = 1.22 (P = 0.22) | | | | | | | | |
| **3.14.2 FU (12 months) after end of treatment** | | | | | | | | |
| Barrowclough1999 | -48.5 | 8.81 | 34 | -42.67 | 10.88 | 30 | 51.5% | -0.59 [-1.09, -0.08] |
| LI2005 | -78 | 10.3 | 31 | -70.2 | 15.9 | 29 | 48.5% | -0.58 [-1.10, -0.06] |
| **Subtotal (95% CI)** | | | **65** | | | **59** | **100.0%** | **-0.58 [-0.94, -0.22]** |
| Heterogeneity: Tau² = 0.00; Chi² = 0.00, df = 1 (P = 0.98); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 3.17 (P = 0.002) | | | | | | | | |



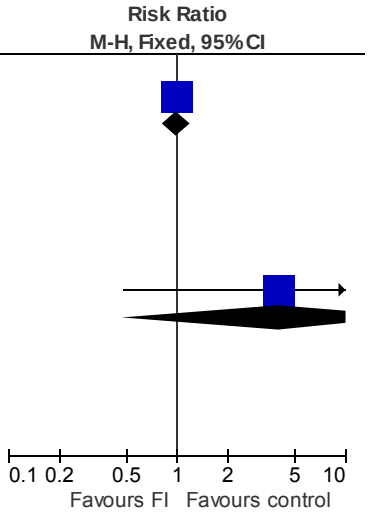

**3.15 Global state: 4. No significant improvement (worse-case scenario)**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| RAN2003 | 48 | 57 | 46 | 53 | 100.0% | 0.97 [0.83, 1.13] |
| **Total (95% CI)** | | **57** | | **53** | **100.0%** | **0.97 [0.83, 1.13]** |
| Total events | 48 | | 46 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.38 (P = 0.70) | | | | | | |



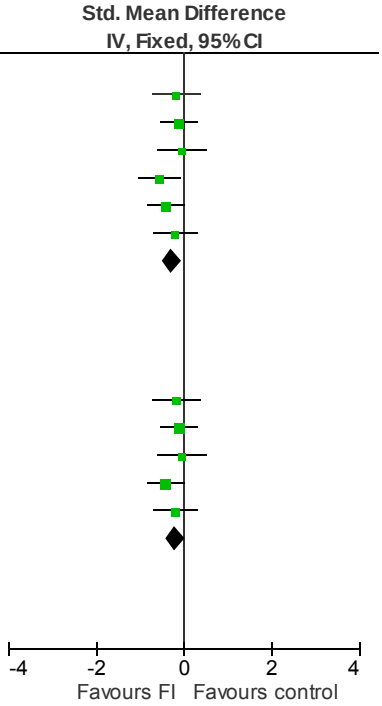

**3.16 Global state: 5. Non-remission/ non-recovery (worse-case scenario)**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.16.1 end of treatment (based on definition of recovery)** | | | | | | |
| RAN2003 | 45 | 57 | 42 | 53 | 100.0% | 1.00 [0.82, 1.21] |
| **Subtotal (95% CI)** | | **57** | | **53** | **100.0%** | **1.00 [0.82, 1.21]** |
| Total events | 45 | | 42 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.04 (P = 0.97) | | | | | | |
| **3.16.2 FU (12 months) after end of treatment (based on definition of partial remission)** | | | | | | |
| GARETY2008 | 4 | 28 | 1 | 28 | 100.0% | 4.00 [0.48, 33.58] |
| **Subtotal (95% CI)** | | **28** | | **28** | **100.0%** | **4.00 [0.48, 33.58]** |
| Total events | 4 | | 1 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.28 (P = 0.20) | | | | | | |



**3.17 Mental state: 1. Symptom severity - total symptoms (end of treatment) (lower = less severe)**

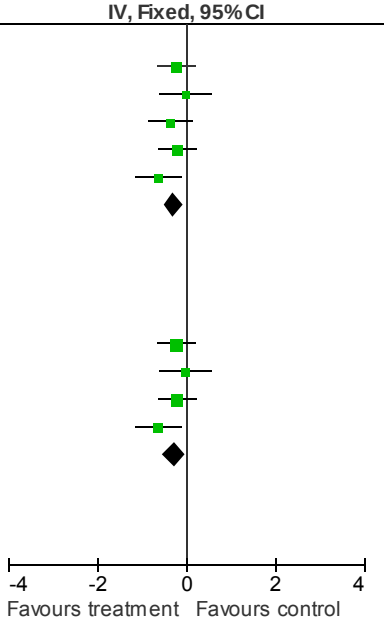
| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.17.1 end of treatment: Total symptoms (BPRS, PANSS)** | | | | | | | | |
| BRADLEY2006 | 44.12 | 8.82 | 25 | 46 | 10.44 | 25 | 12.8% | -0.19 [-0.75, 0.36] |
| CHIEN2007 | 10 | 4 | 42 | 10.5 | 4.1 | 42 | 21.6% | -0.12 [-0.55, 0.31] |
| GARETY2008 | 57.46 | 15.53 | 24 | 58.3 | 14.03 | 23 | 12.1% | -0.06 [-0.63, 0.52] |
| JENNER2004* | 52.5 | 15.3 | 35 | 62.4 | 18.9 | 34 | 17.0% | -0.57 [-1.05, -0.09] |
| KOPELOWICZ2003 | 51.9 | 14.7 | 39 | 58.2 | 14.8 | 45 | 21.1% | -0.42 [-0.86, 0.01] |
| LI2005 | 22.8 | 3.3 | 31 | 23.8 | 5.6 | 29 | 15.4% | -0.22 [-0.72, 0.29] |
| **Subtotal (95% CI)** | | | **196** | | | **198** | **100.0%** | **-0.28 [-0.48, -0.08]** |
| Heterogeneity: Chi² = 3.08, df = 5 (P = 0.69); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 2.73 (P = 0.006) | | | | | | | | |
| **3.17.2 Sensitivity analysis removing multimodal studies** | | | | | | | | |
| BRADLEY2006 | 44.12 | 8.82 | 25 | 46 | 10.44 | 25 | 15.5% | -0.19 [-0.75, 0.36] |
| CHIEN2007 | 10 | 4 | 42 | 10.5 | 4.1 | 42 | 26.1% | -0.12 [-0.55, 0.31] |
| GARETY2008 | 57.46 | 15.53 | 24 | 58.3 | 14.03 | 23 | 14.6% | -0.06 [-0.63, 0.52] |
| KOPELOWICZ2003 | 51.9 | 14.7 | 39 | 58.2 | 14.8 | 45 | 25.4% | -0.42 [-0.86, 0.01] |
| LI2005 | 22.8 | 3.3 | 31 | 23.8 | 5.6 | 29 | 18.5% | -0.22 [-0.72, 0.29] |
| **Subtotal (95% CI)** | | | **161** | | | **164** | **100.0%** | **-0.22 [-0.44, 0.00]** |
| Heterogeneity: Chi² = 1.37, df = 4 (P = 0.85); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.95 (P = 0.05) | | | | | | | | |




Test for subgroup differences: Chi² = 0.16, df = 1 (P = 0.69), I² = 0%

**3.18 Mental state: 1. Symptom severity - total symptoms (at FU) (lower = less severe)**

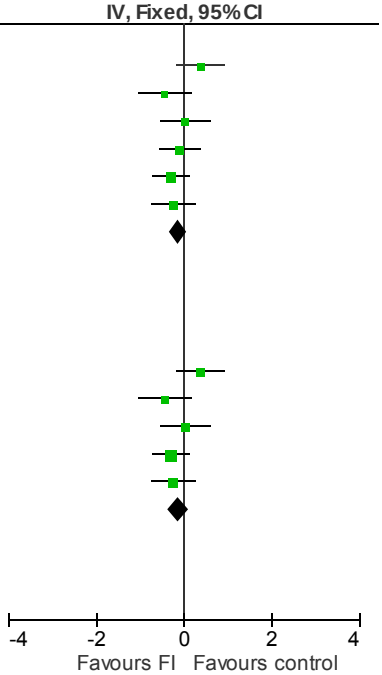
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.18.1 up to 12 months after end of treatment (PANSS, BPRS Total)** | | | | | | | | |
| CHIEN2007 | 9.7 | 4.8 | 42 | 10.9 | 4.9 | 42 | 25.4% | -0.25 [-0.67, 0.18] |
| GARETY2008 | 55.5 | 15.26 | 20 | 56.04 | 18.02 | 24 | 13.3% | -0.03 [-0.62, 0.56] |
| JENNER2004* | 51.1 | 15.8 | 31 | 57.3 | 17.4 | 32 | 18.8% | -0.37 [-0.87, 0.13] |
| KOPELOWICZ2003 | 54.3 | 12.8 | 39 | 57.6 | 15.7 | 45 | 25.3% | -0.23 [-0.66, 0.20] |
| LI2005 | 22.7 | 3.7 | 31 | 26.5 | 7.4 | 29 | 17.3% | -0.65 [-1.17, -0.13] |
| **Subtotal (95% CI)** | | | **163** | | | **172** | **100.0%** | **-0.30 [-0.52, -0.09]** |
| Heterogeneity: Chi² = 2.75, df = 4 (P = 0.60); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 2.76 (P = 0.006) | | | | | | | | |
| **3.18.2 Sensitivity analysis removing multimodal studies** | | | | | | | | |
| CHIEN2007 | 9.7 | 4.8 | 42 | 10.9 | 4.9 | 42 | 31.2% | -0.25 [-0.67, 0.18] |
| GARETY2008 | 55.5 | 15.26 | 20 | 56.04 | 18.02 | 24 | 16.4% | -0.03 [-0.62, 0.56] |
| KOPELOWICZ2003 | 54.3 | 12.8 | 39 | 57.6 | 15.7 | 45 | 31.1% | -0.23 [-0.66, 0.20] |
| LI2005 | 22.7 | 3.7 | 31 | 26.5 | 7.4 | 29 | 21.3% | -0.65 [-1.17, -0.13] |
| **Subtotal (95% CI)** | | | **132** | | | **140** | **100.0%** | **-0.29 [-0.53, -0.05]** |
| Heterogeneity: Chi² = 2.67, df = 3 (P = 0.45); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 2.37 (P = 0.02) | | | | | | | | |




Test for subgroup differences: Chi² = 0.01, df = 1 (P = 0.93), I² = 0%

**3.19 Mental state: 2. Symptom severity - negative symptoms (end of treatment) (lower = less severe)**

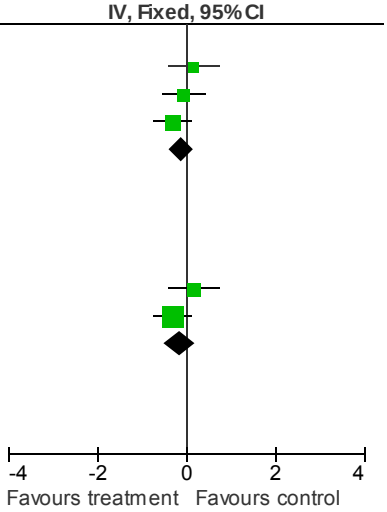
| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.19.1 up to 12 months into treatment: negative symptoms (SANS, BPRS, PANSS)** | | | | | | | | |
| BRADLEY2006 | 32.78 | 15.31 | 25 | 26.94 | 15.59 | 25 | 14.1% | 0.37 [-0.19, 0.93] |
| Dyck2000 | 7.2 | 2 | 21 | 8.4 | 3.1 | 21 | 11.7% | -0.45 [-1.06, 0.16] |
| GARETY2008 | 13.38 | 5.81 | 24 | 13.26 | 5.58 | 23 | 13.5% | 0.02 [-0.55, 0.59] |
| JENNER2004* | 11.8 | 6.9 | 35 | 12.6 | 7.2 | 34 | 19.8% | -0.11 [-0.58, 0.36] |
| KOPELOWICZ2003 | 16.2 | 6.4 | 39 | 18.2 | 6.7 | 45 | 23.7% | -0.30 [-0.73, 0.13] |
| MAGLIANO2006 | 2.2 | 1 | 36 | 2.5 | 1.3 | 26 | 17.2% | -0.26 [-0.77, 0.25] |
| **Subtotal (95% CI)** | | | **180** | | | **174** | **100.0%** | **-0.14 [-0.35, 0.07]** |
| Heterogeneity: Chi² = 5.28, df = 5 (P = 0.38); I² = 5% | | | | | | | | |
| Test for overall effect: Z = 1.27 (P = 0.20) | | | | | | | | |
| **3.19.2 Sensitivity analysis removing multimodal studies** | | | | | | | | |
| BRADLEY2006 | 32.78 | 15.31 | 25 | 26.94 | 15.59 | 25 | 17.6% | 0.37 [-0.19, 0.93] |
| Dyck2000 | 7.2 | 2 | 21 | 8.4 | 3.1 | 21 | 14.6% | -0.45 [-1.06, 0.16] |
| GARETY2008 | 13.38 | 5.81 | 24 | 13.26 | 5.58 | 23 | 16.8% | 0.02 [-0.55, 0.59] |
| KOPELOWICZ2003 | 16.2 | 6.4 | 39 | 18.2 | 6.7 | 45 | 29.6% | -0.30 [-0.73, 0.13] |
| MAGLIANO2006 | 2.2 | 1 | 36 | 2.5 | 1.3 | 26 | 21.4% | -0.26 [-0.77, 0.25] |
| **Subtotal (95% CI)** | | | **145** | | | **140** | **100.0%** | **-0.14 [-0.38, 0.09]** |
| Heterogeneity: Chi² = 5.27, df = 4 (P = 0.26); I² = 24% | | | | | | | | |
| Test for overall effect: Z = 1.19 (P = 0.23) | | | | | | | | |




Test for subgroup differences: Chi² = 0.00, df = 1 (P = 0.97), I² = 0%

**3.20 Mental State: 2. Symptom severity - negative symptoms (at FU) (lower = less severe)**

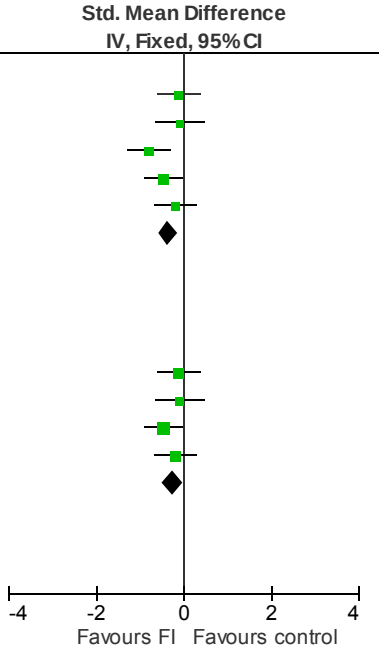
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.20.1 FU (up to 12 months) after end of treatment: negative symptoms (PANSS)** | | | | | | | | |
| GARETY2008 | 12.95 | 8.09 | 21 | 11.88 | 5.19 | 25 | 23.8% | 0.16 [-0.42, 0.74] |
| JENNER2004* | 11 | 6.3 | 31 | 11.4 | 6.1 | 32 | 33.0% | -0.06 [-0.56, 0.43] |
| KOPELOWICZ2003 | 16.8 | 5.6 | 39 | 18.8 | 6.9 | 45 | 43.2% | -0.31 [-0.74, 0.12] |
| **Subtotal (95% CI)** | | | **91** | | | **102** | **100.0%** | **-0.12 [-0.40, 0.16]** |
| Heterogeneity: Chi² = 1.70, df = 2 (P = 0.43); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.82 (P = 0.41) | | | | | | | | |
| **3.20.2 Sensitivity analysis removing multimodal studies** | | | | | | | | |
| GARETY2008 | 12.95 | 8.09 | 21 | 11.88 | 5.19 | 25 | 35.5% | 0.16 [-0.42, 0.74] |
| KOPELOWICZ2003 | 16.8 | 5.6 | 39 | 18.8 | 6.9 | 45 | 64.5% | -0.31 [-0.74, 0.12] |
| **Subtotal (95% CI)** | | | **60** | | | **70** | **100.0%** | **-0.15 [-0.49, 0.20]** |
| Heterogeneity: Chi² = 1.62, df = 1 (P = 0.20); I² = 38% | | | | | | | | |
| Test for overall effect: Z = 0.82 (P = 0.41) | | | | | | | | |




Test for subgroup differences: Chi² = 0.01, df = 1 (P = 0.91), I² = 0%

**3.21 Mental state: 3. Symptom severity - positive symptoms (end of treatment) (lower = less severe)**

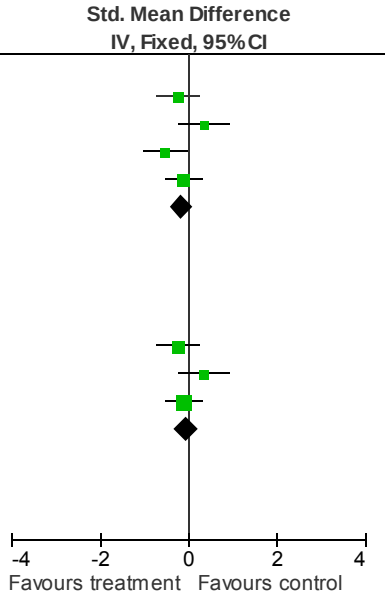
| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.21.1 up to 12 months into treatment: positive symptoms (PANSS, BPRS)** | | | | | | | | |
| CHIEN2004B | 10 | 4 | 32 | 10.5 | 4.1 | 31 | 19.7% | -0.12 [-0.62, 0.37] |
| GARETY2008 | 14.54 | 5.24 | 24 | 15.09 | 5.23 | 23 | 14.7% | -0.10 [-0.68, 0.47] |
| JENNER2004* | 11.9 | 3.9 | 35 | 15.9 | 5.9 | 34 | 20.0% | -0.79 [-1.28, -0.30] |
| KOPELOWICZ2003 | 10.9 | 4.9 | 39 | 13.3 | 5.3 | 45 | 25.5% | -0.46 [-0.90, -0.03] |
| MAGLIANO2006 | 2.1 | 1 | 36 | 2.3 | 0.9 | 29 | 20.1% | -0.21 [-0.70, 0.28] |
| **Subtotal (95% CI)** | | | **166** | | | **162** | **100.0%** | **-0.36 [-0.58, -0.14]** |
| Heterogeneity: Chi² = 5.25, df = 4 (P = 0.26); I² = 24% | | | | | | | | |
| Test for overall effect: Z = 3.19 (P = 0.001) | | | | | | | | |
| **3.21.2 Sensitivity analysis removing multimodal studies** | | | | | | | | |
| CHIEN2004B | 10 | 4 | 32 | 10.5 | 4.1 | 31 | 24.7% | -0.12 [-0.62, 0.37] |
| GARETY2008 | 14.54 | 5.24 | 24 | 15.09 | 5.23 | 23 | 18.4% | -0.10 [-0.68, 0.47] |
| KOPELOWICZ2003 | 10.9 | 4.9 | 39 | 13.3 | 5.3 | 45 | 31.9% | -0.46 [-0.90, -0.03] |
| MAGLIANO2006 | 2.1 | 1 | 36 | 2.3 | 0.9 | 29 | 25.1% | -0.21 [-0.70, 0.28] |
| **Subtotal (95% CI)** | | | **131** | | | **128** | **100.0%** | **-0.25 [-0.49, -0.00]** |
| Heterogeneity: Chi² = 1.48, df = 3 (P = 0.69); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.99 (P = 0.05) | | | | | | | | |




Test for subgroup differences: Chi² = 0.42, df = 1 (P = 0.52), I² = 0%

**3.22 Mental state: 3. Symptom severity - positive symptoms (at FU) (lower = less severe)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.22.1 up to 12 months after end of treatment: positive symptoms (PANSS, BPRS)** | | | | | | | | |
| CHIEN2004B | 9.7 | 4.8 | 32 | 10.9 | 4.9 | 31 | 24.8% | -0.24 [-0.74, 0.25] |
| GARETY2008 | 16.52 | 6.9 | 21 | 14.24 | 6.11 | 25 | 17.9% | 0.35 [-0.24, 0.93] |
| JENNER2004* | 11.2 | 4.4 | 31 | 14 | 5.8 | 32 | 24.1% | -0.54 [-1.04, -0.03] |
| KOPELOWICZ2003 | 11.4 | 5.8 | 39 | 12.1 | 5.7 | 45 | 33.2% | -0.12 [-0.55, 0.31] |
| **Subtotal (95% CI)** | | | **123** | | | **133** | **100.0%** | **-0.17 [-0.42, 0.08]** |
| Heterogeneity: Chi² = 5.16, df = 3 (P = 0.16); I² = 42% | | | | | | | | |
| Test for overall effect: Z = 1.33 (P = 0.18) | | | | | | | | |
| **3.22.2 Sensitivity analysis removing multimodal studies** | | | | | | | | |
| CHIEN2004B | 9.7 | 4.8 | 32 | 10.9 | 4.9 | 31 | 32.7% | -0.24 [-0.74, 0.25] |
| GARETY2008 | 16.52 | 6.9 | 21 | 14.24 | 6.11 | 25 | 23.5% | 0.35 [-0.24, 0.93] |
| KOPELOWICZ2003 | 11.4 | 5.8 | 39 | 12.1 | 5.7 | 45 | 43.7% | -0.12 [-0.55, 0.31] |
| **Subtotal (95% CI)** | | | **92** | | | **101** | **100.0%** | **-0.05 [-0.34, 0.23]** |
| Heterogeneity: Chi² = 2.45, df = 2 (P = 0.29); I² = 18% | | | | | | | | |
| Test for overall effect: Z = 0.35 (P = 0.72) | | | | | | | | |

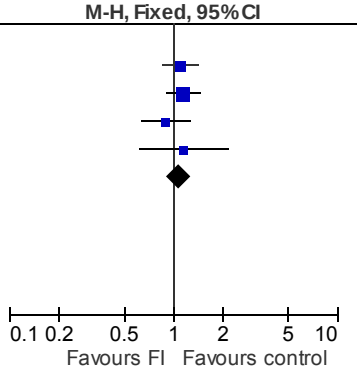



Test for subgroup differences: Chi² = 0.37, df = 1 (P = 0.54), I² = 0%

**3.23 Psychosocial functioning: 1. Unemployment**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.23.1 at 6-12 months** | | | | | | |
| BRADLEY2006 | 25 | 30 | 22 | 29 | 26.8% | 1.10 [0.85, 1.43] |
| Buchkremer1995 | 55 | 67 | 23 | 32 | 37.3% | 1.14 [0.89, 1.46] |
| Glynn1992 | 15 | 21 | 16 | 20 | 19.7% | 0.89 [0.63, 1.26] |
| RAN2003 | 16 | 57 | 13 | 53 | 16.2% | 1.14 [0.61, 2.15] |
| **Subtotal (95% CI)** | | **175** | | **134** | **100.0%** | **1.08 [0.91, 1.28]** |
| Total events | 111 | | 74 | | | |

Heterogeneity: Chi² = 1.40, df = 3 (P = 0.71); I² = 0%
Test for overall effect: Z = 0.91 (P = 0.36)



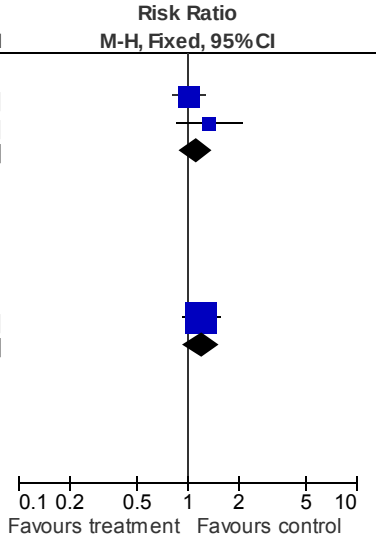

**3.24 Psychosocial functioning: 1. Unemployment (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.24.1 FU (12-18 months) after end of treatment** | | | | | | |
| BRADLEY2006 | 25 | 30 | 24 | 29 | 64.8% | 1.01 [0.80, 1.27] |
| CARRA2007 | 18 | 26 | 13 | 25 | 35.2% | 1.33 [0.84, 2.10] |
| **Subtotal (95% CI)** | | **56** | | **54** | **100.0%** | **1.12 [0.90, 1.40]** |
| Total events | 43 | | 37 | | | |

Heterogeneity: Chi² = 1.38, df = 1 (P = 0.24); I² = 28%
Test for overall effect: Z = 1.00 (P = 0.32)

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.24.2 FU (3 years) after end of treatment** | | | | | | |
| Buchkremer1995 | 55 | 67 | 22 | 32 | 100.0% | 1.19 [0.92, 1.55] |
| **Subtotal (95% CI)** | | **67** | | **32** | **100.0%** | **1.19 [0.92, 1.55]** |
| Total events | 55 | | 22 | | | |

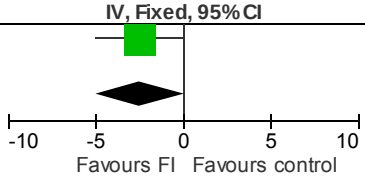
Heterogeneity: Not applicable
Test for overall effect: Z = 1.34 (P = 0.18)




**3.25 Psychosocial functioning: 2. Time in employment at one year**

| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| Xiong1994 | -5.6 | 5 | 33 | -3.1 | 5.1 | 28 | 100.0% | -2.50 [-5.05, 0.05] |
| **Total (95% CI)** | | | **33** | | | **28** | **100.0%** | **-2.50 [-5.05, 0.05]** |

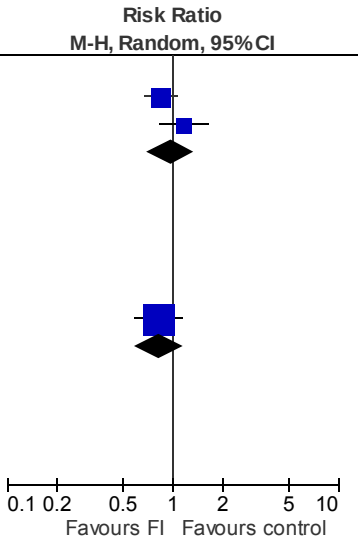
Heterogeneity: Not applicable
Test for overall effect: Z = 1.93 (P = 0.05)



# Psychological clinical evidence: Family intervention

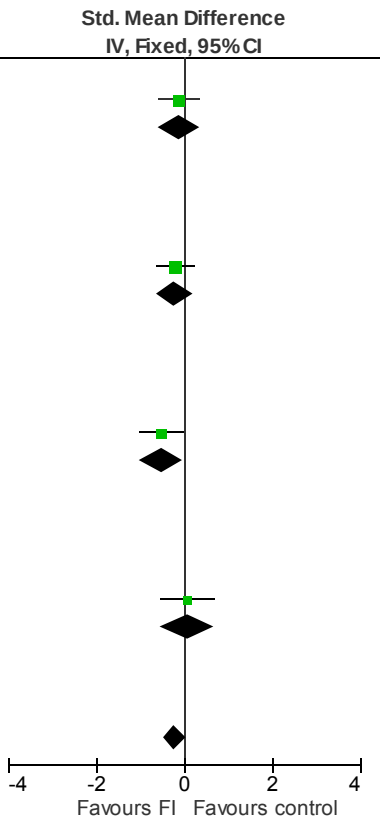
**3.26 Psychosocial functioning: 4. Not able to live independently**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **3.26.1 by 1 year** | | | | | | |
| Buchkremer1995 | 46 | 67 | 26 | 32 | 57.3% | 0.85 [0.67, 1.07] |
| LEAVEY2004 | 31 | 47 | 22 | 39 | 42.7% | 1.17 [0.83, 1.65] |
| **Subtotal (95% CI)** | | **114** | | **71** | **100.0%** | **0.97 [0.70, 1.35]** |
| Total events | 77 | | 48 | | | |
| Heterogeneity: Tau² = 0.03; Chi² = 2.55, df = 1 (P = 0.11); I² = 61% | | | | | | |
| Test for overall effect: Z = 0.18 (P = 0.86) | | | | | | |
| **3.26.2 by 3 years** | | | | | | |
| Buchkremer1995 | 36 | 67 | 21 | 32 | 100.0% | 0.82 [0.59, 1.14] |
| **Subtotal (95% CI)** | | **67** | | **32** | **100.0%** | **0.82 [0.59, 1.14]** |
| Total events | 36 | | 21 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.17 (P = 0.24) | | | | | | |



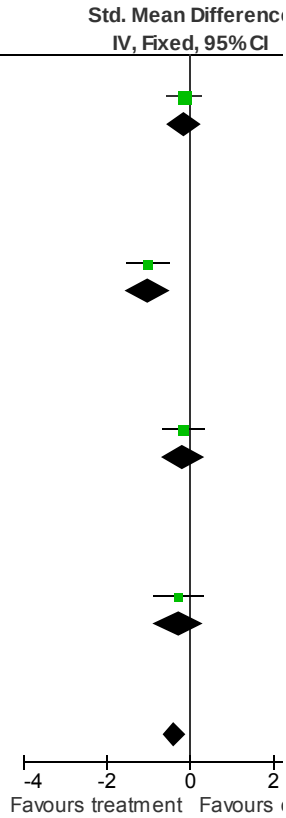
**3.27 Psychosocial functioning: 7. Social functioning (higher = better) (end of treatment)**

| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.27.1 1-12 months into treatment (Social Functioning Scale)** | | | | | | | | |
| Barrowclough1999 | -101.12 | 11.76 | 34 | -99.52 | 11.41 | 35 | 27.2% | -0.14 [-0.61, 0.34] |
| **Subtotal (95% CI)** | | | **34** | | | **35** | **27.2%** | **-0.14 [-0.61, 0.34]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.57 (P = 0.57) | | | | | | | | |
| **3.27.2 1-12 months into treatment (Independent Living Skills Survey)** | | | | | | | | |
| KOPELOWICZ2003 | -6.49 | 2.24 | 39 | -6.02 | 2.06 | 45 | 32.8% | -0.22 [-0.65, 0.21] |
| **Subtotal (95% CI)** | | | **39** | | | **45** | **32.8%** | **-0.22 [-0.65, 0.21]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.99 (P = 0.32) | | | | | | | | |
| **3.27.3 1-12 months into treatment (SLSF - social functioning sub-scale)** | | | | | | | | |
| CHIEN2004B | -46.1 | 16.1 | 32 | -38.5 | 12 | 31 | 24.0% | -0.53 [-1.03, -0.02] |
| **Subtotal (95% CI)** | | | **32** | | | **31** | **24.0%** | **-0.53 [-1.03, -0.02]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.06 (P = 0.04) | | | | | | | | |
| **3.27.4 1-12 months into treatment (Time Budget)** | | | | | | | | |
| GARETY2008 | -50.14 | 16.38 | 22 | -51.53 | 25.76 | 19 | 16.1% | 0.06 [-0.55, 0.68] |
| **Subtotal (95% CI)** | | | **22** | | | **19** | **16.1%** | **0.06 [-0.55, 0.68]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.20 (P = 0.84) | | | | | | | | |
| **Total (95% CI)** | | | **127** | | | **130** | **100.0%** | **-0.22 [-0.47, 0.02]** |
| Heterogeneity: Chi² = 2.38, df = 3 (P = 0.50); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.79 (P = 0.07) | | | | | | | | |
| Test for subgroup differences: Chi² = 2.38, df = 3 (P = 0.50), I² = 0% | | | | | | | | |



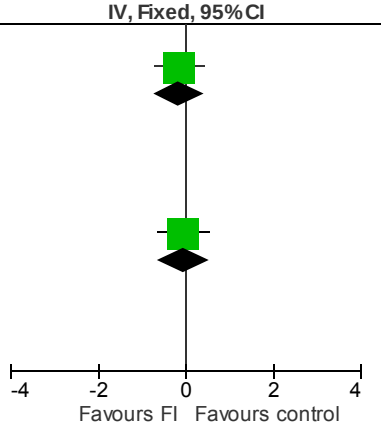
**3.28 Psychosocial functioning: 7. Social functioning (higher = better) (6-12 mths FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.28.1 FU (6 months) after end of treatment (Independent Living Skills Survey)** | | | | | | | | |
| KOPELOWICZ2003 | -6.41 | 2.66 | 39 | -6.06 | 2.19 | 45 | 34.7% | -0.14 [-0.57, 0.29] |
| **Subtotal (95% CI)** | | | **39** | | | **45** | **34.7%** | **-0.14 [-0.57, 0.29]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.65 (P = 0.51) | | | | | | | | |
| **3.28.2 FU (12 months) after end of treatment (Specific Level of Functioning Scale - social functioning sub-sca** | | | | | | | | |
| CHIEN2004B | -53.8 | 13.5 | 32 | -38 | 16.8 | 31 | 23.0% | -1.03 [-1.55, -0.50] |
| **Subtotal (95% CI)** | | | **32** | | | **31** | **23.0%** | **-1.03 [-1.55, -0.50]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.81 (P = 0.0001) | | | | | | | | |
| **3.28.3 FU (12 months) after end of treatment (Social Functioning Scale)** | | | | | | | | |
| Barrowclough1999 | -102.93 | 10.69 | 32 | -101.03 | 11.04 | 28 | 24.8% | -0.17 [-0.68, 0.34] |
| **Subtotal (95% CI)** | | | **32** | | | **28** | **24.8%** | **-0.17 [-0.68, 0.34]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.67 (P = 0.51) | | | | | | | | |
| **3.28.4 FU (12 months) after end of treatment (Time Budget)** | | | | | | | | |
| GARETY2008 | -59.79 | 20.03 | 19 | -53.54 | 23.7 | 24 | 17.5% | -0.28 [-0.88, 0.33] |
| **Subtotal (95% CI)** | | | **19** | | | **24** | **17.5%** | **-0.28 [-0.88, 0.33]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.90 (P = 0.37) | | | | | | | | |
| **Total (95% CI)** | | | **122** | | | **128** | **100.0%** | **-0.38 [-0.63, -0.12]** |
| Heterogeneity: Chi² = 7.68, df = 3 (P = 0.05); I² = 61% | | | | | | | | |
| Test for overall effect: Z = 2.92 (P = 0.003) | | | | | | | | |
| Test for subgroup differences: Chi² = 7.68, df = 3 (P = 0.05), I² = 60.9% | | | | | | | | |



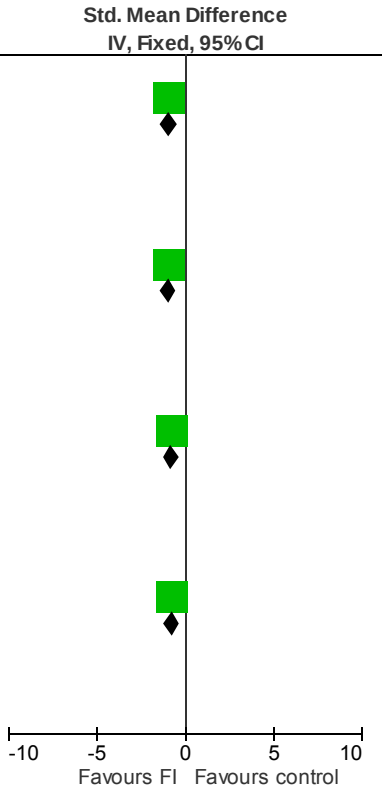

**3.29 Psychosocial functioning: 8. Social and Occupational Functioning Assessment Scale (higher = better) (FU)**

| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.29.1 end of treatment** | | | | | | | | |
| GARETY2008 | -55.58 | 13.09 | 24 | -53.26 | 14.96 | 23 | 100.0% | -0.16 [-0.74, 0.41] |
| **Subtotal (95% CI)** | | | **24** | | | **23** | **100.0%** | **-0.16 [-0.74, 0.41]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.56 (P = 0.58) | | | | | | | | |
| **3.29.2 FU (12 months) after end of treatment** | | | | | | | | |
| GARETY2008 | -58.37 | 20.26 | 19 | -57.04 | 16.83 | 25 | 100.0% | -0.07 [-0.67, 0.53] |
| **Subtotal (95% CI)** | | | **19** | | | **25** | **100.0%** | **-0.07 [-0.67, 0.53]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.23 (P = 0.82) | | | | | | | | |
| Test for subgroup differences: Chi² = 0.05, df = 1 (P = 0.83), I² = 0% | | | | | | | | |



**3.30 Psychosocial functioning: 9. Symptom management - skill acquisition (higher = better)**

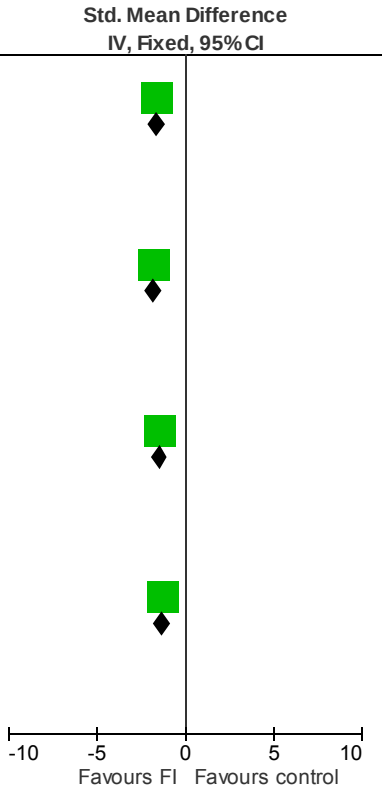
| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.30.1 1-12 months into treatment (Symptom Management Module)** | | | | | | | | |
| KOPELOWICZ2003 | -32.2 | 8.6 | 39 | -24.8 | 7.3 | 45 | 100.0% | -0.92 [-1.38, -0.47] |
| **Subtotal (95% CI)** | | | **39** | | | **45** | **100.0%** | **-0.92 [-1.38, -0.47]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 4.01 (P < 0.0001) | | | | | | | | |
| **3.30.2 1-12 months into treatment (Medication Management Module)** | | | | | | | | |
| KOPELOWICZ2003 | -24 | 6.6 | 39 | -17.9 | 6 | 45 | 100.0% | -0.96 [-1.42, -0.51] |
| **Subtotal (95% CI)** | | | **39** | | | **45** | **100.0%** | **-0.96 [-1.42, -0.51]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 4.15 (P < 0.0001) | | | | | | | | |
| **3.30.3 FU (6 months) after end of treatment (Symptom Management Module)** | | | | | | | | |
| KOPELOWICZ2003 | -31.9 | 8.4 | 39 | -25.5 | 7.7 | 45 | 100.0% | -0.79 [-1.24, -0.34] |
| **Subtotal (95% CI)** | | | **39** | | | **45** | **100.0%** | **-0.79 [-1.24, -0.34]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.47 (P = 0.0005) | | | | | | | | |
| **3.30.4 FU (6 months) after end of treatment (Medical Management Module)** | | | | | | | | |
| KOPELOWICZ2003 | -23.7 | 6.6 | 39 | -18.5 | 6.8 | 45 | 100.0% | -0.77 [-1.21, -0.32] |
| **Subtotal (95% CI)** | | | **39** | | | **45** | **100.0%** | **-0.77 [-1.21, -0.32]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.38 (P = 0.0007) | | | | | | | | |




Test for subgroup differences: Chi² = 0.53, df = 3 (P = 0.91), I² = 0%

**3.31 Psychosocial functioning: 11. Symptom management - skill generalisation (higher = better)**

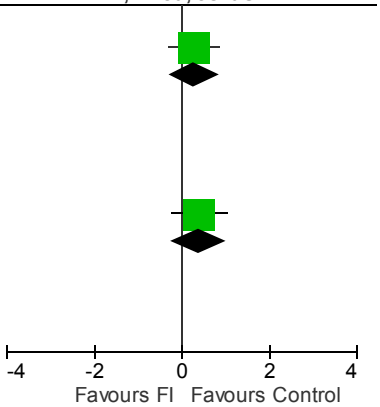
| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.31.1 1-12 months into treatment (Symptom Management Module)** | | | | | | | | |
| KOPELOWICZ2003 | -12.2 | 4.7 | 39 | -6 | 2.8 | 45 | 100.0% | -1.62 [-2.11, -1.12] |
| **Subtotal (95% CI)** | | | **39** | | | **45** | **100.0%** | **-1.62 [-2.11, -1.12]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 6.38 (P < 0.00001) | | | | | | | | |
| **3.31.2 1-12 months into treatment (Medication Management Module)** | | | | | | | | |
| KOPELOWICZ2003 | -30.2 | 6.1 | 39 | -21 | 3.9 | 45 | 100.0% | -1.81 [-2.32, -1.30] |
| **Subtotal (95% CI)** | | | **39** | | | **45** | **100.0%** | **-1.81 [-2.32, -1.30]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 6.92 (P < 0.00001) | | | | | | | | |
| **3.31.3 FU (6 months) after end of treatment (Symptom Management Module)** | | | | | | | | |
| KOPELOWICZ2003 | -11.4 | 4.8 | 39 | -5.9 | 2.4 | 45 | 100.0% | -1.47 [-1.95, -0.98] |
| **Subtotal (95% CI)** | | | **39** | | | **45** | **100.0%** | **-1.47 [-1.95, -0.98]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 5.93 (P < 0.00001) | | | | | | | | |
| **3.31.4 FU (6 months) after end of treatment (Medical Management Module)** | | | | | | | | |
| KOPELOWICZ2003 | -28.6 | 5.5 | 39 | -21.8 | 4.9 | 45 | 100.0% | -1.30 [-1.77, -0.83] |
| **Subtotal (95% CI)** | | | **39** | | | **45** | **100.0%** | **-1.30 [-1.77, -0.83]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 5.38 (P < 0.00001) | | | | | | | | |




Test for subgroup differences: Chi² = 2.22, df = 3 (P = 0.53), I² = 0%

**3.32 Quality of Life (higher = better)**

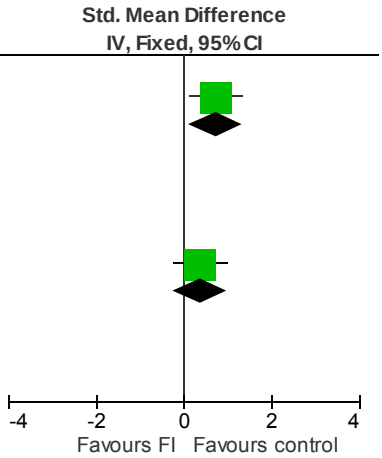
| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.32.1 at end of treatment (QOL scale: higher = better)** | | | | | | | | |
| BRADLEY2006 | -58.17 | 14.25 | 25 | -63.22 | 22.34 | 21 | 100.0% | 0.27 [-0.31, 0.85] |
| **Subtotal (95% CI)** | | | **25** | | | **21** | **100.0%** | **0.27 [-0.31, 0.85]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.91 (P = 0.36) | | | | | | | | |
| **3.32.2 FU (12 months) after end of treatment (EUROQOL: higher = better)** | | | | | | | | |
| GARETY2008 | -54.38 | 29.28 | 16 | -63.67 | 18.49 | 24 | 100.0% | 0.39 [-0.25, 1.03] |
| **Subtotal (95% CI)** | | | **16** | | | **24** | **100.0%** | **0.39 [-0.25, 1.03]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.20 (P = 0.23) | | | | | | | | |




Test for subgroup differences: Chi² = 0.07, df = 1 (P = 0.79), I² = 0%

**3.33 Depression: 1. BDI (lower = better)**

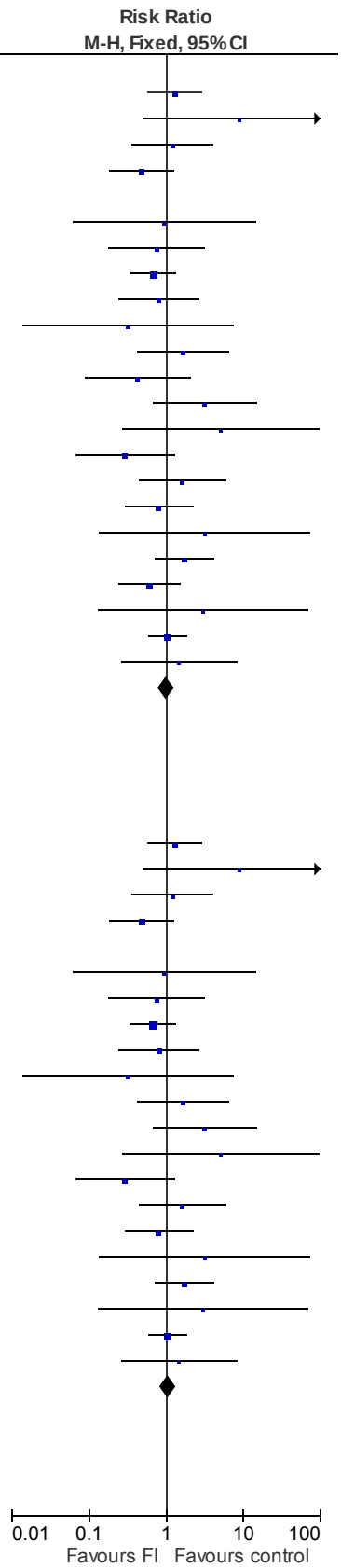
| | FI | | | Control | | | | Std. Mean Difference |
|---|---|---|---|---|---|---|---|---|
| **Study or Subgroup** | **Mean** | **SD** | **Total** | **Mean** | **SD** | **Total** | **Weight** | **IV, Fixed, 95% CI** |
| **3.33.1 end of treatment** | | | | | | | | |
| GARETY2008 | 20.87 | 13.32 | 23 | 12.05 | 10.66 | 21 | 100.0% | 0.71 [0.10, 1.33] |
| **Subtotal (95% CI)** | | | **23** | | | **21** | **100.0%** | **0.71 [0.10, 1.33]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.29 (P = 0.02) | | | | | | | | |
| **3.33.2 FU (12 months) after end of treatment** | | | | | | | | |
| GARETY2008 | 21.39 | 13.87 | 18 | 16.04 | 14.82 | 24 | 100.0% | 0.36 [-0.25, 0.98] |
| **Subtotal (95% CI)** | | | **18** | | | **24** | **100.0%** | **0.36 [-0.25, 0.98]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.16 (P = 0.25) | | | | | | | | |




Test for subgroup differences: Chi² = 0.62, df = 1 (P = 0.43), I² = 0%

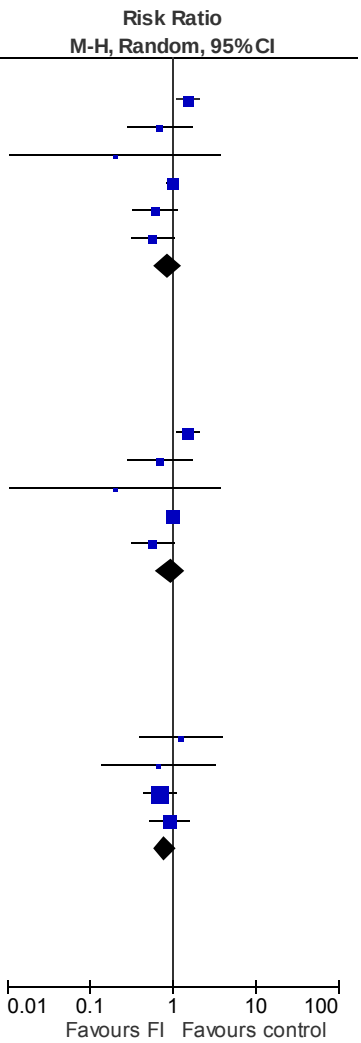
**3.34 Treatment acceptability: 1. Leaving the study early for any reason**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.34.1 At end of treatment** | | | | | | |
| Barrowclough1999 | 10 | 38 | 8 | 39 | 7.2% | 1.28 [0.57, 2.90] |
| Bloch1995 | 4 | 32 | 0 | 31 | 0.5% | 8.73 [0.49, 155.62] |
| BRADLEY2006 | 5 | 30 | 4 | 29 | 3.7% | 1.21 [0.36, 4.06] |
| Buchkremer1995 | 7 | 67 | 7 | 32 | 8.7% | 0.48 [0.18, 1.25] |
| CHIEN2004A | 0 | 24 | 0 | 24 | | Not estimable |
| CHIEN2004B | 1 | 33 | 1 | 31 | 0.9% | 0.94 [0.06, 14.38] |
| CHIEN2007 | 3 | 42 | 4 | 42 | 3.7% | 0.75 [0.18, 3.15] |
| Dyck2000 | 11 | 55 | 15 | 51 | 14.2% | 0.68 [0.35, 1.34] |
| GARETY2008 | 4 | 28 | 5 | 28 | 4.6% | 0.80 [0.24, 2.67] |
| Glynn1992 | 0 | 21 | 1 | 20 | 1.4% | 0.32 [0.01, 7.38] |
| Goldstein1978 | 5 | 52 | 3 | 52 | 2.7% | 1.67 [0.42, 6.62] |
| JENNER2004* | 2 | 37 | 5 | 39 | 4.4% | 0.42 [0.09, 2.04] |
| KOPELOWICZ2003 | 6 | 45 | 2 | 47 | 1.8% | 3.13 [0.67, 14.72] |
| Leff1982 | 2 | 12 | 0 | 12 | 0.5% | 5.00 [0.27, 94.34] |
| LI2005 | 2 | 38 | 8 | 44 | 6.8% | 0.29 [0.07, 1.28] |
| MAGLIANO2006 | 6 | 36 | 3 | 29 | 3.0% | 1.61 [0.44, 5.89] |
| RAN2003 | 6 | 57 | 7 | 53 | 6.6% | 0.80 [0.29, 2.22] |
| SO2006 | 1 | 22 | 0 | 23 | 0.4% | 3.13 [0.13, 72.99] |
| Tarrier1988 | 10 | 31 | 6 | 32 | 5.4% | 1.72 [0.71, 4.16] |
| VALENCIA2007* | 6 | 49 | 10 | 49 | 9.1% | 0.60 [0.24, 1.52] |
| Vaughan1992 | 1 | 18 | 0 | 18 | 0.5% | 3.00 [0.13, 69.09] |
| Xiong1994 | 15 | 34 | 12 | 28 | 12.0% | 1.03 [0.58, 1.82] |
| Zhang1994 | 3 | 42 | 2 | 41 | 1.8% | 1.46 [0.26, 8.31] |
| **Subtotal (95% CI)** | | **843** | | **794** | **100.0%** | **0.98 [0.77, 1.25]** |
| Total events | 110 | | 103 | | | |
| Heterogeneity: Chi² = 18.96, df = 21 (P = 0.59); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.13 (P = 0.89) | | | | | | |
| **3.34.2 Sensitivity analysis removing multimodal studies** | | | | | | |
| Barrowclough1999 | 10 | 38 | 8 | 39 | 8.3% | 1.28 [0.57, 2.90] |
| Bloch1995 | 4 | 32 | 0 | 31 | 0.5% | 8.73 [0.49, 155.62] |
| BRADLEY2006 | 5 | 30 | 4 | 29 | 4.3% | 1.21 [0.36, 4.06] |
| Buchkremer1995 | 7 | 67 | 7 | 32 | 10.0% | 0.48 [0.18, 1.25] |
| CHIEN2004A | 0 | 24 | 0 | 24 | | Not estimable |
| CHIEN2004B | 1 | 33 | 1 | 31 | 1.1% | 0.94 [0.06, 14.38] |
| CHIEN2007 | 3 | 42 | 4 | 42 | 4.2% | 0.75 [0.18, 3.15] |
| Dyck2000 | 11 | 55 | 15 | 51 | 16.5% | 0.68 [0.35, 1.34] |
| GARETY2008 | 4 | 28 | 5 | 28 | 5.3% | 0.80 [0.24, 2.67] |
| Glynn1992 | 0 | 21 | 1 | 20 | 1.6% | 0.32 [0.01, 7.38] |
| Goldstein1978 | 5 | 52 | 3 | 52 | 3.2% | 1.67 [0.42, 6.62] |
| KOPELOWICZ2003 | 6 | 45 | 2 | 47 | 2.1% | 3.13 [0.67, 14.72] |
| Leff1982 | 2 | 12 | 0 | 12 | 0.5% | 5.00 [0.27, 94.34] |
| LI2005 | 2 | 38 | 8 | 44 | 7.8% | 0.29 [0.07, 1.28] |
| MAGLIANO2006 | 6 | 36 | 3 | 29 | 3.5% | 1.61 [0.44, 5.89] |
| RAN2003 | 6 | 57 | 7 | 53 | 7.7% | 0.80 [0.29, 2.22] |
| SO2006 | 1 | 22 | 0 | 23 | 0.5% | 3.13 [0.13, 72.99] |
| Tarrier1988 | 10 | 31 | 6 | 32 | 6.2% | 1.72 [0.71, 4.16] |
| Vaughan1992 | 1 | 18 | 0 | 18 | 0.5% | 3.00 [0.13, 69.09] |
| Xiong1994 | 15 | 34 | 12 | 28 | 13.9% | 1.03 [0.58, 1.82] |
| Zhang1994 | 3 | 42 | 2 | 41 | 2.1% | 1.46 [0.26, 8.31] |
| **Subtotal (95% CI)** | | **757** | | **706** | **100.0%** | **1.05 [0.82, 1.36]** |
| Total events | 102 | | 88 | | | |
| Heterogeneity: Chi² = 16.76, df = 19 (P = 0.61); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.40 (P = 0.69) | | | | | | |



**3.35 Non-adherence to study medication**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **3.35.1 at end of treatment** | | | | | | |
| BRESSI2008 | 18 | 18 | 13 | 20 | 24.7% | 1.51 [1.09, 2.10] |
| KOPELOWICZ2003 | 6 | 39 | 10 | 45 | 11.3% | 0.69 [0.28, 1.73] |
| Leff1982 | 0 | 12 | 2 | 12 | 1.7% | 0.20 [0.01, 3.77] |
| RAN2003 | 47 | 57 | 44 | 53 | 28.2% | 0.99 [0.84, 1.18] |
| VALENCIA2007* | 11 | 49 | 18 | 49 | 16.7% | 0.61 [0.32, 1.16] |
| Zhang1994 | 11 | 42 | 19 | 41 | 17.4% | 0.57 [0.31, 1.04] |
| **Subtotal (95% CI)** | | **217** | | **220** | **100.0%** | **0.86 [0.58, 1.27]** |
| Total events | 93 | | 106 | | | |
| Heterogeneity: Tau² = 0.13; Chi² = 17.65, df = 5 (P = 0.003); I² = 72% | | | | | | |
| Test for overall effect: Z = 0.75 (P = 0.45) | | | | | | |
| **3.35.2 Sensitivity analysis removing multimodal studies** | | | | | | |
| BRESSI2008 | 18 | 18 | 13 | 20 | 29.9% | 1.51 [1.09, 2.10] |
| KOPELOWICZ2003 | 6 | 39 | 10 | 45 | 12.9% | 0.69 [0.28, 1.73] |
| Leff1982 | 0 | 12 | 2 | 12 | 1.8% | 0.20 [0.01, 3.77] |
| RAN2003 | 47 | 57 | 44 | 53 | 34.8% | 0.99 [0.84, 1.18] |
| Zhang1994 | 11 | 42 | 19 | 41 | 20.5% | 0.57 [0.31, 1.04] |
| **Subtotal (95% CI)** | | **168** | | **171** | **100.0%** | **0.93 [0.62, 1.40]** |
| Total events | 82 | | 88 | | | |
| Heterogeneity: Tau² = 0.12; Chi² = 13.47, df = 4 (P = 0.009); I² = 70% | | | | | | |
| Test for overall effect: Z = 0.35 (P = 0.73) | | | | | | |
| **3.35.3 at FU** | | | | | | |
| BRESSI2008 | 5 | 20 | 4 | 20 | 8.3% | 1.25 [0.39, 3.99] |
| Leff1982 | 2 | 12 | 3 | 12 | 4.4% | 0.67 [0.13, 3.30] |
| LI2005 | 15 | 38 | 25 | 44 | 50.7% | 0.69 [0.43, 1.11] |
| Vaughan1992 | 10 | 18 | 11 | 18 | 36.6% | 0.91 [0.52, 1.58] |
| **Subtotal (95% CI)** | | **88** | | **94** | **100.0%** | **0.80 [0.57, 1.12]** |
| Total events | 32 | | 43 | | | |
| Heterogeneity: Tau² = 0.00; Chi² = 1.17, df = 3 (P = 0.76); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.28 (P = 0.20) | | | | | | |

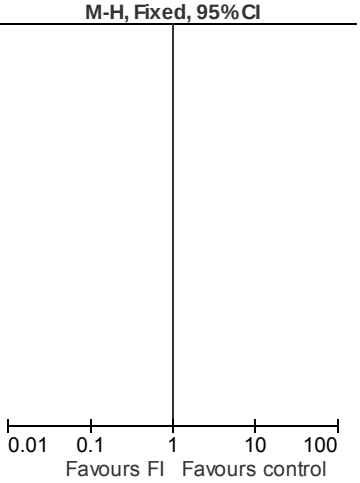



**4 Family intervention versus other active treatments (critical outcomes)**

# Psychological clinical evidence: Family intervention

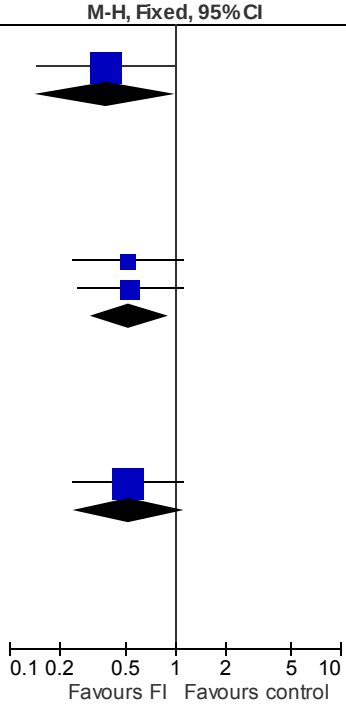
**4.1 Mortality**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **4.1.1 suicide** | | | | | | |
| GARETY2008 | 0 | 28 | 0 | 27 | | Not estimable |
| **Subtotal (95% CI)** | | **28** | | **27** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **4.1.2 other cause** | | | | | | |
| GARETY2008 | 0 | 28 | 0 | 27 | | Not estimable |
| **Subtotal (95% CI)** | | **28** | | **27** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |



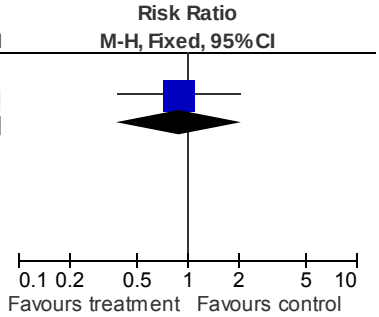

**4.2 Service outcomes: 1. Hospital admission (end of treatment)**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **4.2.1 1-12 months into treatment** | | | | | | |
| Falloon1981 | 4 | 20 | 10 | 19 | 100.0% | 0.38 [0.14, 1.01] |
| **Subtotal (95% CI)** | | **20** | | **19** | **100.0%** | **0.38 [0.14, 1.01]** |
| Total events | 4 | | 10 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.95 (P = 0.05) | | | | | | |
| **4.2.2 13-24 months into treatment** | | | | | | |
| Falloon1981 | 6 | 20 | 11 | 19 | 42.9% | 0.52 [0.24, 1.12] |
| Herz2000* | 8 | 41 | 15 | 41 | 57.1% | 0.53 [0.25, 1.12] |
| **Subtotal (95% CI)** | | **61** | | **60** | **100.0%** | **0.53 [0.31, 0.90]** |
| Total events | 14 | | 26 | | | |
| Heterogeneity: Chi² = 0.00, df = 1 (P = 0.96); I² = 0% | | | | | | |
| Test for overall effect: Z = 2.34 (P = 0.02) | | | | | | |
| **4.2.3 Sensitivity analysis removing multimodal studies** | | | | | | |
| Falloon1981 | 6 | 20 | 11 | 19 | 100.0% | 0.52 [0.24, 1.12] |
| **Subtotal (95% CI)** | | **20** | | **19** | **100.0%** | **0.52 [0.24, 1.12]** |
| Total events | 6 | | 11 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.67 (P = 0.09) | | | | | | |



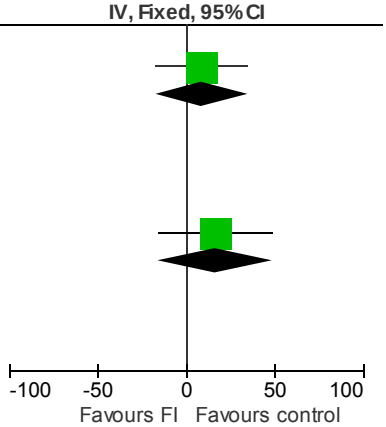
**4.3 Service outcomes: 1. Hospital admission (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **4.3.1 FU (up to 12 months) after end of treatment** | | | | | | |
| CARRA2007 | 6 | 26 | 13 | 50 | 100.0% | 0.89 [0.38, 2.06] |
| **Subtotal (95% CI)** | | **26** | | **50** | **100.0%** | **0.89 [0.38, 2.06]** |
| Total events | 6 | | 13 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.28 (P = 0.78) | | | | | | |




**4.4 Service outcomes: 2. Duration of rehospitalisation (days)**

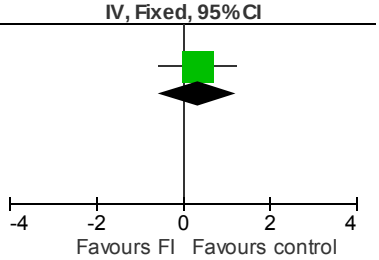
| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **4.4.1 end of treatment** | | | | | | | | |
| GARETY2008 | 29.67 | 46.18 | 27 | 21.07 | 51.55 | 27 | 100.0% | 8.60 [-17.51, 34.71] |
| **Subtotal (95% CI)** | | | **27** | | | **27** | **100.0%** | **8.60 [-17.51, 34.71]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.65 (P = 0.52) | | | | | | | | |
| **4.4.2 FU (up to 12 months) after end of treatment** | | | | | | | | |
| GARETY2008 | 30.33 | 73.39 | 27 | 14.07 | 44.06 | 27 | 100.0% | 16.26 [-16.03, 48.55] |
| **Subtotal (95% CI)** | | | **27** | | | **27** | **100.0%** | **16.26 [-16.03, 48.55]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.99 (P = 0.32) | | | | | | | | |




Test for subgroup differences: Chi² = 0.13, df = 1 (P = 0.72), I² = 0%

**4.5 Service outcomes: 3. Number of rehospitalisation**

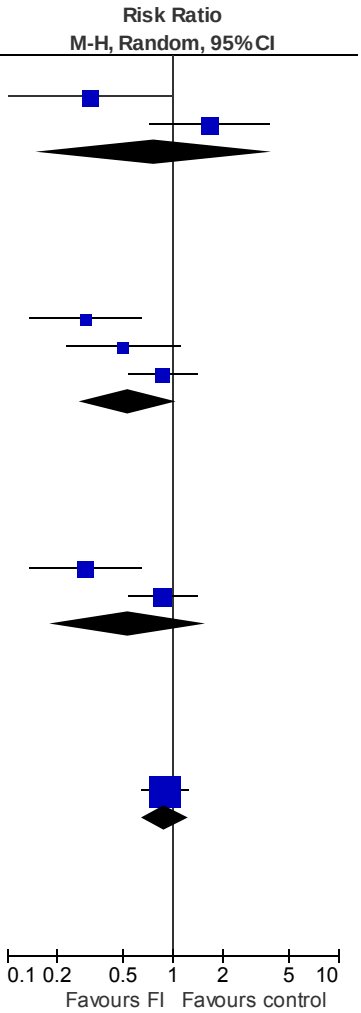
| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **4.5.2 FU (up to 12 months) after end of treatment** | | | | | | | | |
| GARETY2008 | 0.96 | 2.08 | 27 | 0.63 | 1.18 | 27 | 100.0% | 0.33 [-0.57, 1.23] |
| **Subtotal (95% CI)** | | | **27** | | | **27** | **100.0%** | **0.33 [-0.57, 1.23]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.72 (P = 0.47) | | | | | | | | |




Test for subgroup differences: Not applicable

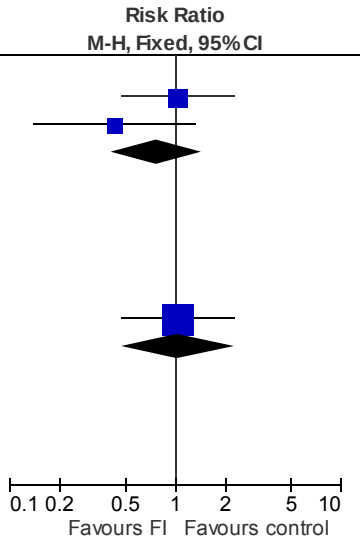
**4.6 Global state: 1. Relapse**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **4.6.1 1-12 months into treatment** | | | | | | |
| Falloon1981 | 3 | 20 | 9 | 19 | 47.2% | 0.32 [0.10, 1.00] |
| Hogarty1997 | 10 | 24 | 6 | 24 | 52.8% | 1.67 [0.72, 3.86] |
| **Subtotal (95% CI)** | | **44** | | **43** | **100.0%** | **0.76 [0.15, 3.91]** |
| Total events | 13 | | 15 | | | |
| Heterogeneity: Tau² = 1.14; Chi² = 5.33, df = 1 (P = 0.02); I² = 81% | | | | | | |
| Test for overall effect: Z = 0.33 (P = 0.74) | | | | | | |
| **4.6.2 13-24 months into treatment** | | | | | | |
| Falloon1981 | 5 | 20 | 16 | 19 | 30.1% | 0.30 [0.14, 0.65] |
| Herz2000* | 7 | 41 | 14 | 41 | 29.6% | 0.50 [0.23, 1.11] |
| Hogarty1997 | 13 | 24 | 15 | 24 | 40.3% | 0.87 [0.54, 1.40] |
| **Subtotal (95% CI)** | | **85** | | **84** | **100.0%** | **0.53 [0.27, 1.05]** |
| Total events | 25 | | 45 | | | |
| Heterogeneity: Tau² = 0.23; Chi² = 5.89, df = 2 (P = 0.05); I² = 66% | | | | | | |
| Test for overall effect: Z = 1.83 (P = 0.07) | | | | | | |
| **4.6.3 Sensitivity analysis removing multimodal studies** | | | | | | |
| Falloon1981 | 5 | 20 | 16 | 19 | 45.9% | 0.30 [0.14, 0.65] |
| Hogarty1997 | 13 | 24 | 15 | 24 | 54.1% | 0.87 [0.54, 1.40] |
| **Subtotal (95% CI)** | | **44** | | **43** | **100.0%** | **0.53 [0.18, 1.56]** |
| Total events | 18 | | 31 | | | |
| Heterogeneity: Tau² = 0.50; Chi² = 5.59, df = 1 (P = 0.02); I² = 82% | | | | | | |
| Test for overall effect: Z = 1.15 (P = 0.25) | | | | | | |
| **4.6.4 25-48 months into treatment** | | | | | | |
| Hogarty1997 | 17 | 24 | 19 | 24 | 100.0% | 0.89 [0.64, 1.24] |
| **Subtotal (95% CI)** | | **24** | | **24** | **100.0%** | **0.89 [0.64, 1.24]** |
| Total events | 17 | | 19 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.66 (P = 0.51) | | | | | | |



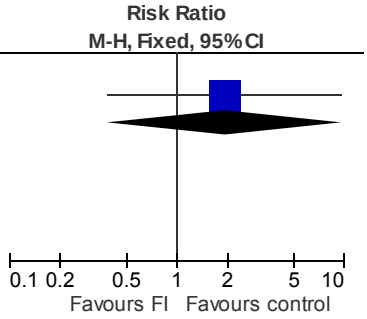
**4.7 Global state: 1. Relapse (at FU)**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **4.7.1 FU (12 months) after end of treatment** | | | | | | |
| CARRA2007 | 7 | 26 | 13 | 50 | 56.0% | 1.04 [0.47, 2.28] |
| Lukoff1986* | 3 | 14 | 7 | 14 | 44.0% | 0.43 [0.14, 1.33] |
| **Subtotal (95% CI)** | | **40** | | **64** | **100.0%** | **0.77 [0.41, 1.45]** |
| Total events | 10 | | 20 | | | |
| Heterogeneity: Chi² = 1.57, df = 1 (P = 0.21); I² = 36% | | | | | | |
| Test for overall effect: Z = 0.82 (P = 0.41) | | | | | | |
| **4.7.2 Sensitivity analysis removing multimodal studies** | | | | | | |
| CARRA2007 | 7 | 26 | 13 | 50 | 100.0% | 1.04 [0.47, 2.28] |
| **Subtotal (95% CI)** | | **26** | | **50** | **100.0%** | **1.04 [0.47, 2.28]** |
| Total events | 7 | | 13 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.09 (P = 0.93) | | | | | | |



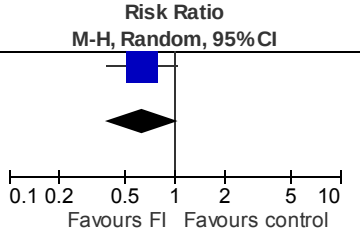

**4.8 Global state: 2. Non-remission/ non-recovery (worse-case scenario)**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **4.8.3 FU (12 months) after end of treatment (based on definition of partial remission)** | | | | | | |
| GARETY2008 | 4 | 28 | 2 | 27 | 100.0% | 1.93 [0.38, 9.68] |
| **Subtotal (95% CI)** | | **28** | | **27** | **100.0%** | **1.93 [0.38, 9.68]** |
| Total events | 4 | | 2 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.80 (P = 0.42) | | | | | | |



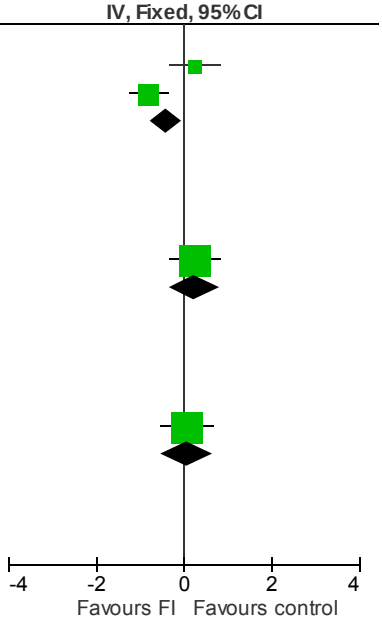

**4.9 Global state: 3. No significant improvement (worse-case scenario)**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| Falloon1981 | 10 | 20 | 15 | 19 | 100.0% | 0.63 [0.39, 1.04] |
| **Total (95% CI)** | | **20** | | **19** | **100.0%** | **0.63 [0.39, 1.04]** |
| Total events | 10 | | 15 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.81 (P = 0.07) | | | | | | |



**4.10 Mental state : 1. Symptom severity - total symptoms (end of treatment) (lower = less severe)**

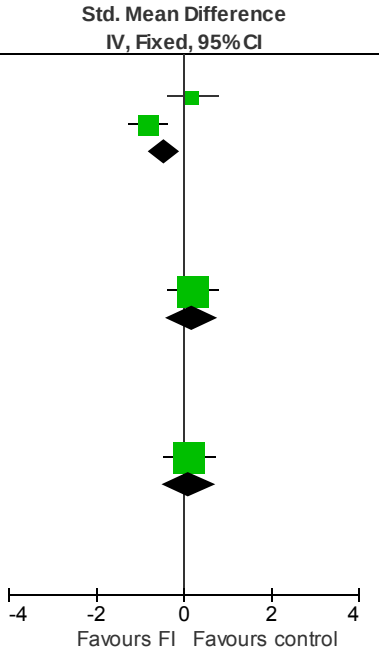
| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **4.10.1 End of treatment: general symptoms (PANSS Total)** | | | | | | | | |
| GARETY2008 | 57.46 | 15.53 | 24 | 54.09 | 12.49 | 21 | 37.1% | 0.23 [-0.35, 0.82] |
| VALENCIA2007* | 46.9 | 14.6 | 43 | 60.4 | 18.2 | 39 | 62.9% | -0.81 [-1.27, -0.36] |
| **Subtotal (95% CI)** | | | **67** | | | **60** | **100.0%** | **-0.43 [-0.78, -0.07]** |
| Heterogeneity: Chi² = 7.68, df = 1 (P = 0.006); I² = 87% | | | | | | | | |
| Test for overall effect: Z = 2.33 (P = 0.02) | | | | | | | | |
| **4.10.2 Sensitivity analysis removing multimodal studies** | | | | | | | | |
| GARETY2008 | 57.46 | 15.53 | 24 | 54.09 | 12.49 | 21 | 100.0% | 0.23 [-0.35, 0.82] |
| **Subtotal (95% CI)** | | | **24** | | | **21** | **100.0%** | **0.23 [-0.35, 0.82]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.78 (P = 0.44) | | | | | | | | |
| **4.10.3 FU (up to 12 months) after end of treatment (PANSS Total)** | | | | | | | | |
| GARETY2008 | 55.5 | 15.26 | 20 | 54.41 | 16.7 | 22 | 100.0% | 0.07 [-0.54, 0.67] |
| **Subtotal (95% CI)** | | | **20** | | | **22** | **100.0%** | **0.07 [-0.54, 0.67]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.22 (P = 0.83) | | | | | | | | |




Test for subgroup differences: Chi² = 4.34, df = 2 (P = 0.11), I² = 53.9%

**4.11 Mental state : 2. Symptom severity - negative symptoms (end of treatment) (lower = less severe)**

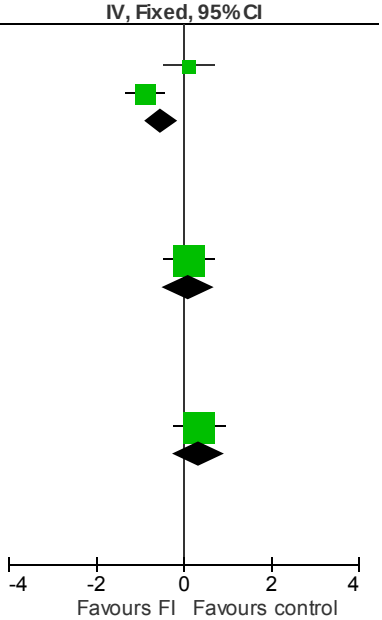
| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **4.11.1 End of treatment: negative symptoms (PANSS)** | | | | | | | | |
| GARETY2008 | 13.38 | 5.81 | 24 | 12.33 | 4.94 | 21 | 37.2% | 0.19 [-0.40, 0.78] |
| VALENCIA2007* | 13 | 5.7 | 43 | 17.9 | 6.2 | 39 | 62.8% | -0.82 [-1.27, -0.36] |
| **Subtotal (95% CI)** | | | **67** | | | **60** | **100.0%** | **-0.44 [-0.80, -0.08]** |
| Heterogeneity: Chi² = 7.10, df = 1 (P = 0.008); I² = 86% | | | | | | | | |
| Test for overall effect: Z = 2.42 (P = 0.02) | | | | | | | | |
| **4.11.2 Sensitivity analysis removing multimodal studies** | | | | | | | | |
| GARETY2008 | 13.38 | 5.81 | 24 | 12.33 | 4.94 | 21 | 100.0% | 0.19 [-0.40, 0.78] |
| **Subtotal (95% CI)** | | | **24** | | | **21** | **100.0%** | **0.19 [-0.40, 0.78]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.64 (P = 0.53) | | | | | | | | |
| **4.11.3 FU (up to 12 months) after end of treatment: negative symptoms (PANSS)** | | | | | | | | |
| GARETY2008 | 12.95 | 8.09 | 21 | 12.18 | 4.38 | 22 | 100.0% | 0.12 [-0.48, 0.72] |
| **Subtotal (95% CI)** | | | **21** | | | **22** | **100.0%** | **0.12 [-0.48, 0.72]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.38 (P = 0.70) | | | | | | | | |




Test for subgroup differences: Chi² = 4.53, df = 2 (P = 0.10), I² = 55.8%

**4.12 Mental state : 3. Symptom severity - positive symptoms (end of treatment) (lower = less severe)**

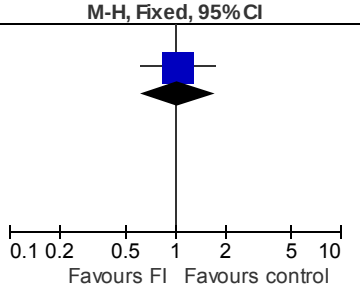
| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **4.12.1 End of treatment: positive symptoms (PANSS)** | | | | | | | | |
| GARETY2008 | 14.54 | 5.24 | 24 | 13.95 | 5.69 | 21 | 37.6% | 0.11 [-0.48, 0.69] |
| VALENCIA2007* | 9.7 | 3.1 | 43 | 13.2 | 4.6 | 39 | 62.4% | -0.89 [-1.35, -0.44] |
| **Subtotal (95% CI)** | | | **67** | | | **60** | **100.0%** | **-0.52 [-0.88, -0.16]** |
| Heterogeneity: Chi² = 6.95, df = 1 (P = 0.008); I² = 86% | | | | | | | | |
| Test for overall effect: Z = 2.81 (P = 0.005) | | | | | | | | |
| **4.12.2 Sensitivity analysis removing multimodal studies** | | | | | | | | |
| GARETY2008 | 14.54 | 5.24 | 24 | 13.95 | 5.69 | 21 | 100.0% | 0.11 [-0.48, 0.69] |
| **Subtotal (95% CI)** | | | **24** | | | **21** | **100.0%** | **0.11 [-0.48, 0.69]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.36 (P = 0.72) | | | | | | | | |
| **4.12.3 FU (12 months) after end of treatment: positive symptoms (PANSS)** | | | | | | | | |
| GARETY2008 | 16.52 | 6.9 | 21 | 14.23 | 6.41 | 22 | 100.0% | 0.34 [-0.26, 0.94] |
| **Subtotal (95% CI)** | | | **21** | | | **22** | **100.0%** | **0.34 [-0.26, 0.94]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.10 (P = 0.27) | | | | | | | | |




Test for subgroup differences: Chi² = 7.08, df = 2 (P = 0.03), I² = 71.8%

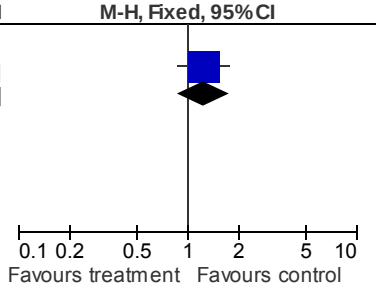
**4.13 Psychosocial functioning: 1. Unemployment**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **4.13.1 at 6-12 months** | | | | | | |
| Falloon1981 | 12 | 20 | 11 | 19 | 100.0% | 1.04 [0.61, 1.75] |
| **Subtotal (95% CI)** | | **20** | | **19** | **100.0%** | **1.04 [0.61, 1.75]** |
| Total events | 12 | | 11 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.13 (P = 0.89) | | | | | | |



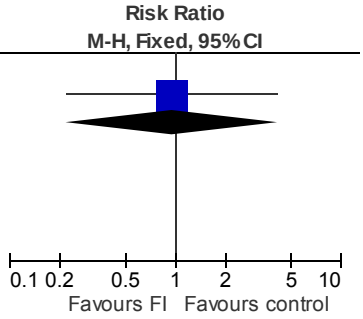

**4.14 Psychosocial functioning: 1. Unemployment - at FU**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **4.14.1 FU (up to 12 months) after end of treatment** | | | | | | |
| CARRA2007 | 18 | 26 | 28 | 50 | 100.0% | 1.24 [0.87, 1.76] |
| **Subtotal (95% CI)** | | **26** | | **50** | **100.0%** | **1.24 [0.87, 1.76]** |
| Total events | 18 | | 28 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.17 (P = 0.24) | | | | | | |



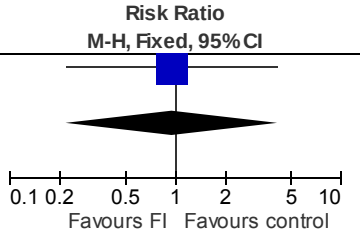
**4.15 Psychosocial functioning: 4. Not able to live independently**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **4.15.1 by 1 year** | | | | | | |
| Falloon1981 | 3 | 20 | 3 | 19 | 100.0% | 0.95 [0.22, 4.14] |
| **Subtotal (95% CI)** | | **20** | | **19** | **100.0%** | **0.95 [0.22, 4.14]** |
| Total events | 3 | | 3 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.07 (P = 0.95) | | | | | | |



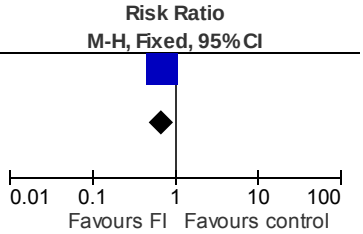

**4.16 Psychosocial functioning: 5. Imprisonment**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| Falloon1981 | 3 | 20 | 3 | 19 | 100.0% | 0.95 [0.22, 4.14] |
| **Total (95% CI)** | | **20** | | **19** | **100.0%** | **0.95 [0.22, 4.14]** |
| Total events | 3 | | 3 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.07 (P = 0.95) | | | | | | |



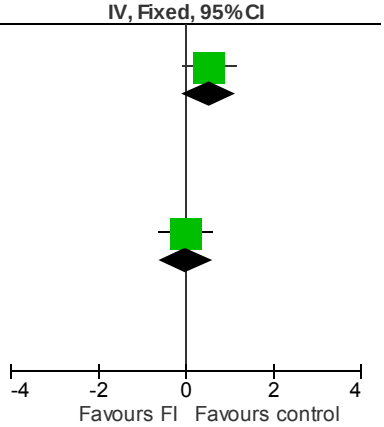

**4.17 Psychosocial functioning: 6. Social impairment**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| Falloon1981 | 13 | 20 | 18 | 19 | 100.0% | 0.69 [0.49, 0.96] |
| **Total (95% CI)** | | **20** | | **19** | **100.0%** | **0.69 [0.49, 0.96]** |
| Total events | 13 | | 18 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 2.18 (P = 0.03) | | | | | | |




**4.18 Psychosocial functioning: 7. Social functioning (higher = better)**

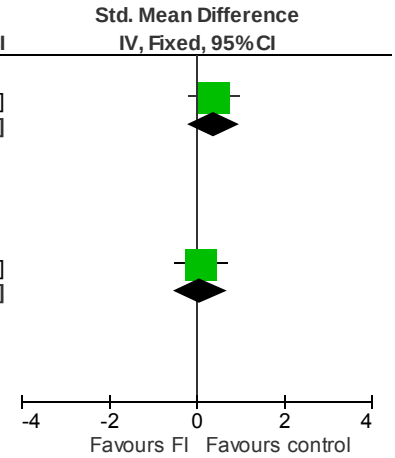
| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **4.18.1 At end of treatment (Time Budget)** | | | | | | | | |
| GARETY2008 | -50.14 | 16.38 | 22 | -62.16 | 28.22 | 19 | 100.0% | 0.52 [-0.10, 1.15] |
| **Subtotal (95% CI)** | | | **22** | | | **19** | **100.0%** | **0.52 [-0.10, 1.15]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.63 (P = 0.10) | | | | | | | | |
| **4.18.2 FU (12 months) after end of treatment (Time Budget)** | | | | | | | | |
| GARETY2008 | -59.79 | 20.03 | 19 | -59.67 | 18.1 | 21 | 100.0% | -0.01 [-0.63, 0.61] |
| **Subtotal (95% CI)** | | | **19** | | | **21** | **100.0%** | **-0.01 [-0.63, 0.61]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.02 (P = 0.98) | | | | | | | | |




Test for subgroup differences: Chi² = 1.38, df = 1 (P = 0.24), I² = 27.3%

**4.19 Psychosocial functioning: 8. Social and Occupational Functioning Assessment Scale (higher = better) (FU)**

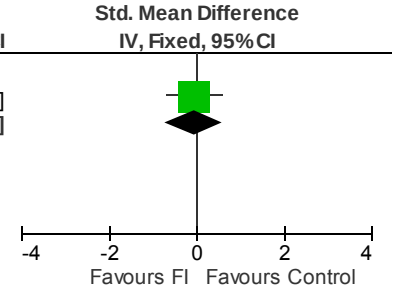
| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **4.19.1 end of treatment** | | | | | | | | |
| GARETY2008 | -55.58 | 13.09 | 24 | -60.91 | 13.83 | 21 | 100.0% | 0.39 [-0.20, 0.98] |
| **Subtotal (95% CI)** | | | **24** | | | **21** | **100.0%** | **0.39 [-0.20, 0.98]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.29 (P = 0.20) | | | | | | | | |
| **4.19.2 FU (12 months) after end of treatment** | | | | | | | | |
| GARETY2008 | -58.37 | 20.26 | 19 | -59.73 | 14.53 | 22 | 100.0% | 0.08 [-0.54, 0.69] |
| **Subtotal (95% CI)** | | | **19** | | | **22** | **100.0%** | **0.08 [-0.54, 0.69]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.24 (P = 0.81) | | | | | | | | |




Test for subgroup differences: Chi² = 0.52, df = 1 (P = 0.47), I² = 0%

**4.20 Quality of Life (higher = better)**

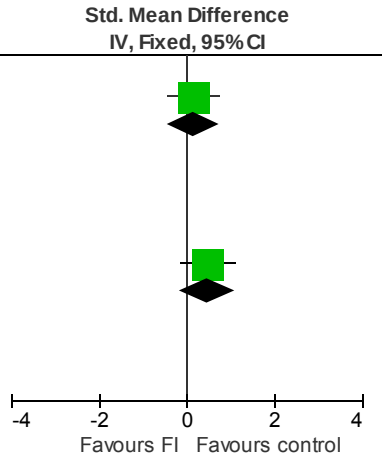
| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **4.20.2 FU (12 months) after end of treatment (EUROQOL: higher = better)** | | | | | | | | |
| GARETY2008 | -54.38 | 29.28 | 16 | -52.52 | 22.76 | 21 | 100.0% | -0.07 [-0.72, 0.58] |
| **Subtotal (95% CI)** | | | **16** | | | **21** | **100.0%** | **-0.07 [-0.72, 0.58]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.21 (P = 0.83) | | | | | | | | |




Test for subgroup differences: Not applicable

**4.21 Depression: 1. BDI (lower = better)**

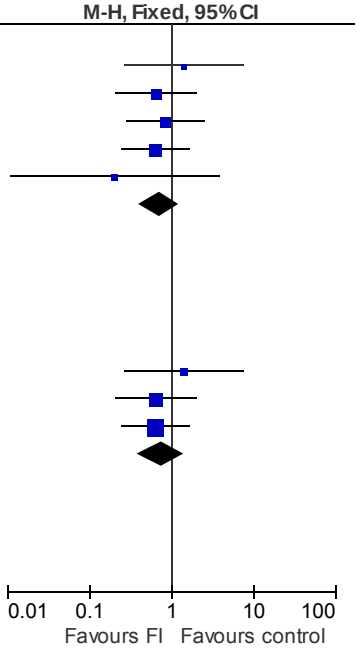
| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **4.21.1 end of treatment** | | | | | | | | |
| GARETY2008 | 20.87 | 13.32 | 23 | 18.75 | 14.33 | 20 | 100.0% | 0.15 [-0.45, 0.75] |
| **Subtotal (95% CI)** | | | **23** | | | **20** | **100.0%** | **0.15 [-0.45, 0.75]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.49 (P = 0.62) | | | | | | | | |
| **4.21.2 FU (12 months) after end of treatment** | | | | | | | | |
| GARETY2008 | 21.39 | 13.87 | 18 | 15.54 | 10.91 | 22 | 100.0% | 0.47 [-0.17, 1.10] |
| **Subtotal (95% CI)** | | | **18** | | | **22** | **100.0%** | **0.47 [-0.17, 1.10]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.44 (P = 0.15) | | | | | | | | |




Test for subgroup differences: Chi² = 0.50, df = 1 (P = 0.48), I² = 0%

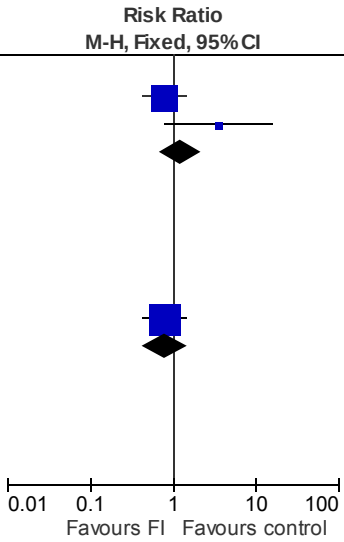
**4.22 Treatment acceptability: 1. Leaving the study early for any reason**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **4.22.1 At end of treatment** | | | | | | |
| Falloon1981 | 3 | 20 | 2 | 19 | 8.3% | 1.43 [0.27, 7.61] |
| GARETY2008 | 4 | 28 | 6 | 27 | 24.8% | 0.64 [0.20, 2.03] |
| Herz2000* | 5 | 41 | 6 | 41 | 24.3% | 0.83 [0.28, 2.52] |
| Hogarty1997 | 5 | 24 | 8 | 24 | 32.4% | 0.63 [0.24, 1.64] |
| Lukoff1986* | 0 | 14 | 2 | 14 | 10.1% | 0.20 [0.01, 3.82] |
| **Subtotal (95% CI)** | | **127** | | **125** | **100.0%** | **0.70 [0.40, 1.23]** |
| Total events | 17 | | 24 | | | |
| Heterogeneity: Chi² = 1.55, df = 4 (P = 0.82); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.24 (P = 0.22) | | | | | | |
| **4.22.2 Sensitivity analysis removing multimodal studies** | | | | | | |
| Falloon1981 | 3 | 20 | 2 | 19 | 12.7% | 1.43 [0.27, 7.61] |
| GARETY2008 | 4 | 28 | 6 | 27 | 37.8% | 0.64 [0.20, 2.03] |
| Hogarty1997 | 5 | 24 | 8 | 24 | 49.5% | 0.63 [0.24, 1.64] |
| **Subtotal (95% CI)** | | **72** | | **70** | **100.0%** | **0.73 [0.38, 1.43]** |
| Total events | 12 | | 16 | | | |
| Heterogeneity: Chi² = 0.76, df = 2 (P = 0.68); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.91 (P = 0.36) | | | | | | |




**4.23 Non-adherence to study medication**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **4.23.1 at end of treatment** | | | | | | |
| Falloon1981 | 9 | 20 | 11 | 19 | 84.9% | 0.78 [0.42, 1.44] |
| Herz2000* | 7 | 41 | 2 | 41 | 15.1% | 3.50 [0.77, 15.85] |
| **Subtotal (95% CI)** | | **61** | | **60** | **100.0%** | **1.19 [0.67, 2.11]** |
| Total events | 16 | | 13 | | | |
| Heterogeneity: Chi² = 3.77, df = 1 (P = 0.05); I² = 73% | | | | | | |
| Test for overall effect: Z = 0.58 (P = 0.56) | | | | | | |
| **4.23.2 Sensitivity analysis removing multimodal studies** | | | | | | |
| Falloon1981 | 9 | 20 | 11 | 19 | 100.0% | 0.78 [0.42, 1.44] |
| **Subtotal (95% CI)** | | **20** | | **19** | **100.0%** | **0.78 [0.42, 1.44]** |
| Total events | 9 | | 11 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.80 (P = 0.42) | | | | | | |

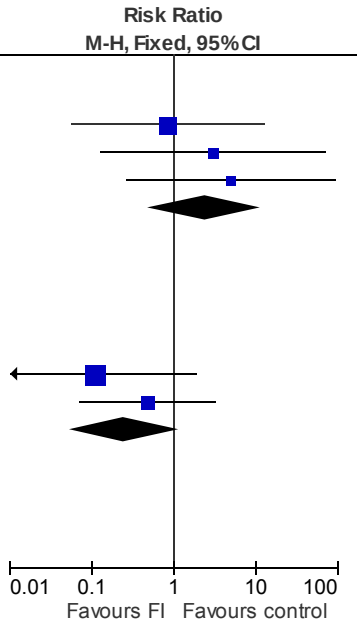


# Psychological clinical evidence: Family intervention (subgroup analyses)

**1 Family intervention versus other active treatments - subgroup analysis by service user participation**

**1.1 Mortality**

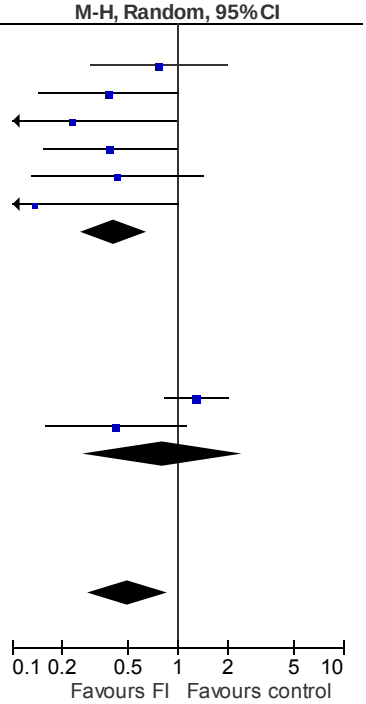
| | FI | | Control | | | Risk Ratio |
|---|---|---|---|---|---|---|
| **Study or Subgroup** | **Events** | **Total** | **Events** | **Total** | **Weight** | **M-H, Fixed, 95% CI** |
| **1.1.1 suicide (service user included in FI)** | | | | | | |
| GARETY2008 | 0 | 28 | 0 | 28 | | Not estimable |
| Xiong1994 | 1 | 34 | 1 | 29 | 51.9% | 0.85 [0.06, 13.04] |
| Tarrier1988 | 1 | 32 | 0 | 32 | 24.0% | 3.00 [0.13, 71.00] |
| Leff1982 | 2 | 12 | 0 | 12 | 24.0% | 5.00 [0.27, 94.34] |
| **Subtotal (95% CI)** | | **106** | | **101** | **100.0%** | **2.37 [0.49, 11.54]** |
| Total events | 4 | | 1 | | | |
| Heterogeneity: Chi² = 0.81, df = 2 (P = 0.67); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.07 (P = 0.29) | | | | | | |
| **1.1.2 suicide (service user excluded from FI)** | | | | | | |
| Vaughan1992 | 0 | 18 | 4 | 18 | 62.4% | 0.11 [0.01, 1.92] |
| Buchkremer1995 | 2 | 67 | 2 | 32 | 37.6% | 0.48 [0.07, 3.24] |
| **Subtotal (95% CI)** | | **85** | | **50** | **100.0%** | **0.25 [0.05, 1.17]** |
| Total events | 2 | | 6 | | | |
| Heterogeneity: Chi² = 0.75, df = 1 (P = 0.39); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.76 (P = 0.08) | | | | | | |



# Psychological clinical evidence: Family intervention (subgroup analyses)

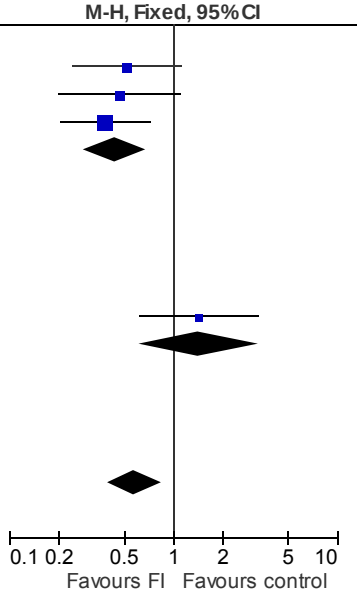
**1.2 Service outcomes: 1. Hospital admission (1-12 months into treatment)**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **1.2.1 1-12 months into treatment (service user included in FI)** | | | | | | |
| Barrowclough1999 | 6 | 38 | 8 | 39 | 13.6% | 0.77 [0.29, 2.01] |
| Falloon1981 | 4 | 20 | 10 | 19 | 13.4% | 0.38 [0.14, 1.01] |
| KOPELOWICZ2003 | 2 | 39 | 10 | 45 | 9.0% | 0.23 [0.05, 0.99] |
| Xiong1994 | 5 | 34 | 11 | 29 | 13.9% | 0.39 [0.15, 0.99] |
| BRESSI2008 | 3 | 20 | 7 | 20 | 11.1% | 0.43 [0.13, 1.43] |
| Glynn1992 | 1 | 21 | 7 | 20 | 5.8% | 0.14 [0.02, 1.01] |
| **Subtotal (95% CI)** | | **172** | | **172** | **66.9%** | **0.41 [0.26, 0.65]** |
| Total events | 21 | | 53 | | | |
| Heterogeneity: Tau² = 0.00; Chi² = 3.53, df = 5 (P = 0.62); I² = 0% | | | | | | |
| Test for overall effect: Z = 3.76 (P = 0.0002) | | | | | | |
| **1.2.2 1-12 months into treatment (service user excluded from FI)** | | | | | | |
| Buchkremer1995 | 38 | 67 | 14 | 32 | 19.8% | 1.30 [0.83, 2.02] |
| Dyck2000 | 5 | 55 | 11 | 51 | 13.3% | 0.42 [0.16, 1.13] |
| **Subtotal (95% CI)** | | **122** | | **83** | **33.1%** | **0.80 [0.26, 2.47]** |
| Total events | 43 | | 25 | | | |
| Heterogeneity: Tau² = 0.52; Chi² = 4.39, df = 1 (P = 0.04); I² = 77% | | | | | | |
| Test for overall effect: Z = 0.38 (P = 0.70) | | | | | | |
| **Total (95% CI)** | | **294** | | **255** | **100.0%** | **0.49 [0.28, 0.87]** |
| Total events | 64 | | 78 | | | |
| Heterogeneity: Tau² = 0.36; Chi² = 18.07, df = 7 (P = 0.01); I² = 61% | | | | | | |
| Test for overall effect: Z = 2.45 (P = 0.01) | | | | | | |



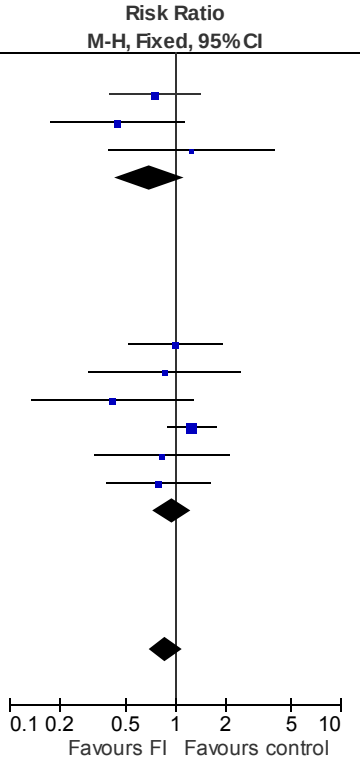

**1.3 Service outcomes: 1. Hospital admission (13-24 months into treatment)**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.3.3 13-24 months into treatment (service user included in FI)** | | | | | | |
| Falloon1981 | 6 | 20 | 11 | 19 | 20.9% | 0.52 [0.24, 1.12] |
| Xiong1994 | 6 | 34 | 11 | 29 | 22.0% | 0.47 [0.20, 1.10] |
| Zhang1994 | 9 | 42 | 23 | 41 | 43.0% | 0.38 [0.20, 0.72] |
| **Subtotal (95% CI)** | | **96** | | **89** | **85.9%** | **0.44 [0.28, 0.67]** |
| Total events | 21 | | 45 | | | |
| Heterogeneity: Chi² = 0.38, df = 2 (P = 0.83); I² = 0% | | | | | | |
| Test for overall effect: Z = 3.79 (P = 0.0001) | | | | | | |
| **1.3.4 13-24 months into treatment (service user excluded from FI)** | | | | | | |
| Dyck2000 | 12 | 53 | 7 | 44 | 14.1% | 1.42 [0.61, 3.30] |
| **Subtotal (95% CI)** | | **53** | | **44** | **14.1%** | **1.42 [0.61, 3.30]** |
| Total events | 12 | | 7 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.82 (P = 0.41) | | | | | | |
| **Total (95% CI)** | | **149** | | **133** | **100.0%** | **0.58 [0.40, 0.83]** |
| Total events | 33 | | 52 | | | |
| Heterogeneity: Chi² = 6.33, df = 3 (P = 0.10); I² = 53% | | | | | | |
| Test for overall effect: Z = 2.92 (P = 0.004) | | | | | | |



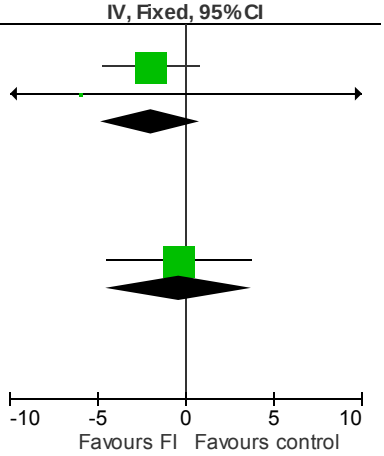
**1.4 Service outcomes: 1. Hospital admission (at FU)**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.4.1 FU (up to 2 years) after end of treatment (service user included in FI)** | | | | | | |
| Barrowclough1999 | 11 | 38 | 15 | 39 | 15.1% | 0.75 [0.40, 1.42] |
| KOPELOWICZ2003 | 5 | 39 | 13 | 45 | 12.3% | 0.44 [0.17, 1.13] |
| BRESSI2008 | 5 | 20 | 4 | 20 | 4.1% | 1.25 [0.39, 3.99] |
| **Subtotal (95% CI)** | | **97** | | **104** | **31.6%** | **0.70 [0.43, 1.12]** |
| Total events | 21 | | 32 | | | |
| Heterogeneity: Chi² = 1.92, df = 2 (P = 0.38); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.49 (P = 0.14) | | | | | | |
| **1.4.2 FU (up to 2 years) after end of treatment (service user excluded from FI)** | | | | | | |
| Vaughan1992 | 9 | 18 | 9 | 18 | 9.2% | 1.00 [0.52, 1.92] |
| LEAVEY2004 | 6 | 57 | 6 | 49 | 6.6% | 0.86 [0.30, 2.49] |
| Dyck2000 | 4 | 53 | 8 | 44 | 8.9% | 0.42 [0.13, 1.29] |
| Buchkremer1995 | 47 | 67 | 18 | 32 | 24.9% | 1.25 [0.88, 1.76] |
| CARRA2007 | 6 | 26 | 7 | 25 | 7.3% | 0.82 [0.32, 2.11] |
| Bloch1995 | 9 | 32 | 11 | 31 | 11.4% | 0.79 [0.38, 1.64] |
| **Subtotal (95% CI)** | | **253** | | **199** | **68.4%** | **0.95 [0.73, 1.23]** |
| Total events | 81 | | 59 | | | |
| Heterogeneity: Chi² = 4.89, df = 5 (P = 0.43); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.41 (P = 0.68) | | | | | | |
| **Total (95% CI)** | | **350** | | **303** | **100.0%** | **0.87 [0.69, 1.09]** |
| Total events | 102 | | 91 | | | |
| Heterogeneity: Chi² = 8.71, df = 8 (P = 0.37); I² = 8% | | | | | | |
| Test for overall effect: Z = 1.20 (P = 0.23) | | | | | | |




**1.5 Service outcomes: 2. Duration of rehospitalisation (days) (end of treatment)**

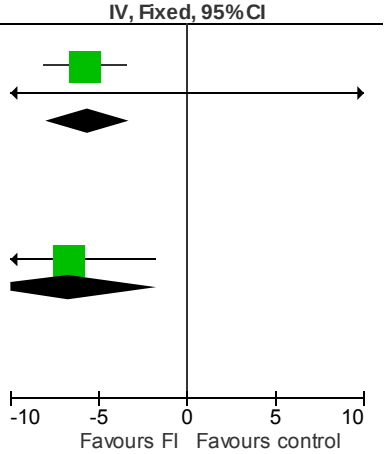
| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.5.1 end of treatment (service user included in FI)** | | | | | | | | |
| CHIEN2004B | 17.1 | 5.1 | 32 | 19.1 | 6.1 | 31 | 99.5% | -2.00 [-4.78, 0.78] |
| GARETY2008 | 29.67 | 46.18 | 27 | 35.62 | 92.63 | 26 | 0.5% | -5.95 [-45.59, 33.69] |
| **Subtotal (95% CI)** | | | **59** | | | **57** | **100.0%** | **-2.02 [-4.79, 0.75]** |
| Heterogeneity: Chi² = 0.04, df = 1 (P = 0.85); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.43 (P = 0.15) | | | | | | | | |
| **1.5.2 end of treatment (service user excluded from FI)** | | | | | | | | |
| CHIEN2004A | 25.65 | 6.01 | 24 | 26.02 | 8.42 | 24 | 100.0% | -0.37 [-4.51, 3.77] |
| **Subtotal (95% CI)** | | | **24** | | | **24** | **100.0%** | **-0.37 [-4.51, 3.77]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.18 (P = 0.86) | | | | | | | | |




Test for subgroup differences: Chi² = 0.42, df = 1 (P = 0.52), I² = 0%

**1.6 Service outcomes: 2. Duration of rehospitalisation (days) (FU)**

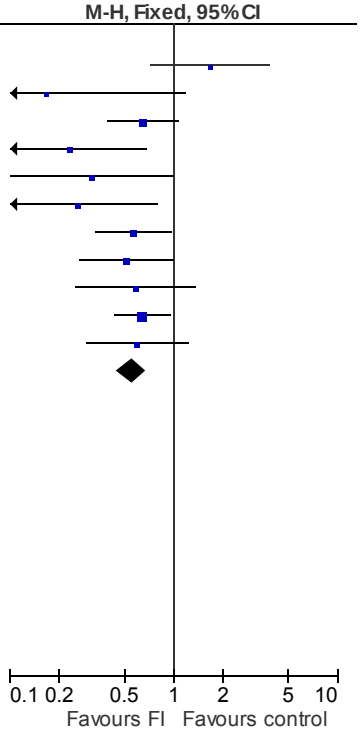
| Study or Subgroup | FI Mean | FI SD | FI Total | Control Mean | Control SD | Control Total | Weight | Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.6.1 end of treatment (service user included in FI)** | | | | | | | | |
| CHIEN2004B | 15 | 4.3 | 32 | 20.8 | 5.2 | 31 | 99.4% | -5.80 [-8.16, -3.44] |
| GARETY2008 | 30.33 | 73.39 | 27 | 13.88 | 39.79 | 26 | 0.6% | 16.45 [-15.18, 48.08] |
| **Subtotal (95% CI)** | | | **59** | | | **57** | **100.0%** | **-5.68 [-8.03, -3.32]** |
| Heterogeneity: Chi² = 1.89, df = 1 (P = 0.17); I² = 47% | | | | | | | | |
| Test for overall effect: Z = 4.73 (P < 0.00001) | | | | | | | | |
| **1.6.3 end of treatment (service user excluded from FI)** | | | | | | | | |
| CHIEN2004A | 22.85 | 8.27 | 24 | 29.52 | 9.1 | 24 | 100.0% | -6.67 [-11.59, -1.75] |
| **Subtotal (95% CI)** | | | **24** | | | **24** | **100.0%** | **-6.67 [-11.59, -1.75]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.66 (P = 0.008) | | | | | | | | |




Test for subgroup differences: Chi² = 0.13, df = 1 (P = 0.72), I² = 0%

**1.7 Global state: 1. Relapse (1-12 months into treatment)**

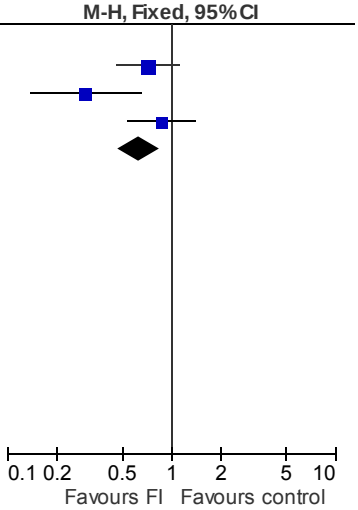
| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.7.1 1-12 months into treatment (service user included in FI)** | | | | | | |
| Hogarty1997 | 10 | 24 | 6 | 24 | 3.7% | 1.67 [0.72, 3.86] |
| Leff1982 | 1 | 12 | 6 | 12 | 3.7% | 0.17 [0.02, 1.18] |
| Tarrier1988 | 13 | 32 | 20 | 32 | 12.4% | 0.65 [0.40, 1.07] |
| BRESSI2008 | 3 | 20 | 13 | 20 | 8.1% | 0.23 [0.08, 0.69] |
| Falloon1981 | 3 | 20 | 9 | 19 | 5.7% | 0.32 [0.10, 1.00] |
| Glynn1992 | 3 | 21 | 11 | 20 | 7.0% | 0.26 [0.08, 0.80] |
| Xiong1994 | 12 | 34 | 18 | 29 | 12.1% | 0.57 [0.33, 0.97] |
| Barrowclough1999 | 9 | 38 | 18 | 39 | 11.0% | 0.51 [0.26, 1.00] |
| Goldstein1978 | 7 | 52 | 12 | 52 | 7.4% | 0.58 [0.25, 1.36] |
| RAN2003 | 22 | 57 | 32 | 53 | 20.6% | 0.64 [0.43, 0.95] |
| BRADLEY2006 | 8 | 30 | 13 | 29 | 8.2% | 0.59 [0.29, 1.22] |
| **Subtotal (95% CI)** | | **340** | | **329** | **100.0%** | **0.55 [0.45, 0.68]** |
| Total events | 91 | | 158 | | | |
| Heterogeneity: Chi² = 14.24, df = 10 (P = 0.16); I² = 30% | | | | | | |
| Test for overall effect: Z = 5.64 (P < 0.00001) | | | | | | |
| **1.7.2 13-24 months into treatment (service user excluded from FI)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |



# Psychological clinical evidence: Family intervention (subgroup analyses)

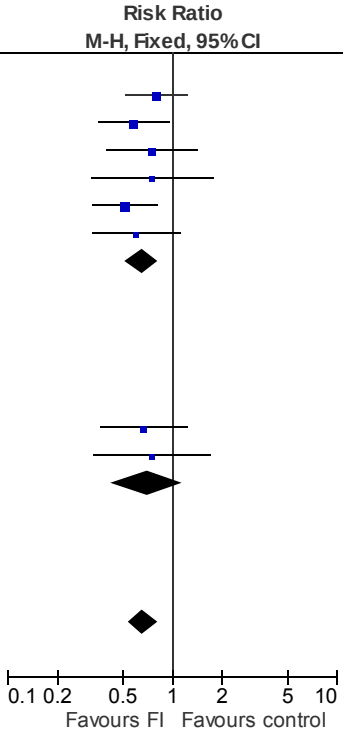
**1.8 Global state: 1. Relapse (13-24 months into treatment)**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.8.1 13-24 months into treatment (service user included in FI)** | | | | | | |
| Xiong1994 | 16 | 34 | 19 | 29 | 39.5% | 0.72 [0.46, 1.12] |
| Falloon1981 | 5 | 20 | 16 | 19 | 31.6% | 0.30 [0.14, 0.65] |
| Hogarty1997 | 13 | 24 | 15 | 24 | 28.9% | 0.87 [0.54, 1.40] |
| **Subtotal (95% CI)** | | **78** | | **72** | **100.0%** | **0.63 [0.46, 0.85]** |
| Total events | 34 | | 50 | | | |
| Heterogeneity: Chi² = 5.59, df = 2 (P = 0.06); I² = 64% | | | | | | |
| Test for overall effect: Z = 3.03 (P = 0.002) | | | | | | |
| **1.8.2 13-24 months into treatment (service user excluded from FI)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |




**1.10 Global state: 1. Relapse (at FU)**

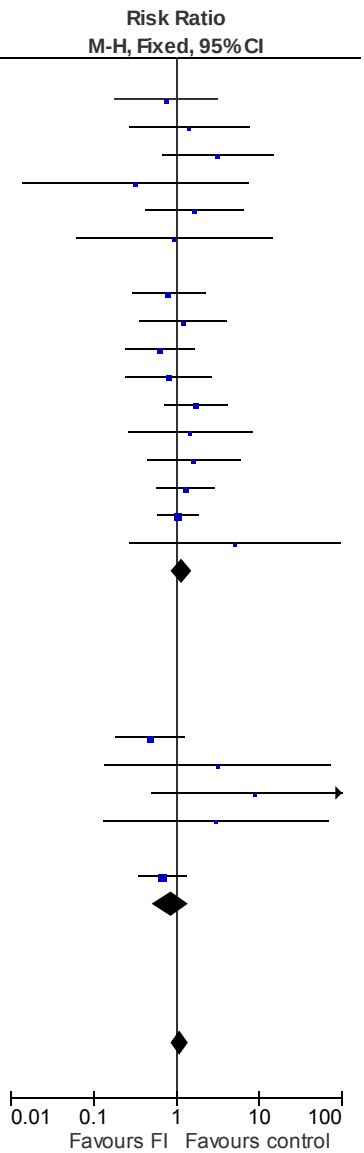
| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.10.1 FU (4-24 months) after end of treatment (service user included in FI)** | | | | | | |
| Tarrier1988 | 16 | 32 | 20 | 32 | 16.2% | 0.80 [0.52, 1.24] |
| BRADLEY2006 | 12 | 30 | 20 | 29 | 16.5% | 0.58 [0.35, 0.96] |
| Goldstein1978 | 12 | 52 | 16 | 52 | 13.0% | 0.75 [0.39, 1.43] |
| BRESSI2008 | 6 | 20 | 8 | 20 | 6.5% | 0.75 [0.32, 1.77] |
| Barrowclough1999 | 14 | 38 | 28 | 39 | 22.4% | 0.51 [0.32, 0.81] |
| Leff1982 | 6 | 12 | 10 | 12 | 8.1% | 0.60 [0.32, 1.12] |
| **Subtotal (95% CI)** | | **184** | | **184** | **82.8%** | **0.65 [0.52, 0.81]** |
| Total events | 66 | | 102 | | | |
| Heterogeneity: Chi² = 2.43, df = 5 (P = 0.79); I² = 0% | | | | | | |
| Test for overall effect: Z = 3.78 (P = 0.0002) | | | | | | |
| **1.10.2 FU (4-24 months) after end of treatment (service user excluded from FI)** | | | | | | |
| Vaughan1992 | 8 | 18 | 12 | 18 | 9.7% | 0.67 [0.36, 1.23] |
| CARRA2007 | 7 | 26 | 9 | 25 | 7.5% | 0.75 [0.33, 1.70] |
| **Subtotal (95% CI)** | | **44** | | **43** | **17.2%** | **0.70 [0.43, 1.16]** |
| Total events | 15 | | 21 | | | |
| Heterogeneity: Chi² = 0.05, df = 1 (P = 0.82); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.39 (P = 0.16) | | | | | | |
| **Total (95% CI)** | | **228** | | **227** | **100.0%** | **0.66 [0.53, 0.81]** |
| Total events | 81 | | 123 | | | |
| Heterogeneity: Chi² = 2.55, df = 7 (P = 0.92); I² = 0% | | | | | | |
| Test for overall effect: Z = 4.01 (P < 0.0001) | | | | | | |



# Psychological clinical evidence: Family intervention (subgroup analyses)

**1.28 Treatment acceptability: 1. Leaving the study early for any reason**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.28.1 service user included in FI** | | | | | | |
| CHIEN2007 | 3 | 42 | 4 | 42 | 4.1% | 0.75 [0.18, 3.15] |
| Falloon1981 | 3 | 20 | 2 | 19 | 2.1% | 1.43 [0.27, 7.61] |
| KOPELOWICZ2003 | 6 | 45 | 2 | 47 | 2.0% | 3.13 [0.67, 14.72] |
| Glynn1992 | 0 | 21 | 1 | 20 | 1.6% | 0.32 [0.01, 7.38] |
| Goldstein1978 | 5 | 52 | 3 | 52 | 3.1% | 1.67 [0.42, 6.62] |
| CHIEN2004B | 1 | 33 | 1 | 31 | 1.1% | 0.94 [0.06, 14.38] |
| BRESSI2008 | 0 | 20 | 0 | 20 | | Not estimable |
| RAN2003 | 6 | 57 | 7 | 53 | 7.5% | 0.80 [0.29, 2.22] |
| BRADLEY2006 | 5 | 30 | 4 | 29 | 4.2% | 1.21 [0.36, 4.06] |
| Hogarty1997 | 5 | 24 | 8 | 24 | 8.2% | 0.63 [0.24, 1.64] |
| GARETY2008 | 4 | 28 | 5 | 28 | 5.1% | 0.80 [0.24, 2.67] |
| Tarrier1988 | 10 | 31 | 6 | 32 | 6.1% | 1.72 [0.71, 4.16] |
| Zhang1994 | 3 | 42 | 2 | 41 | 2.1% | 1.46 [0.26, 8.31] |
| MAGLIANO2006 | 6 | 36 | 3 | 29 | 3.4% | 1.61 [0.44, 5.89] |
| Barrowclough1999 | 10 | 38 | 8 | 39 | 8.1% | 1.28 [0.57, 2.90] |
| Xiong1994 | 15 | 34 | 12 | 28 | 13.5% | 1.03 [0.58, 1.82] |
| Leff1982 | 2 | 12 | 0 | 12 | 0.5% | 5.00 [0.27, 94.34] |
| **Subtotal (95% CI)** | | **565** | | **546** | **72.7%** | **1.17 [0.88, 1.56]** |
| Total events | 84 | | 68 | | | |
| Heterogeneity: Chi² = 7.68, df = 15 (P = 0.94); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.10 (P = 0.27) | | | | | | |
| **1.28.2 service user excluded from FI** | | | | | | |
| Buchkremer1995 | 7 | 67 | 7 | 32 | 9.7% | 0.48 [0.18, 1.25] |
| SO2006 | 1 | 22 | 0 | 23 | 0.5% | 3.13 [0.13, 72.99] |
| Bloch1995 | 4 | 32 | 0 | 31 | 0.5% | 8.73 [0.49, 155.62] |
| Vaughan1992 | 1 | 18 | 0 | 18 | 0.5% | 3.00 [0.13, 69.09] |
| CHIEN2004A | 0 | 24 | 0 | 24 | | Not estimable |
| Dyck2000 | 11 | 55 | 15 | 51 | 16.0% | 0.68 [0.35, 1.34] |
| **Subtotal (95% CI)** | | **218** | | **179** | **27.3%** | **0.85 [0.52, 1.40]** |
| Total events | 24 | | 22 | | | |
| Heterogeneity: Chi² = 5.60, df = 4 (P = 0.23); I² = 29% | | | | | | |
| Test for overall effect: Z = 0.64 (P = 0.52) | | | | | | |
| **Total (95% CI)** | | **783** | | **725** | **100.0%** | **1.08 [0.85, 1.39]** |
| Total events | 108 | | 90 | | | |
| Heterogeneity: Chi² = 15.24, df = 20 (P = 0.76); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.65 (P = 0.52) | | | | | | |

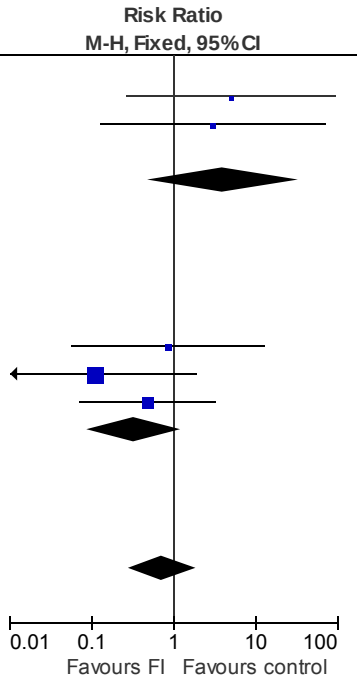



**2 Family intervention versus any control - subgroup analysis by country**

# Psychological clinical evidence: Family intervention (subgroup analyses)

**2.1 Mortality - suicide**

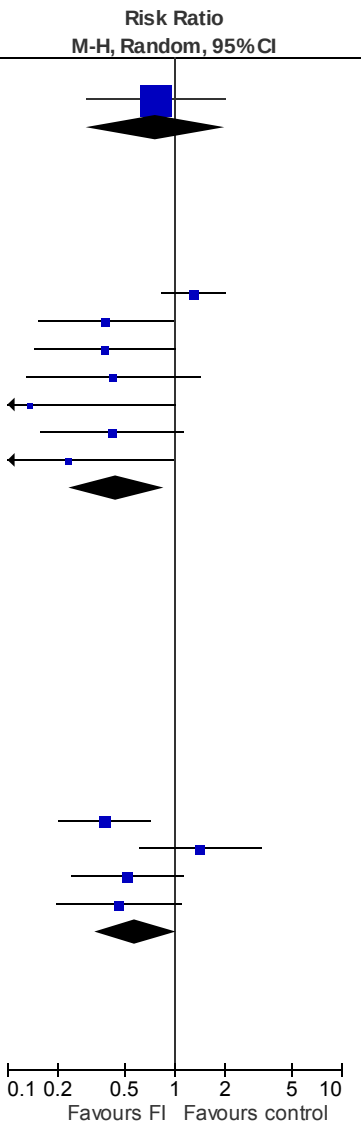
| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.1.1 suicide (UK)** | | | | | | |
| Leff1982 | 2 | 12 | 0 | 12 | 5.4% | 5.00 [0.27, 94.34] |
| Tarrier1988 | 1 | 32 | 0 | 32 | 5.4% | 3.00 [0.13, 71.00] |
| GARETY2008 | 0 | 28 | 0 | 28 | | Not estimable |
| **Subtotal (95% CI)** | | **72** | | **72** | **10.8%** | **4.00 [0.47, 33.95]** |
| Total events | 3 | | 0 | | | |
| Heterogeneity: Chi² = 0.05, df = 1 (P = 0.82); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.27 (P = 0.20) | | | | | | |
| **2.1.2 suicide (Non-UK)** | | | | | | |
| Xiong1994 | 1 | 34 | 1 | 29 | 11.6% | 0.85 [0.06, 13.04] |
| Vaughan1992 | 0 | 18 | 4 | 18 | 48.5% | 0.11 [0.01, 1.92] |
| Buchkremer1995 | 2 | 67 | 2 | 32 | 29.2% | 0.48 [0.07, 3.24] |
| **Subtotal (95% CI)** | | **119** | | **79** | **89.2%** | **0.33 [0.09, 1.21]** |
| Total events | 3 | | 7 | | | |
| Heterogeneity: Chi² = 1.17, df = 2 (P = 0.56); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.67 (P = 0.09) | | | | | | |
| **Total (95% CI)** | | **191** | | **151** | **100.0%** | **0.72 [0.28, 1.88]** |
| Total events | 6 | | 7 | | | |
| Heterogeneity: Chi² = 4.29, df = 4 (P = 0.37); I² = 7% | | | | | | |
| Test for overall effect: Z = 0.67 (P = 0.51) | | | | | | |



# Psychological clinical evidence: Family intervention (subgroup analyses)

**2.2 Service outcomes: 1. Hospital admission (1-24 months into treatment)**

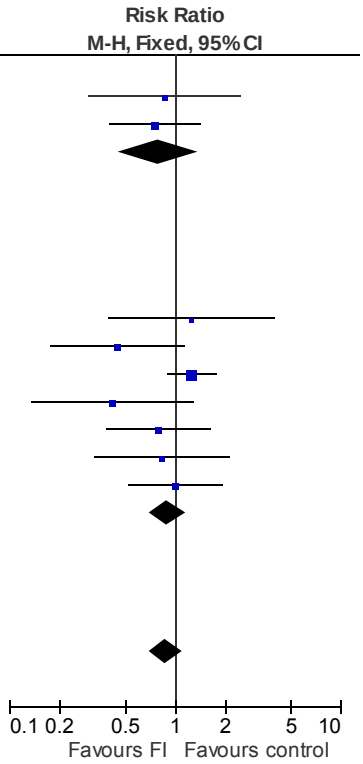
| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **2.2.1 1-12 months into treatment (UK)** | | | | | | |
| Barrowclough1999 | 6 | 38 | 8 | 39 | 100.0% | 0.77 [0.29, 2.01] |
| **Subtotal (95% CI)** | | **38** | | **39** | **100.0%** | **0.77 [0.29, 2.01]** |
| Total events | 6 | | 8 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.53 (P = 0.59) | | | | | | |
| **2.2.2 1-12 months into treatment (Non-UK)** | | | | | | |
| Buchkremer1995 | 38 | 67 | 14 | 32 | 21.3% | 1.30 [0.83, 2.02] |
| Xiong1994 | 5 | 34 | 11 | 29 | 16.0% | 0.39 [0.15, 0.99] |
| Falloon1981 | 4 | 20 | 10 | 19 | 15.6% | 0.38 [0.14, 1.01] |
| BRESSI2008 | 3 | 20 | 7 | 20 | 13.2% | 0.43 [0.13, 1.43] |
| Glynn1992 | 1 | 21 | 7 | 20 | 7.4% | 0.14 [0.02, 1.01] |
| Dyck2000 | 5 | 55 | 11 | 51 | 15.5% | 0.42 [0.16, 1.13] |
| KOPELOWICZ2003 | 2 | 39 | 10 | 45 | 11.0% | 0.23 [0.05, 0.99] |
| **Subtotal (95% CI)** | | **256** | | **216** | **100.0%** | **0.45 [0.23, 0.87]** |
| Total events | 58 | | 70 | | | |
| Heterogeneity: Tau² = 0.48; Chi² = 18.20, df = 6 (P = 0.006); I² = 67% | | | | | | |
| Test for overall effect: Z = 2.38 (P = 0.02) | | | | | | |
| **2.2.3 13-24 months into treatment (UK)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **2.2.4 13-24 months into treatment (Non-UK)** | | | | | | |
| Zhang1994 | 9 | 42 | 23 | 41 | 29.5% | 0.38 [0.20, 0.72] |
| Dyck2000 | 12 | 53 | 7 | 44 | 23.0% | 1.42 [0.61, 3.30] |
| Falloon1981 | 6 | 20 | 11 | 19 | 25.1% | 0.52 [0.24, 1.12] |
| Xiong1994 | 6 | 34 | 11 | 29 | 22.4% | 0.47 [0.20, 1.10] |
| **Subtotal (95% CI)** | | **149** | | **133** | **100.0%** | **0.58 [0.33, 1.02]** |
| Total events | 33 | | 52 | | | |
| Heterogeneity: Tau² = 0.17; Chi² = 6.33, df = 3 (P = 0.10); I² = 53% | | | | | | |
| Test for overall effect: Z = 1.88 (P = 0.06) | | | | | | |



# Psychological clinical evidence: Family intervention (subgroup analyses)

**2.3 Service outcomes: 1. Hospital admission (at FU)**

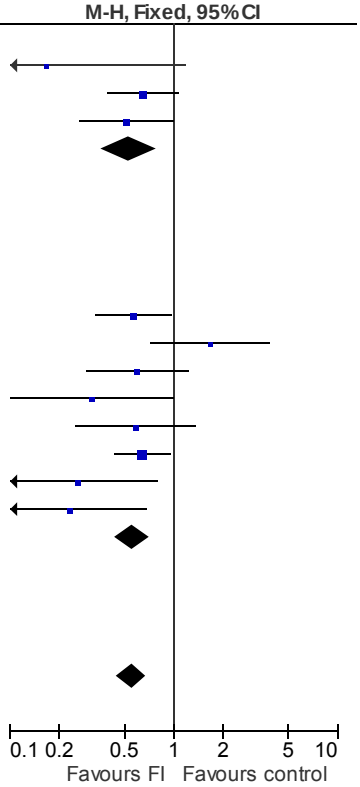
| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.3.1 FU (up to 2 years) after end of treatment (UK)** | | | | | | |
| LEAVEY2004 | 6 | 57 | 6 | 49 | 6.6% | 0.86 [0.30, 2.49] |
| Barrowclough1999 | 11 | 38 | 15 | 39 | 15.1% | 0.75 [0.40, 1.42] |
| **Subtotal (95% CI)** | | **95** | | **88** | **21.7%** | **0.79 [0.45, 1.36]** |
| Total events | 17 | | 21 | | | |
| Heterogeneity: Chi² = 0.04, df = 1 (P = 0.83); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.86 (P = 0.39) | | | | | | |
| **2.3.2 FU (up to 2 years) after end of treatment (Non-UK)** | | | | | | |
| BRESSI2008 | 5 | 20 | 4 | 20 | 4.1% | 1.25 [0.39, 3.99] |
| KOPELOWICZ2003 | 5 | 39 | 13 | 45 | 12.3% | 0.44 [0.17, 1.13] |
| Buchkremer1995 | 47 | 67 | 18 | 32 | 24.9% | 1.25 [0.88, 1.76] |
| Dyck2000 | 4 | 53 | 8 | 44 | 8.9% | 0.42 [0.13, 1.29] |
| Bloch1995 | 9 | 32 | 11 | 31 | 11.4% | 0.79 [0.38, 1.64] |
| CARRA2007 | 6 | 26 | 7 | 25 | 7.3% | 0.82 [0.32, 2.11] |
| Vaughan1992 | 9 | 18 | 9 | 18 | 9.2% | 1.00 [0.52, 1.92] |
| **Subtotal (95% CI)** | | **255** | | **215** | **78.3%** | **0.89 [0.69, 1.15]** |
| Total events | 85 | | 70 | | | |
| Heterogeneity: Chi² = 8.14, df = 6 (P = 0.23); I² = 26% | | | | | | |
| Test for overall effect: Z = 0.90 (P = 0.37) | | | | | | |
| **Total (95% CI)** | | **350** | | **303** | **100.0%** | **0.87 [0.69, 1.09]** |
| Total events | 102 | | 91 | | | |
| Heterogeneity: Chi² = 8.71, df = 8 (P = 0.37); I² = 8% | | | | | | |
| Test for overall effect: Z = 1.20 (P = 0.23) | | | | | | |



# Psychological clinical evidence: Family intervention (subgroup analyses)

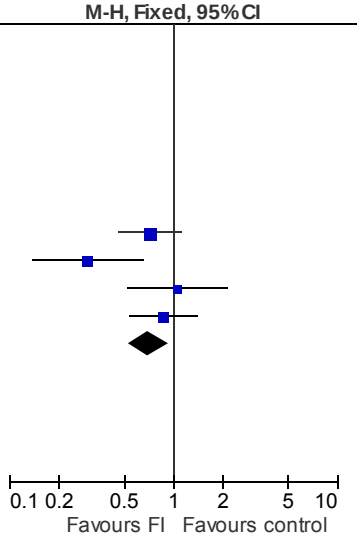
**2.4 Global state: 1. Relapse (1-12 months into treatment)**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.4.1 1-12 months into treatment (UK)** | | | | | | |
| Leff1982 | 1 | 12 | 6 | 12 | 3.7% | 0.17 [0.02, 1.18] |
| Tarrier1988 | 13 | 32 | 20 | 32 | 12.4% | 0.65 [0.40, 1.07] |
| Barrowclough1999 | 9 | 38 | 18 | 39 | 11.0% | 0.51 [0.26, 1.00] |
| **Subtotal (95% CI)** | | **82** | | **83** | **27.2%** | **0.53 [0.36, 0.78]** |
| Total events | 23 | | 44 | | | |
| Heterogeneity: Chi² = 2.01, df = 2 (P = 0.37); I² = 0% | | | | | | |
| Test for overall effect: Z = 3.16 (P = 0.002) | | | | | | |
| **2.4.2 1-12 months into treatment (Non-UK)** | | | | | | |
| Xiong1994 | 12 | 34 | 18 | 29 | 12.1% | 0.57 [0.33, 0.97] |
| Hogarty1997 | 10 | 24 | 6 | 24 | 3.7% | 1.67 [0.72, 3.86] |
| BRADLEY2006 | 8 | 30 | 13 | 29 | 8.2% | 0.59 [0.29, 1.22] |
| Falloon1981 | 3 | 20 | 9 | 19 | 5.7% | 0.32 [0.10, 1.00] |
| Goldstein1978 | 7 | 52 | 12 | 52 | 7.4% | 0.58 [0.25, 1.36] |
| RAN2003 | 22 | 57 | 32 | 53 | 20.6% | 0.64 [0.43, 0.95] |
| Glynn1992 | 3 | 21 | 11 | 20 | 7.0% | 0.26 [0.08, 0.80] |
| BRESSI2008 | 3 | 20 | 13 | 20 | 8.1% | 0.23 [0.08, 0.69] |
| **Subtotal (95% CI)** | | **258** | | **246** | **72.8%** | **0.56 [0.44, 0.72]** |
| Total events | 68 | | 114 | | | |
| Heterogeneity: Chi² = 12.23, df = 7 (P = 0.09); I² = 43% | | | | | | |
| Test for overall effect: Z = 4.68 (P < 0.00001) | | | | | | |
| **Total (95% CI)** | | **340** | | **329** | **100.0%** | **0.55 [0.45, 0.68]** |
| Total events | 91 | | 158 | | | |
| Heterogeneity: Chi² = 14.24, df = 10 (P = 0.16); I² = 30% | | | | | | |
| Test for overall effect: Z = 5.64 (P < 0.00001) | | | | | | |




**2.5 Global state: 1. Relapse (13-24 months into treatment)**

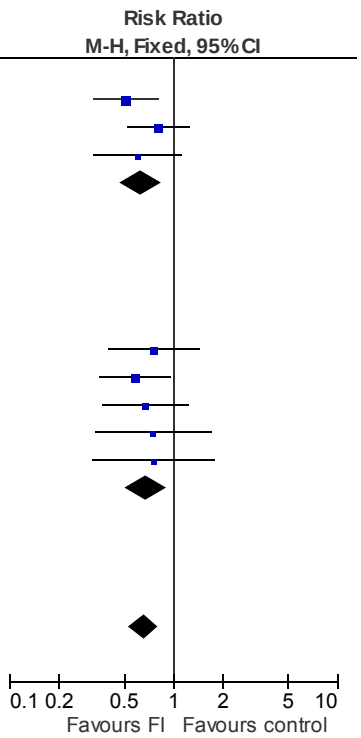
| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.5.1 13-24 months into treatment (UK)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **2.5.2 13-24 months into treatment (Non-UK)** | | | | | | |
| Xiong1994 | 16 | 34 | 19 | 29 | 32.7% | 0.72 [0.46, 1.12] |
| Falloon1981 | 5 | 20 | 16 | 19 | 26.2% | 0.30 [0.14, 0.65] |
| LINSZEN1996* | 11 | 37 | 11 | 39 | 17.1% | 1.05 [0.52, 2.13] |
| Hogarty1997 | 13 | 24 | 15 | 24 | 24.0% | 0.87 [0.54, 1.40] |
| **Subtotal (95% CI)** | | **115** | | **111** | **100.0%** | **0.70 [0.53, 0.93]** |
| Total events | 45 | | 61 | | | |
| Heterogeneity: Chi² = 6.67, df = 3 (P = 0.08); I² = 55% | | | | | | |
| Test for overall effect: Z = 2.50 (P = 0.01) | | | | | | |



# Psychological clinical evidence: Family intervention (subgroup analyses)

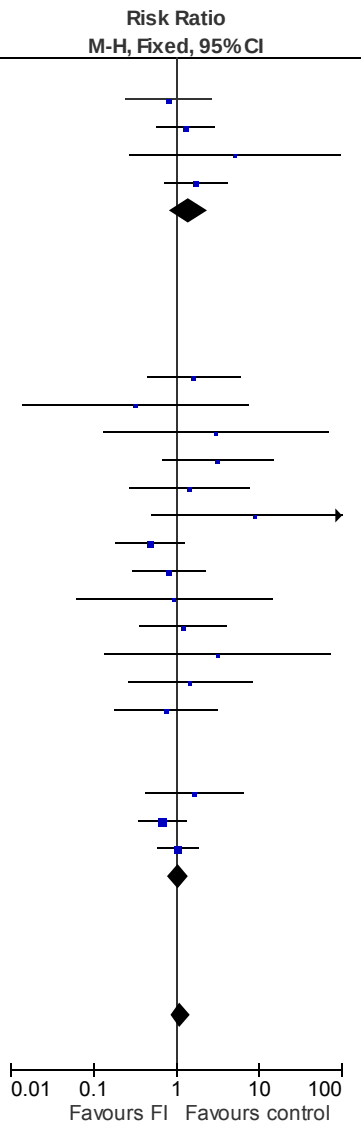
**2.6 Global state: 1. Relapse (at FU)**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.6.1 FU (4-24 months) after end of treatment (UK)** | | | | | | |
| Barrowclough1999 | 14 | 38 | 28 | 39 | 22.4% | 0.51 [0.32, 0.81] |
| Tarrier1988 | 16 | 32 | 20 | 32 | 16.2% | 0.80 [0.52, 1.24] |
| Leff1982 | 6 | 12 | 10 | 12 | 8.1% | 0.60 [0.32, 1.12] |
| **Subtotal (95% CI)** | | **82** | | **83** | **46.8%** | **0.63 [0.47, 0.83]** |
| Total events | 36 | | 58 | | | |
| Heterogeneity: Chi² = 1.93, df = 2 (P = 0.38); I² = 0% | | | | | | |
| Test for overall effect: Z = 3.22 (P = 0.001) | | | | | | |
| **2.6.2 FU (4-24 months) after end of treatment (Non-UK)** | | | | | | |
| Goldstein1978 | 12 | 52 | 16 | 52 | 13.0% | 0.75 [0.39, 1.43] |
| BRADLEY2006 | 12 | 30 | 20 | 29 | 16.5% | 0.58 [0.35, 0.96] |
| Vaughan1992 | 8 | 18 | 12 | 18 | 9.7% | 0.67 [0.36, 1.23] |
| CARRA2007 | 7 | 26 | 9 | 25 | 7.5% | 0.75 [0.33, 1.70] |
| BRESSI2008 | 6 | 20 | 8 | 20 | 6.5% | 0.75 [0.32, 1.77] |
| **Subtotal (95% CI)** | | **146** | | **144** | **53.2%** | **0.68 [0.51, 0.91]** |
| Total events | 45 | | 65 | | | |
| Heterogeneity: Chi² = 0.58, df = 4 (P = 0.96); I² = 0% | | | | | | |
| Test for overall effect: Z = 2.55 (P = 0.01) | | | | | | |
| **Total (95% CI)** | | **228** | | **227** | **100.0%** | **0.66 [0.53, 0.81]** |
| Total events | 81 | | 123 | | | |
| Heterogeneity: Chi² = 2.55, df = 7 (P = 0.92); I² = 0% | | | | | | |
| Test for overall effect: Z = 4.01 (P < 0.0001) | | | | | | |



**2.28 Treatment acceptability: 1. Leaving the study early for any reason**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.28.1 UK** | | | | | | |
| GARETY2008 | 4 | 28 | 5 | 28 | 5.6% | 0.80 [0.24, 2.67] |
| Barrowclough1999 | 10 | 38 | 8 | 39 | 8.8% | 1.28 [0.57, 2.90] |
| Leff1982 | 2 | 12 | 0 | 12 | 0.6% | 5.00 [0.27, 94.34] |
| Tarrier1988 | 10 | 31 | 6 | 32 | 6.6% | 1.72 [0.71, 4.16] |
| **Subtotal (95% CI)** | | **109** | | **111** | **21.6%** | **1.39 [0.83, 2.33]** |
| Total events | 26 | | 19 | | | |
| Heterogeneity: Chi² = 1.80, df = 3 (P = 0.62); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.24 (P = 0.22) | | | | | | |
| **2.28.2 Non-UK** | | | | | | |
| MAGLIANO2006 | 6 | 36 | 3 | 29 | 3.7% | 1.61 [0.44, 5.89] |
| Glynn1992 | 0 | 21 | 1 | 20 | 1.7% | 0.32 [0.01, 7.38] |
| Vaughan1992 | 1 | 18 | 0 | 18 | 0.6% | 3.00 [0.13, 69.09] |
| KOPELOWICZ2003 | 6 | 45 | 2 | 47 | 2.2% | 3.13 [0.67, 14.72] |
| Falloon1981 | 3 | 20 | 2 | 19 | 2.3% | 1.43 [0.27, 7.61] |
| Bloch1995 | 4 | 32 | 0 | 31 | 0.6% | 8.73 [0.49, 155.62] |
| Buchkremer1995 | 7 | 67 | 7 | 32 | 10.6% | 0.48 [0.18, 1.25] |
| RAN2003 | 6 | 57 | 7 | 53 | 8.1% | 0.80 [0.29, 2.22] |
| CHIEN2004B | 1 | 33 | 1 | 31 | 1.2% | 0.94 [0.06, 14.38] |
| BRADLEY2006 | 5 | 30 | 4 | 29 | 4.6% | 1.21 [0.36, 4.06] |
| SO2006 | 1 | 22 | 0 | 23 | 0.5% | 3.13 [0.13, 72.99] |
| Zhang1994 | 3 | 42 | 2 | 41 | 2.3% | 1.46 [0.26, 8.31] |
| CHIEN2007 | 3 | 42 | 4 | 42 | 4.5% | 0.75 [0.18, 3.15] |
| BRESSI2008 | 0 | 20 | 0 | 20 | | Not estimable |
| CHIEN2004A | 0 | 24 | 0 | 24 | | Not estimable |
| Goldstein1978 | 5 | 52 | 3 | 52 | 3.4% | 1.67 [0.42, 6.62] |
| Dyck2000 | 11 | 55 | 15 | 51 | 17.4% | 0.68 [0.35, 1.34] |
| Xiong1994 | 15 | 34 | 12 | 28 | 14.7% | 1.03 [0.58, 1.82] |
| **Subtotal (95% CI)** | | **650** | | **590** | **78.4%** | **1.05 [0.79, 1.41]** |
| Total events | 77 | | 63 | | | |
| Heterogeneity: Chi² = 11.29, df = 15 (P = 0.73); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.35 (P = 0.73) | | | | | | |
| **Total (95% CI)** | | **759** | | **701** | **100.0%** | **1.13 [0.87, 1.45]** |
| Total events | 103 | | 82 | | | |
| Heterogeneity: Chi² = 14.13, df = 19 (P = 0.78); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.91 (P = 0.36) | | | | | | |

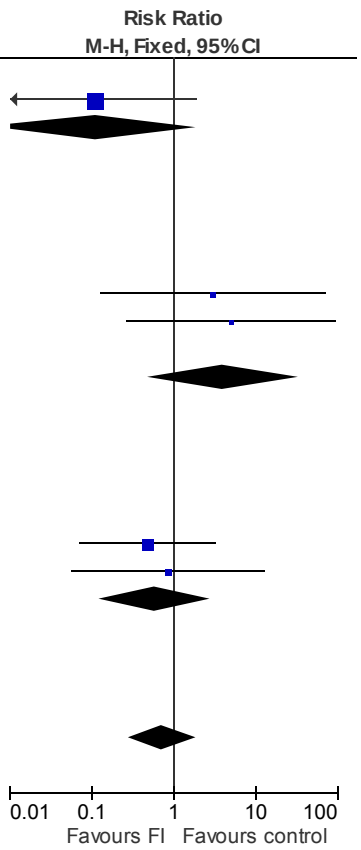



**3 Family intervention versus any control - subgroup analysis by duration**

# Psychological clinical evidence: Family intervention (subgroup analyses)

**3.1 Mortality - suicide**

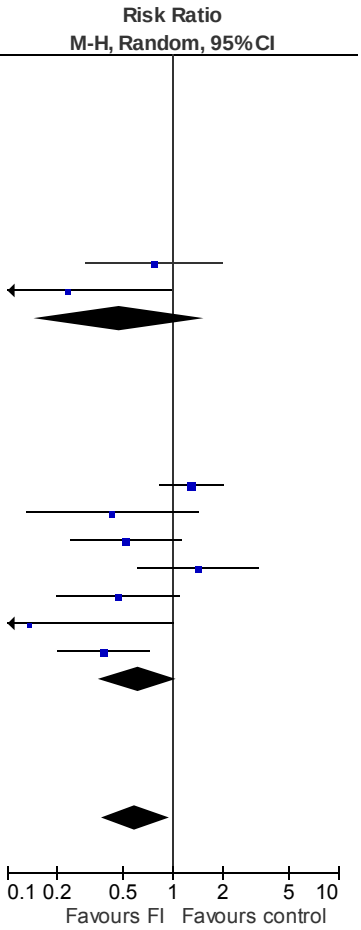
| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.1.1 suicide (short: 0-11wks)** | | | | | | |
| Vaughan1992 | 0 | 18 | 4 | 18 | 48.5% | 0.11 [0.01, 1.92] |
| **Subtotal (95% CI)** | | **18** | | **18** | **48.5%** | **0.11 [0.01, 1.92]** |
| Total events | 0 | | 4 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.51 (P = 0.13) | | | | | | |
| **3.1.2 suicide (medium: 12-51wks)** | | | | | | |
| Tarrier1988 | 1 | 32 | 0 | 32 | 5.4% | 3.00 [0.13, 71.00] |
| Leff1982 | 2 | 12 | 0 | 12 | 5.4% | 5.00 [0.27, 94.34] |
| GARETY2008 | 0 | 28 | 0 | 28 | | Not estimable |
| **Subtotal (95% CI)** | | **72** | | **72** | **10.8%** | **4.00 [0.47, 33.95]** |
| Total events | 3 | | 0 | | | |
| Heterogeneity: Chi² = 0.05, df = 1 (P = 0.82); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.27 (P = 0.20) | | | | | | |
| **3.1.3 suicide (long: >52wks)** | | | | | | |
| Buchkremer1995 | 2 | 67 | 2 | 32 | 29.2% | 0.48 [0.07, 3.24] |
| Xiong1994 | 1 | 34 | 1 | 29 | 11.6% | 0.85 [0.06, 13.04] |
| **Subtotal (95% CI)** | | **101** | | **61** | **40.8%** | **0.58 [0.12, 2.76]** |
| Total events | 3 | | 3 | | | |
| Heterogeneity: Chi² = 0.12, df = 1 (P = 0.73); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.68 (P = 0.50) | | | | | | |
| **Total (95% CI)** | | **191** | | **151** | **100.0%** | **0.72 [0.28, 1.88]** |
| Total events | 6 | | 7 | | | |
| Heterogeneity: Chi² = 4.29, df = 4 (P = 0.37); I² = 7% | | | | | | |
| Test for overall effect: Z = 0.67 (P = 0.51) | | | | | | |



# Psychological clinical evidence: Family intervention (subgroup analyses)

**3.3 Service outcomes: 1. Hospital admission (1-24 months into treatment)**

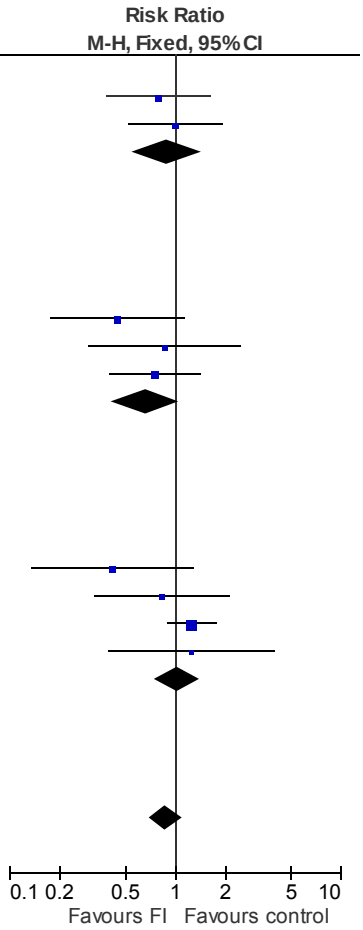
| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **3.3.3 1-6 months into treatment (short: 0-11wks)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **3.3.4 >6-12 months into treatment (medium: 12-51wks)** | | | | | | |
| Barrowclough1999 | 6 | 38 | 8 | 39 | 11.0% | 0.77 [0.29, 2.01] |
| KOPELOWICZ2003 | 2 | 39 | 10 | 45 | 6.9% | 0.23 [0.05, 0.99] |
| **Subtotal (95% CI)** | | **77** | | **84** | **17.9%** | **0.48 [0.15, 1.55]** |
| Total events | 8 | | 18 | | | |
| Heterogeneity: Tau² = 0.36; Chi² = 1.91, df = 1 (P = 0.17); I² = 48% | | | | | | |
| Test for overall effect: Z = 1.23 (P = 0.22) | | | | | | |
| **3.3.8 12-24 months into treatment (long: >52 wks)** | | | | | | |
| Buchkremer1995 | 38 | 67 | 14 | 32 | 17.0% | 1.30 [0.83, 2.02] |
| BRESSI2008 | 3 | 20 | 7 | 20 | 8.7% | 0.43 [0.13, 1.43] |
| Falloon1981 | 6 | 20 | 11 | 19 | 13.1% | 0.52 [0.24, 1.12] |
| Dyck2000 | 12 | 53 | 7 | 44 | 12.3% | 1.42 [0.61, 3.30] |
| Xiong1994 | 6 | 34 | 11 | 29 | 12.0% | 0.47 [0.20, 1.10] |
| Glynn1992 | 1 | 21 | 7 | 20 | 4.4% | 0.14 [0.02, 1.01] |
| Zhang1994 | 9 | 42 | 23 | 41 | 14.7% | 0.38 [0.20, 0.72] |
| **Subtotal (95% CI)** | | **257** | | **205** | **82.1%** | **0.62 [0.36, 1.06]** |
| Total events | 75 | | 80 | | | |
| Heterogeneity: Tau² = 0.33; Chi² = 18.36, df = 6 (P = 0.005); I² = 67% | | | | | | |
| Test for overall effect: Z = 1.76 (P = 0.08) | | | | | | |
| **Total (95% CI)** | | **334** | | **289** | **100.0%** | **0.59 [0.37, 0.95]** |
| Total events | 83 | | 98 | | | |
| Heterogeneity: Tau² = 0.29; Chi² = 20.99, df = 8 (P = 0.007); I² = 62% | | | | | | |
| Test for overall effect: Z = 2.17 (P = 0.03) | | | | | | |



# Psychological clinical evidence: Family intervention (subgroup analyses)

**3.4 Service outcomes: 1. Hospital admission (at FU)**

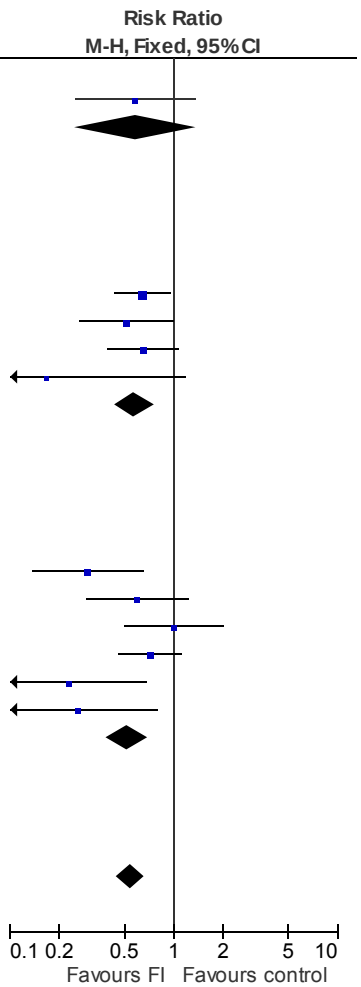
| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.4.1 FU (up to 2 years) after end of treatment (short: 0-11wks)** | | | | | | |
| Bloch1995 | 9 | 32 | 11 | 31 | 11.4% | 0.79 [0.38, 1.64] |
| Vaughan1992 | 9 | 18 | 9 | 18 | 9.2% | 1.00 [0.52, 1.92] |
| **Subtotal (95% CI)** | | **50** | | **49** | **20.6%** | **0.89 [0.54, 1.45]** |
| Total events | 18 | | 20 | | | |
| Heterogeneity: Chi² = 0.22, df = 1 (P = 0.64); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.49 (P = 0.63) | | | | | | |
| **3.4.2 FU (up to 2 years) after end of treatment (medium: 12-51wks)** | | | | | | |
| KOPELOWICZ2003 | 5 | 39 | 13 | 45 | 12.3% | 0.44 [0.17, 1.13] |
| LEAVEY2004 | 6 | 57 | 6 | 49 | 6.6% | 0.86 [0.30, 2.49] |
| Barrowclough1999 | 11 | 38 | 15 | 39 | 15.1% | 0.75 [0.40, 1.42] |
| **Subtotal (95% CI)** | | **134** | | **133** | **34.1%** | **0.66 [0.41, 1.06]** |
| Total events | 22 | | 34 | | | |
| Heterogeneity: Chi² = 1.09, df = 2 (P = 0.58); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.71 (P = 0.09) | | | | | | |
| **3.4.3 FU (up to 2 years) after end of treatment (long: >52wks)** | | | | | | |
| Dyck2000 | 4 | 53 | 8 | 44 | 8.9% | 0.42 [0.13, 1.29] |
| CARRA2007 | 6 | 26 | 7 | 25 | 7.3% | 0.82 [0.32, 2.11] |
| Buchkremer1995 | 47 | 67 | 18 | 32 | 24.9% | 1.25 [0.88, 1.76] |
| BRESSI2008 | 5 | 20 | 4 | 20 | 4.1% | 1.25 [0.39, 3.99] |
| **Subtotal (95% CI)** | | **166** | | **121** | **45.3%** | **1.01 [0.74, 1.38]** |
| Total events | 62 | | 37 | | | |
| Heterogeneity: Chi² = 4.09, df = 3 (P = 0.25); I² = 27% | | | | | | |
| Test for overall effect: Z = 0.09 (P = 0.93) | | | | | | |
| **Total (95% CI)** | | **350** | | **303** | **100.0%** | **0.87 [0.69, 1.09]** |
| Total events | 102 | | 91 | | | |
| Heterogeneity: Chi² = 8.71, df = 8 (P = 0.37); I² = 8% | | | | | | |
| Test for overall effect: Z = 1.20 (P = 0.23) | | | | | | |



# Psychological clinical evidence: Family intervention (subgroup analyses)

**3.5 Global state: 1. Relapse (1-24 months into treatment)**

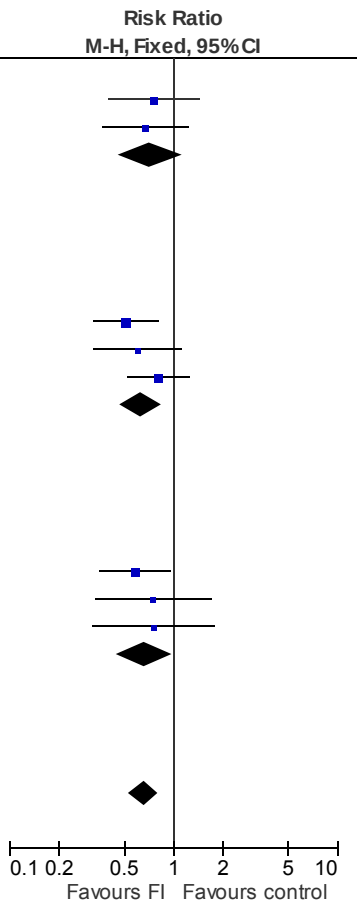
| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.5.1 1-6 months into treatment (short: 0-11wks)** | | | | | | |
| Goldstein1978 | 7 | 52 | 12 | 52 | 6.9% | 0.58 [0.25, 1.36] |
| **Subtotal (95% CI)** | | **52** | | **52** | **6.9%** | **0.58 [0.25, 1.36]** |
| Total events | 7 | | 12 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.24 (P = 0.21) | | | | | | |
| **3.5.2 >6-12 months into treatment (medium: 12-51wks)** | | | | | | |
| RAN2003 | 22 | 57 | 32 | 53 | 19.0% | 0.64 [0.43, 0.95] |
| Barrowclough1999 | 9 | 38 | 18 | 39 | 10.2% | 0.51 [0.26, 1.00] |
| Tarrier1988 | 13 | 32 | 20 | 32 | 11.5% | 0.65 [0.40, 1.07] |
| Leff1982 | 1 | 12 | 6 | 12 | 3.4% | 0.17 [0.02, 1.18] |
| **Subtotal (95% CI)** | | **139** | | **136** | **44.1%** | **0.58 [0.44, 0.76]** |
| Total events | 45 | | 76 | | | |
| Heterogeneity: Chi² = 2.15, df = 3 (P = 0.54); I² = 0% | | | | | | |
| Test for overall effect: Z = 3.86 (P = 0.0001) | | | | | | |
| **3.5.5 12-24 months into treatment (long: >52wks)** | | | | | | |
| Falloon1981 | 5 | 20 | 16 | 19 | 9.4% | 0.30 [0.14, 0.65] |
| BRADLEY2006 | 8 | 30 | 13 | 29 | 7.6% | 0.59 [0.29, 1.22] |
| LINSZEN1996* | 11 | 37 | 11 | 37 | 6.3% | 1.00 [0.50, 2.01] |
| Xiong1994 | 16 | 34 | 19 | 29 | 11.8% | 0.72 [0.46, 1.12] |
| BRESSI2008 | 3 | 20 | 13 | 20 | 7.5% | 0.23 [0.08, 0.69] |
| Glynn1992 | 3 | 21 | 11 | 20 | 6.5% | 0.26 [0.08, 0.80] |
| **Subtotal (95% CI)** | | **162** | | **154** | **49.0%** | **0.52 [0.39, 0.69]** |
| Total events | 46 | | 83 | | | |
| Heterogeneity: Chi² = 11.09, df = 5 (P = 0.05); I² = 55% | | | | | | |
| Test for overall effect: Z = 4.49 (P < 0.00001) | | | | | | |
| **Total (95% CI)** | | **353** | | **342** | **100.0%** | **0.55 [0.45, 0.67]** |
| Total events | 98 | | 171 | | | |
| Heterogeneity: Chi² = 13.27, df = 10 (P = 0.21); I² = 25% | | | | | | |
| Test for overall effect: Z = 6.01 (P < 0.00001) | | | | | | |



# Psychological clinical evidence: Family intervention (subgroup analyses)

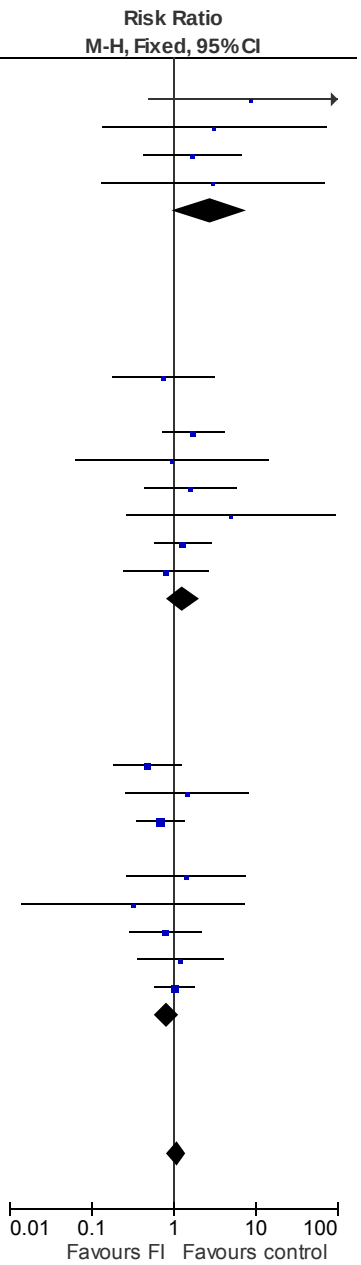
**3.6 Global state: 1. Relapse (at FU)**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.6.1 FU (4-24 months) after end of treatment (short: 0-11wks)** | | | | | | |
| Goldstein1978 | 12 | 52 | 16 | 52 | 13.0% | 0.75 [0.39, 1.43] |
| Vaughan1992 | 8 | 18 | 12 | 18 | 9.7% | 0.67 [0.36, 1.23] |
| **Subtotal (95% CI)** | | **70** | | **70** | **22.7%** | **0.71 [0.45, 1.12]** |
| Total events | 20 | | 28 | | | |
| Heterogeneity: Chi² = 0.07, df = 1 (P = 0.79); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.45 (P = 0.15) | | | | | | |
| **3.6.2 FU (4-24 months) after end of treatment (medium: 12-51wks)** | | | | | | |
| Barrowclough1999 | 14 | 38 | 28 | 39 | 22.4% | 0.51 [0.32, 0.81] |
| Leff1982 | 6 | 12 | 10 | 12 | 8.1% | 0.60 [0.32, 1.12] |
| Tarrier1988 | 16 | 32 | 20 | 32 | 16.2% | 0.80 [0.52, 1.24] |
| **Subtotal (95% CI)** | | **82** | | **83** | **46.8%** | **0.63 [0.47, 0.83]** |
| Total events | 36 | | 58 | | | |
| Heterogeneity: Chi² = 1.93, df = 2 (P = 0.38); I² = 0% | | | | | | |
| Test for overall effect: Z = 3.22 (P = 0.001) | | | | | | |
| **3.6.3 FU (4-24 months) after end of treatment (long: >52wks)** | | | | | | |
| BRADLEY2006 | 12 | 30 | 20 | 29 | 16.5% | 0.58 [0.35, 0.96] |
| CARRA2007 | 7 | 26 | 9 | 25 | 7.5% | 0.75 [0.33, 1.70] |
| BRESSI2008 | 6 | 20 | 8 | 20 | 6.5% | 0.75 [0.32, 1.77] |
| **Subtotal (95% CI)** | | **76** | | **74** | **30.5%** | **0.66 [0.45, 0.97]** |
| Total events | 25 | | 37 | | | |
| Heterogeneity: Chi² = 0.42, df = 2 (P = 0.81); I² = 0% | | | | | | |
| Test for overall effect: Z = 2.13 (P = 0.03) | | | | | | |
| **Total (95% CI)** | | **228** | | **227** | **100.0%** | **0.66 [0.53, 0.81]** |
| Total events | 81 | | 123 | | | |
| Heterogeneity: Chi² = 2.55, df = 7 (P = 0.92); I² = 0% | | | | | | |
| Test for overall effect: Z = 4.01 (P < 0.0001) | | | | | | |



**3.9 Treatment acceptability: 1. Leaving the study early for any reason**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.9.1 Short: 0-11wks** | | | | | | |
| Bloch1995 | 4 | 32 | 0 | 31 | 0.6% | 8.73 [0.49, 155.62] |
| SO2006 | 1 | 22 | 0 | 23 | 0.6% | 3.13 [0.13, 72.99] |
| Goldstein1978 | 5 | 52 | 3 | 52 | 3.4% | 1.67 [0.42, 6.62] |
| Vaughan1992 | 1 | 18 | 0 | 18 | 0.6% | 3.00 [0.13, 69.09] |
| **Subtotal (95% CI)** | | **124** | | **124** | **5.2%** | **2.77 [0.97, 7.93]** |
| Total events | 11 | | 3 | | | |
| Heterogeneity: Chi² = 1.14, df = 3 (P = 0.77); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.90 (P = 0.06) | | | | | | |
| **3.9.2 Medium: 12-51wks** | | | | | | |
| CHIEN2007 | 3 | 42 | 4 | 42 | 4.6% | 0.75 [0.18, 3.15] |
| CHIEN2004A | 0 | 24 | 0 | 24 | | Not estimable |
| Tarrier1988 | 10 | 31 | 6 | 32 | 6.8% | 1.72 [0.71, 4.16] |
| CHIEN2004B | 1 | 33 | 1 | 31 | 1.2% | 0.94 [0.06, 14.38] |
| MAGLIANO2006 | 6 | 36 | 3 | 29 | 3.8% | 1.61 [0.44, 5.89] |
| Leff1982 | 2 | 12 | 0 | 12 | 0.6% | 5.00 [0.27, 94.34] |
| Barrowclough1999 | 10 | 38 | 8 | 39 | 9.0% | 1.28 [0.57, 2.90] |
| GARETY2008 | 4 | 28 | 5 | 28 | 5.7% | 0.80 [0.24, 2.67] |
| **Subtotal (95% CI)** | | **244** | | **237** | **31.7%** | **1.31 [0.83, 2.05]** |
| Total events | 36 | | 27 | | | |
| Heterogeneity: Chi² = 2.54, df = 6 (P = 0.86); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.16 (P = 0.24) | | | | | | |
| **3.9.3 Long: >52wks** | | | | | | |
| Buchkremer1995 | 7 | 67 | 7 | 32 | 10.9% | 0.48 [0.18, 1.25] |
| Zhang1994 | 3 | 42 | 2 | 41 | 2.3% | 1.46 [0.26, 8.31] |
| Dyck2000 | 11 | 55 | 15 | 51 | 17.8% | 0.68 [0.35, 1.34] |
| BRESSI2008 | 0 | 20 | 0 | 20 | | Not estimable |
| Falloon1981 | 3 | 20 | 2 | 19 | 2.4% | 1.43 [0.27, 7.61] |
| Glynn1992 | 0 | 21 | 1 | 20 | 1.8% | 0.32 [0.01, 7.38] |
| RAN2003 | 6 | 57 | 7 | 53 | 8.3% | 0.80 [0.29, 2.22] |
| BRADLEY2006 | 5 | 30 | 4 | 29 | 4.7% | 1.21 [0.36, 4.06] |
| Xiong1994 | 15 | 34 | 12 | 28 | 15.1% | 1.03 [0.58, 1.82] |
| **Subtotal (95% CI)** | | **346** | | **293** | **63.2%** | **0.83 [0.59, 1.16]** |
| Total events | 50 | | 50 | | | |
| Heterogeneity: Chi² = 3.70, df = 7 (P = 0.81); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.08 (P = 0.28) | | | | | | |
| **Total (95% CI)** | | **714** | | **654** | **100.0%** | **1.08 [0.83, 1.40]** |
| Total events | 97 | | 80 | | | |
| Heterogeneity: Chi² = 12.16, df = 18 (P = 0.84); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.58 (P = 0.56) | | | | | | |

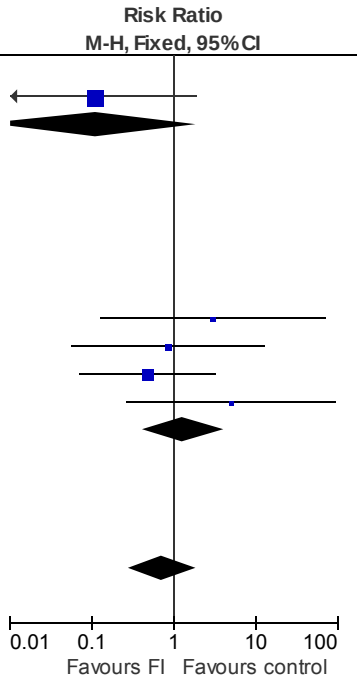



**4 Family intervention versus any control - subgroup analysis by number of treatment sessions**

# Psychological clinical evidence: Family intervention (subgroup analyses)

**4.1 Mortality - suicide**

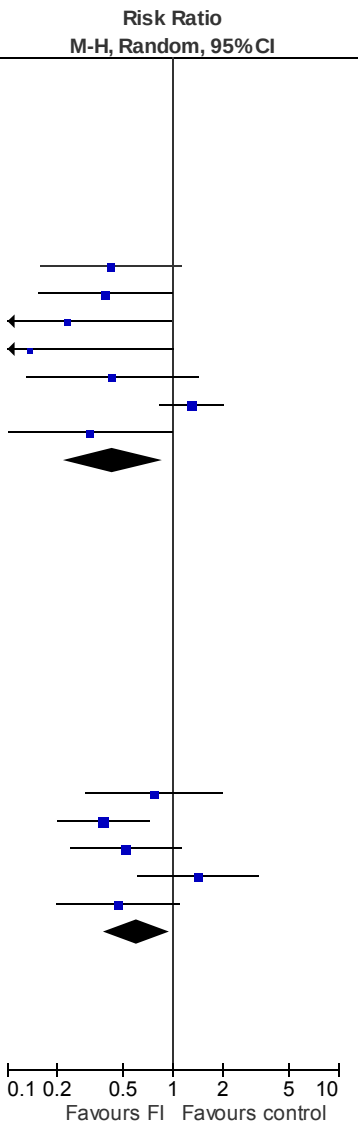
| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **4.1.1 suicide (less frequent: 10 or fewer)** | | | | | | |
| Vaughan1992 | 0 | 18 | 4 | 18 | 48.5% | 0.11 [0.01, 1.92] |
| **Subtotal (95% CI)** | | **18** | | **18** | **48.5%** | **0.11 [0.01, 1.92]** |
| Total events | 0 | | 4 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.51 (P = 0.13) | | | | | | |
| **4.1.2 suicide (more frequent: >10)** | | | | | | |
| GARETY2008 | 0 | 28 | 0 | 28 | | Not estimable |
| Tarrier1988 | 1 | 32 | 0 | 32 | 5.4% | 3.00 [0.13, 71.00] |
| Xiong1994 | 1 | 34 | 1 | 29 | 11.6% | 0.85 [0.06, 13.04] |
| Buchkremer1995 | 2 | 67 | 2 | 32 | 29.2% | 0.48 [0.07, 3.24] |
| Leff1982 | 2 | 12 | 0 | 12 | 5.4% | 5.00 [0.27, 94.34] |
| **Subtotal (95% CI)** | | **173** | | **133** | **51.5%** | **1.30 [0.42, 4.05]** |
| Total events | 6 | | 3 | | | |
| Heterogeneity: Chi² = 2.22, df = 3 (P = 0.53); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.45 (P = 0.65) | | | | | | |
| **Total (95% CI)** | | **191** | | **151** | **100.0%** | **0.72 [0.28, 1.88]** |
| Total events | 6 | | 7 | | | |
| Heterogeneity: Chi² = 4.29, df = 4 (P = 0.37); I² = 7% | | | | | | |
| Test for overall effect: Z = 0.67 (P = 0.51) | | | | | | |



# Psychological clinical evidence: Family intervention (subgroup analyses)

**4.2 Service outcomes: 1. Hospital admission (1-24 months into treatment)**

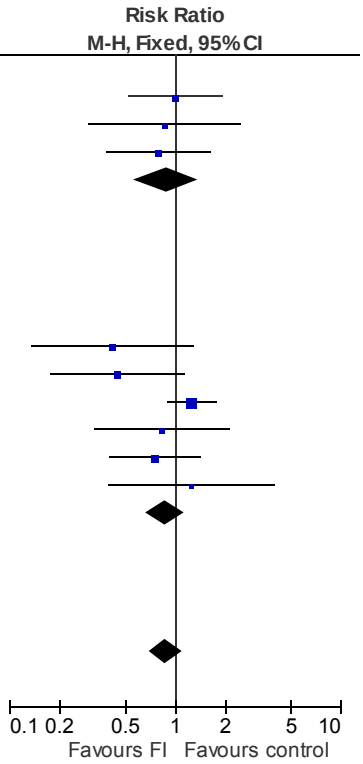
| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **4.2.1 1-12 months into treatment (less frequent: 10 or fewer)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **4.2.2 1-12 months into treatment (more frequent: >10)** | | | | | | |
| Dyck2000 | 5 | 55 | 11 | 51 | 15.7% | 0.42 [0.16, 1.13] |
| Xiong1994 | 5 | 34 | 11 | 29 | 16.3% | 0.39 [0.15, 0.99] |
| KOPELOWICZ2003 | 2 | 39 | 10 | 45 | 11.3% | 0.23 [0.05, 0.99] |
| Glynn1992 | 1 | 21 | 7 | 20 | 7.8% | 0.14 [0.02, 1.01] |
| BRESSI2008 | 3 | 20 | 7 | 20 | 13.6% | 0.43 [0.13, 1.43] |
| Buchkremer1995 | 38 | 67 | 14 | 32 | 21.2% | 1.30 [0.83, 2.02] |
| Falloon1981 | 3 | 20 | 9 | 19 | 14.1% | 0.32 [0.10, 1.00] |
| **Subtotal (95% CI)** | | **256** | | **216** | **100.0%** | **0.43 [0.22, 0.86]** |
| Total events | 57 | | 69 | | | |
| Heterogeneity: Tau² = 0.52; Chi² = 18.67, df = 6 (P = 0.005); I² = 68% | | | | | | |
| Test for overall effect: Z = 2.39 (P = 0.02) | | | | | | |
| **4.2.3 13-24 months into treatment (less frequent: 10 or fewer)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **4.2.4 13-24 months into treatment (more frequent: >10)** | | | | | | |
| Barrowclough1999 | 6 | 38 | 8 | 39 | 16.0% | 0.77 [0.29, 2.01] |
| Zhang1994 | 9 | 42 | 23 | 41 | 25.7% | 0.38 [0.20, 0.72] |
| Falloon1981 | 6 | 20 | 11 | 19 | 21.0% | 0.52 [0.24, 1.12] |
| Dyck2000 | 12 | 53 | 7 | 44 | 18.9% | 1.42 [0.61, 3.30] |
| Xiong1994 | 6 | 34 | 11 | 29 | 18.4% | 0.47 [0.20, 1.10] |
| **Subtotal (95% CI)** | | **187** | | **172** | **100.0%** | **0.61 [0.38, 0.96]** |
| Total events | 39 | | 60 | | | |
| Heterogeneity: Tau² = 0.11; Chi² = 6.69, df = 4 (P = 0.15); I² = 40% | | | | | | |
| Test for overall effect: Z = 2.11 (P = 0.03) | | | | | | |



# Psychological clinical evidence: Family intervention (subgroup analyses)

**4.3 Service outcomes: 1. Hospital admission (at FU)**

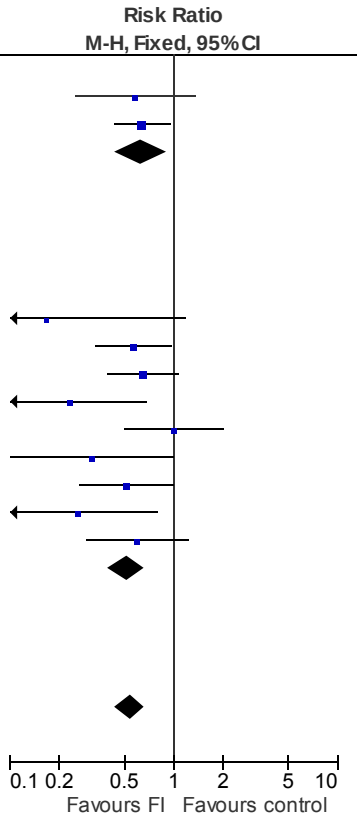
| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **4.3.1 FU (up to 2 years) after end of treatment (less frequent: 10 or fewer)** | | | | | | |
| Vaughan1992 | 9 | 18 | 9 | 18 | 9.2% | 1.00 [0.52, 1.92] |
| LEAVEY2004 | 6 | 57 | 6 | 49 | 6.6% | 0.86 [0.30, 2.49] |
| Bloch1995 | 9 | 32 | 11 | 31 | 11.4% | 0.79 [0.38, 1.64] |
| **Subtotal (95% CI)** | | **107** | | **98** | **27.2%** | **0.88 [0.56, 1.38]** |
| Total events | 24 | | 26 | | | |
| Heterogeneity: Chi² = 0.23, df = 2 (P = 0.89); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.56 (P = 0.58) | | | | | | |
| **4.3.2 FU (up to 2 years) after end of treatment (more frequent: >10)** | | | | | | |
| Dyck2000 | 4 | 53 | 8 | 44 | 8.9% | 0.42 [0.13, 1.29] |
| KOPELOWICZ2003 | 5 | 39 | 13 | 45 | 12.3% | 0.44 [0.17, 1.13] |
| Buchkremer1995 | 47 | 67 | 18 | 32 | 24.9% | 1.25 [0.88, 1.76] |
| CARRA2007 | 6 | 26 | 7 | 25 | 7.3% | 0.82 [0.32, 2.11] |
| Barrowclough1999 | 11 | 38 | 15 | 39 | 15.1% | 0.75 [0.40, 1.42] |
| BRESSI2008 | 5 | 20 | 4 | 20 | 4.1% | 1.25 [0.39, 3.99] |
| **Subtotal (95% CI)** | | **243** | | **205** | **72.8%** | **0.86 [0.66, 1.13]** |
| Total events | 78 | | 65 | | | |
| Heterogeneity: Chi² = 8.53, df = 5 (P = 0.13); I² = 41% | | | | | | |
| Test for overall effect: Z = 1.07 (P = 0.28) | | | | | | |
| **Total (95% CI)** | | **350** | | **303** | **100.0%** | **0.87 [0.69, 1.09]** |
| Total events | 102 | | 91 | | | |
| Heterogeneity: Chi² = 8.71, df = 8 (P = 0.37); I² = 8% | | | | | | |
| Test for overall effect: Z = 1.20 (P = 0.23) | | | | | | |



# Psychological clinical evidence: Family intervention (subgroup analyses)

**4.4 Global state: 1. Relapse (1-12 months into treatment)**

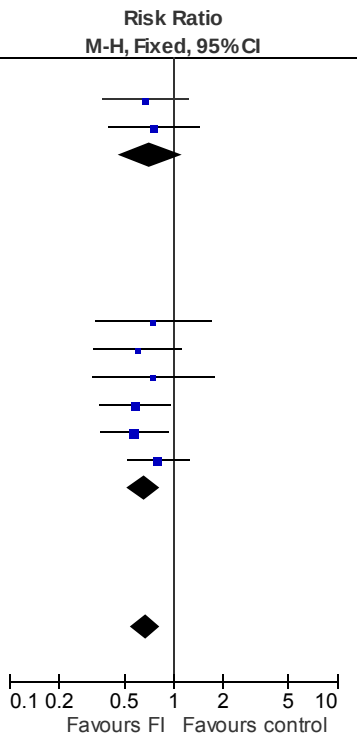
| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **4.4.1 1-6 months into treatment (less frequent: 10 or fewer)** | | | | | | |
| Goldstein1978 | 7 | 52 | 12 | 52 | 7.2% | 0.58 [0.25, 1.36] |
| RAN2003 | 22 | 57 | 32 | 53 | 20.0% | 0.64 [0.43, 0.95] |
| **Subtotal (95% CI)** | | **109** | | **105** | **27.2%** | **0.62 [0.43, 0.90]** |
| Total events | 29 | | 44 | | | |
| Heterogeneity: Chi² = 0.04, df = 1 (P = 0.84); I² = 0% | | | | | | |
| Test for overall effect: Z = 2.53 (P = 0.01) | | | | | | |
| **4.4.2 >6-12 months into treatment (more frequent: >10)** | | | | | | |
| Leff1982 | 1 | 12 | 6 | 12 | 3.6% | 0.17 [0.02, 1.18] |
| Xiong1994 | 12 | 34 | 18 | 29 | 11.7% | 0.57 [0.33, 0.97] |
| Tarrier1988 | 13 | 32 | 20 | 32 | 12.0% | 0.65 [0.40, 1.07] |
| BRESSI2008 | 3 | 20 | 13 | 20 | 7.8% | 0.23 [0.08, 0.69] |
| LINSZEN1996* | 11 | 37 | 11 | 37 | 6.6% | 1.00 [0.50, 2.01] |
| Falloon1981 | 3 | 20 | 9 | 19 | 5.6% | 0.32 [0.10, 1.00] |
| Barrowclough1999 | 9 | 38 | 18 | 39 | 10.7% | 0.51 [0.26, 1.00] |
| Glynn1992 | 3 | 21 | 11 | 20 | 6.8% | 0.26 [0.08, 0.80] |
| BRADLEY2006 | 8 | 30 | 13 | 29 | 8.0% | 0.59 [0.29, 1.22] |
| **Subtotal (95% CI)** | | **244** | | **237** | **72.8%** | **0.51 [0.40, 0.66]** |
| Total events | 63 | | 119 | | | |
| Heterogeneity: Chi² = 10.10, df = 8 (P = 0.26); I² = 21% | | | | | | |
| Test for overall effect: Z = 5.31 (P < 0.00001) | | | | | | |
| **Total (95% CI)** | | **353** | | **342** | **100.0%** | **0.54 [0.44, 0.67]** |
| Total events | 92 | | 163 | | | |
| Heterogeneity: Chi² = 10.51, df = 10 (P = 0.40); I² = 5% | | | | | | |
| Test for overall effect: Z = 5.86 (P < 0.00001) | | | | | | |



# Psychological clinical evidence: Family intervention (subgroup analyses)

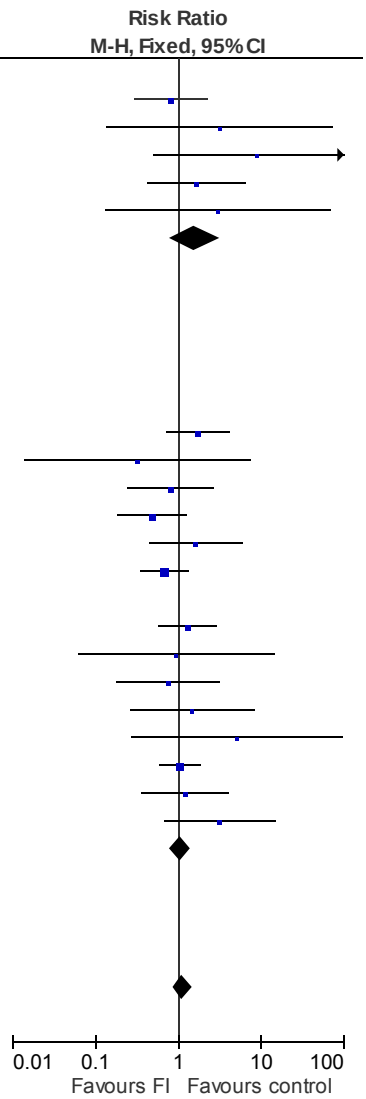
**4.5 Global state: 1. Relapse (at FU)**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **4.5.1 FU (4-24 months) after end of treatment (less frequent: 10 or fewer)** | | | | | | |
| Vaughan1992 | 8 | 18 | 12 | 18 | 10.0% | 0.67 [0.36, 1.23] |
| Goldstein1978 | 12 | 52 | 16 | 52 | 13.3% | 0.75 [0.39, 1.43] |
| **Subtotal (95% CI)** | | **70** | | **70** | **23.3%** | **0.71 [0.45, 1.12]** |
| Total events | 20 | | 28 | | | |
| Heterogeneity: Chi² = 0.07, df = 1 (P = 0.79); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.45 (P = 0.15) | | | | | | |
| **4.5.2 FU (4-24 months) after end of treatment (more frequent: >10)** | | | | | | |
| CARRA2007 | 7 | 26 | 9 | 25 | 7.6% | 0.75 [0.33, 1.70] |
| Leff1982 | 6 | 12 | 10 | 12 | 8.3% | 0.60 [0.32, 1.12] |
| BRESSI2008 | 6 | 20 | 8 | 20 | 6.7% | 0.75 [0.32, 1.77] |
| BRADLEY2006 | 12 | 30 | 20 | 29 | 16.9% | 0.58 [0.35, 0.96] |
| Barrowclough1999 | 14 | 38 | 25 | 39 | 20.5% | 0.57 [0.36, 0.93] |
| Tarrier1988 | 16 | 32 | 20 | 32 | 16.6% | 0.80 [0.52, 1.24] |
| **Subtotal (95% CI)** | | **158** | | **157** | **76.7%** | **0.66 [0.52, 0.83]** |
| Total events | 61 | | 92 | | | |
| Heterogeneity: Chi² = 1.58, df = 5 (P = 0.90); I² = 0% | | | | | | |
| Test for overall effect: Z = 3.51 (P = 0.0005) | | | | | | |
| **Total (95% CI)** | | **228** | | **227** | **100.0%** | **0.67 [0.55, 0.83]** |
| Total events | 81 | | 120 | | | |
| Heterogeneity: Chi² = 1.72, df = 7 (P = 0.97); I² = 0% | | | | | | |
| Test for overall effect: Z = 3.75 (P = 0.0002) | | | | | | |



**4.9 Treatment acceptability: 1. Leaving the study early for any reason**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **4.9.1 Less frequent: 10 or fewer planned session** | | | | | | |
| RAN2003 | 6 | 57 | 7 | 53 | 8.3% | 0.80 [0.29, 2.22] |
| SO2006 | 1 | 22 | 0 | 23 | 0.6% | 3.13 [0.13, 72.99] |
| Bloch1995 | 4 | 32 | 0 | 31 | 0.6% | 8.73 [0.49, 155.62] |
| Goldstein1978 | 5 | 52 | 3 | 52 | 3.4% | 1.67 [0.42, 6.62] |
| Vaughan1992 | 1 | 18 | 0 | 18 | 0.6% | 3.00 [0.13, 69.09] |
| **Subtotal (95% CI)** | | **181** | | **177** | **13.5%** | **1.55 [0.77, 3.14]** |
| Total events | 17 | | 10 | | | |
| Heterogeneity: Chi² = 3.38, df = 4 (P = 0.50); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.23 (P = 0.22) | | | | | | |
| **4.9.2 More frequent: >10 planned sessions** | | | | | | |
| BRESSI2008 | 0 | 20 | 0 | 20 | | Not estimable |
| Tarrier1988 | 10 | 31 | 6 | 32 | 6.8% | 1.72 [0.71, 4.16] |
| Glynn1992 | 0 | 21 | 1 | 20 | 1.8% | 0.32 [0.01, 7.38] |
| GARETY2008 | 4 | 28 | 5 | 28 | 5.7% | 0.80 [0.24, 2.67] |
| Buchkremer1995 | 7 | 67 | 7 | 32 | 10.9% | 0.48 [0.18, 1.25] |
| MAGLIANO2006 | 6 | 36 | 3 | 29 | 3.8% | 1.61 [0.44, 5.89] |
| Dyck2000 | 11 | 55 | 15 | 51 | 17.9% | 0.68 [0.35, 1.34] |
| CHIEN2004A | 0 | 24 | 0 | 24 | | Not estimable |
| Barrowclough1999 | 10 | 38 | 8 | 39 | 9.1% | 1.28 [0.57, 2.90] |
| CHIEN2004B | 1 | 33 | 1 | 31 | 1.2% | 0.94 [0.06, 14.38] |
| CHIEN2007 | 3 | 42 | 4 | 42 | 4.6% | 0.75 [0.18, 3.15] |
| Zhang1994 | 3 | 42 | 2 | 41 | 2.3% | 1.46 [0.26, 8.31] |
| Leff1982 | 2 | 12 | 0 | 12 | 0.6% | 5.00 [0.27, 94.34] |
| Xiong1994 | 15 | 34 | 12 | 28 | 15.1% | 1.03 [0.58, 1.82] |
| BRADLEY2006 | 5 | 30 | 4 | 29 | 4.7% | 1.21 [0.36, 4.06] |
| KOPELOWICZ2003 | 6 | 45 | 2 | 47 | 2.2% | 3.13 [0.67, 14.72] |
| **Subtotal (95% CI)** | | **558** | | **505** | **86.5%** | **1.05 [0.80, 1.39]** |
| Total events | 83 | | 70 | | | |
| Heterogeneity: Chi² = 10.19, df = 13 (P = 0.68); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.35 (P = 0.73) | | | | | | |
| **Total (95% CI)** | | **739** | | **682** | **100.0%** | **1.12 [0.86, 1.45]** |
| Total events | 100 | | 80 | | | |
| Heterogeneity: Chi² = 14.02, df = 18 (P = 0.73); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.85 (P = 0.39) | | | | | | |

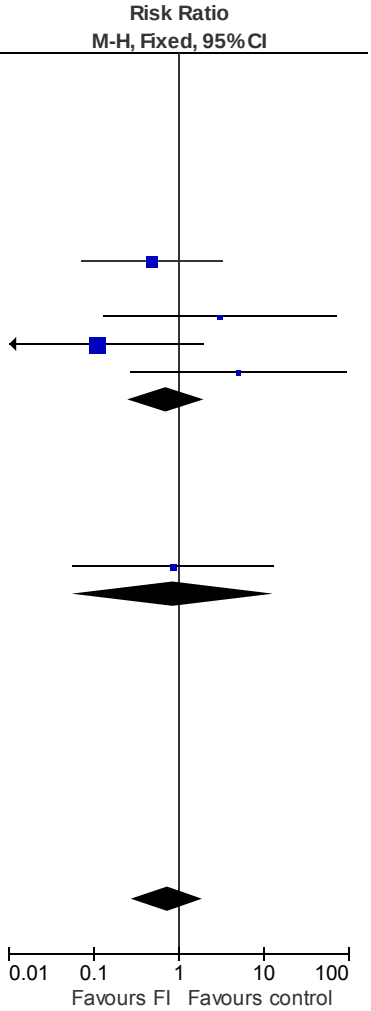



**5 Family intervention versus any control - subgroup analysis by phase of illness**

# Psychological clinical evidence: Family intervention (subgroup analyses)

**5.1 Mortality - suicide**

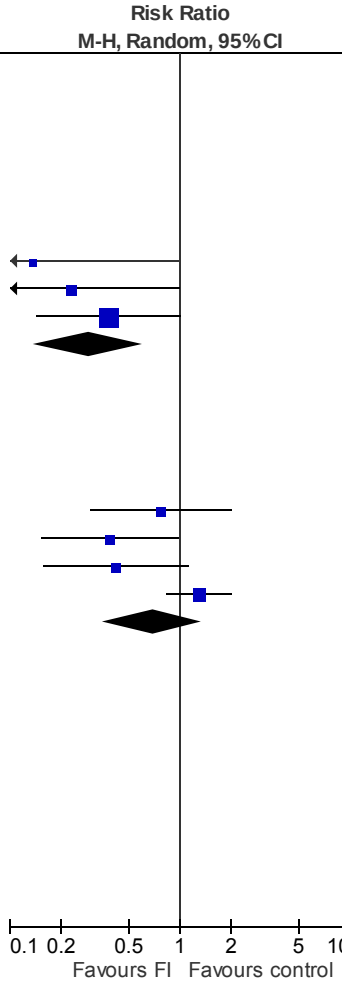
| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **5.1.1 suicide (initial treatment)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **5.1.2 suicide (acute treatment)** | | | | | | |
| Buchkremer1995 | 2 | 67 | 2 | 32 | 29.2% | 0.48 [0.07, 3.24] |
| GARETY2008 | 0 | 28 | 0 | 28 | | Not estimable |
| Tarrier1988 | 1 | 32 | 0 | 32 | 5.4% | 3.00 [0.13, 71.00] |
| Vaughan1992 | 0 | 18 | 4 | 18 | 48.5% | 0.11 [0.01, 1.92] |
| Leff1982 | 2 | 12 | 0 | 12 | 5.4% | 5.00 [0.27, 94.34] |
| **Subtotal (95% CI)** | | **157** | | **122** | **88.4%** | **0.71 [0.25, 1.96]** |
| Total events | 5 | | 6 | | | |
| Heterogeneity: Chi² = 4.28, df = 3 (P = 0.23); I² = 30% | | | | | | |
| Test for overall effect: Z = 0.67 (P = 0.50) | | | | | | |
| **5.1.3 suicide (promoting recovery - in service users with persistent symptoms)** | | | | | | |
| Xiong1994 | 1 | 34 | 1 | 29 | 11.6% | 0.85 [0.06, 13.04] |
| **Subtotal (95% CI)** | | **34** | | **29** | **11.6%** | **0.85 [0.06, 13.04]** |
| Total events | 1 | | 1 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.11 (P = 0.91) | | | | | | |
| **5.1.4 suicide (promoting recovery - in service users without persistent symptoms)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **Total (95% CI)** | | **191** | | **151** | **100.0%** | **0.72 [0.28, 1.88]** |
| Total events | 6 | | 7 | | | |
| Heterogeneity: Chi² = 4.29, df = 4 (P = 0.37); I² = 7% | | | | | | |
| Test for overall effect: Z = 0.67 (P = 0.51) | | | | | | |



# Psychological clinical evidence: Family intervention (subgroup analyses)

**5.2 Service outcomes: 1. Hospital admission (1-24 months into treatment)**

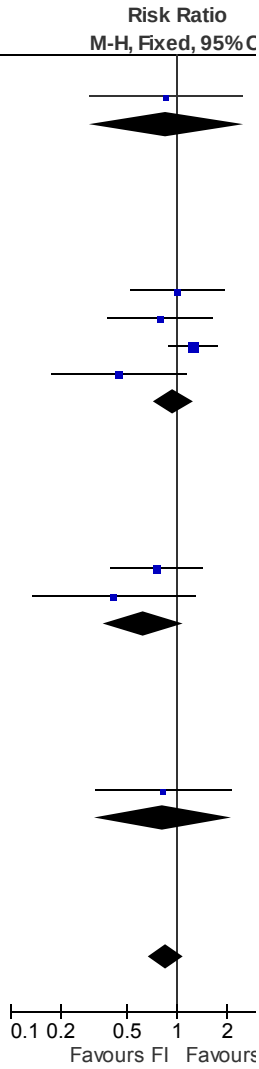
| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **5.2.1 1-12 months into treatment (initial treatment)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **5.2.2 1-12 months into treatment (acute treatment)** | | | | | | |
| Glynn1992 | 1 | 21 | 7 | 20 | 14.0% | 0.14 [0.02, 1.01] |
| KOPELOWICZ2003 | 2 | 39 | 10 | 45 | 26.6% | 0.23 [0.05, 0.99] |
| Falloon1981 | 4 | 20 | 10 | 19 | 59.4% | 0.38 [0.14, 1.01] |
| **Subtotal (95% CI)** | | **80** | | **84** | **100.0%** | **0.29 [0.14, 0.61]** |
| Total events | 7 | | 27 | | | |
| Heterogeneity: Tau² = 0.00; Chi² = 1.00, df = 2 (P = 0.61); I² = 0% | | | | | | |
| Test for overall effect: Z = 3.25 (P = 0.001) | | | | | | |
| **5.2.3 1-12 months into treatment (promoting recovery - in service users with persistent symptoms)** | | | | | | |
| Barrowclough1999 | 6 | 38 | 8 | 39 | 22.0% | 0.77 [0.29, 2.01] |
| Xiong1994 | 5 | 34 | 11 | 29 | 22.6% | 0.39 [0.15, 0.99] |
| Dyck2000 | 5 | 55 | 11 | 51 | 21.5% | 0.42 [0.16, 1.13] |
| Buchkremer1995 | 38 | 67 | 14 | 32 | 34.0% | 1.30 [0.83, 2.02] |
| **Subtotal (95% CI)** | | **194** | | **151** | **100.0%** | **0.69 [0.35, 1.36]** |
| Total events | 54 | | 44 | | | |
| Heterogeneity: Tau² = 0.30; Chi² = 8.47, df = 3 (P = 0.04); I² = 65% | | | | | | |
| Test for overall effect: Z = 1.07 (P = 0.28) | | | | | | |
| **5.2.4 1-12 months into treatment (promoting recovery - in service users without persistent symptoms)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |



# Psychological clinical evidence: Family intervention (subgroup analyses)

**5.3 Service outcomes: 1. Hospital admission (at FU)**

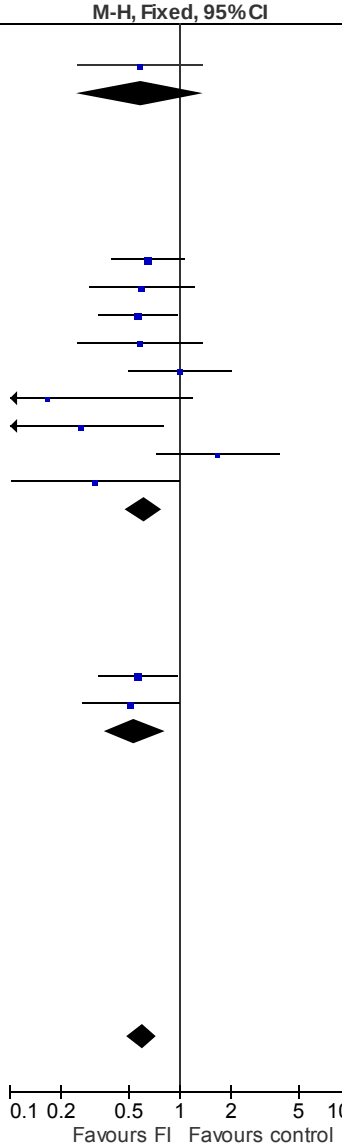
| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **5.3.1 FU (up to 2 years) after end of treatment (initial treatment)** | | | | | | |
| LEAVEY2004 | 6 | 57 | 6 | 49 | 6.9% | 0.86 [0.30, 2.49] |
| **Subtotal (95% CI)** | | **57** | | **49** | **6.9%** | **0.86 [0.30, 2.49]** |
| Total events | 6 | | 6 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.28 (P = 0.78) | | | | | | |
| **5.3.2 FU (up to 2 years) after end of treatment (acute treatment)** | | | | | | |
| Vaughan1992 | 9 | 18 | 9 | 18 | 9.6% | 1.00 [0.52, 1.92] |
| Bloch1995 | 9 | 32 | 11 | 31 | 11.9% | 0.79 [0.38, 1.64] |
| Buchkremer1995 | 47 | 67 | 18 | 32 | 26.0% | 1.25 [0.88, 1.76] |
| KOPELOWICZ2003 | 5 | 39 | 13 | 45 | 12.9% | 0.44 [0.17, 1.13] |
| **Subtotal (95% CI)** | | **156** | | **126** | **60.4%** | **0.95 [0.72, 1.25]** |
| Total events | 70 | | 51 | | | |
| Heterogeneity: Chi² = 5.24, df = 3 (P = 0.16); I² = 43% | | | | | | |
| Test for overall effect: Z = 0.39 (P = 0.70) | | | | | | |
| **5.3.3 FU (up to 2 yrs) after end of treatment (promoting recovery - in service users with persistent symptoms)** | | | | | | |
| Barrowclough1999 | 11 | 38 | 15 | 39 | 15.8% | 0.75 [0.40, 1.42] |
| Dyck2000 | 4 | 53 | 8 | 44 | 9.3% | 0.42 [0.13, 1.29] |
| **Subtotal (95% CI)** | | **91** | | **83** | **25.1%** | **0.63 [0.36, 1.09]** |
| Total events | 15 | | 23 | | | |
| Heterogeneity: Chi² = 0.83, df = 1 (P = 0.36); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.64 (P = 0.10) | | | | | | |
| **5.3.4 FU (up to 2 yrs) after end of treatment (promoting recovery - in service users without persistent symptom** | | | | | | |
| CARRA2007 | 6 | 26 | 7 | 25 | 7.6% | 0.82 [0.32, 2.11] |
| **Subtotal (95% CI)** | | **26** | | **25** | **7.6%** | **0.82 [0.32, 2.11]** |
| Total events | 6 | | 7 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.40 (P = 0.69) | | | | | | |
| **Total (95% CI)** | | **330** | | **283** | **100.0%** | **0.85 [0.67, 1.08]** |
| Total events | 97 | | 87 | | | |
| Heterogeneity: Chi² = 8.58, df = 7 (P = 0.28); I² = 18% | | | | | | |
| Test for overall effect: Z = 1.34 (P = 0.18) | | | | | | |



# Psychological clinical evidence: Family intervention (subgroup analyses)

**5.4 Global state: 1. Relapse (1-12 months into treatment)**

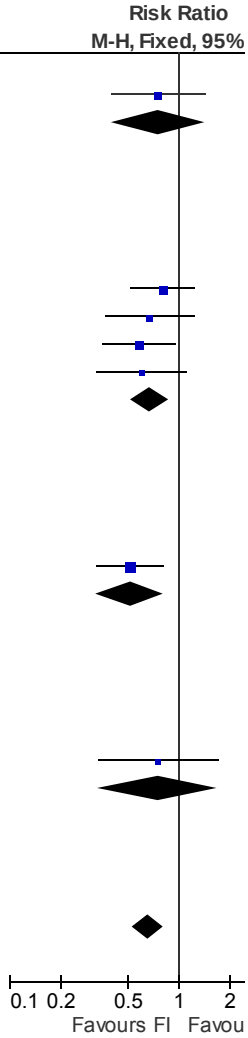
| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **5.4.1 1-12 months into treatment (initial treatment)** | | | | | | |
| Goldstein1978 | 7 | 52 | 12 | 52 | 7.6% | 0.58 [0.25, 1.36] |
| **Subtotal (95% CI)** | | **52** | | **52** | **7.6%** | **0.58 [0.25, 1.36]** |
| Total events | 7 | | 12 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.24 (P = 0.21) | | | | | | |
| **5.4.2 1-12 months into treatment (acute treatment)** | | | | | | |
| Tarrier1988 | 13 | 32 | 20 | 32 | 12.7% | 0.65 [0.40, 1.07] |
| BRADLEY2006 | 8 | 30 | 13 | 29 | 8.4% | 0.59 [0.29, 1.22] |
| Xiong1994 | 12 | 34 | 18 | 29 | 12.3% | 0.57 [0.33, 0.97] |
| Goldstein1978 | 7 | 52 | 12 | 52 | 7.6% | 0.58 [0.25, 1.36] |
| LINSZEN1996* | 11 | 37 | 11 | 37 | 7.0% | 1.00 [0.50, 2.01] |
| Leff1982 | 1 | 12 | 6 | 12 | 3.8% | 0.17 [0.02, 1.18] |
| Glynn1992 | 3 | 21 | 11 | 20 | 7.2% | 0.26 [0.08, 0.80] |
| Hogarty1997 | 10 | 24 | 6 | 24 | 3.8% | 1.67 [0.72, 3.86] |
| Falloon1981 | 3 | 20 | 9 | 19 | 5.9% | 0.32 [0.10, 1.00] |
| **Subtotal (95% CI)** | | **262** | | **254** | **68.7%** | **0.62 [0.48, 0.79]** |
| Total events | 68 | | 106 | | | |
| Heterogeneity: Chi² = 12.67, df = 8 (P = 0.12); I² = 37% | | | | | | |
| Test for overall effect: Z = 3.82 (P = 0.0001) | | | | | | |
| **5.4.3 1-12 months into treatment (promoting recovery - in service users with persistent symptoms)** | | | | | | |
| Xiong1994 | 12 | 34 | 18 | 29 | 12.3% | 0.57 [0.33, 0.97] |
| Barrowclough1999 | 9 | 38 | 18 | 39 | 11.3% | 0.51 [0.26, 1.00] |
| **Subtotal (95% CI)** | | **72** | | **68** | **23.6%** | **0.54 [0.36, 0.83]** |
| Total events | 21 | | 36 | | | |
| Heterogeneity: Chi² = 0.06, df = 1 (P = 0.81); I² = 0% | | | | | | |
| Test for overall effect: Z = 2.85 (P = 0.004) | | | | | | |
| **5.4.4 1-12 months into treatment (promoting recovery - in service users without persistent symptoms)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **Total (95% CI)** | | **386** | | **374** | **100.0%** | **0.60 [0.49, 0.73]** |
| Total events | 96 | | 154 | | | |
| Heterogeneity: Chi² = 13.14, df = 11 (P = 0.28); I² = 16% | | | | | | |
| Test for overall effect: Z = 4.88 (P < 0.00001) | | | | | | |



# Psychological clinical evidence: Family intervention (subgroup analyses)

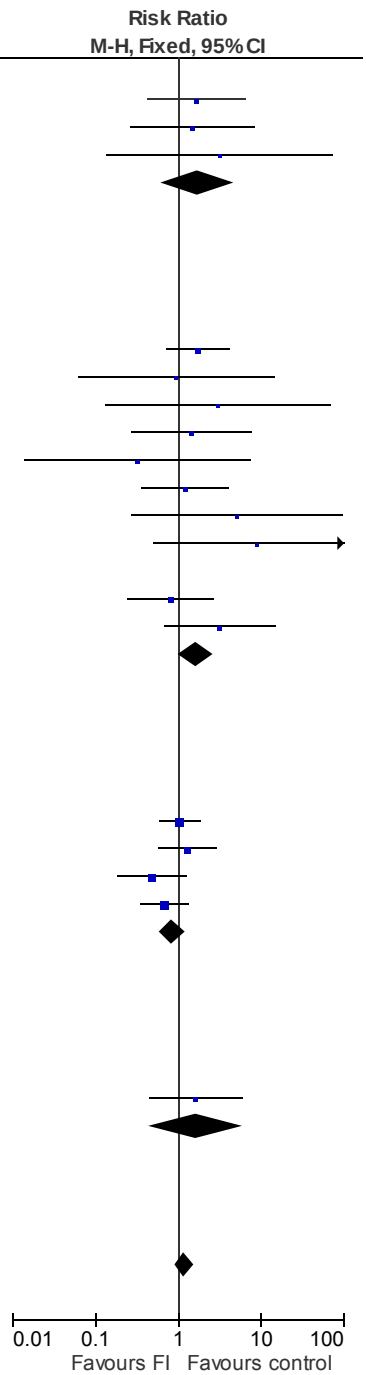
**5.6 Global state: 1. Relapse (at FU)**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **5.6.1 FU (4-24 months) after end of treatment (initial treatment)** | | | | | | |
| Goldstein1978 | 12 | 52 | 16 | 52 | 13.9% | 0.75 [0.39, 1.43] |
| **Subtotal (95% CI)** | | **52** | | **52** | **13.9%** | **0.75 [0.39, 1.43]** |
| Total events | 12 | | 16 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.88 (P = 0.38) | | | | | | |
| **5.6.2 FU (4-24 months) after end of treatment (acute treatment)** | | | | | | |
| Tarrier1988 | 16 | 32 | 20 | 32 | 17.4% | 0.80 [0.52, 1.24] |
| Vaughan1992 | 8 | 18 | 12 | 18 | 10.4% | 0.67 [0.36, 1.23] |
| BRADLEY2006 | 12 | 30 | 20 | 29 | 17.7% | 0.58 [0.35, 0.96] |
| Leff1982 | 6 | 12 | 10 | 12 | 8.7% | 0.60 [0.32, 1.12] |
| **Subtotal (95% CI)** | | **92** | | **91** | **54.1%** | **0.67 [0.52, 0.87]** |
| Total events | 42 | | 62 | | | |
| Heterogeneity: Chi² = 1.07, df = 3 (P = 0.78); I² = 0% | | | | | | |
| Test for overall effect: Z = 2.97 (P = 0.003) | | | | | | |
| **5.6.3 FU (4-24 months) after end of treatment (promoting recovery - in service users with persistent symptoms)** | | | | | | |
| Barrowclough1999 | 14 | 38 | 28 | 39 | 24.0% | 0.51 [0.32, 0.81] |
| **Subtotal (95% CI)** | | **38** | | **39** | **24.0%** | **0.51 [0.32, 0.81]** |
| Total events | 14 | | 28 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 2.84 (P = 0.005) | | | | | | |
| **5.6.4 FU (4-24 mths) after end of treatment (promoting recovery - in service users without persistent symptoms)** | | | | | | |
| CARRA2007 | 7 | 26 | 9 | 25 | 8.0% | 0.75 [0.33, 1.70] |
| **Subtotal (95% CI)** | | **26** | | **25** | **8.0%** | **0.75 [0.33, 1.70]** |
| Total events | 7 | | 9 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.69 (P = 0.49) | | | | | | |
| **Total (95% CI)** | | **208** | | **207** | **100.0%** | **0.65 [0.53, 0.80]** |
| Total events | 75 | | 115 | | | |
| Heterogeneity: Chi² = 2.45, df = 6 (P = 0.87); I² = 0% | | | | | | |
| Test for overall effect: Z = 3.99 (P < 0.0001) | | | | | | |



**5.9 Treatment acceptability: 1. Leaving the study early for any reason**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **5.9.1 Initial treatment** | | | | | | |
| Goldstein1978 | 5 | 52 | 3 | 52 | 3.8% | 1.67 [0.42, 6.62] |
| Zhang1994 | 3 | 42 | 2 | 41 | 2.6% | 1.46 [0.26, 8.31] |
| SO2006 | 1 | 22 | 0 | 23 | 0.6% | 3.13 [0.13, 72.99] |
| **Subtotal (95% CI)** | | **116** | | **116** | **7.1%** | **1.72 [0.62, 4.76]** |
| Total events | 9 | | 5 | | | |
| Heterogeneity: Chi² = 0.17, df = 2 (P = 0.92); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.05 (P = 0.29) | | | | | | |
| **5.9.2 Acute treatment** | | | | | | |
| Tarrier1988 | 10 | 31 | 6 | 32 | 7.6% | 1.72 [0.71, 4.16] |
| CHIEN2004B | 1 | 33 | 1 | 31 | 1.3% | 0.94 [0.06, 14.38] |
| Vaughan1992 | 1 | 18 | 0 | 18 | 0.6% | 3.00 [0.13, 69.09] |
| Falloon1981 | 3 | 20 | 2 | 19 | 2.6% | 1.43 [0.27, 7.61] |
| Glynn1992 | 0 | 21 | 1 | 20 | 2.0% | 0.32 [0.01, 7.38] |
| BRADLEY2006 | 5 | 30 | 4 | 29 | 5.2% | 1.21 [0.36, 4.06] |
| Leff1982 | 2 | 12 | 0 | 12 | 0.6% | 5.00 [0.27, 94.34] |
| Bloch1995 | 4 | 32 | 0 | 31 | 0.7% | 8.73 [0.49, 155.62] |
| CHIEN2004A | 0 | 24 | 0 | 24 | | Not estimable |
| GARETY2008 | 4 | 28 | 5 | 28 | 6.4% | 0.80 [0.24, 2.67] |
| KOPELOWICZ2003 | 6 | 45 | 2 | 47 | 2.5% | 3.13 [0.67, 14.72] |
| **Subtotal (95% CI)** | | **294** | | **291** | **29.6%** | **1.65 [1.02, 2.67]** |
| Total events | 36 | | 21 | | | |
| Heterogeneity: Chi² = 5.52, df = 9 (P = 0.79); I² = 0% | | | | | | |
| Test for overall effect: Z = 2.04 (P = 0.04) | | | | | | |
| **5.9.3 Promoting recovery - in service users with persistent symptoms** | | | | | | |
| Xiong1994 | 15 | 34 | 12 | 28 | 16.9% | 1.03 [0.58, 1.82] |
| Barrowclough1999 | 10 | 38 | 8 | 39 | 10.1% | 1.28 [0.57, 2.90] |
| Buchkremer1995 | 7 | 67 | 7 | 32 | 12.1% | 0.48 [0.18, 1.25] |
| Dyck2000 | 11 | 55 | 15 | 51 | 20.0% | 0.68 [0.35, 1.34] |
| **Subtotal (95% CI)** | | **194** | | **150** | **59.1%** | **0.84 [0.59, 1.20]** |
| Total events | 43 | | 42 | | | |
| Heterogeneity: Chi² = 3.22, df = 3 (P = 0.36); I² = 7% | | | | | | |
| Test for overall effect: Z = 0.95 (P = 0.34) | | | | | | |
| **5.9.4 Promoting recovery - in service users without persistent symptoms** | | | | | | |
| MAGLIANO2006 | 6 | 36 | 3 | 29 | 4.3% | 1.61 [0.44, 5.89] |
| **Subtotal (95% CI)** | | **36** | | **29** | **4.3%** | **1.61 [0.44, 5.89]** |
| Total events | 6 | | 3 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.72 (P = 0.47) | | | | | | |
| **Total (95% CI)** | | **640** | | **586** | **100.0%** | **1.18 [0.90, 1.54]** |
| Total events | 94 | | 71 | | | |
| Heterogeneity: Chi² = 13.57, df = 17 (P = 0.70); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.18 (P = 0.24) | | | | | | |

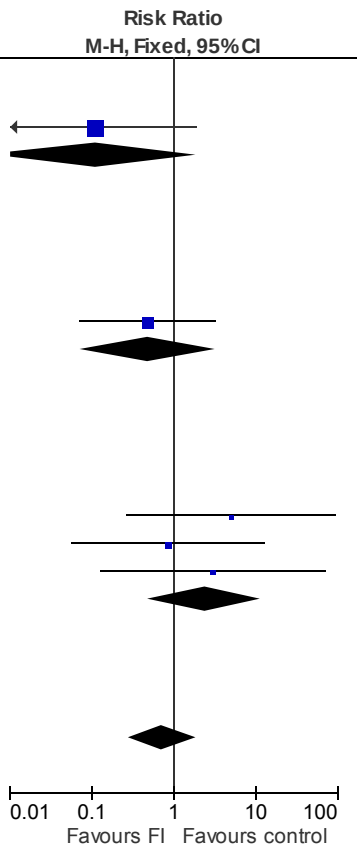



**6 Family intervention versus any control - subgroup analysis by group**

# Psychological clinical evidence: Family intervention (subgroup analyses)

**6.1 Mortality - suicide**

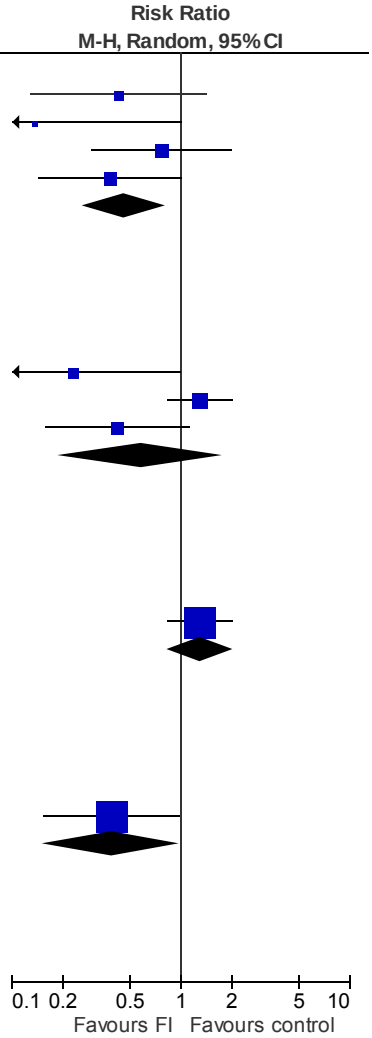
| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **6.1.1 suicide (single)** | | | | | | |
| GARETY2008 | 0 | 28 | 0 | 28 | | Not estimable |
| Vaughan1992 | 0 | 18 | 4 | 18 | 48.5% | 0.11 [0.01, 1.92] |
| **Subtotal (95% CI)** | | **46** | | **46** | **48.5%** | **0.11 [0.01, 1.92]** |
| Total events | 0 | | 4 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.51 (P = 0.13) | | | | | | |
| **6.1.2 suicide (group)** | | | | | | |
| Buchkremer1995 | 2 | 67 | 2 | 32 | 29.2% | 0.48 [0.07, 3.24] |
| **Subtotal (95% CI)** | | **67** | | **32** | **29.2%** | **0.48 [0.07, 3.24]** |
| Total events | 2 | | 2 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.76 (P = 0.45) | | | | | | |
| **6.1.3 suicide (mixed)** | | | | | | |
| Leff1982 | 2 | 12 | 0 | 12 | 5.4% | 5.00 [0.27, 94.34] |
| Xiong1994 | 1 | 34 | 1 | 29 | 11.6% | 0.85 [0.06, 13.04] |
| Tarrier1988 | 1 | 32 | 0 | 32 | 5.4% | 3.00 [0.13, 71.00] |
| **Subtotal (95% CI)** | | **78** | | **73** | **22.4%** | **2.37 [0.49, 11.54]** |
| Total events | 4 | | 1 | | | |
| Heterogeneity: Chi² = 0.81, df = 2 (P = 0.67); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.07 (P = 0.29) | | | | | | |
| **Total (95% CI)** | | **191** | | **151** | **100.0%** | **0.72 [0.28, 1.88]** |
| Total events | 6 | | 7 | | | |
| Heterogeneity: Chi² = 4.29, df = 4 (P = 0.37); I² = 7% | | | | | | |
| Test for overall effect: Z = 0.67 (P = 0.51) | | | | | | |



# Psychological clinical evidence: Family intervention (subgroup analyses)

**6.2 Service outcomes: 1. Hospital admission (0-12 months into treatment)**

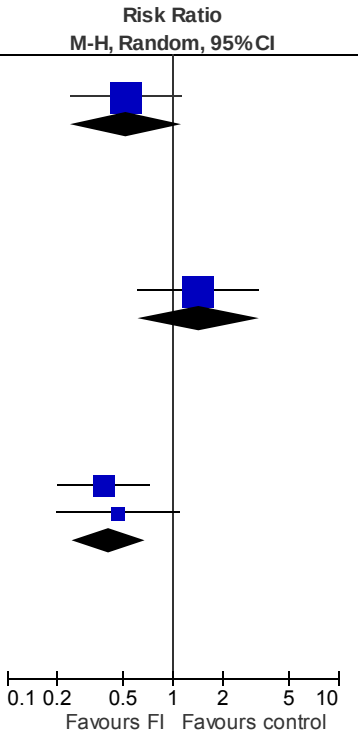
| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **6.2.1 1-12 months into treatment (Single)** | | | | | | |
| BRESSI2008 | 3 | 20 | 7 | 20 | 22.5% | 0.43 [0.13, 1.43] |
| Glynn1992 | 1 | 21 | 7 | 20 | 8.1% | 0.14 [0.02, 1.01] |
| Barrowclough1999 | 6 | 38 | 8 | 39 | 35.3% | 0.77 [0.29, 2.01] |
| Falloon1981 | 4 | 20 | 10 | 19 | 34.2% | 0.38 [0.14, 1.01] |
| **Subtotal (95% CI)** | | **99** | | **98** | **100.0%** | **0.46 [0.26, 0.81]** |
| Total events | 14 | | 32 | | | |
| Heterogeneity: Tau² = 0.00; Chi² = 2.74, df = 3 (P = 0.43); I² = 0% | | | | | | |
| Test for overall effect: Z = 2.66 (P = 0.008) | | | | | | |
| **6.2.2 1-12 months into treatment (Multi)** | | | | | | |
| KOPELOWICZ2003 | 2 | 39 | 10 | 45 | 25.4% | 0.23 [0.05, 0.99] |
| Buchkremer1995 | 38 | 67 | 14 | 32 | 41.5% | 1.30 [0.83, 2.02] |
| Dyck2000 | 5 | 55 | 11 | 51 | 33.1% | 0.42 [0.16, 1.13] |
| **Subtotal (95% CI)** | | **161** | | **128** | **100.0%** | **0.58 [0.19, 1.77]** |
| Total events | 45 | | 35 | | | |
| Heterogeneity: Tau² = 0.74; Chi² = 9.00, df = 2 (P = 0.01); I² = 78% | | | | | | |
| Test for overall effect: Z = 0.96 (P = 0.34) | | | | | | |
| **6.2.3 1-12 months into treatment (Multi -studies with a few individual sessions/ queries removed)** | | | | | | |
| Buchkremer1995 | 38 | 67 | 14 | 32 | 100.0% | 1.30 [0.83, 2.02] |
| **Subtotal (95% CI)** | | **67** | | **32** | **100.0%** | **1.30 [0.83, 2.02]** |
| Total events | 38 | | 14 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.14 (P = 0.25) | | | | | | |
| **6.2.4 1-12 months into treatment (Mixed)** | | | | | | |
| Xiong1994 | 5 | 34 | 11 | 29 | 100.0% | 0.39 [0.15, 0.99] |
| **Subtotal (95% CI)** | | **34** | | **29** | **100.0%** | **0.39 [0.15, 0.99]** |
| Total events | 5 | | 11 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.99 (P = 0.05) | | | | | | |



# Psychological clinical evidence: Family intervention (subgroup analyses)

**6.3 Service outcomes: 1. Hospital admission (13-24 months into treatment)**

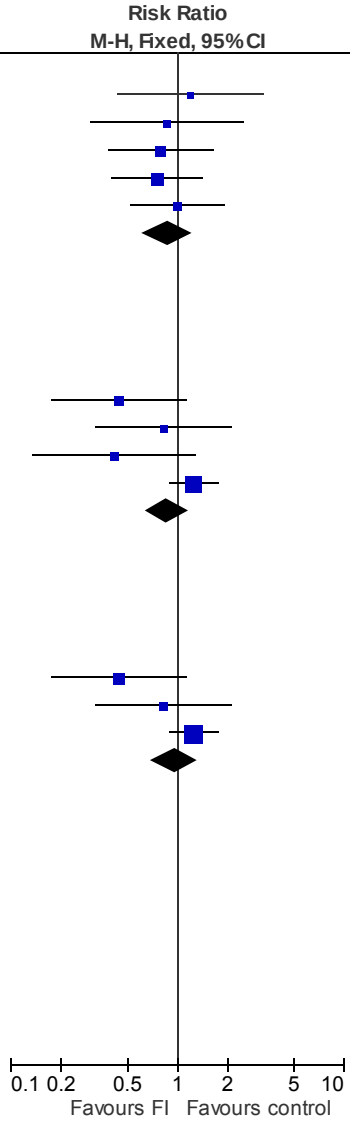
| | FI | | Control | | | Risk Ratio |
|---|---|---|---|---|---|---|
| **Study or Subgroup** | **Events** | **Total** | **Events** | **Total** | **Weight** | **M-H, Random, 95% CI** |
| **6.3.1 13-24 months into treatment (Single)** | | | | | | |
| Falloon1981 | 6 | 20 | 11 | 19 | 100.0% | 0.52 [0.24, 1.12] |
| **Subtotal (95% CI)** | | **20** | | **19** | **100.0%** | **0.52 [0.24, 1.12]** |
| Total events | 6 | | 11 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.67 (P = 0.09) | | | | | | |
| **6.3.3 13-24 months into treatment (Multi)** | | | | | | |
| Dyck2000 | 12 | 53 | 7 | 44 | 100.0% | 1.42 [0.61, 3.30] |
| **Subtotal (95% CI)** | | **53** | | **44** | **100.0%** | **1.42 [0.61, 3.30]** |
| Total events | 12 | | 7 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.82 (P = 0.41) | | | | | | |
| **6.3.4 13-24 months into treatment (Mixed)** | | | | | | |
| Zhang1994 | 9 | 42 | 23 | 41 | 64.5% | 0.38 [0.20, 0.72] |
| Xiong1994 | 6 | 34 | 11 | 29 | 35.5% | 0.47 [0.20, 1.10] |
| **Subtotal (95% CI)** | | **76** | | **70** | **100.0%** | **0.41 [0.25, 0.68]** |
| Total events | 15 | | 34 | | | |
| Heterogeneity: Tau² = 0.00; Chi² = 0.13, df = 1 (P = 0.72); I² = 0% | | | | | | |
| Test for overall effect: Z = 3.41 (P = 0.0007) | | | | | | |



# Psychological clinical evidence: Family intervention (subgroup analyses)

**6.4 Service outcomes: 1. Hospital admission (at FU)**

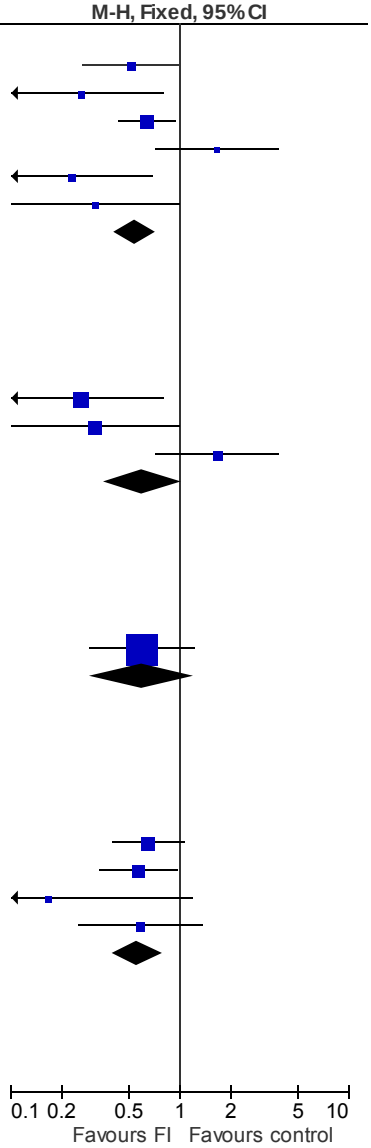
| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **6.4.1 FU (up to 2 years) after end of treatment (Single)** | | | | | | |
| BRESSI2008 | 6 | 20 | 5 | 20 | 10.8% | 1.20 [0.44, 3.30] |
| LEAVEY2004 | 6 | 57 | 6 | 49 | 13.9% | 0.86 [0.30, 2.49] |
| Bloch1995 | 9 | 32 | 11 | 31 | 24.1% | 0.79 [0.38, 1.64] |
| Barrowclough1999 | 11 | 38 | 15 | 39 | 31.9% | 0.75 [0.40, 1.42] |
| Vaughan1992 | 9 | 18 | 9 | 18 | 19.4% | 1.00 [0.52, 1.92] |
| **Subtotal (95% CI)** | | **165** | | **157** | **100.0%** | **0.87 [0.62, 1.23]** |
| Total events | 41 | | 46 | | | |
| Heterogeneity: Chi² = 0.82, df = 4 (P = 0.94); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.77 (P = 0.44) | | | | | | |
| **6.4.2 FU (up to 2 years) after end of treatment (Multi)** | | | | | | |
| KOPELOWICZ2003 | 5 | 39 | 13 | 45 | 23.1% | 0.44 [0.17, 1.13] |
| CARRA2007 | 6 | 26 | 7 | 25 | 13.6% | 0.82 [0.32, 2.11] |
| Dyck2000 | 4 | 53 | 8 | 44 | 16.7% | 0.42 [0.13, 1.29] |
| Buchkremer1995 | 47 | 67 | 18 | 32 | 46.6% | 1.25 [0.88, 1.76] |
| **Subtotal (95% CI)** | | **185** | | **146** | **100.0%** | **0.87 [0.64, 1.17]** |
| Total events | 62 | | 46 | | | |
| Heterogeneity: Chi² = 7.94, df = 3 (P = 0.05); I² = 62% | | | | | | |
| Test for overall effect: Z = 0.93 (P = 0.35) | | | | | | |
| **6.4.3 FU (up to 2 years) after end of treatment (Multi - papers with a few individual sessions removed)** | | | | | | |
| KOPELOWICZ2003 | 5 | 39 | 13 | 45 | 27.7% | 0.44 [0.17, 1.13] |
| CARRA2007 | 6 | 26 | 7 | 25 | 16.4% | 0.82 [0.32, 2.11] |
| Buchkremer1995 | 47 | 67 | 18 | 32 | 55.9% | 1.25 [0.88, 1.76] |
| **Subtotal (95% CI)** | | **132** | | **102** | **100.0%** | **0.96 [0.70, 1.31]** |
| Total events | 58 | | 38 | | | |
| Heterogeneity: Chi² = 4.98, df = 2 (P = 0.08); I² = 60% | | | | | | |
| Test for overall effect: Z = 0.28 (P = 0.78) | | | | | | |
| **6.4.4 FU (up to 2 years) after end of treatment (Mixed)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |



# Psychological clinical evidence: Family intervention (subgroup analyses)

**6.5 Global state: 1. Relapse (1-12 months into treatment)**

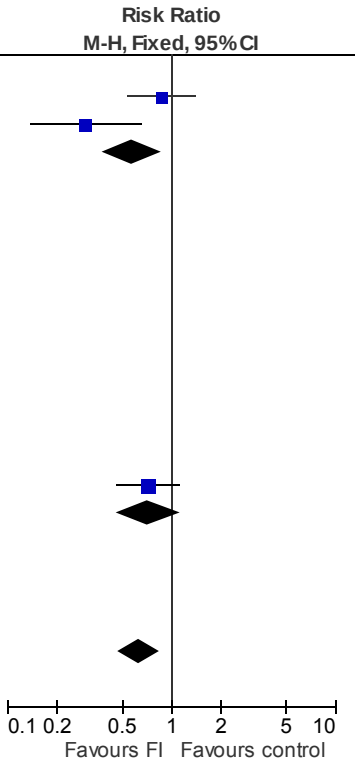
| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **6.5.1 1-12 months into treatment (Single)** | | | | | | |
| Barrowclough1999 | 9 | 38 | 18 | 39 | 19.6% | 0.51 [0.26, 1.00] |
| Glynn1992 | 3 | 21 | 11 | 20 | 12.5% | 0.26 [0.08, 0.80] |
| RAN2003 | 22 | 57 | 32 | 53 | 36.7% | 0.64 [0.43, 0.95] |
| Hogarty1997 | 10 | 24 | 6 | 24 | 6.6% | 1.67 [0.72, 3.86] |
| BRESSI2008 | 3 | 20 | 13 | 20 | 14.4% | 0.23 [0.08, 0.69] |
| Falloon1981 | 3 | 20 | 9 | 19 | 10.2% | 0.32 [0.10, 1.00] |
| **Subtotal (95% CI)** | | **180** | | **175** | **100.0%** | **0.54 [0.41, 0.72]** |
| Total events | 50 | | 89 | | | |
| Heterogeneity: Chi² = 12.42, df = 5 (P = 0.03); I² = 60% | | | | | | |
| Test for overall effect: Z = 4.28 (P < 0.0001) | | | | | | |
| **6.5.2 1-12 months into treatment (Single - Ran (had 2 group sessions) removed)** | | | | | | |
| Glynn1992 | 3 | 21 | 11 | 20 | 42.5% | 0.26 [0.08, 0.80] |
| Falloon1981 | 3 | 20 | 9 | 19 | 34.8% | 0.32 [0.10, 1.00] |
| Hogarty1997 | 10 | 24 | 6 | 24 | 22.6% | 1.67 [0.72, 3.86] |
| **Subtotal (95% CI)** | | **65** | | **63** | **100.0%** | **0.60 [0.35, 1.02]** |
| Total events | 16 | | 26 | | | |
| Heterogeneity: Chi² = 9.04, df = 2 (P = 0.01); I² = 78% | | | | | | |
| Test for overall effect: Z = 1.89 (P = 0.06) | | | | | | |
| **6.5.3 1-12 months into treatment (Multi)** | | | | | | |
| BRADLEY2006 | 8 | 30 | 13 | 29 | 100.0% | 0.59 [0.29, 1.22] |
| **Subtotal (95% CI)** | | **30** | | **29** | **100.0%** | **0.59 [0.29, 1.22]** |
| Total events | 8 | | 13 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.42 (P = 0.16) | | | | | | |
| **6.5.4 1-12 months into treatment (Mixed)** | | | | | | |
| Tarrier1988 | 13 | 32 | 20 | 32 | 34.8% | 0.65 [0.40, 1.07] |
| Xiong1994 | 12 | 34 | 18 | 29 | 33.8% | 0.57 [0.33, 0.97] |
| Leff1982 | 1 | 12 | 6 | 12 | 10.4% | 0.17 [0.02, 1.18] |
| Goldstein1978 | 7 | 52 | 12 | 52 | 20.9% | 0.58 [0.25, 1.36] |
| **Subtotal (95% CI)** | | **130** | | **125** | **100.0%** | **0.56 [0.40, 0.78]** |
| Total events | 33 | | 56 | | | |
| Heterogeneity: Chi² = 1.84, df = 3 (P = 0.61); I² = 0% | | | | | | |
| Test for overall effect: Z = 3.39 (P = 0.0007) | | | | | | |



# Psychological clinical evidence: Family intervention (subgroup analyses)

**6.6 Global state: 1. Relapse (13-24 months into treatment)**

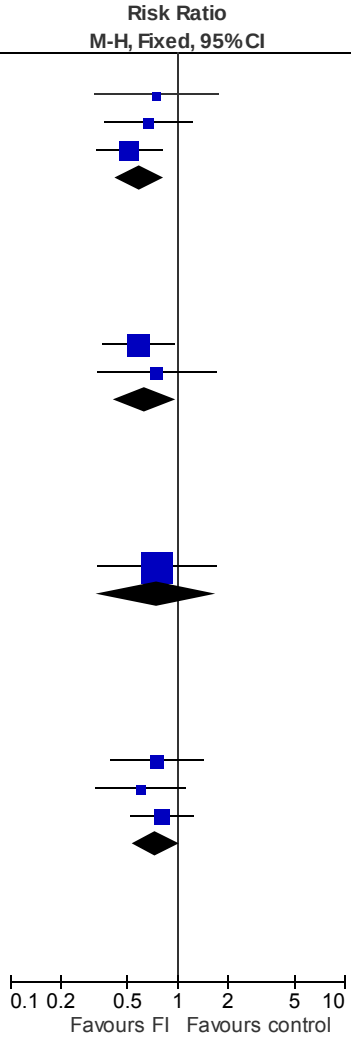
| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **6.6.1 13-24 months into treatment (Single)** | | | | | | |
| Hogarty1997 | 13 | 24 | 15 | 24 | 28.9% | 0.87 [0.54, 1.40] |
| Falloon1981 | 5 | 20 | 16 | 19 | 31.6% | 0.30 [0.14, 0.65] |
| **Subtotal (95% CI)** | | **44** | | **43** | **60.5%** | **0.57 [0.38, 0.86]** |
| Total events | 18 | | 31 | | | |
| Heterogeneity: Chi² = 5.59, df = 1 (P = 0.02); I² = 82% | | | | | | |
| Test for overall effect: Z = 2.70 (P = 0.007) | | | | | | |
| **6.6.2 13-24 months into treatment (Multi)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **6.6.3 13-24 months into treatment (Mixed)** | | | | | | |
| Xiong1994 | 16 | 34 | 19 | 29 | 39.5% | 0.72 [0.46, 1.12] |
| **Subtotal (95% CI)** | | **34** | | **29** | **39.5%** | **0.72 [0.46, 1.12]** |
| Total events | 16 | | 19 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.46 (P = 0.14) | | | | | | |
| **Total (95% CI)** | | **78** | | **72** | **100.0%** | **0.63 [0.46, 0.85]** |
| Total events | 34 | | 50 | | | |
| Heterogeneity: Chi² = 5.59, df = 2 (P = 0.06); I² = 64% | | | | | | |
| Test for overall effect: Z = 3.03 (P = 0.002) | | | | | | |



# Psychological clinical evidence: Family intervention (subgroup analyses)

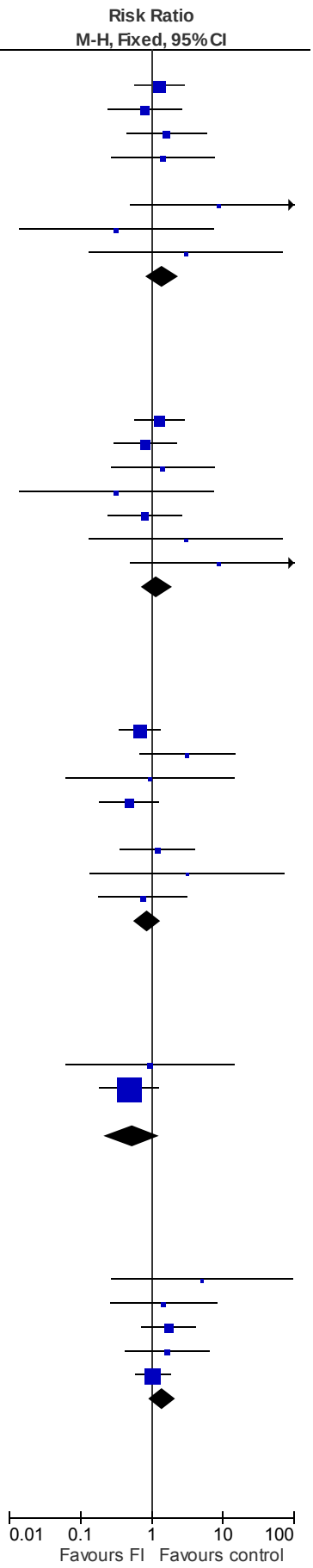
**6.7 Global state: 1. Relapse (at FU)**

| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **6.7.1 FU (4-24 months) after end of treatment (Single)** | | | | | | |
| BRESSI2008 | 6 | 20 | 8 | 20 | 16.8% | 0.75 [0.32, 1.77] |
| Vaughan1992 | 8 | 18 | 12 | 18 | 25.2% | 0.67 [0.36, 1.23] |
| Barrowclough1999 | 14 | 38 | 28 | 39 | 58.0% | 0.51 [0.32, 0.81] |
| **Subtotal (95% CI)** | | **76** | | **77** | **100.0%** | **0.59 [0.42, 0.83]** |
| Total events | 28 | | 48 | | | |
| Heterogeneity: Chi² = 0.81, df = 2 (P = 0.67); I² = 0% | | | | | | |
| Test for overall effect: Z = 3.03 (P = 0.002) | | | | | | |
| **6.7.2 FU (4-24 months) after end of treatment (Multi)** | | | | | | |
| BRADLEY2006 | 12 | 30 | 20 | 29 | 68.9% | 0.58 [0.35, 0.96] |
| CARRA2007 | 7 | 26 | 9 | 25 | 31.1% | 0.75 [0.33, 1.70] |
| **Subtotal (95% CI)** | | **56** | | **54** | **100.0%** | **0.63 [0.41, 0.97]** |
| Total events | 19 | | 29 | | | |
| Heterogeneity: Chi² = 0.27, df = 1 (P = 0.60); I² = 0% | | | | | | |
| Test for overall effect: Z = 2.08 (P = 0.04) | | | | | | |
| **6.7.3 FU (4-24 months) after end of treatment (Multi - studies with a few individual sessions removed)** | | | | | | |
| CARRA2007 | 7 | 26 | 9 | 25 | 100.0% | 0.75 [0.33, 1.70] |
| **Subtotal (95% CI)** | | **26** | | **25** | **100.0%** | **0.75 [0.33, 1.70]** |
| Total events | 7 | | 9 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.69 (P = 0.49) | | | | | | |
| **6.7.4 FU (4-24 months) after end of treatment (Mixed)** | | | | | | |
| Goldstein1978 | 12 | 52 | 16 | 52 | 34.8% | 0.75 [0.39, 1.43] |
| Leff1982 | 6 | 12 | 10 | 12 | 21.7% | 0.60 [0.32, 1.12] |
| Tarrier1988 | 16 | 32 | 20 | 32 | 43.5% | 0.80 [0.52, 1.24] |
| **Subtotal (95% CI)** | | **96** | | **96** | **100.0%** | **0.74 [0.53, 1.02]** |
| Total events | 34 | | 46 | | | |
| Heterogeneity: Chi² = 0.56, df = 2 (P = 0.75); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.83 (P = 0.07) | | | | | | |



**6.8 Treatment acceptability: 1. Leaving the study early for any reason**

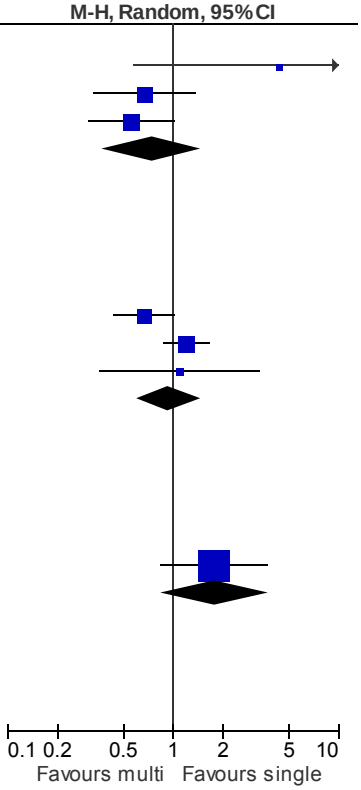
| Study or Subgroup | FI Events | FI Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **6.8.1 Single** | | | | | | |
| Barrowclough1999 | 10 | 38 | 8 | 39 | 37.9% | 1.28 [0.57, 2.90] |
| GARETY2008 | 4 | 28 | 5 | 28 | 24.0% | 0.80 [0.24, 2.67] |
| MAGLIANO2006 | 6 | 36 | 3 | 29 | 16.0% | 1.61 [0.44, 5.89] |
| Falloon1981 | 3 | 20 | 2 | 19 | 9.9% | 1.43 [0.27, 7.61] |
| BRESSI2008 | 0 | 20 | 0 | 20 | | Not estimable |
| Bloch1995 | 4 | 32 | 0 | 31 | 2.4% | 8.73 [0.49, 155.62] |
| Glynn1992 | 0 | 21 | 1 | 20 | 7.4% | 0.32 [0.01, 7.38] |
| Vaughan1992 | 1 | 18 | 0 | 18 | 2.4% | 3.00 [0.13, 69.09] |
| **Subtotal (95% CI)** | | **213** | | **204** | *100.0%* | **1.38 [0.82, 2.33]** |
| Total events | 28 | | 19 | | | |
| Heterogeneity: Chi² = 3.52, df = 6 (P = 0.74); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.23 (P = 0.22) | | | | | | |
| **6.8.2 Single (studies with a few group sessions removed)** | | | | | | |
| Barrowclough1999 | 10 | 38 | 8 | 39 | 31.9% | 1.28 [0.57, 2.90] |
| RAN2003 | 6 | 57 | 7 | 53 | 29.3% | 0.80 [0.29, 2.22] |
| Falloon1981 | 3 | 20 | 2 | 19 | 8.3% | 1.43 [0.27, 7.61] |
| Glynn1992 | 0 | 21 | 1 | 20 | 6.2% | 0.32 [0.01, 7.38] |
| GARETY2008 | 4 | 28 | 5 | 28 | 20.2% | 0.80 [0.24, 2.67] |
| Vaughan1992 | 1 | 18 | 0 | 18 | 2.0% | 3.00 [0.13, 69.09] |
| Bloch1995 | 4 | 32 | 0 | 31 | 2.1% | 8.73 [0.49, 155.62] |
| **Subtotal (95% CI)** | | **214** | | **208** | **100.0%** | **1.18 [0.72, 1.94]** |
| Total events | 28 | | 23 | | | |
| Heterogeneity: Chi² = 3.92, df = 6 (P = 0.69); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.66 (P = 0.51) | | | | | | |
| **6.8.3 Multi** | | | | | | |
| Dyck2000 | 11 | 55 | 15 | 51 | 42.5% | 0.68 [0.35, 1.34] |
| KOPELOWICZ2003 | 6 | 45 | 2 | 47 | 5.3% | 3.13 [0.67, 14.72] |
| CHIEN2004B | 1 | 33 | 1 | 31 | 2.8% | 0.94 [0.06, 14.38] |
| Buchkremer1995 | 7 | 67 | 7 | 32 | 25.9% | 0.48 [0.18, 1.25] |
| CHIEN2004A | 0 | 24 | 0 | 24 | | Not estimable |
| BRADLEY2006 | 5 | 30 | 4 | 29 | 11.1% | 1.21 [0.36, 4.06] |
| SO2006 | 1 | 22 | 0 | 23 | 1.3% | 3.13 [0.13, 72.99] |
| CHIEN2007 | 3 | 42 | 4 | 42 | 10.9% | 0.75 [0.18, 3.15] |
| **Subtotal (95% CI)** | | **318** | | **279** | **100.0%** | **0.87 [0.56, 1.33]** |
| Total events | 34 | | 33 | | | |
| Heterogeneity: Chi² = 5.59, df = 6 (P = 0.47); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.66 (P = 0.51) | | | | | | |
| **6.8.4 Multi (studies with a few individual sessions removed)** | | | | | | |
| CHIEN2004B | 1 | 33 | 1 | 31 | 9.8% | 0.94 [0.06, 14.38] |
| Buchkremer1995 | 7 | 67 | 7 | 32 | 90.2% | 0.48 [0.18, 1.25] |
| CHIEN2004A | 0 | 24 | 0 | 24 | | Not estimable |
| **Subtotal (95% CI)** | | **124** | | **87** | **100.0%** | **0.52 [0.21, 1.29]** |
| Total events | 8 | | 8 | | | |
| Heterogeneity: Chi² = 0.21, df = 1 (P = 0.65); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.41 (P = 0.16) | | | | | | |
| **6.8.5 Mixed** | | | | | | |
| Leff1982 | 2 | 12 | 0 | 12 | 2.0% | 5.00 [0.27, 94.34] |
| Zhang1994 | 3 | 42 | 2 | 41 | 8.2% | 1.46 [0.26, 8.31] |
| Tarrier1988 | 10 | 31 | 6 | 32 | 24.0% | 1.72 [0.71, 4.16] |
| Goldstein1978 | 5 | 52 | 3 | 52 | 12.2% | 1.67 [0.42, 6.62] |
| Xiong1994 | 15 | 34 | 12 | 28 | 53.5% | 1.03 [0.58, 1.82] |
| **Subtotal (95% CI)** | | **171** | | **165** | **100.0%** | **1.39 [0.90, 2.16]** |
| Total events | 35 | | 23 | | | |
| Heterogeneity: Chi² = 2.09, df = 4 (P = 0.72); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.47 (P = 0.14) | | | | | | |



**7 DIRECT FORMAT COMPARISON 1: Multi-family interventions versus single family interventions**

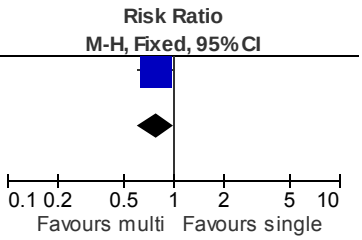
**7.1 Global state: 1. Relapse**

| Study or Subgroup | Multi-family Events | Multi-family Total | Single-family Events | Single-family Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **7.1.1 1-12 months into treatment** | | | | | | |
| LEFF1989 | 4 | 11 | 1 | 12 | 9.9% | 4.36 [0.57, 33.32] |
| MONTERO2001 | 9 | 41 | 15 | 46 | 41.9% | 0.67 [0.33, 1.37] |
| MCFARLANE1995a | 13 | 83 | 25 | 89 | 48.1% | 0.56 [0.31, 1.02] |
| **Subtotal (95% CI)** | | **135** | | **147** | **100.0%** | **0.74 [0.37, 1.47]** |
| Total events | 26 | | 41 | | | |
| Heterogeneity: Tau² = 0.16; Chi² = 3.66, df = 2 (P = 0.16); I² = 45% | | | | | | |
| Test for overall effect: Z = 0.86 (P = 0.39) | | | | | | |
| **7.1.2 13 -24 months into treatment** | | | | | | |
| MCFARLANE1995a | 23 | 83 | 37 | 89 | 40.0% | 0.67 [0.44, 1.02] |
| SCHOOLER1997 | 55 | 156 | 46 | 157 | 47.0% | 1.20 [0.87, 1.66] |
| LEFF1989 | 4 | 11 | 4 | 12 | 13.0% | 1.09 [0.36, 3.34] |
| **Subtotal (95% CI)** | | **250** | | **258** | **100.0%** | **0.94 [0.60, 1.48]** |
| Total events | 82 | | 87 | | | |
| Heterogeneity: Tau² = 0.09; Chi² = 4.73, df = 2 (P = 0.09); I² = 58% | | | | | | |
| Test for overall effect: Z = 0.28 (P = 0.78) | | | | | | |
| **7.1.3 follow-up 5 years after end of treatment** | | | | | | |
| MONTERO2001 | 13 | 34 | 8 | 37 | 100.0% | 1.77 [0.84, 3.73] |
| **Subtotal (95% CI)** | | **34** | | **37** | **100.0%** | **1.77 [0.84, 3.73]** |
| Total events | 13 | | 8 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.49 (P = 0.14) | | | | | | |



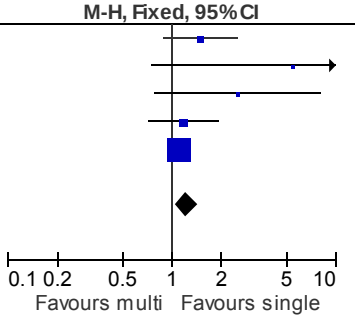

**7.2 Psychosocial functioning: 1. Not in work-related activity**

| Study or Subgroup | Multi-family Events | Multi-family Total | Single-family Events | Single-family Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| MCFARLANE1995a | 42 | 83 | 58 | 89 | 100.0% | 0.78 [0.60, 1.01] |
| **Total (95% CI)** | | **83** | | **89** | **100.0%** | **0.78 [0.60, 1.01]** |
| Total events | 42 | | 58 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.90 (P = 0.06) | | | | | | |




**7.3 Treatment acceptability: 1. Leaving the study early for any reason**

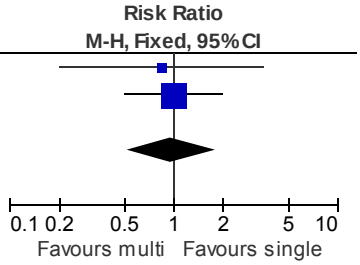
| Study or Subgroup | Multi-family Events | Multi-family Total | Single-family Events | Single-family Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| MONTERO2001 | 20 | 41 | 15 | 46 | 10.5% | 1.50 [0.89, 2.52] |
| LEFF1989 | 5 | 11 | 1 | 12 | 0.7% | 5.45 [0.75, 39.71] |
| MCFARLANE1995b | 9 | 25 | 3 | 21 | 2.4% | 2.52 [0.78, 8.13] |
| MCFARLANE1995a | 24 | 83 | 22 | 89 | 15.8% | 1.17 [0.71, 1.92] |
| SCHOOLER1997 | 104 | 156 | 95 | 157 | 70.5% | 1.10 [0.93, 1.30] |
| **Total (95% CI)** | | **316** | | **325** | **100.0%** | **1.22 [1.04, 1.43]** |
| Total events | 162 | | 136 | | | |
| Heterogeneity: Chi² = 5.68, df = 4 (P = 0.22); I² = 30% | | | | | | |
| Test for overall effect: Z = 2.47 (P = 0.01) | | | | | | |



**7.4 Non-adherence to study medication**

| Study or Subgroup | Multi-family Events | Multi-family Total | Single-family Events | Single-family Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| MONTERO2001 | 3 | 41 | 4 | 46 | 21.8% | 0.84 [0.20, 3.54] |
| MCFARLANE1995a | 13 | 83 | 14 | 89 | 78.2% | 1.00 [0.50, 1.99] |
| **Total (95% CI)** | | **124** | | **135** | **100.0%** | **0.96 [0.52, 1.80]** |
| Total events | 16 | | 18 | | | |

Heterogeneity: Chi² = 0.04, df = 1 (P = 0.84); I² = 0%
Test for overall effect: Z = 0.12 (P = 0.90)

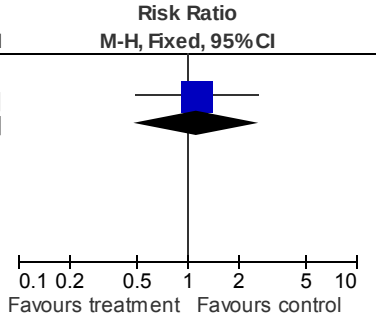



**8 DIRECT FORMAT COMPARISON 2: Information group + support group versus information group only**

**8.1 Service Outcome: 1.Re-hospitalisation (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **8.1.1 Up to 12 months FU** | | | | | | |
| CARRA2007 | 13 | 50 | 6 | 26 | 100.0% | 1.13 [0.48, 2.62] |
| **Subtotal (95% CI)** | | **50** | | **26** | **100.0%** | **1.13 [0.48, 2.62]** |
| Total events | 13 | | 6 | | | |

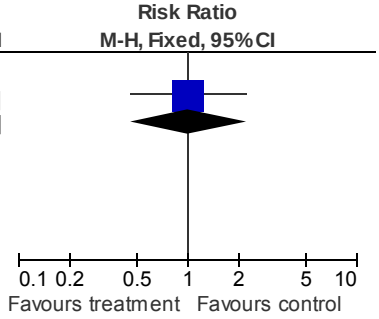
Heterogeneity: Not applicable
Test for overall effect: Z = 0.28 (P = 0.78)




**8.2 Global State: 1. Relapse (at FU)**

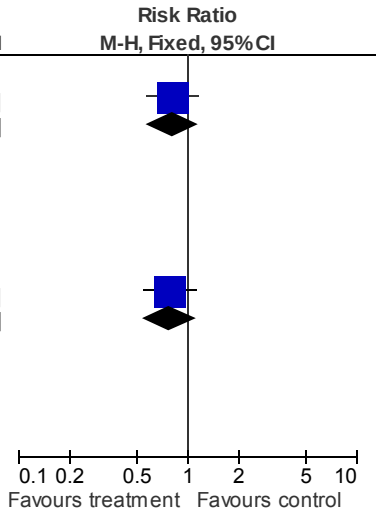
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **8.2.1 Up to 12 months FU** | | | | | | |
| CARRA2007 | 13 | 50 | 7 | 27 | 100.0% | 1.00 [0.45, 2.21] |
| **Subtotal (95% CI)** | | **50** | | **27** | **100.0%** | **1.00 [0.45, 2.21]** |
| Total events | 13 | | 7 | | | |

Heterogeneity: Not applicable
Test for overall effect: Z = 0.01 (P = 0.99)



**8.3 Psychosocial Functioning: 1. Not in current employment (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **8.3.1 Up to 12 months FU** | | | | | | |
| CARRA2007 | 28 | 50 | 18 | 26 | 100.0% | 0.81 [0.57, 1.15] |
| **Subtotal (95% CI)** | | **50** | | **26** | **100.0%** | **0.81 [0.57, 1.15]** |
| Total events | 28 | | 18 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.17 (P = 0.24) | | | | | | |
| **8.3.2 Up to 24 months FU** | | | | | | |
| CARRA2007 | 27 | 50 | 18 | 26 | 100.0% | 0.78 [0.54, 1.12] |
| **Subtotal (95% CI)** | | **50** | | **26** | **100.0%** | **0.78 [0.54, 1.12]** |
| Total events | 27 | | 18 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.34 (P = 0.18) | | | | | | |

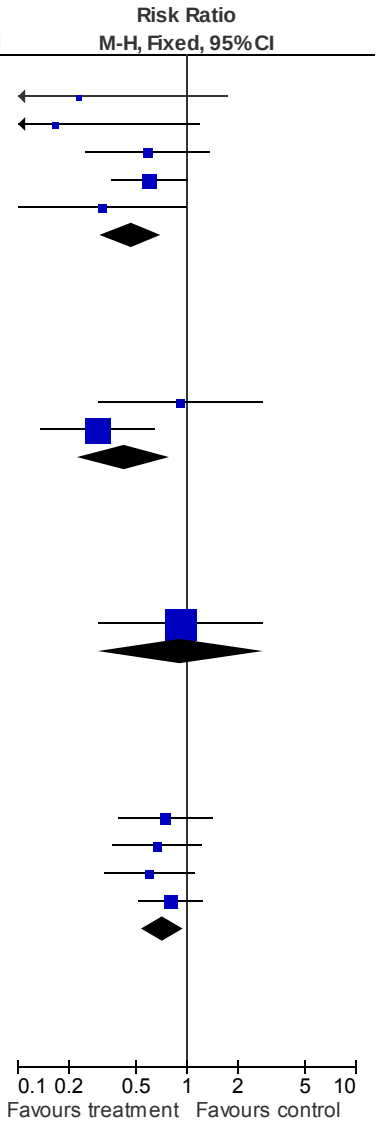



**9 DIRECT FORMAT COMPARISON 3: Family interventions for high-EE families only versus everything**

# Psychological clinical evidence: Family intervention (subgroup analyses)

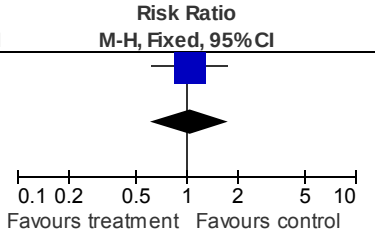
**9.1 Global state: 1. Relapse**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **9.1.1 1-12 months into treatment** | | | | | | |
| LEFF1989 | 1 | 12 | 4 | 11 | 8.1% | 0.23 [0.03, 1.75] |
| Leff1982 | 1 | 12 | 6 | 12 | 11.7% | 0.17 [0.02, 1.18] |
| Goldstein1978 | 7 | 52 | 12 | 52 | 23.3% | 0.58 [0.25, 1.36] |
| Tarrier1988 | 12 | 32 | 20 | 32 | 38.9% | 0.60 [0.36, 1.01] |
| Falloon1981 | 3 | 20 | 9 | 19 | 18.0% | 0.32 [0.10, 1.00] |
| **Subtotal (95% CI)** | | **128** | | **126** | **100.0%** | **0.46 [0.31, 0.70]** |
| Total events | 24 | | 51 | | | |
| Heterogeneity: Chi² = 3.15, df = 4 (P = 0.53); I² = 0% | | | | | | |
| Test for overall effect: Z = 3.71 (P = 0.0002) | | | | | | |
| **9.1.2 13 -24 months into treatment** | | | | | | |
| LEFF1989 | 4 | 12 | 4 | 11 | 20.3% | 0.92 [0.30, 2.81] |
| Falloon1981 | 5 | 20 | 16 | 19 | 79.7% | 0.30 [0.14, 0.65] |
| **Subtotal (95% CI)** | | **32** | | **30** | **100.0%** | **0.42 [0.23, 0.79]** |
| Total events | 9 | | 20 | | | |
| Heterogeneity: Chi² = 2.62, df = 1 (P = 0.11); I² = 62% | | | | | | |
| Test for overall effect: Z = 2.72 (P = 0.007) | | | | | | |
| **9.1.3 Up to 4 years into treatment** | | | | | | |
| LEFF1989 | 4 | 12 | 4 | 11 | 100.0% | 0.92 [0.30, 2.81] |
| **Subtotal (95% CI)** | | **12** | | **11** | **100.0%** | **0.92 [0.30, 2.81]** |
| Total events | 4 | | 4 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.15 (P = 0.88) | | | | | | |
| **9.1.4 follow-up 4-15 months after end of treatment** | | | | | | |
| Goldstein1978 | 12 | 52 | 16 | 52 | 27.6% | 0.75 [0.39, 1.43] |
| Vaughan1992 | 8 | 18 | 12 | 18 | 20.7% | 0.67 [0.36, 1.23] |
| Leff1982 | 6 | 12 | 10 | 12 | 17.2% | 0.60 [0.32, 1.12] |
| Tarrier1988 | 16 | 32 | 20 | 32 | 34.5% | 0.80 [0.52, 1.24] |
| **Subtotal (95% CI)** | | **114** | | **114** | **100.0%** | **0.72 [0.54, 0.96]** |
| Total events | 42 | | 58 | | | |
| Heterogeneity: Chi² = 0.63, df = 3 (P = 0.89); I² = 0% | | | | | | |
| Test for overall effect: Z = 2.21 (P = 0.03) | | | | | | |




**9.2 Psychosocial functioning: 1. Not in work-related activity**

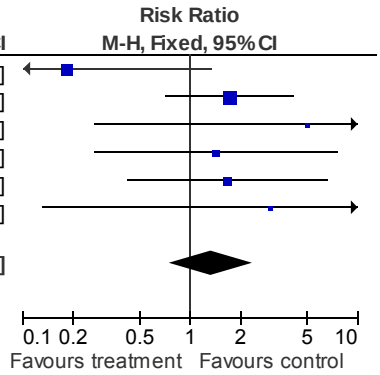
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| Falloon1981 | 12 | 20 | 11 | 19 | 100.0% | 1.04 [0.61, 1.75] |
| **Total (95% CI)** | | **20** | | **19** | **100.0%** | **1.04 [0.61, 1.75]** |
| Total events | 12 | | 11 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.13 (P = 0.89) | | | | | | |



**9.3 Treatment acceptability: 1. Leaving the study early for any reason**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| LEFF1989 | 1 | 12 | 5 | 11 | 30.4% | 0.18 [0.03, 1.33] |
| Tarrier1988 | 10 | 31 | 6 | 32 | 34.4% | 1.72 [0.71, 4.16] |
| Leff1982 | 2 | 12 | 0 | 12 | 2.9% | 5.00 [0.27, 94.34] |
| Falloon1981 | 3 | 20 | 2 | 19 | 11.9% | 1.43 [0.27, 7.61] |
| Goldstein1978 | 5 | 52 | 3 | 52 | 17.5% | 1.67 [0.42, 6.62] |
| Vaughan1992 | 1 | 18 | 0 | 18 | 2.9% | 3.00 [0.13, 69.09] |
| **Total (95% CI)** | | **145** | | **144** | **100.0%** | **1.34 [0.76, 2.38]** |
| Total events | 22 | | 16 | | | |

Heterogeneity: Chi² = 5.29, df = 5 (P = 0.38); I² = 5%
Test for overall effect: Z = 1.00 (P = 0.32)




**9.4 Non-adherence to study medication**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **9.4.1 at end of treatment** | | | | | | |
| Falloon1981 | 9 | 20 | 11 | 19 | 81.9% | 0.78 [0.42, 1.44] |
| Leff1982 | 0 | 12 | 2 | 12 | 18.1% | 0.20 [0.01, 3.77] |
| **Subtotal (95% CI)** | | **32** | | **31** | **100.0%** | **0.67 [0.36, 1.25]** |
| Total events | 9 | | 13 | | | |

Heterogeneity: Chi² = 0.87, df = 1 (P = 0.35); I² = 0%
Test for overall effect: Z = 1.26 (P = 0.21)

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **9.4.2 at follow-up** | | | | | | |
| Vaughan1992 | 10 | 18 | 11 | 18 | 78.6% | 0.91 [0.52, 1.58] |
| Leff1982 | 2 | 12 | 3 | 12 | 21.4% | 0.67 [0.13, 3.30] |
| **Subtotal (95% CI)** | | **30** | | **30** | **100.0%** | **0.86 [0.50, 1.47]** |
| Total events | 12 | | 14 | | | |

Heterogeneity: Chi² = 0.14, df = 1 (P = 0.71); I² = 0%
Test for overall effect: Z = 0.56 (P = 0.58)

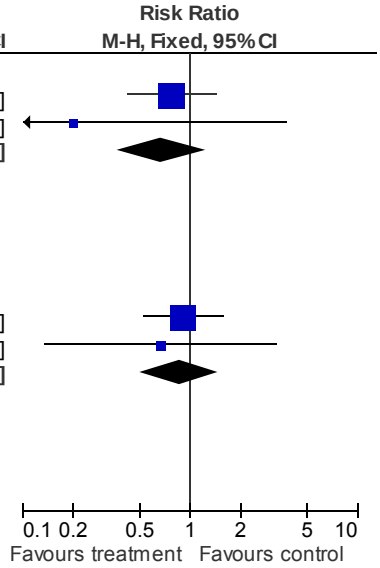


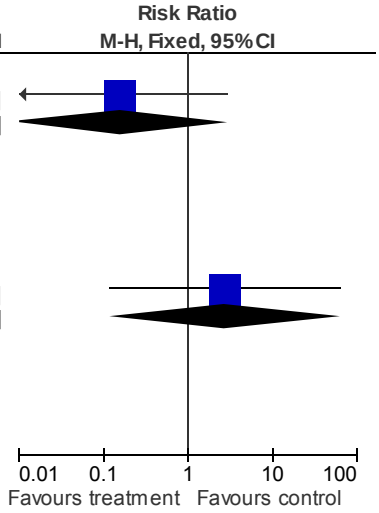
**Table 7: Studies included in the psychodynamic and psychoanalytic therapies review**

| Intervention | versus Comparator |
|---|---|
| | **Any control** |
| **Psychodynamic and psychoanalytic therapies** | DURHAM2003<br>May1976 |
| | **Reality adaptive therapy** |
| **Insight orientated therapy** | Gunderson1984 |
| | **Group therapy** |
| **Individual therapy** | O'Brien1972 |

**1 Psychodynamic and psychoanalytic therapies versus any control**

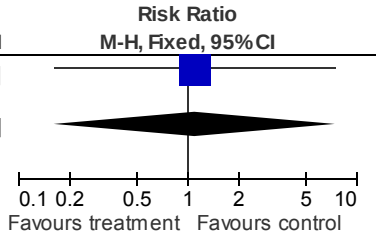
**1.1 Mortality**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.1.1 Suicide - up to 3 years FU** | | | | | | |
| May1976 | 0 | 44 | 3 | 48 | 100.0% | 0.16 [0.01, 2.93] |
| **Subtotal (95% CI)** | | **44** | | **48** | **100.0%** | **0.16 [0.01, 2.93]** |
| Total events | 0 | | 3 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.24 (P = 0.21) | | | | | | |
| **1.1.2 Died of natural causes / accidents** | | | | | | |
| DURHAM2003 | 1 | 23 | 0 | 21 | 100.0% | 2.75 [0.12, 64.04] |
| **Subtotal (95% CI)** | | **23** | | **21** | **100.0%** | **2.75 [0.12, 64.04]** |
| Total events | 1 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.63 (P = 0.53) | | | | | | |



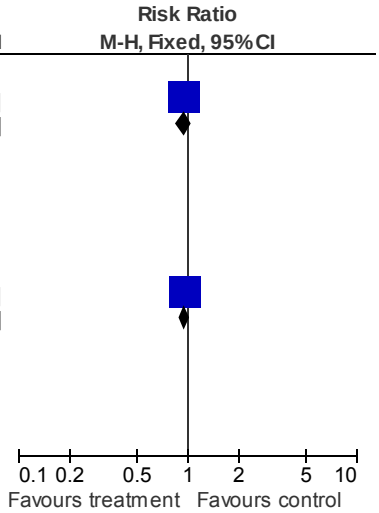

**1.2 Global state: 1. not able to be discharged**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| May1976 | 2 | 44 | 2 | 48 | 100.0% | 1.09 [0.16, 7.42] |
| **Total (95% CI)** | | **44** | | **48** | **100.0%** | **1.09 [0.16, 7.42]** |
| Total events | 2 | | 2 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.09 (P = 0.93) | | | | | | |




**1.3 Global state: 2. Given medication during 12 months to three years FU**

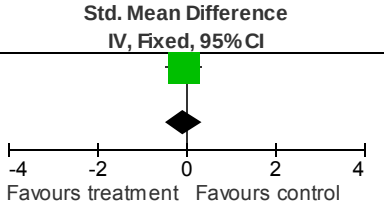
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.3.1 By 12 months** | | | | | | |
| May1976 | 40 | 44 | 46 | 48 | 100.0% | 0.95 [0.85, 1.06] |
| **Subtotal (95% CI)** | | **44** | | **48** | **100.0%** | **0.95 [0.85, 1.06]** |
| Total events | 40 | | 46 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.94 (P = 0.35) | | | | | | |
| **1.3.2 By 3 years** | | | | | | |
| May1976 | 42 | 44 | 48 | 48 | 100.0% | 0.95 [0.88, 1.03] |
| **Subtotal (95% CI)** | | **44** | | **48** | **100.0%** | **0.95 [0.88, 1.03]** |
| Total events | 42 | | 48 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.20 (P = 0.23) | | | | | | |



**1.4 Global state: 3. Achieved best level of health (Menninger Health Sickness scale)**

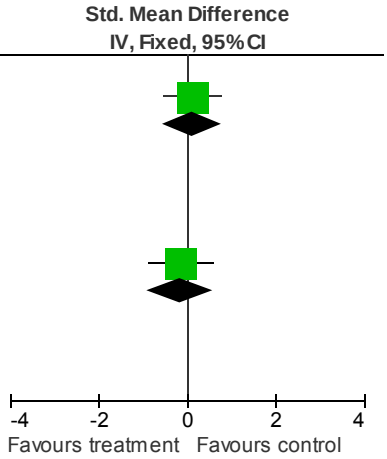
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| May1976 | 45.8 | 11.4 | 44 | 46.6 | 10.6 | 46 | 100.0% | -0.07 [-0.49, 0.34] |
| **Total (95% CI)** | | | **44** | | | **46** | **100.0%** | **-0.07 [-0.49, 0.34]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 0.34 (P = 0.73)




**1.5 Global state: 4. GAS (signs reversed)**

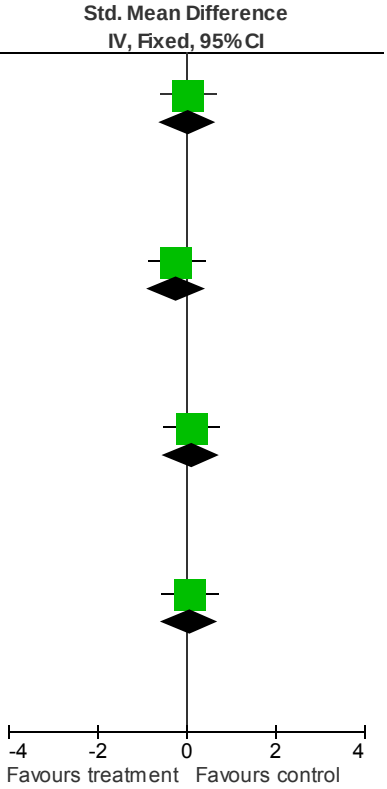
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.5.1 GAS - at end of treatment** | | | | | | | | |
| DURHAM2003 | -33.8 | 5.9 | 17 | -34.6 | 7.7 | 18 | 100.0% | 0.11 [-0.55, 0.78] |
| **Subtotal (95% CI)** | | | **17** | | | **18** | **100.0%** | **0.11 [-0.55, 0.78]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.34 (P = 0.74) | | | | | | | | |
| **1.5.2 GAS - up to 3 months FU** | | | | | | | | |
| DURHAM2003 | -36.3 | 9.8 | 12 | -34.9 | 7.1 | 17 | 100.0% | -0.16 [-0.90, 0.58] |
| **Subtotal (95% CI)** | | | **12** | | | **17** | **100.0%** | **-0.16 [-0.90, 0.58]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.43 (P = 0.66) | | | | | | | | |




Test for subgroup differences: Chi² = 0.30, df = 1 (P = 0.58), I² = 0%

**1.6 Mental state: 1. Continuous measures - PSYRATS (lower = better)**

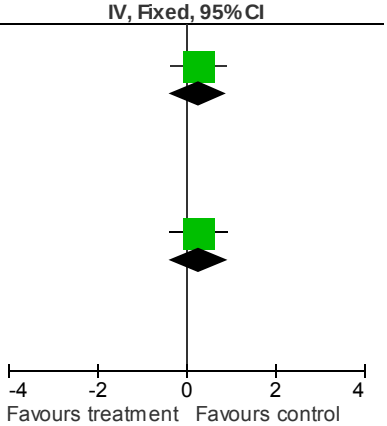
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.6.1 PSYRATS delusions - at end of treatment** | | | | | | | | |
| DURHAM2003 | 11.8 | 6.2 | 19 | 11.6 | 6.6 | 19 | 100.0% | 0.03 [-0.61, 0.67] |
| **Subtotal (95% CI)** | | | **19** | | | **19** | **100.0%** | **0.03 [-0.61, 0.67]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.09 (P = 0.92) | | | | | | | | |
| **1.6.2 PSYRATS delusions - up to 3 months FU** | | | | | | | | |
| DURHAM2003 | 9.7 | 6.1 | 19 | 11.2 | 6.5 | 18 | 100.0% | -0.23 [-0.88, 0.41] |
| **Subtotal (95% CI)** | | | **19** | | | **18** | **100.0%** | **-0.23 [-0.88, 0.41]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.71 (P = 0.48) | | | | | | | | |
| **1.6.3 PSYRATS hallucinations - at end of treatment** | | | | | | | | |
| DURHAM2003 | 20.6 | 12.3 | 19 | 19.3 | 11.3 | 19 | 100.0% | 0.11 [-0.53, 0.74] |
| **Subtotal (95% CI)** | | | **19** | | | **19** | **100.0%** | **0.11 [-0.53, 0.74]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.33 (P = 0.74) | | | | | | | | |
| **1.6.4 PSYRATS hallucinations - up to 3 months FU** | | | | | | | | |
| DURHAM2003 | 18 | 12.2 | 20 | 17.2 | 11.7 | 17 | 100.0% | 0.07 [-0.58, 0.71] |
| **Subtotal (95% CI)** | | | **20** | | | **17** | **100.0%** | **0.07 [-0.58, 0.71]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.20 (P = 0.84) | | | | | | | | |




Test for subgroup differences: Chi² = 0.66, df = 3 (P = 0.88), I² = 0%

**1.7 Mental state: 2. Continuous measures - total symptom score (lower = better)**

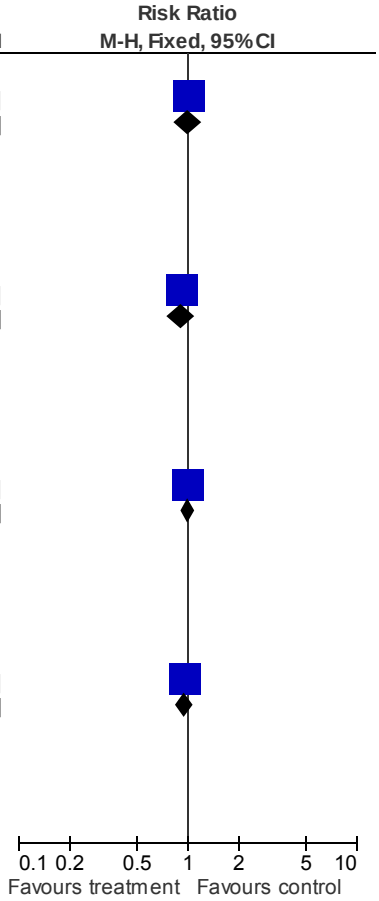
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.7.1 PANSS, BPRS - at end of treatment** | | | | | | | | |
| DURHAM2003 | 95.2 | 16.2 | 19 | 90.6 | 17.5 | 19 | 100.0% | 0.27 [-0.37, 0.91] |
| **Subtotal (95% CI)** | | | **19** | | | **19** | **100.0%** | **0.27 [-0.37, 0.91]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.82 (P = 0.41) | | | | | | | | |
| **1.7.2 PANSS, BPRS - up to 3 months FU** | | | | | | | | |
| DURHAM2003 | 93.5 | 16.8 | 19 | 88.8 | 18 | 17 | 100.0% | 0.26 [-0.39, 0.92] |
| **Subtotal (95% CI)** | | | **19** | | | **17** | **100.0%** | **0.26 [-0.39, 0.92]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.79 (P = 0.43) | | | | | | | | |




Test for subgroup differences: Chi² = 0.00, df = 1 (P = 1.00), I² = 0%

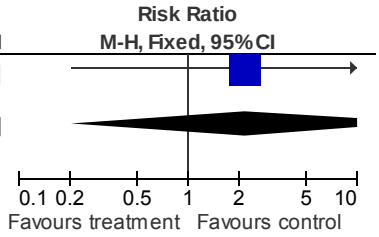
**1.8 Mental state: 3. No clinically significant improvement**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.8.1 25% or less improvement in total PANSS - at end of treatment** | | | | | | |
| DURHAM2003 | 21 | 23 | 19 | 21 | 100.0% | 1.01 [0.84, 1.22] |
| **Subtotal (95% CI)** | | **23** | | **21** | **100.0%** | **1.01 [0.84, 1.22]** |
| Total events | 21 | | 19 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.10 (P = 0.92) | | | | | | |
| **1.8.2 25% or less improvement in total PANSS - up to 3 months FU** | | | | | | |
| DURHAM2003 | 20 | 23 | 19 | 20 | 100.0% | 0.92 [0.76, 1.10] |
| **Subtotal (95% CI)** | | **23** | | **20** | **100.0%** | **0.92 [0.76, 1.10]** |
| Total events | 20 | | 19 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.92 (P = 0.36) | | | | | | |
| **1.8.3 50% or less improvement in total PANSS - at end of treatment** | | | | | | |
| DURHAM2003 | 23 | 23 | 21 | 21 | 100.0% | 1.00 [0.92, 1.09] |
| **Subtotal (95% CI)** | | **23** | | **21** | **100.0%** | **1.00 [0.92, 1.09]** |
| Total events | 23 | | 21 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.00 (P = 1.00) | | | | | | |
| **1.8.4 50% or less improvement in total PANSS - up to 3 months FU** | | | | | | |
| DURHAM2003 | 22 | 23 | 21 | 21 | 100.0% | 0.96 [0.85, 1.08] |
| **Subtotal (95% CI)** | | **23** | | **21** | **100.0%** | **0.96 [0.85, 1.08]** |
| Total events | 22 | | 21 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.67 (P = 0.50) | | | | | | |



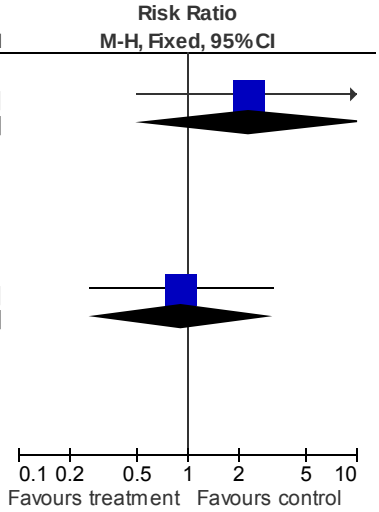

**1.9 Treatment not considered successful by treatment team**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| May1976 | 2 | 44 | 1 | 48 | 100.0% | 2.18 [0.20, 23.23] |
| **Total (95% CI)** | | **44** | | **48** | **100.0%** | **2.18 [0.20, 23.23]** |
| Total events | 2 | | 1 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.65 (P = 0.52) | | | | | | |



**1.10 Treatment acceptability: Leaving the study for any reason**

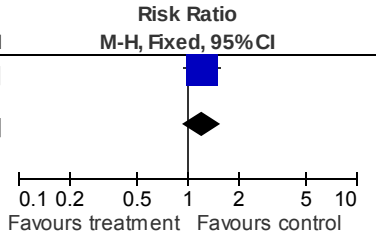
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.10.1 At end of treatment** | | | | | | |
| DURHAM2003 | 5 | 23 | 2 | 21 | 100.0% | 2.28 [0.49, 10.54] |
| **Subtotal (95% CI)** | | **23** | | **21** | **100.0%** | **2.28 [0.49, 10.54]** |
| Total events | 5 | | 2 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.06 (P = 0.29) | | | | | | |
| **1.10.2 up to 3 months FU** | | | | | | |
| DURHAM2003 | 4 | 23 | 4 | 21 | 100.0% | 0.91 [0.26, 3.20] |
| **Subtotal (95% CI)** | | **23** | | **21** | **100.0%** | **0.91 [0.26, 3.20]** |
| Total events | 4 | | 4 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.14 (P = 0.89) | | | | | | |




**2 Insight orientated versus reality orientated psychodynamic and psychoanalytic therapies**

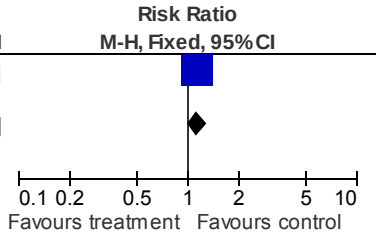
**2.1 Global state: 1. Rehospitalised**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| Gunderson1984 | 57 | 88 | 41 | 76 | 100.0% | 1.20 [0.93, 1.56] |
| **Total (95% CI)** | | **88** | | **76** | **100.0%** | **1.20 [0.93, 1.56]** |
| Total events | 57 | | 41 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.39 (P = 0.17) | | | | | | |



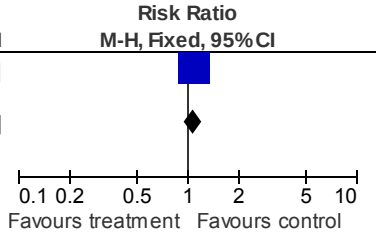

**2.2 Global state: 2. Not able to perform major household responsibilities**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| Gunderson1984 | 80 | 88 | 61 | 76 | 100.0% | 1.13 [0.99, 1.29] |
| **Total (95% CI)** | | **88** | | **76** | **100.0%** | **1.13 [0.99, 1.29]** |
| Total events | 80 | | 61 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.88 (P = 0.06) | | | | | | |




**2.3 Global state: 3. Not able to enjoy a significant relationship**

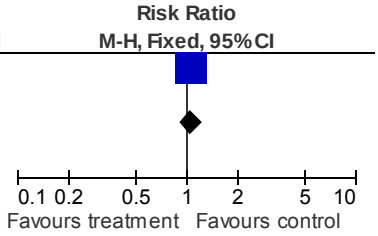
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| Gunderson1984 | 80 | 88 | 64 | 76 | 100.0% | 1.08 [0.96, 1.21] |
| **Total (95% CI)** | | **88** | | **76** | **100.0%** | **1.08 [0.96, 1.21]** |
| Total events | 80 | | 64 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.28 (P = 0.20) | | | | | | |



**2.4 Global state: 4. Not self supporting**

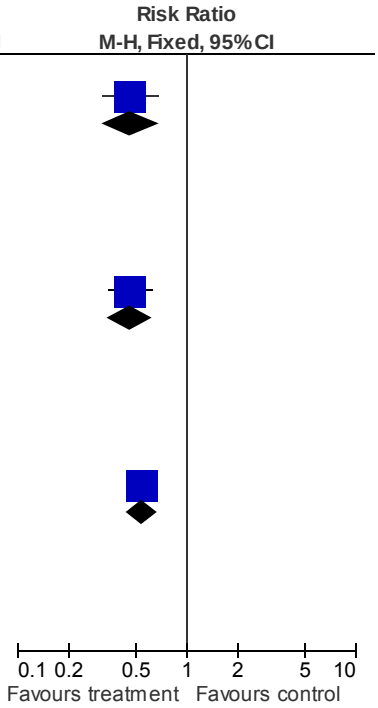
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| Gunderson1984 | 72 | 88 | 59 | 76 | 100.0% | 1.05 [0.90, 1.23] |
| **Total (95% CI)** | | **88** | | **76** | **100.0%** | **1.05 [0.90, 1.23]** |
| Total events | 72 | | 59 | | | |

Heterogeneity: Not applicable
Test for overall effect: Z = 0.66 (P = 0.51)




**2.5 Leaving the study early**

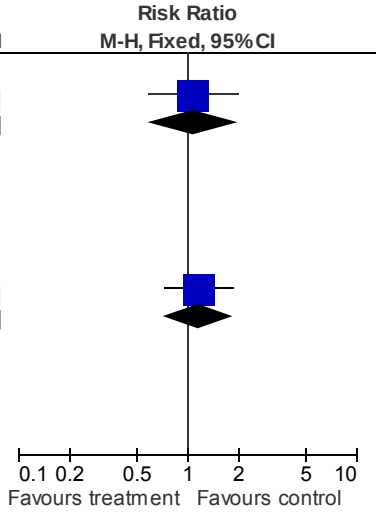
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.5.1 at 6 months** | | | | | | |
| Gunderson1984 | 24 | 88 | 45 | 76 | 100.0% | 0.46 [0.31, 0.68] |
| **Subtotal (95% CI)** | | **88** | | **76** | **100.0%** | **0.46 [0.31, 0.68]** |
| Total events | 24 | | 45 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 3.91 (P < 0.0001) | | | | | | |
| **2.5.2 at 12 months** | | | | | | |
| Gunderson1984 | 32 | 88 | 60 | 76 | 100.0% | 0.46 [0.34, 0.62] |
| **Subtotal (95% CI)** | | **88** | | **76** | **100.0%** | **0.46 [0.34, 0.62]** |
| Total events | 32 | | 60 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 5.07 (P < 0.00001) | | | | | | |
| **2.5.3 at 24 months** | | | | | | |
| Gunderson1984 | 45 | 88 | 72 | 76 | 100.0% | 0.54 [0.44, 0.67] |
| **Subtotal (95% CI)** | | **88** | | **76** | **100.0%** | **0.54 [0.44, 0.67]** |
| Total events | 45 | | 72 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 5.73 (P < 0.00001) | | | | | | |




**3 Individual versus group psychodynamic and psychoanalytic therapies**

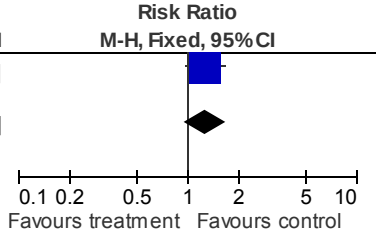
**3.1 Global state: 1. Returned to hospital**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.1.1 at 12 months** | | | | | | |
| O'Brien1972 | 15 | 50 | 14 | 50 | 100.0% | 1.07 [0.58, 1.98] |
| **Subtotal (95% CI)** | | **50** | | **50** | **100.0%** | **1.07 [0.58, 1.98]** |
| Total events | 15 | | 14 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.22 (P = 0.83) | | | | | | |
| **3.1.2 at 24 months** | | | | | | |
| O'Brien1972 | 22 | 50 | 19 | 50 | 100.0% | 1.16 [0.72, 1.86] |
| **Subtotal (95% CI)** | | **50** | | **50** | **100.0%** | **1.16 [0.72, 1.86]** |
| Total events | 22 | | 19 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.61 (P = 0.54) | | | | | | |



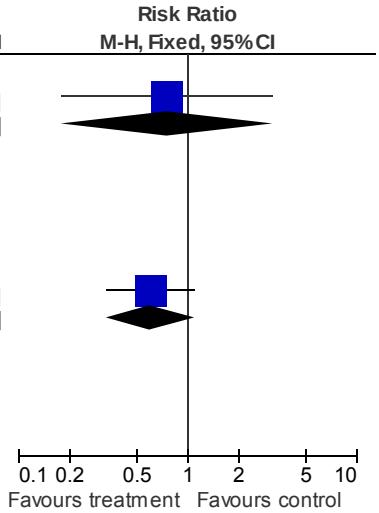

**3.2 Global state: 2. Not improved at 24 months**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| O'Brien1972 | 38 | 50 | 30 | 50 | 100.0% | 1.27 [0.96, 1.67] |
| **Total (95% CI)** | | **50** | | **50** | **100.0%** | **1.27 [0.96, 1.67]** |
| Total events | 38 | | 30 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.69 (P = 0.09) | | | | | | |




**3.3 Global state: 3. Discharged from therapy**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.3.1 at 12 months** | | | | | | |
| O'Brien1972 | 3 | 50 | 4 | 50 | 100.0% | 0.75 [0.18, 3.18] |
| **Subtotal (95% CI)** | | **50** | | **50** | **100.0%** | **0.75 [0.18, 3.18]** |
| Total events | 3 | | 4 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.39 (P = 0.70) | | | | | | |
| **3.3.2 at 24 months** | | | | | | |
| O'Brien1972 | 12 | 50 | 20 | 50 | 100.0% | 0.60 [0.33, 1.09] |
| **Subtotal (95% CI)** | | **50** | | **50** | **100.0%** | **0.60 [0.33, 1.09]** |
| Total events | 12 | | 20 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.67 (P = 0.09) | | | | | | |



**3.4 Global state: 4. Remaining in therapy**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.4.1 at 12 months** | | | | | | |
| O'Brien1972 | 21 | 50 | 31 | 50 | 100.0% | 0.68 [0.46, 1.00] |
| **Subtotal (95% CI)** | | **50** | | **50** | **100.0%** | **0.68 [0.46, 1.00]** |
| Total events | 21 | | 31 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.95 (P = 0.05) | | | | | | |
| **3.4.2 at 24 months** | | | | | | |
| O'Brien1972 | 5 | 50 | 9 | 50 | 100.0% | 0.56 [0.20, 1.54] |
| **Subtotal (95% CI)** | | **50** | | **50** | **100.0%** | **0.56 [0.20, 1.54]** |
| Total events | 5 | | 9 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.13 (P = 0.26) | | | | | | |

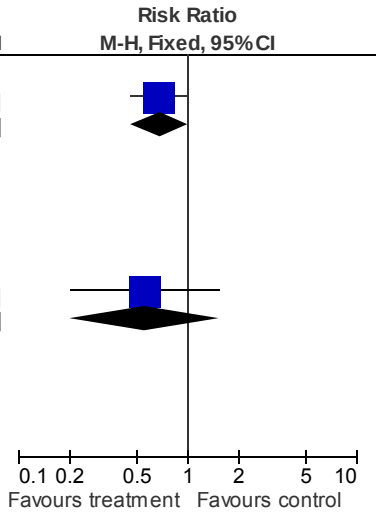


**Table 8: Studies included in the psychoeducation review**

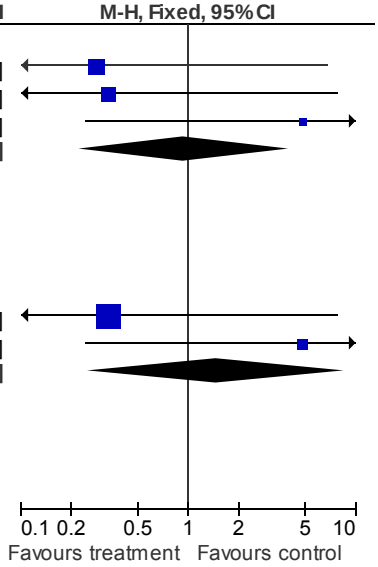
| Intervention | versus Comparator |
|---|---|
| | **Any control** |
| **Psychoeducation** | Atkinson1996<br>Bauml1996<br>BECHDOLF2004<br>CATHER2005<br>CHABANNES2008<br>CHAN2007A<br>CunninghamOwens2001<br>Hayashi2001<br>Hornung1995 *<br>Lecompte1996<br>Macpherson1996<br>Merinder1999<br>Posner1992<br>SHIN2002<br>VREELAND2006<br>XIANG2006 |
| | **Standard care** |
| **Psychoeducation** | Atkinson1996<br>Bauml1996<br>CHABANNES2008<br>CunninghamOwens2001<br>Hayashi2001<br>Macpherson1996<br>Posner1992<br>VREELAND2006 |
| | **Other active treatments** |
| **Psychoeducation** | BECHDOLF2004<br>CATHER2005<br>CHAN2007A<br>Hornung1995<br>Lecompte1996<br>Merinder1999<br>SHIN2002<br>XIANG2006 |

# Psychological clinical evidence: Psychoeducation

**1 Psychoeducation versus any control**

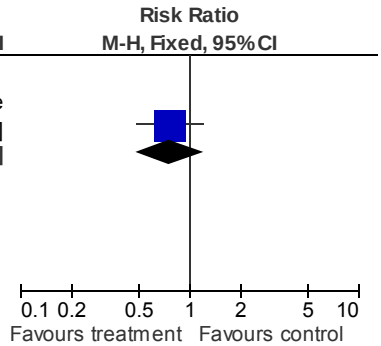
**1.1 Mortality (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.1.1 Suicide (up to 5 years FU)** | | | | | | |
| Hornung 1995* | 0 | 67 | 1 | 57 | 44.6% | 0.28 [0.01, 6.85] |
| Merinder 1999 | 0 | 23 | 1 | 23 | 41.3% | 0.33 [0.01, 7.78] |
| POSNER1992 | 2 | 28 | 0 | 27 | 14.0% | 4.83 [0.24, 96.16] |
| **Subtotal (95% CI)** | | **118** | | **107** | **100.0%** | **0.94 [0.22, 4.03]** |
| Total events | 2 | | 2 | | | |
| Heterogeneity: Chi² = 2.11, df = 2 (P = 0.35); I² = 5% | | | | | | |
| Test for overall effect: Z = 0.08 (P = 0.94) | | | | | | |
| **1.1.2 Sensitivity analysis removing multimodal studies** | | | | | | |
| Merinder 1999 | 0 | 23 | 1 | 23 | 74.7% | 0.33 [0.01, 7.78] |
| POSNER1992 | 2 | 28 | 0 | 27 | 25.3% | 4.83 [0.24, 96.16] |
| **Subtotal (95% CI)** | | **51** | | **50** | **100.0%** | **1.47 [0.25, 8.65]** |
| Total events | 2 | | 1 | | | |
| Heterogeneity: Chi² = 1.46, df = 1 (P = 0.23); I² = 31% | | | | | | |
| Test for overall effect: Z = 0.43 (P = 0.67) | | | | | | |



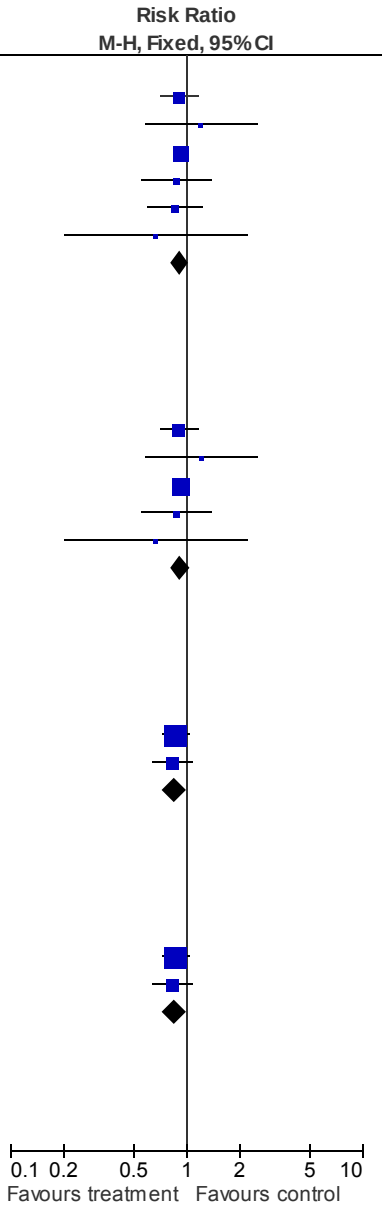

**1.2 Service outcome: 1. Rehospitalisation (at end of treatment)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.2.1 At end of treatment** | | | | | | |
| SHIN2002 | 0 | 24 | 0 | 24 | | Not estimable |
| CHABANNES2008 | 24 | 111 | 31 | 109 | 100.0% | 0.76 [0.48, 1.21] |
| **Subtotal (95% CI)** | | **135** | | **133** | **100.0%** | **0.76 [0.48, 1.21]** |
| Total events | 24 | | 31 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.16 (P = 0.25) | | | | | | |



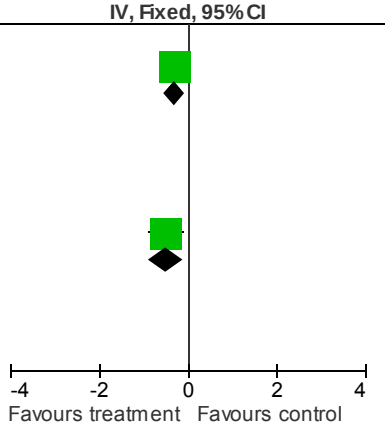
**1.3 Service Outcome: 1. Rehospitalisation (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.3.1 Up to 12 months FU** | | | | | | |
| Bauml 1996 | 61 | 125 | 60 | 111 | 27.0% | 0.90 [0.70, 1.16] |
| BECHDOLF2004 | 13 | 48 | 9 | 40 | 4.2% | 1.20 [0.57, 2.52] |
| CHABANNES2008 | 94 | 111 | 99 | 109 | 42.5% | 0.93 [0.84, 1.03] |
| CunninghamOwens 2001 | 22 | 61 | 22 | 53 | 10.0% | 0.87 [0.55, 1.38] |
| Hornung 1995* | 30 | 67 | 30 | 57 | 13.8% | 0.85 [0.59, 1.22] |
| XIANG2006 | 4 | 48 | 6 | 48 | 2.6% | 0.67 [0.20, 2.21] |
| **Subtotal (95% CI)** | | **460** | | **418** | **100.0%** | **0.91 [0.81, 1.02]** |
| Total events | 224 | | 226 | | | |
| Heterogeneity: Chi² = 1.19, df = 5 (P = 0.95); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.62 (P = 0.10) | | | | | | |
| **1.3.2 Sensitivity analysis removing multimodal studies** | | | | | | |
| Bauml 1996 | 61 | 125 | 60 | 111 | 31.3% | 0.90 [0.70, 1.16] |
| BECHDOLF2004 | 13 | 48 | 9 | 40 | 4.8% | 1.20 [0.57, 2.52] |
| CHABANNES2008 | 94 | 111 | 99 | 109 | 49.3% | 0.93 [0.84, 1.03] |
| CunninghamOwens 2001 | 22 | 61 | 22 | 53 | 11.6% | 0.87 [0.55, 1.38] |
| XIANG2006 | 4 | 48 | 6 | 48 | 3.0% | 0.67 [0.20, 2.21] |
| **Subtotal (95% CI)** | | **393** | | **361** | **100.0%** | **0.92 [0.82, 1.04]** |
| Total events | 194 | | 196 | | | |
| Heterogeneity: Chi² = 0.93, df = 4 (P = 0.92); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.38 (P = 0.17) | | | | | | |
| **1.3.3 Up to 24 months FU** | | | | | | |
| Bauml 1996 | 78 | 125 | 80 | 111 | 66.2% | 0.87 [0.72, 1.04] |
| Hornung 1995* | 39 | 67 | 40 | 57 | 33.8% | 0.83 [0.64, 1.08] |
| **Subtotal (95% CI)** | | **192** | | **168** | **100.0%** | **0.85 [0.74, 0.99]** |
| Total events | 117 | | 120 | | | |
| Heterogeneity: Chi² = 0.07, df = 1 (P = 0.79); I² = 0% | | | | | | |
| Test for overall effect: Z = 2.10 (P = 0.04) | | | | | | |
| **1.3.4 Sensitivity analysis removing multimodal studies** | | | | | | |
| Bauml 1996 | 78 | 125 | 80 | 111 | 66.2% | 0.87 [0.72, 1.04] |
| Hornung 1995* | 39 | 67 | 40 | 57 | 33.8% | 0.83 [0.64, 1.08] |
| **Subtotal (95% CI)** | | **192** | | **168** | **100.0%** | **0.85 [0.74, 0.99]** |
| Total events | 117 | | 120 | | | |
| Heterogeneity: Chi² = 0.07, df = 1 (P = 0.79); I² = 0% | | | | | | |
| Test for overall effect: Z = 2.10 (P = 0.04) | | | | | | |



**1.4 Service outcome: 2. Number of rehospitalisations (at FU)**

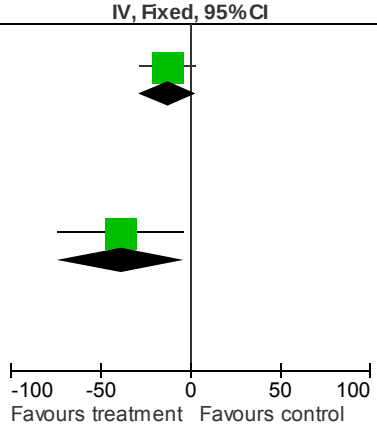
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.4.1 Average number of rehospitalisations (at 12 months FU)** | | | | | | | | |
| Bauml 1996 | 0.3 | 0.7 | 81 | 0.6 | 0.8 | 82 | 100.0% | -0.30 [-0.53, -0.07] |
| **Subtotal (95% CI)** | | | **81** | | | **82** | **100.0%** | **-0.30 [-0.53, -0.07]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.55 (P = 0.01) | | | | | | | | |
| **1.4.2 Average number of rehospitalisations (at 24 months FU)** | | | | | | | | |
| Bauml 1996 | 0.6 | 1.1 | 79 | 1.1 | 1.4 | 74 | 100.0% | -0.50 [-0.90, -0.10] |
| **Subtotal (95% CI)** | | | **79** | | | **74** | **100.0%** | **-0.50 [-0.90, -0.10]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.45 (P = 0.01) | | | | | | | | |




Test for subgroup differences: Chi² = 0.72, df = 1 (P = 0.40), I² = 0%

**1.5 Service outcome: 3. Duration of hospitalisation**

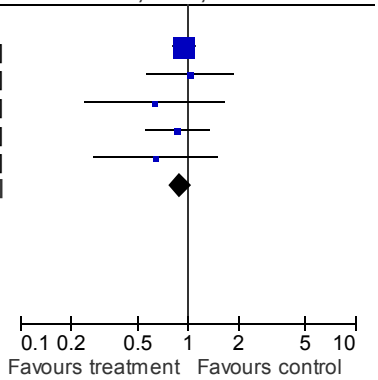
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.5.1 Duration (up to 12 months FU)** | | | | | | | | |
| Bauml 1996 | 17 | 46.6 | 81 | 30 | 54.4 | 82 | 100.0% | -13.00 [-28.54, 2.54] |
| **Subtotal (95% CI)** | | | **81** | | | **82** | **100.0%** | **-13.00 [-28.54, 2.54]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.64 (P = 0.10) | | | | | | | | |
| **1.5.2 Duration (up to 24 months FU)** | | | | | | | | |
| Bauml 1996 | 39 | 90.4 | 79 | 78 | 127.2 | 74 | 100.0% | -39.00 [-74.18, -3.82] |
| **Subtotal (95% CI)** | | | **79** | | | **74** | **100.0%** | **-39.00 [-74.18, -3.82]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.17 (P = 0.03) | | | | | | | | |




Test for subgroup differences: Chi² = 1.76, df = 1 (P = 0.19), I² = 43.0%

**1.6 Global state: 1. Relapse (at FU)**

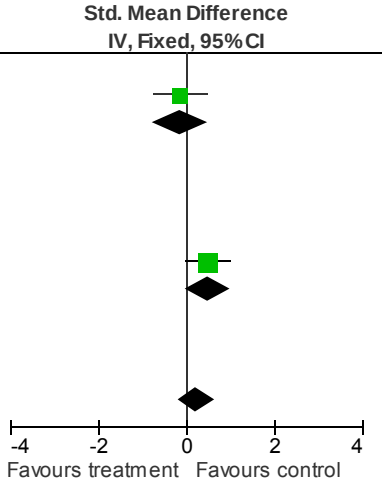
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.6.1 Up to 12 months FU** | | | | | | |
| Bauml 1996 | 86 | 125 | 81 | 111 | 63.4% | 0.94 [0.80, 1.11] |
| BECHDOLF2004 | 16 | 48 | 13 | 40 | 10.5% | 1.03 [0.56, 1.87] |
| CHAN2007 | 6 | 44 | 8 | 37 | 6.4% | 0.63 [0.24, 1.65] |
| Merinder 1999 | 14 | 24 | 15 | 22 | 11.6% | 0.86 [0.55, 1.33] |
| XIANG2006 | 7 | 48 | 11 | 48 | 8.1% | 0.64 [0.27, 1.50] |
| **Subtotal (95% CI)** | | **289** | | **258** | **100.0%** | **0.90 [0.77, 1.05]** |
| Total events | 129 | | 128 | | | |
| Heterogeneity: Chi² = 1.72, df = 4 (P = 0.79); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.37 (P = 0.17) | | | | | | |



# Psychological clinical evidence: Psychoeducation

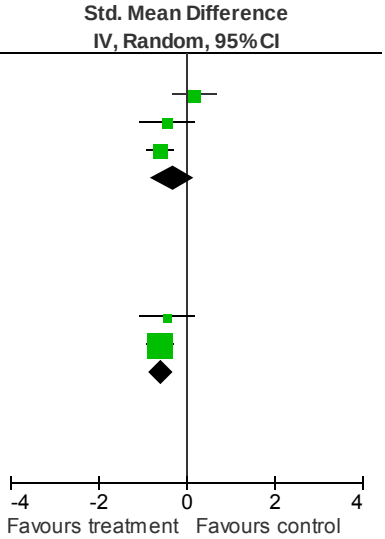
**1.7 Global state: 2. Continuous measures - GAF, GAS (signs reversed) (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.7.1 Total score (at end of treatment)** | | | | | | | | |
| Merinder 1999 | -53.27 | 17.83 | 22 | -50.63 | 15.18 | 19 | 41.5% | -0.16 [-0.77, 0.46] |
| **Subtotal (95% CI)** | | | **22** | | | **19** | **41.5%** | **-0.16 [-0.77, 0.46]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.50 (P = 0.62) | | | | | | | | |
| **1.7.2 GAF Disability score (at end of treatment)** | | | | | | | | |
| VREELAND2006 | -47.6 | 13.2 | 36 | -53.7 | 11.5 | 25 | 58.5% | 0.48 [-0.04, 1.00] |
| **Subtotal (95% CI)** | | | **36** | | | **25** | **58.5%** | **0.48 [-0.04, 1.00]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.82 (P = 0.07) | | | | | | | | |
| **Total (95% CI)** | | | **58** | | | **44** | **100.0%** | **0.22 [-0.18, 0.61]** |
| Heterogeneity: Chi² = 2.40, df = 1 (P = 0.12); I² = 58% | | | | | | | | |
| Test for overall effect: Z = 1.07 (P = 0.28) | | | | | | | | |
| Test for subgroup differences: Chi² = 2.40, df = 1 (P = 0.12), I² = 58.4% | | | | | | | | |



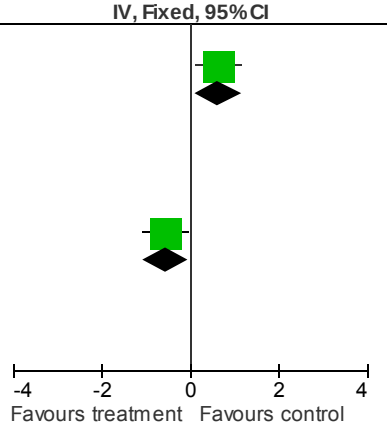

**1.8 Global state: 2. Continuous measures - GAF (signs reversed) (at FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.8.1 Up to 12 months FU** | | | | | | | | |
| Hornung 1995* | -56.1 | 13 | 26 | -57.8 | 8.3 | 35 | 32.2% | 0.16 [-0.35, 0.67] |
| Merinder 1999 | -62.91 | 16.34 | 22 | -55.39 | 16.35 | 18 | 27.2% | -0.45 [-1.08, 0.18] |
| Bauml 1996 | -78 | 14.5 | 79 | -68 | 17.5 | 80 | 40.6% | -0.62 [-0.94, -0.30] |
| **Subtotal (95% CI)** | | | **127** | | | **133** | **100.0%** | **-0.32 [-0.82, 0.17]** |
| Heterogeneity: Tau² = 0.13; Chi² = 6.48, df = 2 (P = 0.04); I² = 69% | | | | | | | | |
| Test for overall effect: Z = 1.28 (P = 0.20) | | | | | | | | |
| **1.8.2 Sensitivity analysis removing multimodal studies** | | | | | | | | |
| Merinder 1999 | -62.91 | 16.34 | 22 | -55.39 | 16.35 | 18 | 20.3% | -0.45 [-1.08, 0.18] |
| Bauml 1996 | -78 | 14.5 | 79 | -68 | 17.5 | 80 | 79.7% | -0.62 [-0.94, -0.30] |
| **Subtotal (95% CI)** | | | **101** | | | **98** | **100.0%** | **-0.58 [-0.87, -0.30]** |
| Heterogeneity: Tau² = 0.00; Chi² = 0.22, df = 1 (P = 0.64); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 4.03 (P < 0.0001) | | | | | | | | |



**1.9 Global state: 3. CGI scores (at end of treatment)**

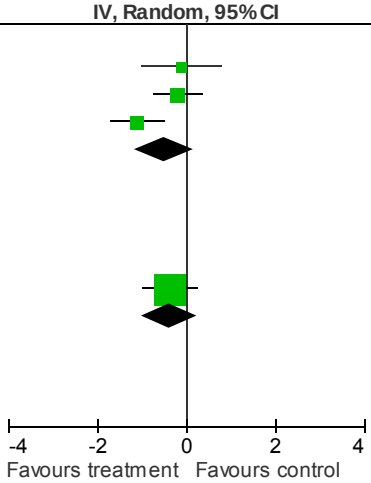
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.9.1 CGI-S (at end of treatment)** | | | | | | | | |
| VREELAND2006 | 4.4 | 0.7 | 36 | 3.9 | 0.9 | 25 | 100.0% | 0.63 [0.10, 1.15] |
| **Subtotal (95% CI)** | | | **36** | | | **25** | **100.0%** | **0.63 [0.10, 1.15]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.35 (P = 0.02) | | | | | | | | |
| **1.9.2 CGI-I (at end of treatment)** | | | | | | | | |
| VREELAND2006 | 2.7 | 1.6 | 36 | 3.5 | 1 | 25 | 100.0% | -0.57 [-1.09, -0.05] |
| **Subtotal (95% CI)** | | | **36** | | | **25** | **100.0%** | **-0.57 [-1.09, -0.05]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.14 (P = 0.03) | | | | | | | | |




Test for subgroup differences: Chi² = 10.08, df = 1 (P = 0.001), I² = 90.1%

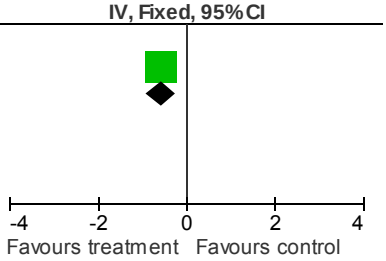
**1.10 Mental state: 1. Continuous measures - Total symptom score, BPRS, PANSS (lower = better) (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.10.2 Total symptom score (at end of treatment) (endpt means)** | | | | | | | | |
| Bauml 1996 | 1.03 | 0.55 | 9 | 1.09 | 0.49 | 10 | 26.2% | -0.11 [-1.01, 0.79] |
| Hayashi 2001 | 35.7 | 6.5 | 25 | 37 | 6.2 | 25 | 37.9% | -0.20 [-0.76, 0.35] |
| SHIN2002 | 74.29 | 7.04 | 24 | 82.58 | 7.62 | 24 | 35.9% | -1.11 [-1.72, -0.50] |
| **Subtotal (95% CI)** | | | **58** | | | **59** | **100.0%** | **-0.50 [-1.16, 0.15]** |
| Heterogeneity: Tau² = 0.21; Chi² = 5.65, df = 2 (P = 0.06); I² = 65% | | | | | | | | |
| Test for overall effect: Z = 1.51 (P = 0.13) | | | | | | | | |
| **1.10.3 Total Symptom score (at end of treatment) (Change score)** | | | | | | | | |
| Merinder 1999 | -0.09 | 5.9 | 22 | 2.63 | 8.04 | 19 | 100.0% | -0.38 [-1.00, 0.24] |
| **Subtotal (95% CI)** | | | **22** | | | **19** | **100.0%** | **-0.38 [-1.00, 0.24]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.21 (P = 0.23) | | | | | | | | |




**1.11 Mental state: 1. Continuous measures - Total symptom score, BPRS, PANSS (lower = better) (at FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.11.1 Total symptom score (up to 12 months FU)** | | | | | | | | |
| Bauml 1996 | 26 | 7.7 | 79 | 32 | 12.1 | 80 | 100.0% | -0.59 [-0.91, -0.27] |
| **Subtotal (95% CI)** | | | **79** | | | **80** | **100.0%** | **-0.59 [-0.91, -0.27]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.63 (P = 0.0003) | | | | | | | | |

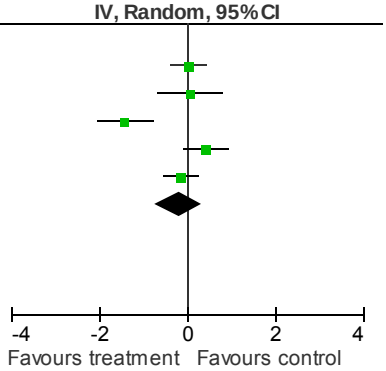



Test for subgroup differences: Not applicable

**1.12 Mental state: 2. Continuous measures - positive symptom score (PANSS, SAPS) (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.12.1 PANSS, SAPS, BPRS positive subscale score (at end of treament)** | | | | | | | | |
| BECHDOLF2004 | 11.4 | 4.5 | 48 | 11.3 | 4.2 | 40 | 21.9% | 0.02 [-0.40, 0.44] |
| CATHER2005 | 11.08 | 3.73 | 13 | 10.93 | 2.55 | 15 | 17.0% | 0.05 [-0.70, 0.79] |
| SHIN2002 | 15.08 | 2.75 | 24 | 18.46 | 1.79 | 24 | 18.5% | -1.43 [-2.07, -0.79] |
| VREELAND2006 | 16.6 | 6 | 36 | 14.2 | 5.3 | 25 | 20.5% | 0.41 [-0.10, 0.93] |
| XIANG2006 | 9 | 2.7 | 48 | 9.5 | 3.5 | 48 | 22.2% | -0.16 [-0.56, 0.24] |
| **Subtotal (95% CI)** | | | **169** | | | **152** | **100.0%** | **-0.20 [-0.73, 0.33]** |

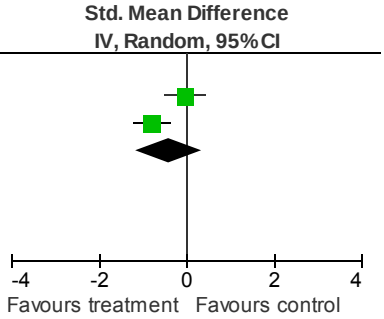
Heterogeneity: Tau² = 0.29; Chi² = 20.93, df = 4 (P = 0.0003); I² = 81%
Test for overall effect: Z = 0.75 (P = 0.45)




**1.13 Mental state: 2. Continuous measures - positive symptom score (PANSS, SAPS) (at FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.13.1 PANSS, SAPS, BPRS positive subscale score (up to 12 months FU)** | | | | | | | | |
| BECHDOLF2004 | 11.4 | 4.8 | 40 | 11.6 | 4.3 | 31 | 49.2% | -0.04 [-0.51, 0.43] |
| XIANG2006 | 8.9 | 2.4 | 45 | 11.6 | 4 | 46 | 50.8% | -0.81 [-1.24, -0.38] |
| **Subtotal (95% CI)** | | | **85** | | | **77** | **100.0%** | **-0.43 [-1.18, 0.32]** |

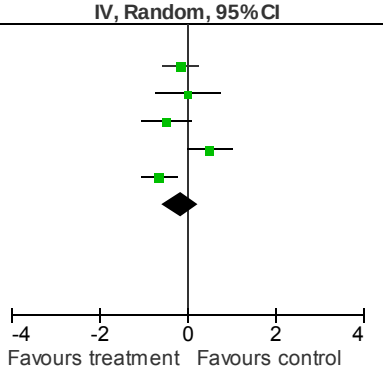
Heterogeneity: Tau² = 0.24; Chi² = 5.59, df = 1 (P = 0.02); I² = 82%
Test for overall effect: Z = 1.13 (P = 0.26)




**1.14 Mental state: 3. Continuous measures - negative symptom score (PANSS, SANS) (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.14.1 PANSS, SANS, BPRS negative subscale (at end of treatment)** | | | | | | | | |
| BECHDOLF2004 | 13.1 | 5.2 | 48 | 13.9 | 4.5 | 40 | 22.7% | -0.16 [-0.58, 0.26] |
| CATHER2005 | 14.92 | 5.72 | 13 | 14.87 | 4.97 | 15 | 15.2% | 0.01 [-0.73, 0.75] |
| SHIN2002 | 10.88 | 1.75 | 24 | 11.71 | 1.58 | 24 | 18.9% | -0.49 [-1.06, 0.09] |
| VREELAND2006 | 18 | 6.9 | 36 | 14.9 | 4.8 | 25 | 20.3% | 0.50 [-0.02, 1.02] |
| XIANG2006 | 11 | 4.2 | 48 | 13.9 | 4.6 | 48 | 23.0% | -0.65 [-1.06, -0.24] |
| **Subtotal (95% CI)** | | | **169** | | | **152** | **100.0%** | **-0.18 [-0.59, 0.24]** |

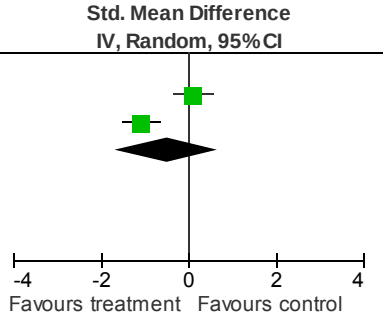
Heterogeneity: Tau² = 0.15; Chi² = 12.94, df = 4 (P = 0.01); I² = 69%
Test for overall effect: Z = 0.84 (P = 0.40)



**1.15 Mental state: 3. Continuous measures - negative symptom score (PANSS, SANS) (at FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.15.1 PANSS, SANS, BPRS negative subscale (up to 12 months FU)** | | | | | | | | |
| BECHDOLF2004 | 13 | 6.1 | 40 | 12.5 | 4 | 31 | 49.8% | 0.09 [-0.38, 0.56] |
| XIANG2006 | 11.1 | 2.9 | 45 | 15.5 | 4.8 | 46 | 50.2% | -1.10 [-1.54, -0.66] |
| **Subtotal (95% CI)** | | | **85** | | | **77** | **100.0%** | **-0.50 [-1.67, 0.66]** |

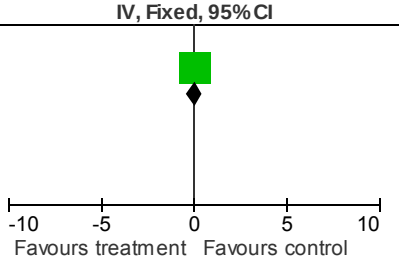
Heterogeneity: Tau² = 0.65; Chi² = 13.11, df = 1 (P = 0.0003); I² = 92%
Test for overall effect: Z = 0.85 (P = 0.40)




**1.16 Mental state: 4. Depression (MADRS) (at FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.16.1 Up to 2 months FU** | | | | | | | | |
| CunninghamOwens 2001 | 11.2 | 8.3 | 43 | 11 | 10.8 | 39 | 100.0% | 0.02 [-0.41, 0.45] |
| **Subtotal (95% CI)** | | | **43** | | | **39** | **100.0%** | **0.02 [-0.41, 0.45]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 0.09 (P = 0.93)




Test for subgroup differences: Not applicable

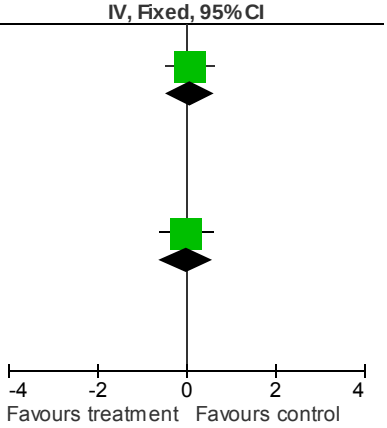
**1.17 Insight: 1. Total score (IS, ABPS) (signs reversed) (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.17.1 ABPS total score (Endpt means)** | | | | | | | | |
| Hayashi 2001 | -23.3 | 16.6 | 25 | -24.6 | 15.6 | 25 | 100.0% | 0.08 [-0.48, 0.63] |
| **Subtotal (95% CI)** | | | **25** | | | **25** | **100.0%** | **0.08 [-0.48, 0.63]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 0.28 (P = 0.78)

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.17.2 Insight scale (Change score)** | | | | | | | | |
| Merinder 1999 | -0.18 | 1.76 | 22 | -0.16 | 1.49 | 19 | 100.0% | -0.01 [-0.63, 0.60] |
| **Subtotal (95% CI)** | | | **22** | | | **19** | **100.0%** | **-0.01 [-0.63, 0.60]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 0.04 (P = 0.97)

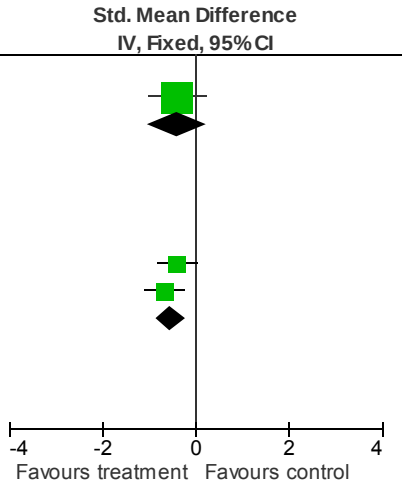



Test for subgroup differences: Chi² = 0.05, df = 1 (P = 0.83), I² = 0%

# Psychological clinical evidence: Psychoeducation

**1.18 Insight: 1. Total scores (IS, ITAQ, SUMD) (signs reversed) (at FU)**

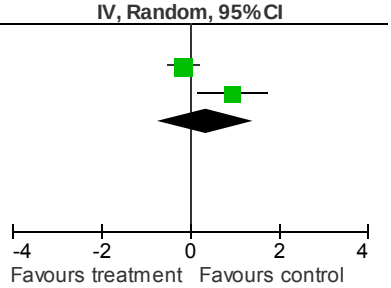
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.18.1 Insight Scale (up to 12 months FU) (Change score)** | | | | | | | | |
| Merinder 1999 | -1.09 | 2.19 | 22 | -0.13 | 2.41 | 18 | 100.0% | -0.41 [-1.04, 0.22] |
| **Subtotal (95% CI)** | | | **22** | | | **18** | **100.0%** | **-0.41 [-1.04, 0.22]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.28 (P = 0.20) | | | | | | | | |
| **1.18.2 ITAQ, SUMD (up to 12 months FU) (Endpt means)** | | | | | | | | |
| CHAN2007 | 6.77 | 2.56 | 44 | 7.95 | 3.2 | 37 | 49.5% | -0.41 [-0.85, 0.03] |
| CunninghamOwens 2001 | -14.5 | 5.5 | 47 | -10.7 | 5.6 | 39 | 50.5% | -0.68 [-1.12, -0.24] |
| **Subtotal (95% CI)** | | | **91** | | | **76** | **100.0%** | **-0.54 [-0.86, -0.23]** |
| Heterogeneity: Chi² = 0.73, df = 1 (P = 0.39); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 3.44 (P = 0.0006) | | | | | | | | |




Test for subgroup differences: Chi² = 0.14, df = 1 (P = 0.71), I² = 0%

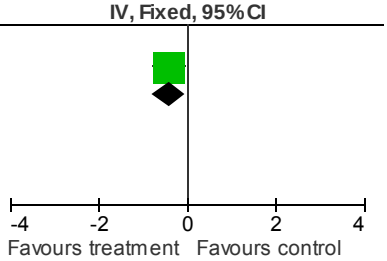
**1.19 Psychosocial functioning: 1. Social Functioning Schedule (SFS, lower = better) (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.19.1 Total Score (at end of treatment)** | | | | | | | | |
| Atkinson 1996 | 2.4 | 1.3 | 52 | 2.6 | 1.3 | 62 | 55.2% | -0.15 [-0.52, 0.22] |
| CATHER2005 | -105.21 | 25.57 | 13 | -129.88 | 24.91 | 15 | 44.8% | 0.95 [0.16, 1.74] |
| **Subtotal (95% CI)** | | | **65** | | | **77** | **100.0%** | **0.34 [-0.73, 1.42]** |
| Heterogeneity: Tau² = 0.51; Chi² = 6.15, df = 1 (P = 0.01); I² = 84% | | | | | | | | |
| Test for overall effect: Z = 0.62 (P = 0.53) | | | | | | | | |




**1.20 Psychosocial functioning: 1. Social Functioning Scale (lower = better) (at FU)**

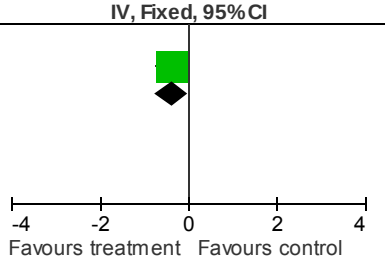
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.20.1 Total score (up to 3 months FU)** | | | | | | | | |
| Atkinson 1996 | 2 | 1.1 | 50 | 2.5 | 1.2 | 58 | 100.0% | -0.43 [-0.81, -0.05] |
| **Subtotal (95% CI)** | | | **50** | | | **58** | **100.0%** | **-0.43 [-0.81, -0.05]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.20 (P = 0.03) | | | | | | | | |




Test for subgroup differences: Not applicable

**1.21 Pyschosocial functioning: 2. Modified Social Network Schedule (SNS) - mean no. Total contacts (at end of treat**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.21.2 Total score (at end of treatment)** | | | | | | | | |
| Atkinson 1996 | -16.8 | 8.6 | 52 | -13.1 | 10.3 | 60 | 100.0% | -0.38 [-0.76, -0.01] |
| **Subtotal (95% CI)** | | | **52** | | | **60** | **100.0%** | **-0.38 [-0.76, -0.01]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.01 (P = 0.04) | | | | | | | | |

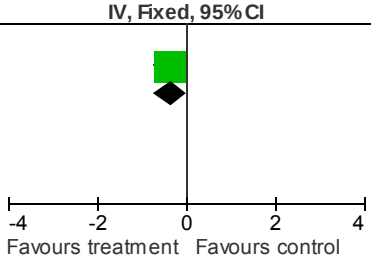



Test for subgroup differences: Not applicable

**1.22 Psychosocial functioning: 2. Modified Social Network Schedule (SNS) - mean no. Total contacts (at FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.22.2 Total score (up to 3 months FU)** | | | | | | | | |
| Atkinson 1996 | -17.5 | 10.7 | 50 | -13.5 | 10.8 | 56 | 100.0% | -0.37 [-0.75, 0.02] |
| **Subtotal (95% CI)** | | | **50** | | | **56** | **100.0%** | **-0.37 [-0.75, 0.02]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 1.88 (P = 0.06)

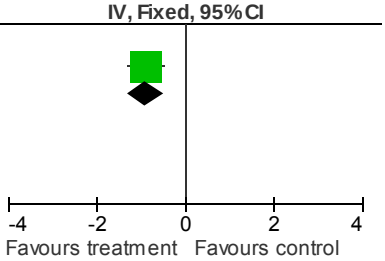



Test for subgroup differences: Not applicable

**1.23 Psychosocial functioning: 3. Social disability Screening Schedule (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.23.1 Total score (at end of treatment)** | | | | | | | | |
| XIANG2006 | 4.2 | 1.7 | 48 | 6 | 2.2 | 48 | 100.0% | -0.91 [-1.33, -0.49] |
| **Subtotal (95% CI)** | | | **48** | | | **48** | **100.0%** | **-0.91 [-1.33, -0.49]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 4.23 (P < 0.0001)

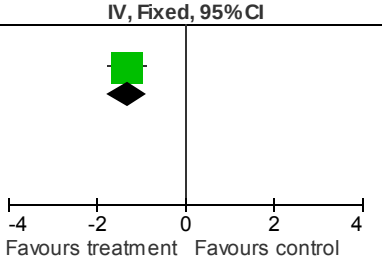



Test for subgroup differences: Not applicable

**1.24 Psychosocial functioning: 3. Social disability Screening Schedule (at FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.24.1 Total score (up to 6 months FU)** | | | | | | | | |
| XIANG2006 | 3.6 | 1.2 | 45 | 5.9 | 2.1 | 48 | 100.0% | -1.32 [-1.77, -0.87] |
| **Subtotal (95% CI)** | | | **45** | | | **48** | **100.0%** | **-1.32 [-1.77, -0.87]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 5.75 (P < 0.00001)

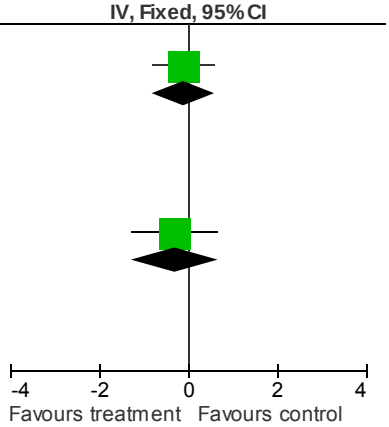



Test for subgroup differences: Not applicable

# Psychological clinical evidence: Psychoeducation

**1.25 Satisfaction with mental health services: (VSS) (signs reversed) - at end of interventions (change score)**

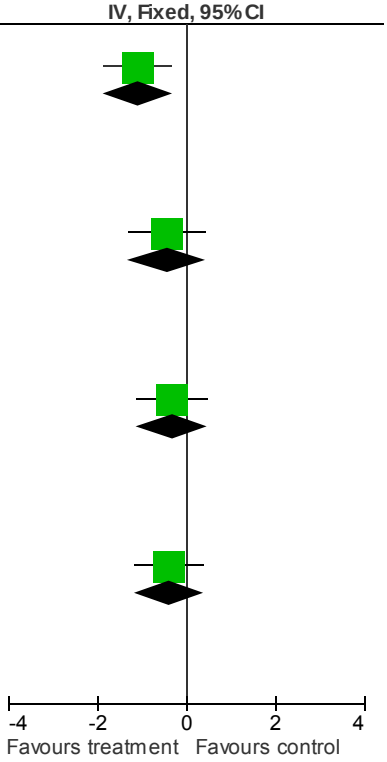
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.25.1 Patients' satisfaction (8 weeks)** | | | | | | | | |
| Merinder 1999 | -9.47 | 17.46 | 18 | -7.32 | 16.48 | 14 | 100.0% | -0.12 [-0.82, 0.58] |
| **Subtotal (95% CI)** | | | **18** | | | **14** | **100.0%** | **-0.12 [-0.82, 0.58]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.34 (P = 0.73) | | | | | | | | |
| **1.25.2 Relatives' satisfaction (8 weeks)** | | | | | | | | |
| Merinder 1999 | -9.56 | 28.73 | 10 | -1.25 | 16.05 | 7 | 100.0% | -0.32 [-1.30, 0.65] |
| **Subtotal (95% CI)** | | | **10** | | | **7** | **100.0%** | **-0.32 [-1.30, 0.65]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.65 (P = 0.52) | | | | | | | | |




Test for subgroup differences: Chi² = 0.11, df = 1 (P = 0.74), I² = 0%

**1.26 Satisfaction with mental health services: (VSS) (signs reversed) - up to 12 months FU (change score)**

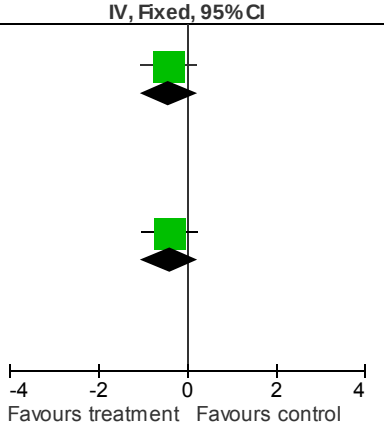
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.26.1 Patients' satisfaction with Relatives' involvement** | | | | | | | | |
| Merinder 1999 | -4.47 | 3.13 | 15 | -0.12 | 4.42 | 15 | 100.0% | -1.11 [-1.88, -0.33] |
| **Subtotal (95% CI)** | | | **15** | | | **15** | **100.0%** | **-1.11 [-1.88, -0.33]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.79 (P = 0.005) | | | | | | | | |
| **1.26.2 Relatives' involvement satisfaction** | | | | | | | | |
| Merinder 1999 | -1.34 | 5.77 | 11 | 0.83 | 3.19 | 10 | 100.0% | -0.44 [-1.31, 0.43] |
| **Subtotal (95% CI)** | | | **11** | | | **10** | **100.0%** | **-0.44 [-1.31, 0.43]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.99 (P = 0.32) | | | | | | | | |
| **1.26.3 Relatives' efficacy satisfaction** | | | | | | | | |
| Merinder 1999 | -1.51 | 6.47 | 12 | 0.65 | 6.35 | 12 | 100.0% | -0.33 [-1.13, 0.48] |
| **Subtotal (95% CI)** | | | **12** | | | **12** | **100.0%** | **-0.33 [-1.13, 0.48]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.79 (P = 0.43) | | | | | | | | |
| **1.26.4 Relatives' intervention satisfaction** | | | | | | | | |
| Merinder 1999 | -2.83 | 9.54 | 13 | 0.6 | 6.91 | 13 | 100.0% | -0.40 [-1.18, 0.38] |
| **Subtotal (95% CI)** | | | **13** | | | **13** | **100.0%** | **-0.40 [-1.18, 0.38]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.01 (P = 0.31) | | | | | | | | |




Test for subgroup differences: Chi² = 2.45, df = 3 (P = 0.48), I² = 0%

**1.27 Satisfaction with mental health services: 2. Consumer satisfaction scale (relatives only)**

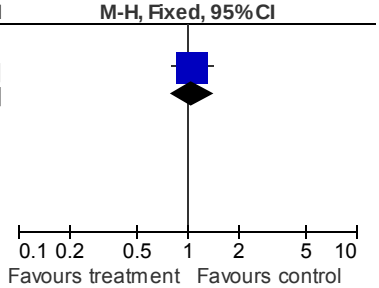
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.27.1 At end of treatment** | | | | | | | | |
| POSNER1992 | -58.84 | 6.63 | 19 | -55.85 | 7.29 | 20 | 100.0% | -0.42 [-1.06, 0.22] |
| **Subtotal (95% CI)** | | | **19** | | | **20** | **100.0%** | **-0.42 [-1.06, 0.22]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.29 (P = 0.20) | | | | | | | | |
| **1.27.2 At Follow up** | | | | | | | | |
| POSNER1992 | -57.47 | 5.94 | 19 | -54.7 | 7.28 | 20 | 100.0% | -0.41 [-1.04, 0.23] |
| **Subtotal (95% CI)** | | | **19** | | | **20** | **100.0%** | **-0.41 [-1.04, 0.23]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.26 (P = 0.21) | | | | | | | | |




Test for subgroup differences: Chi² = 0.00, df = 1 (P = 0.98), I² = 0%

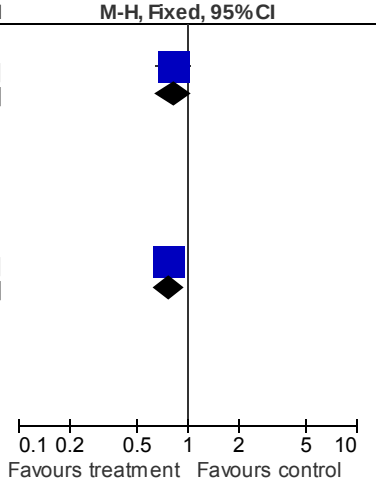
**1.28 Adherence: 1. Non-adherence/ poor adherence to medication (end of treatment)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.28.1 End of treatment** | | | | | | |
| Bauml 1996 | 56 | 125 | 47 | 111 | 100.0% | 1.06 [0.79, 1.42] |
| **Subtotal (95% CI)** | | **125** | | **111** | **100.0%** | **1.06 [0.79, 1.42]** |
| Total events | 56 | | 47 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.38 (P = 0.70) | | | | | | |



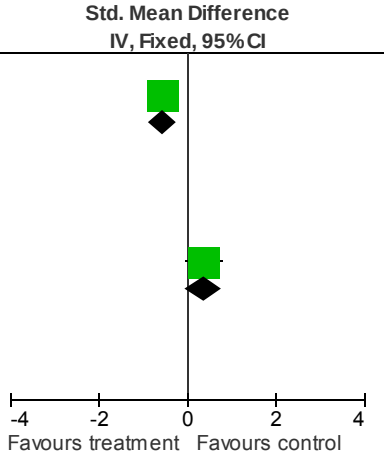

**1.29 Adherence: 1. Non-adherence/ poor adherence to medication (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.29.2 Up to 12 months FU** | | | | | | |
| Bauml 1996 | 60 | 125 | 65 | 111 | 100.0% | 0.82 [0.64, 1.04] |
| **Subtotal (95% CI)** | | **125** | | **111** | **100.0%** | **0.82 [0.64, 1.04]** |
| Total events | 60 | | 65 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.62 (P = 0.10) | | | | | | |
| **1.29.3 Up to 24 months FU** | | | | | | |
| Bauml 1996 | 67 | 125 | 77 | 111 | 100.0% | 0.77 [0.63, 0.95] |
| **Subtotal (95% CI)** | | **125** | | **111** | **100.0%** | **0.77 [0.63, 0.95]** |
| Total events | 67 | | 77 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 2.47 (P = 0.01) | | | | | | |



**1.30 Adherence to medication 2. Continuous measures (at end of treatment)**

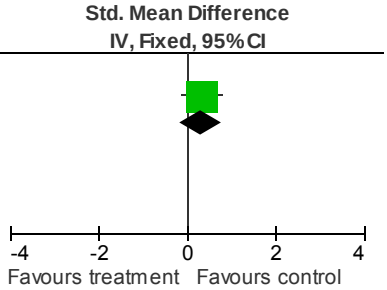
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.30.1 Adherence to medication - during 1 year** | | | | | | | | |
| Bauml 1996 | 1.7 | 0.6 | 81 | 2.1 | 0.8 | 82 | 100.0% | -0.56 [-0.88, -0.25] |
| **Subtotal (95% CI)** | | | **81** | | | **82** | **100.0%** | **-0.56 [-0.88, -0.25]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.52 (P = 0.0004) | | | | | | | | |
| **1.30.2 Compliance rating scale (signs reversed) (at end of treatment)** | | | | | | | | |
| BECHDOLF2004 | -3.7 | 0.7 | 48 | -3.9 | 0.3 | 40 | 100.0% | 0.36 [-0.07, 0.78] |
| **Subtotal (95% CI)** | | | **48** | | | **40** | **100.0%** | **0.36 [-0.07, 0.78]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.65 (P = 0.10) | | | | | | | | |




Test for subgroup differences: Chi² = 11.72, df = 1 (P = 0.0006), I² = 91.5%

**1.31 Adherence to medication 2. Continuous measures (at FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.31.3 Compliance rating scale (signs reversed) (up to 12 months FU)** | | | | | | | | |
| BECHDOLF2004 | -3.2 | 1 | 40 | -3.5 | 0.9 | 31 | 100.0% | 0.31 [-0.16, 0.78] |
| **Subtotal (95% CI)** | | | **40** | | | **31** | **100.0%** | **0.31 [-0.16, 0.78]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.29 (P = 0.20) | | | | | | | | |

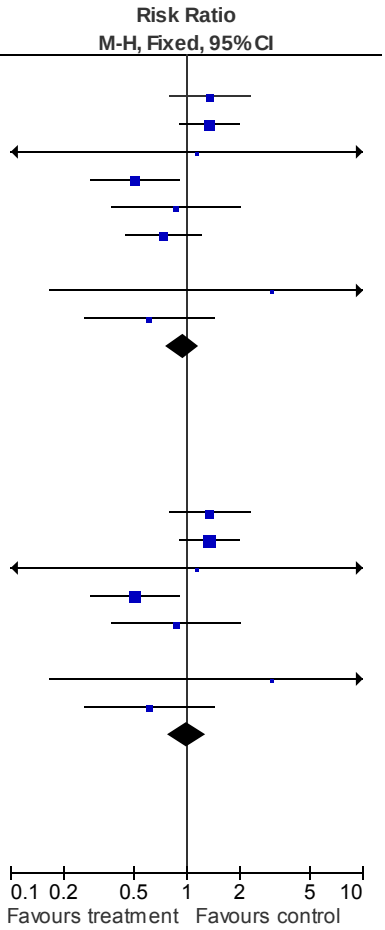



Test for subgroup differences: Not applicable

# Psychological clinical evidence: Psychoeducation

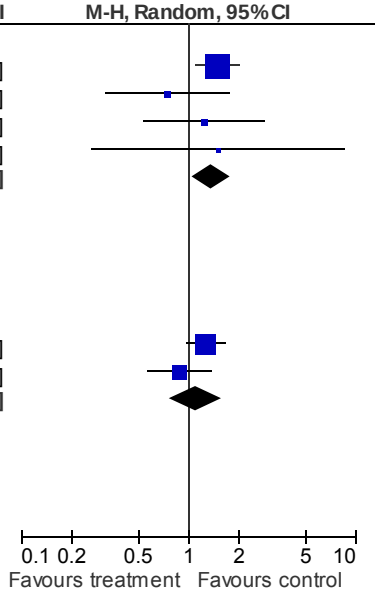
**1.32 Leaving the study early (at end of treatment)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.32.1 At end of treatment** | | | | | | |
| Atkinson 1996 | 23 | 73 | 17 | 73 | 14.2% | 1.35 [0.79, 2.31] |
| Bauml 1996 | 44 | 125 | 29 | 111 | 25.7% | 1.35 [0.91, 2.00] |
| CATHER2005 | 1 | 14 | 1 | 16 | 0.8% | 1.14 [0.08, 16.63] |
| CHABANNES2008 | 14 | 111 | 27 | 109 | 22.8% | 0.51 [0.28, 0.92] |
| CunninghamOwens 2001 | 9 | 61 | 9 | 53 | 8.1% | 0.87 [0.37, 2.03] |
| Hornung 1995* | 19 | 67 | 22 | 57 | 19.9% | 0.73 [0.44, 1.21] |
| Lecompte 1996 | 0 | 32 | 0 | 32 | | Not estimable |
| Macpherson 1996 | 3 | 47 | 0 | 20 | 0.6% | 3.06 [0.17, 56.70] |
| Merinder 1999 | 6 | 24 | 9 | 22 | 7.9% | 0.61 [0.26, 1.44] |
| **Subtotal (95% CI)** | | **554** | | **493** | **100.0%** | **0.95 [0.76, 1.18]** |
| Total events | 119 | | 114 | | | |
| Heterogeneity: Chi² = 11.72, df = 7 (P = 0.11); I² = 40% | | | | | | |
| Test for overall effect: Z = 0.48 (P = 0.63) | | | | | | |
| **1.32.2 At end of treatment - Sensitivity analysis removing multimodal studies** | | | | | | |
| Atkinson 1996 | 23 | 73 | 17 | 73 | 17.8% | 1.35 [0.79, 2.31] |
| Bauml 1996 | 44 | 125 | 29 | 111 | 32.1% | 1.35 [0.91, 2.00] |
| CATHER2005 | 1 | 14 | 1 | 16 | 1.0% | 1.14 [0.08, 16.63] |
| CHABANNES2008 | 14 | 111 | 27 | 109 | 28.5% | 0.51 [0.28, 0.92] |
| CunninghamOwens 2001 | 9 | 61 | 9 | 53 | 10.1% | 0.87 [0.37, 2.03] |
| Lecompte 1996 | 0 | 32 | 0 | 32 | | Not estimable |
| Macpherson 1996 | 3 | 47 | 0 | 20 | 0.7% | 3.06 [0.17, 56.70] |
| Merinder 1999 | 6 | 24 | 9 | 22 | 9.8% | 0.61 [0.26, 1.44] |
| **Subtotal (95% CI)** | | **487** | | **436** | **100.0%** | **1.00 [0.78, 1.28]** |
| Total events | 100 | | 92 | | | |
| Heterogeneity: Chi² = 10.43, df = 6 (P = 0.11); I² = 42% | | | | | | |
| Test for overall effect: Z = 0.00 (P = 1.00) | | | | | | |



**1.33 Leaving the study early (at FU)**

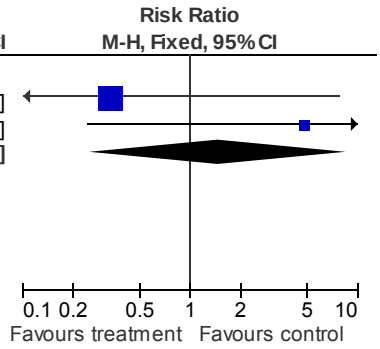
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **1.33.1 Up to 12 months FU** | | | | | | |
| Bauml 1996 | 65 | 125 | 39 | 111 | 77.6% | 1.48 [1.09, 2.01] |
| BECHDOLF2004 | 8 | 48 | 9 | 40 | 9.8% | 0.74 [0.32, 1.74] |
| POSNER1992 | 9 | 28 | 7 | 27 | 10.3% | 1.24 [0.54, 2.86] |
| XIANG2006 | 3 | 48 | 2 | 48 | 2.4% | 1.50 [0.26, 8.58] |
| **Subtotal (95% CI)** | | **249** | | **226** | **100.0%** | **1.36 [1.04, 1.78]** |
| Total events | 85 | | 57 | | | |
| Heterogeneity: Tau² = 0.00; Chi² = 2.32, df = 3 (P = 0.51); I² = 0% | | | | | | |
| Test for overall effect: Z = 2.24 (P = 0.02) | | | | | | |
| **1.33.2 Up to 24 months FU** | | | | | | |
| Bauml 1996 | 67 | 125 | 47 | 111 | 61.9% | 1.27 [0.96, 1.66] |
| BECHDOLF2004 | 21 | 48 | 20 | 40 | 38.1% | 0.88 [0.56, 1.37] |
| **Subtotal (95% CI)** | | **173** | | **151** | **100.0%** | **1.10 [0.77, 1.56]** |
| Total events | 88 | | 67 | | | |
| Heterogeneity: Tau² = 0.03; Chi² = 1.92, df = 1 (P = 0.17); I² = 48% | | | | | | |
| Test for overall effect: Z = 0.53 (P = 0.60) | | | | | | |




**2 Psychoeducation versus standard care**

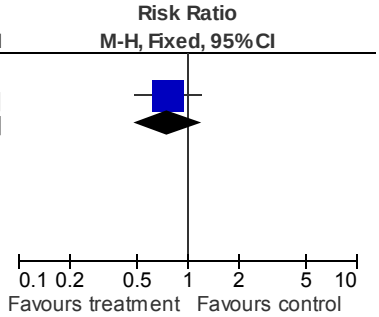
**2.1 Mortality (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.1.1 Suicide (up to 5 years FU)** | | | | | | |
| Merinder 1999 | 0 | 23 | 1 | 23 | 74.7% | 0.33 [0.01, 7.78] |
| POSNER1992 | 2 | 28 | 0 | 27 | 25.3% | 4.83 [0.24, 96.16] |
| **Subtotal (95% CI)** | | **51** | | **50** | **100.0%** | **1.47 [0.25, 8.65]** |
| Total events | 2 | | 1 | | | |
| Heterogeneity: Chi² = 1.46, df = 1 (P = 0.23); I² = 31% | | | | | | |
| Test for overall effect: Z = 0.43 (P = 0.67) | | | | | | |



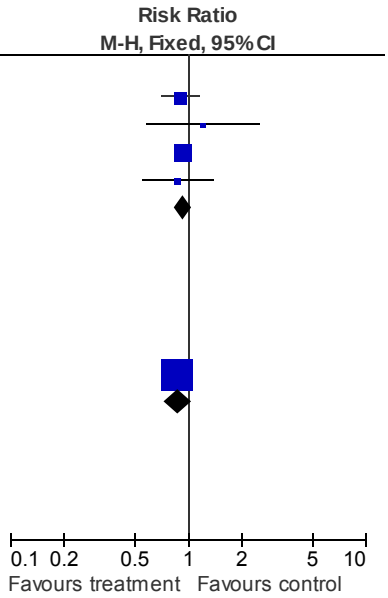

**2.2 Service outcome: 1. Rehospitalisation (at end of treatment)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.2.1 End of treatment** | | | | | | |
| CHABANNES2008 | 24 | 111 | 31 | 109 | 100.0% | 0.76 [0.48, 1.21] |
| **Subtotal (95% CI)** | | **111** | | **109** | **100.0%** | **0.76 [0.48, 1.21]** |
| Total events | 24 | | 31 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.16 (P = 0.25) | | | | | | |



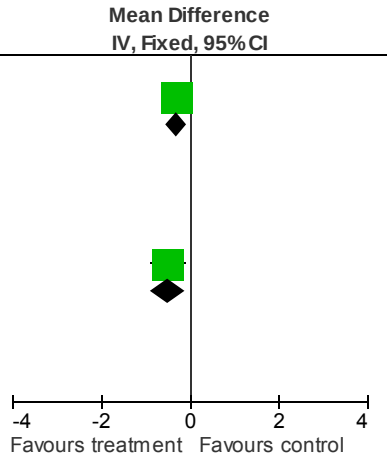
**2.3 Service Outcome: 1. Rehospitalisation (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.3.1 Up to 12 months FU** | | | | | | |
| Bauml 1996 | 61 | 125 | 60 | 111 | 32.3% | 0.90 [0.70, 1.16] |
| BECHDOLF2004 | 13 | 48 | 9 | 40 | 5.0% | 1.20 [0.57, 2.52] |
| CHABANNES2008 | 94 | 111 | 99 | 109 | 50.8% | 0.93 [0.84, 1.03] |
| CunninghamOwens 2001 | 22 | 61 | 22 | 53 | 12.0% | 0.87 [0.55, 1.38] |
| **Subtotal (95% CI)** | | **345** | | **313** | **100.0%** | **0.93 [0.83, 1.04]** |
| Total events | 190 | | 190 | | | |
| Heterogeneity: Chi² = 0.61, df = 3 (P = 0.89); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.25 (P = 0.21) | | | | | | |
| **2.3.2 Up to 24 months FU** | | | | | | |
| Bauml 1996 | 78 | 125 | 80 | 111 | 100.0% | 0.87 [0.72, 1.04] |
| **Subtotal (95% CI)** | | **125** | | **111** | **100.0%** | **0.87 [0.72, 1.04]** |
| Total events | 78 | | 80 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.58 (P = 0.11) | | | | | | |




**2.4 Service outcome: 2. Number of rehospitalisations (at FU)**

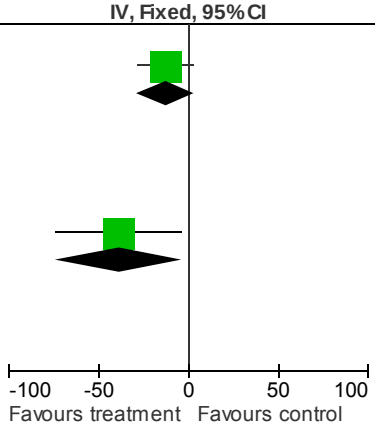
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.4.1 Average number of rehospitalisations (at 12 months FU)** | | | | | | | | |
| Bauml 1996 | 0.3 | 0.7 | 81 | 0.6 | 0.8 | 82 | 100.0% | -0.30 [-0.53, -0.07] |
| **Subtotal (95% CI)** | | | **81** | | | **82** | **100.0%** | **-0.30 [-0.53, -0.07]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.55 (P = 0.01) | | | | | | | | |
| **2.4.2 Average number of rehospitalisations (at 24 months FU)** | | | | | | | | |
| Bauml 1996 | 0.6 | 1.1 | 79 | 1.1 | 1.4 | 74 | 100.0% | -0.50 [-0.90, -0.10] |
| **Subtotal (95% CI)** | | | **79** | | | **74** | **100.0%** | **-0.50 [-0.90, -0.10]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.45 (P = 0.01) | | | | | | | | |




Test for subgroup differences: Chi² = 0.72, df = 1 (P = 0.40), I² = 0%

**2.5 Service outcome: 3. Duration of hospitalisation**

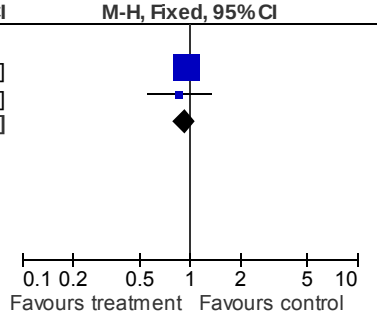
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.5.1 Duration (up to 12 months FU)** | | | | | | | | |
| Bauml 1996 | 17 | 46.6 | 81 | 30 | 54.4 | 82 | 100.0% | -13.00 [-28.54, 2.54] |
| **Subtotal (95% CI)** | | | **81** | | | **82** | **100.0%** | **-13.00 [-28.54, 2.54]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.64 (P = 0.10) | | | | | | | | |
| **2.5.2 Duration (up to 24 months FU)** | | | | | | | | |
| Bauml 1996 | 39 | 90.4 | 79 | 78 | 127.2 | 74 | 100.0% | -39.00 [-74.18, -3.82] |
| **Subtotal (95% CI)** | | | **79** | | | **74** | **100.0%** | **-39.00 [-74.18, -3.82]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.17 (P = 0.03) | | | | | | | | |




Test for subgroup differences: Chi² = 1.76, df = 1 (P = 0.19), I² = 43.0%

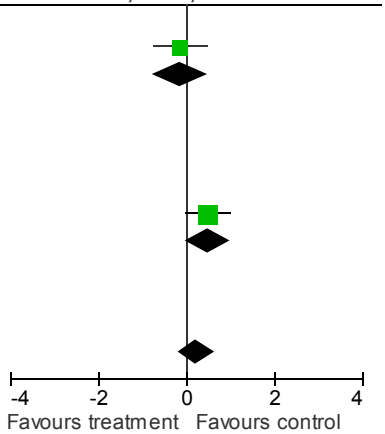
**2.6 Global state: 1. Relapse (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.6.1 Up to 12 months FU** | | | | | | |
| Bauml 1996 | 86 | 125 | 81 | 111 | 84.6% | 0.94 [0.80, 1.11] |
| Merinder 1999 | 14 | 24 | 15 | 22 | 15.4% | 0.86 [0.55, 1.33] |
| **Subtotal (95% CI)** | | **149** | | **133** | **100.0%** | **0.93 [0.80, 1.08]** |
| Total events | 100 | | 96 | | | |
| Heterogeneity: Chi² = 0.16, df = 1 (P = 0.69); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.93 (P = 0.35) | | | | | | |




**2.7 Global state: 2. Continuous measures - GAF, GAS (signs reversed) (at end of treatment)**

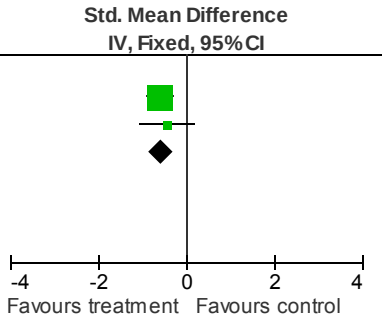
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.7.1 Total score (at end of treatment)** | | | | | | | | |
| Merinder 1999 | -53.27 | 17.83 | 22 | -50.63 | 15.18 | 19 | 41.5% | -0.16 [-0.77, 0.46] |
| **Subtotal (95% CI)** | | | **22** | | | **19** | **41.5%** | **-0.16 [-0.77, 0.46]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.50 (P = 0.62) | | | | | | | | |
| **2.7.2 GAF Disability score (at end of treatment)** | | | | | | | | |
| VREELAND2006 | -47.6 | 13.2 | 36 | -53.7 | 11.5 | 25 | 58.5% | 0.48 [-0.04, 1.00] |
| **Subtotal (95% CI)** | | | **36** | | | **25** | **58.5%** | **0.48 [-0.04, 1.00]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.82 (P = 0.07) | | | | | | | | |
| **Total (95% CI)** | | | **58** | | | **44** | **100.0%** | **0.22 [-0.18, 0.61]** |
| Heterogeneity: Chi² = 2.40, df = 1 (P = 0.12); I² = 58% | | | | | | | | |
| Test for overall effect: Z = 1.07 (P = 0.28) | | | | | | | | |
| Test for subgroup differences: Chi² = 2.40, df = 1 (P = 0.12), I² = 58.4% | | | | | | | | |



**2.8 Global state: 2. Continuous measures - GAF (signs reversed) (at FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.8.1 Up to 12 months FU** | | | | | | | | |
| Bauml 1996 | -78 | 14.5 | 79 | -68 | 17.5 | 80 | 79.7% | -0.62 [-0.94, -0.30] |
| Merinder 1999 | -62.91 | 16.34 | 22 | -55.39 | 16.35 | 18 | 20.3% | -0.45 [-1.08, 0.18] |
| **Subtotal (95% CI)** | | | **101** | | | **98** | **100.0%** | **-0.58 [-0.87, -0.30]** |

Heterogeneity: Chi² = 0.22, df = 1 (P = 0.64); I² = 0%
Test for overall effect: Z = 4.03 (P < 0.0001)

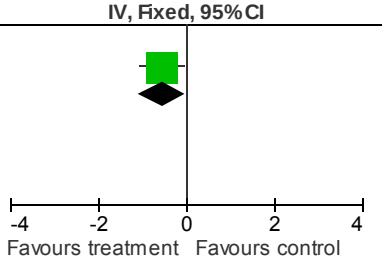



Test for subgroup differences: Not applicable

**2.9 Global state: 3. CGI scores (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.9.1 CGI-I (at end of treatment)** | | | | | | | | |
| VREELAND2006 | 2.7 | 1.6 | 36 | 3.5 | 1 | 25 | 100.0% | -0.57 [-1.09, -0.05] |
| **Subtotal (95% CI)** | | | **36** | | | **25** | **100.0%** | **-0.57 [-1.09, -0.05]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 2.14 (P = 0.03)




Test for subgroup differences: Not applicable

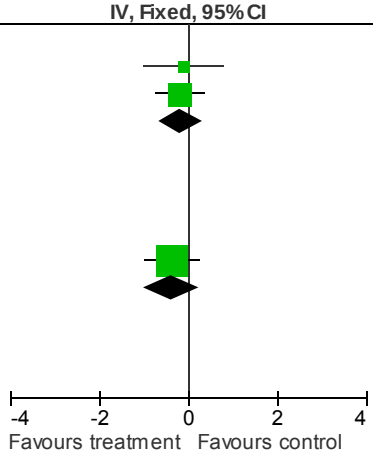
**2.10 Mental state: 1. Continuous measures - Total symptom score, BPRS, PANSS (lower = better) (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.10.2 Total symptom score (at end of treatment) (endpt means)** | | | | | | | | |
| Bauml 1996 | 1.03 | 0.55 | 9 | 1.09 | 0.49 | 10 | 27.6% | -0.11 [-1.01, 0.79] |
| Hayashi 2001 | 35.7 | 6.5 | 25 | 37 | 6.2 | 25 | 72.4% | -0.20 [-0.76, 0.35] |
| **Subtotal (95% CI)** | | | **34** | | | **35** | **100.0%** | **-0.18 [-0.65, 0.30]** |

Heterogeneity: Chi² = 0.03, df = 1 (P = 0.87); I² = 0%
Test for overall effect: Z = 0.73 (P = 0.47)

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.10.3 Total Symptom score (at end of treatment) (Change score)** | | | | | | | | |
| Merinder 1999 | -0.09 | 5.9 | 22 | 2.63 | 8.04 | 19 | 100.0% | -0.38 [-1.00, 0.24] |
| **Subtotal (95% CI)** | | | **22** | | | **19** | **100.0%** | **-0.38 [-1.00, 0.24]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 1.21 (P = 0.23)

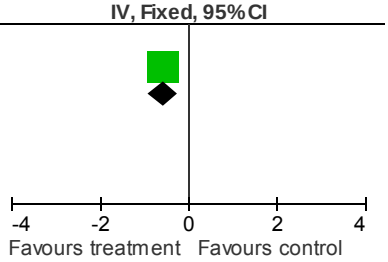



Test for subgroup differences: Chi² = 0.27, df = 1 (P = 0.60), I² = 0%

**2.11 Mental state: 1. Continuous measures - Total symptom score, BPRS, PANSS (lower = better) (at FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.11.1 Total symptom score (up to 12 months FU)** | | | | | | | | |
| Bauml 1996 | 26 | 7.7 | 79 | 32 | 12.1 | 80 | 100.0% | -0.59 [-0.91, -0.27] |
| **Subtotal (95% CI)** | | | **79** | | | **80** | **100.0%** | **-0.59 [-0.91, -0.27]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 3.63 (P = 0.0003)

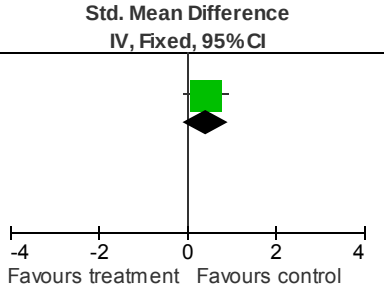



Test for subgroup differences: Not applicable

**2.12 Mental state: 2. Continuous measures - positive symptom score (PANSS, SAPS) (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.12.1 PANSS, SAPS, BPRS positive subscale score (at end of treament)** | | | | | | | | |
| VREELAND2006 | 16.6 | 6 | 36 | 14.2 | 5.3 | 25 | 100.0% | 0.41 [-0.10, 0.93] |
| **Subtotal (95% CI)** | | | **36** | | | **25** | **100.0%** | **0.41 [-0.10, 0.93]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 1.57 (P = 0.12)

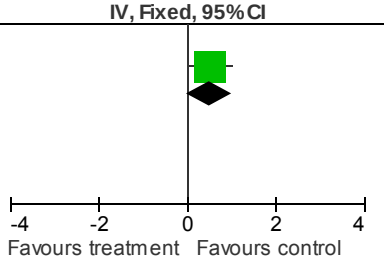



Test for subgroup differences: Not applicable

**2.13 Mental state: 3. Continuous measures - negative symptom score (PANSS, SANS) (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.13.1 PANSS, SANS, BPRS negative subscale (at end of treatment)** | | | | | | | | |
| VREELAND2006 | 18 | 6.9 | 36 | 14.9 | 4.8 | 25 | 100.0% | 0.50 [-0.02, 1.02] |
| **Subtotal (95% CI)** | | | **36** | | | **25** | **100.0%** | **0.50 [-0.02, 1.02]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 1.89 (P = 0.06)

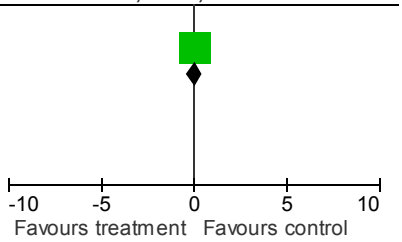



Test for subgroup differences: Not applicable

**2.14 Mental state: 4. Depression (MADRS) (at FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.14.1 Up to 2 months FU** | | | | | | | | |
| CunninghamOwens 2001 | 11.2 | 8.3 | 43 | 11 | 10.8 | 39 | 100.0% | 0.02 [-0.41, 0.45] |
| **Subtotal (95% CI)** | | | **43** | | | **39** | **100.0%** | **0.02 [-0.41, 0.45]** |

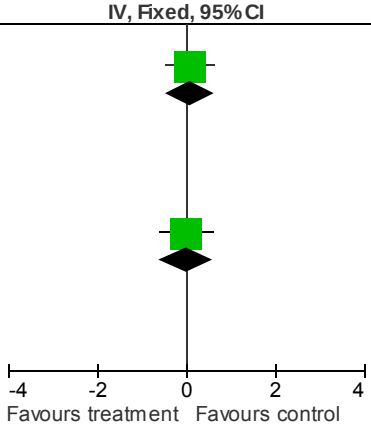
Heterogeneity: Not applicable
Test for overall effect: Z = 0.09 (P = 0.93)




Test for subgroup differences: Not applicable

**2.15 Insight: 1. Total score (IS, ABPS) (signs reversed) (at end of treatment)**

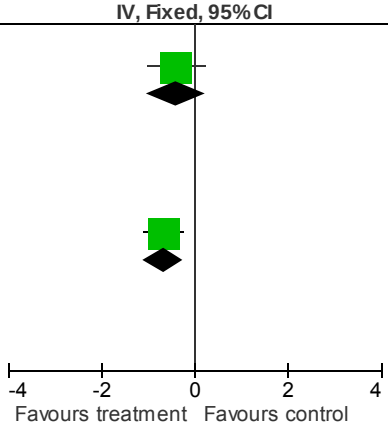
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.15.5 ABPS total score (Endpt means)** | | | | | | | | |
| Hayashi 2001 | -23.3 | 16.6 | 25 | -24.6 | 15.6 | 25 | 100.0% | 0.08 [-0.48, 0.63] |
| **Subtotal (95% CI)** | | | **25** | | | **25** | **100.0%** | **0.08 [-0.48, 0.63]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.28 (P = 0.78) | | | | | | | | |
| **2.15.6 Insight scale (Change score)** | | | | | | | | |
| Merinder 1999 | -0.18 | 1.76 | 22 | -0.16 | 1.49 | 19 | 100.0% | -0.01 [-0.63, 0.60] |
| **Subtotal (95% CI)** | | | **22** | | | **19** | **100.0%** | **-0.01 [-0.63, 0.60]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.04 (P = 0.97) | | | | | | | | |




Test for subgroup differences: Chi² = 0.05, df = 1 (P = 0.83), I² = 0%

**2.16 Insight: 1. Total scores (IS, ITAQ, SUMD) (signs reversed) (at FU)**

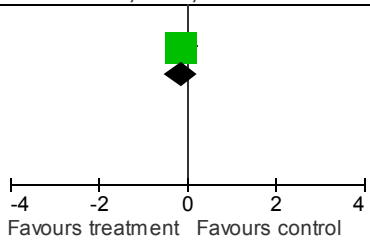
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.16.1 Insight Scale (up to 12 months FU) (Change score)** | | | | | | | | |
| Merinder 1999 | -1.09 | 2.19 | 22 | -0.13 | 2.41 | 18 | 100.0% | -0.41 [-1.04, 0.22] |
| **Subtotal (95% CI)** | | | **22** | | | **18** | **100.0%** | **-0.41 [-1.04, 0.22]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.28 (P = 0.20) | | | | | | | | |
| **2.16.2 ITAQ, SUMD (up to 12 months FU) (Endpt means)** | | | | | | | | |
| CunninghamOwens 2001 | -14.5 | 5.5 | 47 | -10.7 | 5.6 | 39 | 100.0% | -0.68 [-1.12, -0.24] |
| **Subtotal (95% CI)** | | | **47** | | | **39** | **100.0%** | **-0.68 [-1.12, -0.24]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.05 (P = 0.002) | | | | | | | | |




Test for subgroup differences: Chi² = 0.47, df = 1 (P = 0.49), I² = 0%

**2.17 Psychosocial functioning: 1. Social Functioning Schedule (SFS, lower = better) (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.17.1 Total Score (at end of treatment)** | | | | | | | | |
| Atkinson 1996 | 2.4 | 1.3 | 52 | 2.6 | 1.3 | 62 | 100.0% | -0.15 [-0.52, 0.22] |
| **Subtotal (95% CI)** | | | **52** | | | **62** | **100.0%** | **-0.15 [-0.52, 0.22]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.81 (P = 0.42) | | | | | | | | |

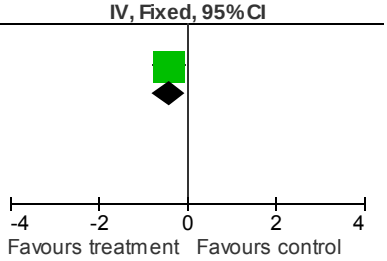



Test for subgroup differences: Not applicable

**2.18 Psychosocial functioning: 1. Social Functioning Scale (lower = better) (at FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.18.1 Total score (up to 3 months FU)** | | | | | | | | |
| Atkinson 1996 | 2 | 1.1 | 50 | 2.5 | 1.2 | 58 | 100.0% | -0.43 [-0.81, -0.05] |
| **Subtotal (95% CI)** | | | **50** | | | **58** | **100.0%** | **-0.43 [-0.81, -0.05]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 2.20 (P = 0.03)

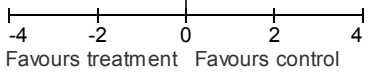



Test for subgroup differences: Not applicable

**2.19 Pyschosocial functioning: 2. SNS - mean no. total contacts (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.19.2 Total score (at end of treatment)** | | | | | | | | |
| Atkinson 1996 | -16.8 | 8.6 | 52 | -13.1 | 10.3 | 60 | 100.0% | -0.38 [-0.76, -0.01] |
| **Subtotal (95% CI)** | | | **52** | | | **60** | **100.0%** | **-0.38 [-0.76, -0.01]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 2.01 (P = 0.04)




Test for subgroup differences: Not applicable

**2.20 Psychosocial functioning: 2. SNS - mean no. total contacts (at FU)**

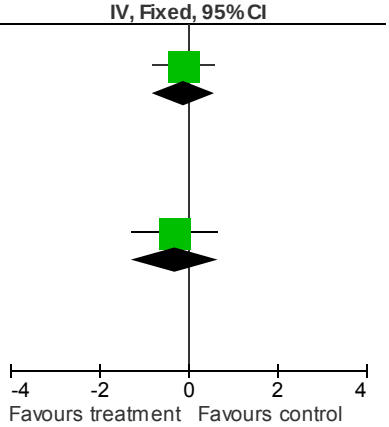
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.20.2 Total score (up to 3 months FU)** | | | | | | | | |
| Atkinson 1996 | -17.5 | 10.7 | 50 | -13.5 | 10.8 | 56 | 100.0% | -0.37 [-0.75, 0.02] |
| **Subtotal (95% CI)** | | | **50** | | | **56** | **100.0%** | **-0.37 [-0.75, 0.02]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 1.88 (P = 0.06)

Test for subgroup differences: Not applicable

**2.21 Satisfaction with mental health services: 1. (VSS) (signs reversed) - at end of interventions (change score)**

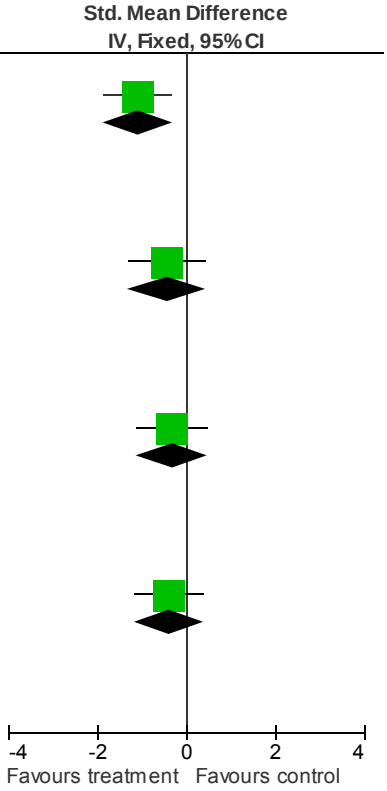
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.21.1 Patients' satisfaction (8 weeks)** | | | | | | | | |
| Merinder 1999 | -9.47 | 17.46 | 18 | -7.32 | 16.48 | 14 | 100.0% | -0.12 [-0.82, 0.58] |
| **Subtotal (95% CI)** | | | **18** | | | **14** | **100.0%** | **-0.12 [-0.82, 0.58]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.34 (P = 0.73) | | | | | | | | |
| **2.21.2 Relatives' satisfaction (8 weeks)** | | | | | | | | |
| Merinder 1999 | -9.56 | 28.73 | 10 | -1.25 | 16.05 | 7 | 100.0% | -0.32 [-1.30, 0.65] |
| **Subtotal (95% CI)** | | | **10** | | | **7** | **100.0%** | **-0.32 [-1.30, 0.65]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.65 (P = 0.52) | | | | | | | | |




Test for subgroup differences: Chi² = 0.11, df = 1 (P = 0.74), I² = 0%

**2.22 Satisfaction with mental health services: 1. (VSS) (signs reversed) - up to 12 months FU (change score)**

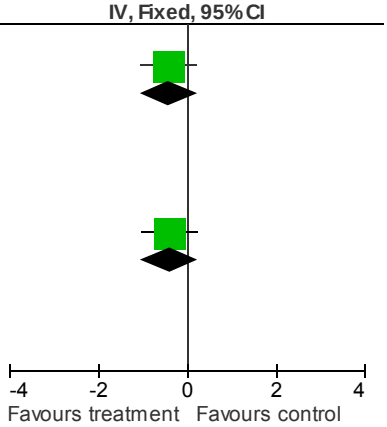
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.22.1 Patients' satisfaction with Relatives' involvement** | | | | | | | | |
| Merinder 1999 | -4.47 | 3.13 | 15 | -0.12 | 4.42 | 15 | 100.0% | -1.11 [-1.88, -0.33] |
| **Subtotal (95% CI)** | | | **15** | | | **15** | **100.0%** | **-1.11 [-1.88, -0.33]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.79 (P = 0.005) | | | | | | | | |
| **2.22.2 Relatives' involvement satisfaction** | | | | | | | | |
| Merinder 1999 | -1.34 | 5.77 | 11 | 0.83 | 3.19 | 10 | 100.0% | -0.44 [-1.31, 0.43] |
| **Subtotal (95% CI)** | | | **11** | | | **10** | **100.0%** | **-0.44 [-1.31, 0.43]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.99 (P = 0.32) | | | | | | | | |
| **2.22.3 Relatives' efficacy satisfaction** | | | | | | | | |
| Merinder 1999 | -1.51 | 6.47 | 12 | 0.65 | 6.35 | 12 | 100.0% | -0.33 [-1.13, 0.48] |
| **Subtotal (95% CI)** | | | **12** | | | **12** | **100.0%** | **-0.33 [-1.13, 0.48]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.79 (P = 0.43) | | | | | | | | |
| **2.22.4 Relatives' intervention satisfaction** | | | | | | | | |
| Merinder 1999 | -2.83 | 9.54 | 13 | 0.6 | 6.91 | 13 | 100.0% | -0.40 [-1.18, 0.38] |
| **Subtotal (95% CI)** | | | **13** | | | **13** | **100.0%** | **-0.40 [-1.18, 0.38]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.01 (P = 0.31) | | | | | | | | |




Test for subgroup differences: Chi² = 2.45, df = 3 (P = 0.48), I² = 0%

**2.23 Satisfaction with mental health services: 2. Consumer satisfaction scale (relatives only)**

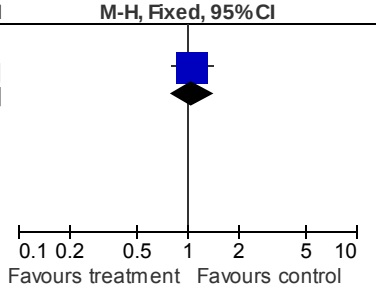
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.23.1 At end of treatment** | | | | | | | | |
| POSNER1992 | -58.84 | 6.63 | 19 | -55.85 | 7.29 | 20 | 100.0% | -0.42 [-1.06, 0.22] |
| **Subtotal (95% CI)** | | | **19** | | | **20** | **100.0%** | **-0.42 [-1.06, 0.22]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.29 (P = 0.20) | | | | | | | | |
| **2.23.2 At Follow up** | | | | | | | | |
| POSNER1992 | -57.47 | 5.94 | 19 | -54.7 | 7.28 | 20 | 100.0% | -0.41 [-1.04, 0.23] |
| **Subtotal (95% CI)** | | | **19** | | | **20** | **100.0%** | **-0.41 [-1.04, 0.23]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.26 (P = 0.21) | | | | | | | | |




Test for subgroup differences: Chi² = 0.00, df = 1 (P = 0.98), I² = 0%

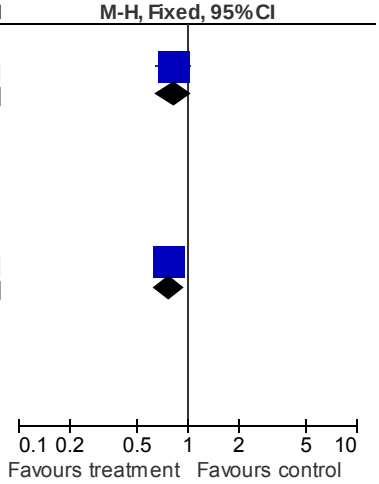
**2.24 Adherence: 1. Non-adherence/ poor adherence to medication (end of treatment)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.24.1 End of treatment** | | | | | | |
| Bauml 1996 | 56 | 125 | 47 | 111 | 100.0% | 1.06 [0.79, 1.42] |
| **Subtotal (95% CI)** | | **125** | | **111** | **100.0%** | **1.06 [0.79, 1.42]** |
| Total events | 56 | | 47 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.38 (P = 0.70) | | | | | | |




**2.25 Adherence: 1. Non-adherence/ poor adherence to medication (at FU)**

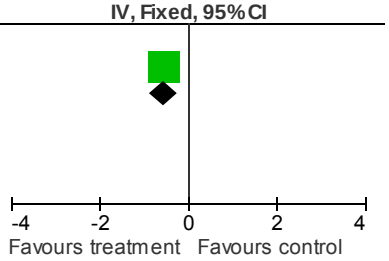
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.25.2 Up to 12 months FU** | | | | | | |
| Bauml 1996 | 60 | 125 | 65 | 111 | 100.0% | 0.82 [0.64, 1.04] |
| **Subtotal (95% CI)** | | **125** | | **111** | **100.0%** | **0.82 [0.64, 1.04]** |
| Total events | 60 | | 65 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.62 (P = 0.10) | | | | | | |
| **2.25.3 Up to 24 months FU** | | | | | | |
| Bauml 1996 | 67 | 125 | 77 | 111 | 100.0% | 0.77 [0.63, 0.95] |
| **Subtotal (95% CI)** | | **125** | | **111** | **100.0%** | **0.77 [0.63, 0.95]** |
| Total events | 67 | | 77 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 2.47 (P = 0.01) | | | | | | |



**2.26 Adherence: 2. Non-adherence to medication (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.26.1 Adherence to medication - during 1 year** | | | | | | | | |
| Bauml 1996 | 1.7 | 0.6 | 81 | 2.1 | 0.8 | 82 | 100.0% | -0.56 [-0.88, -0.25] |
| **Subtotal (95% CI)** | | | **81** | | | **82** | **100.0%** | **-0.56 [-0.88, -0.25]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 3.52 (P = 0.0004)

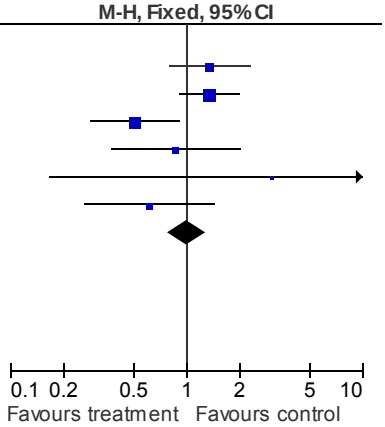



Test for subgroup differences: Not applicable

**2.27 Leaving the study early (at end of treatment)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.27.1 At end of treatment** | | | | | | |
| Atkinson 1996 | 23 | 73 | 17 | 73 | 18.0% | 1.35 [0.79, 2.31] |
| Bauml 1996 | 44 | 125 | 29 | 111 | 32.4% | 1.35 [0.91, 2.00] |
| CHABANNES2008 | 14 | 111 | 27 | 109 | 28.8% | 0.51 [0.28, 0.92] |
| CunninghamOwens 2001 | 9 | 61 | 9 | 53 | 10.2% | 0.87 [0.37, 2.03] |
| Macpherson 1996 | 3 | 47 | 0 | 20 | 0.7% | 3.06 [0.17, 56.70] |
| Merinder 1999 | 6 | 24 | 9 | 22 | 9.9% | 0.61 [0.26, 1.44] |
| **Subtotal (95% CI)** | | **441** | | **388** | **100.0%** | **1.00 [0.78, 1.28]** |
| Total events | 99 | | 91 | | | |

Heterogeneity: Chi² = 10.42, df = 5 (P = 0.06); I² = 52%
Test for overall effect: Z = 0.02 (P = 0.99)



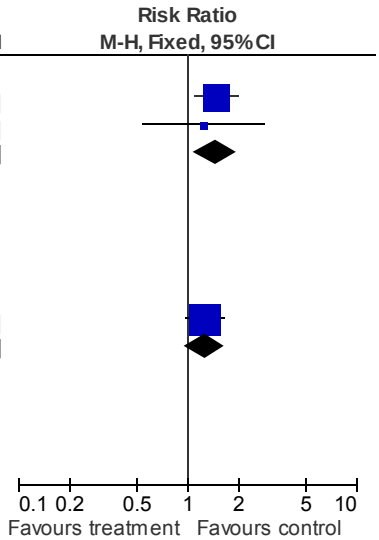

**2.28 Leaving the study early (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.28.1 Up to 12 months FU** | | | | | | |
| Bauml 1996 | 65 | 125 | 39 | 111 | 85.3% | 1.48 [1.09, 2.01] |
| POSNER1992 | 9 | 28 | 7 | 27 | 14.7% | 1.24 [0.54, 2.86] |
| **Subtotal (95% CI)** | | **153** | | **138** | **100.0%** | **1.44 [1.09, 1.92]** |
| Total events | 74 | | 46 | | | |

Heterogeneity: Chi² = 0.15, df = 1 (P = 0.70); I² = 0%
Test for overall effect: Z = 2.52 (P = 0.01)

| | | | | | | |
|---|---|---|---|---|---|---|
| **2.28.2 Up to 24 months FU** | | | | | | |
| Bauml 1996 | 67 | 125 | 47 | 111 | 100.0% | 1.27 [0.96, 1.66] |
| **Subtotal (95% CI)** | | **125** | | **111** | **100.0%** | **1.27 [0.96, 1.66]** |
| Total events | 67 | | 47 | | | |

Heterogeneity: Not applicable
Test for overall effect: Z = 1.70 (P = 0.09)

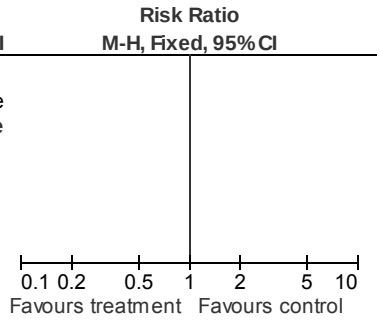



**3 Psychoeducation versus other active treatments**

# Psychological clinical evidence: Psychoeducation

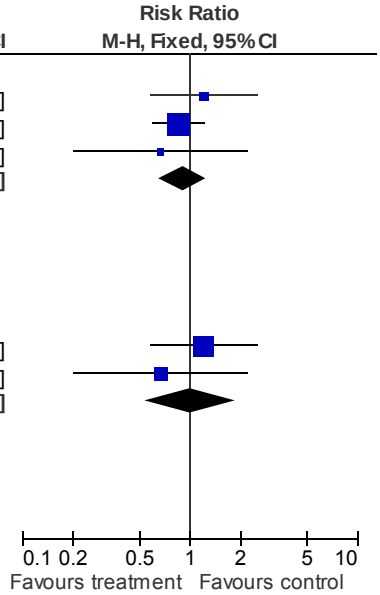
**3.1 Service outcome: 1. Rehospitalisation (at end of treatment)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.1.1 At end of treatment** | | | | | | |
| SHIN2002 | 0 | 24 | 0 | 24 | | Not estimable |
| **Subtotal (95% CI)** | | **24** | | **24** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |



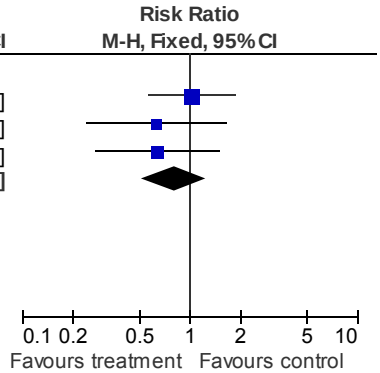

**3.2 Service Outcome: 1.Rehospitalisation (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.2.1 Up to 12 months FU** | | | | | | |
| BECHDOLF2004 | 13 | 48 | 9 | 40 | 20.4% | 1.20 [0.57, 2.52] |
| Hornung 1995* | 30 | 67 | 30 | 57 | 67.2% | 0.85 [0.59, 1.22] |
| XIANG2006 | 4 | 48 | 6 | 48 | 12.4% | 0.67 [0.20, 2.21] |
| **Subtotal (95% CI)** | | **163** | | **145** | **100.0%** | **0.90 [0.65, 1.24]** |
| Total events | 47 | | 45 | | | |
| Heterogeneity: Chi² = 0.93, df = 2 (P = 0.63); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.65 (P = 0.52) | | | | | | |
| **3.2.2 Sensitivity analysis removing multimodal studies** | | | | | | |
| BECHDOLF2004 | 13 | 48 | 9 | 40 | 62.1% | 1.20 [0.57, 2.52] |
| XIANG2006 | 4 | 48 | 6 | 48 | 37.9% | 0.67 [0.20, 2.21] |
| **Subtotal (95% CI)** | | **96** | | **88** | **100.0%** | **1.00 [0.53, 1.87]** |
| Total events | 17 | | 15 | | | |
| Heterogeneity: Chi² = 0.68, df = 1 (P = 0.41); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.00 (P = 1.00) | | | | | | |




**3.3 Global state: 1. Relapse (at FU)**

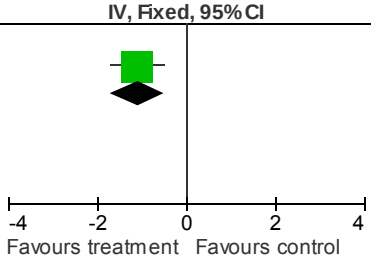
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.3.1 Up to 12 months FU** | | | | | | |
| BECHDOLF2004 | 16 | 48 | 13 | 40 | 41.9% | 1.03 [0.56, 1.87] |
| CHAN2007 | 6 | 44 | 8 | 37 | 25.7% | 0.63 [0.24, 1.65] |
| XIANG2006 | 7 | 48 | 11 | 48 | 32.5% | 0.64 [0.27, 1.50] |
| **Subtotal (95% CI)** | | **140** | | **125** | **100.0%** | **0.80 [0.52, 1.24]** |
| Total events | 29 | | 32 | | | |
| Heterogeneity: Chi² = 1.17, df = 2 (P = 0.56); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.01 (P = 0.31) | | | | | | |



**3.4 Mental state: 1. Continuous measures - Total symptom score, BPRS, PANSS (lower = better) (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.4.2 Total symptom score (at end of treatment) (endpt means)** | | | | | | | | |
| SHIN2002 | 74.29 | 7.04 | 24 | 82.58 | 7.62 | 24 | 100.0% | -1.11 [-1.72, -0.50] |
| **Subtotal (95% CI)** | | | **24** | | | **24** | **100.0%** | **-1.11 [-1.72, -0.50]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 3.56 (P = 0.0004)

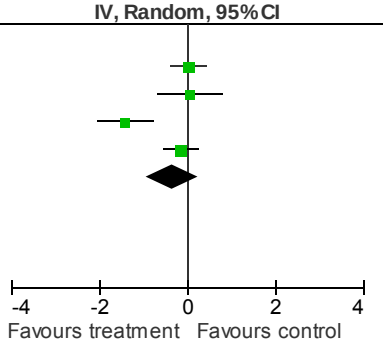



Test for subgroup differences: Not applicable

**3.5 Mental state: 2. Continuous measures - positive symptom score (PANSS, SAPS) (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.5.1 PANSS, SAPS, BPRS positive subscale score (at end of treament)** | | | | | | | | |
| BECHDOLF2004 | 11.4 | 4.5 | 48 | 11.3 | 4.2 | 40 | 27.5% | 0.02 [-0.40, 0.44] |
| CATHER2005 | 11.08 | 3.73 | 13 | 10.93 | 2.55 | 15 | 21.3% | 0.05 [-0.70, 0.79] |
| SHIN2002 | 15.08 | 2.75 | 24 | 18.46 | 1.79 | 24 | 23.3% | -1.43 [-2.07, -0.79] |
| XIANG2006 | 9 | 2.7 | 48 | 9.5 | 3.5 | 48 | 27.8% | -0.16 [-0.56, 0.24] |
| **Subtotal (95% CI)** | | | **133** | | | **127** | **100.0%** | **-0.36 [-0.96, 0.24]** |

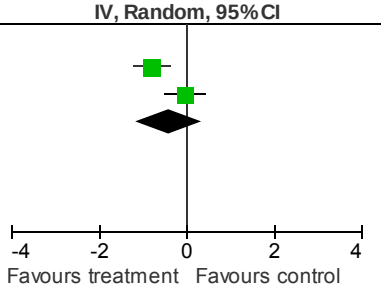
Heterogeneity: Tau² = 0.29; Chi² = 15.54, df = 3 (P = 0.001); I² = 81%
Test for overall effect: Z = 1.19 (P = 0.23)




**3.6 Mental state: 2. Continuous measures - positive symptom score (PANSS, SAPS) (at FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.6.1 PANSS, SAPS, BPRS positive subscale score (up to 12 months FU)** | | | | | | | | |
| XIANG2006 | 8.9 | 2.4 | 45 | 11.6 | 4 | 46 | 50.8% | -0.81 [-1.24, -0.38] |
| BECHDOLF2004 | 11.4 | 4.8 | 40 | 11.6 | 4.3 | 31 | 49.2% | -0.04 [-0.51, 0.43] |
| **Subtotal (95% CI)** | | | **85** | | | **77** | **100.0%** | **-0.43 [-1.18, 0.32]** |

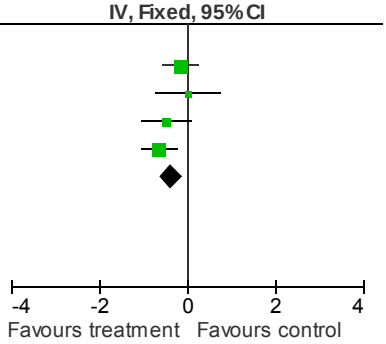
Heterogeneity: Tau² = 0.24; Chi² = 5.59, df = 1 (P = 0.02); I² = 82%
Test for overall effect: Z = 1.13 (P = 0.26)



**3.7 Mental state: 3. Continuous measures - negative symptom score (PANSS, SANS) (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.7.1 PANSS, SANS, BPRS negative subscale (at end of treatment)** | | | | | | | | |
| BECHDOLF2004 | 13.1 | 5.2 | 48 | 13.9 | 4.5 | 40 | 34.5% | -0.16 [-0.58, 0.26] |
| CATHER2005 | 14.92 | 5.72 | 13 | 14.87 | 4.97 | 15 | 11.0% | 0.01 [-0.73, 0.75] |
| SHIN2002 | 10.88 | 1.75 | 24 | 11.71 | 1.58 | 24 | 18.4% | -0.49 [-1.06, 0.09] |
| XIANG2006 | 11 | 4.2 | 48 | 13.9 | 4.6 | 48 | 36.1% | -0.65 [-1.06, -0.24] |
| **Subtotal (95% CI)** | | | **133** | | | **127** | **100.0%** | **-0.38 [-0.63, -0.13]** |

Heterogeneity: Chi² = 3.92, df = 3 (P = 0.27); I² = 24%
Test for overall effect: Z = 3.02 (P = 0.003)

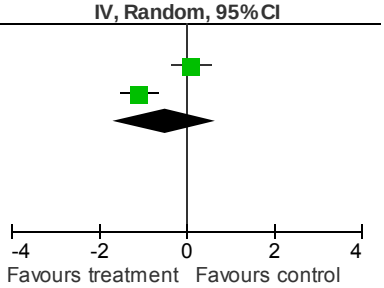



Test for subgroup differences: Not applicable

**3.8 Mental state: 3. Continuous measures - negative symptom score (PANSS, SANS) (at FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.8.1 PANSS, SANS, BPRS negative subscale (up to 12 months FU)** | | | | | | | | |
| BECHDOLF2004 | 13 | 6.1 | 40 | 12.5 | 4 | 31 | 49.8% | 0.09 [-0.38, 0.56] |
| XIANG2006 | 11.1 | 2.9 | 45 | 15.5 | 4.8 | 46 | 50.2% | -1.10 [-1.54, -0.66] |
| **Subtotal (95% CI)** | | | **85** | | | **77** | **100.0%** | **-0.50 [-1.67, 0.66]** |

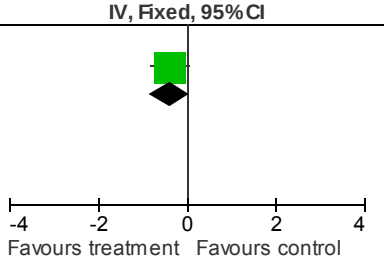
Heterogeneity: Tau² = 0.65; Chi² = 13.11, df = 1 (P = 0.0003); I² = 92%
Test for overall effect: Z = 0.85 (P = 0.40)




**3.9 Insight: 1. Total scores (IS, ITAQ, SUMD) (signs reversed) (at FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.9.2 ITAQ, SUMD (up to 12 months FU) (Endpt means)** | | | | | | | | |
| CHAN2007 | 6.77 | 2.56 | 44 | 7.95 | 3.2 | 37 | 100.0% | -0.41 [-0.85, 0.03] |
| **Subtotal (95% CI)** | | | **44** | | | **37** | **100.0%** | **-0.41 [-0.85, 0.03]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 1.81 (P = 0.07)

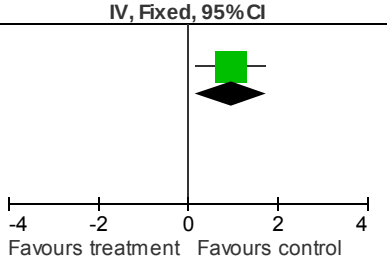



Test for subgroup differences: Not applicable

**3.10 Psychosocial functioning: 1. Social Functioning Schedule (SFS, lower = better) (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.10.1 Total Score (at end of treatment)** | | | | | | | | |
| CATHER2005 | -105.21 | 25.57 | 13 | -129.88 | 24.91 | 15 | 100.0% | 0.95 [0.16, 1.74] |
| **Subtotal (95% CI)** | | | **13** | | | **15** | **100.0%** | **0.95 [0.16, 1.74]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 2.36 (P = 0.02)

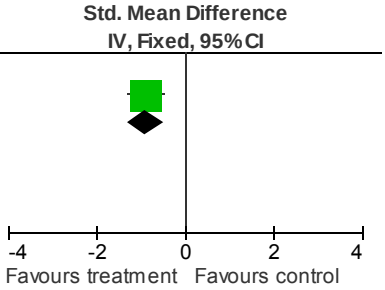



Test for subgroup differences: Not applicable

**3.11 Psychosocial Functioning: 2. Social disability screening schedule (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.11.1 Total score (at end of treatment)** | | | | | | | | |
| XIANG2006 | 4.2 | 1.7 | 48 | 6 | 2.2 | 48 | 100.0% | -0.91 [-1.33, -0.49] |
| **Subtotal (95% CI)** | | | **48** | | | **48** | **100.0%** | **-0.91 [-1.33, -0.49]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 4.23 (P < 0.0001)

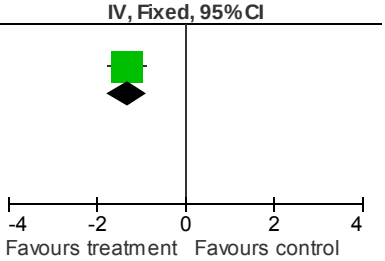



Test for subgroup differences: Not applicable

**3.12 Psychosocial Functioning: 2. Social disability screening schedule (at FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.12.1 Total score (up to 6 months FU)** | | | | | | | | |
| XIANG2006 | 3.6 | 1.2 | 45 | 5.9 | 2.1 | 48 | 100.0% | -1.32 [-1.77, -0.87] |
| **Subtotal (95% CI)** | | | **45** | | | **48** | **100.0%** | **-1.32 [-1.77, -0.87]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 5.75 (P < 0.00001)

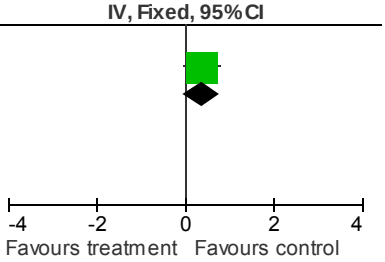



Test for subgroup differences: Not applicable

**3.13 Adherence to medication (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.13.2 Compliance rating scale (signs reversed) (at end of treatment)** | | | | | | | | |
| BECHDOLF2004 | -3.7 | 0.7 | 48 | -3.9 | 0.3 | 40 | 100.0% | 0.36 [-0.07, 0.78] |
| **Subtotal (95% CI)** | | | **48** | | | **40** | **100.0%** | **0.36 [-0.07, 0.78]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 1.65 (P = 0.10)

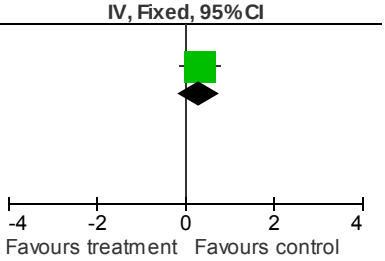



Test for subgroup differences: Not applicable

**3.14 Adherence to medication (at FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.14.3 Compliance rating scale (signs reversed) (up to 12 months FU)** | | | | | | | | |
| BECHDOLF2004 | -3.2 | 1 | 40 | -3.5 | 0.9 | 31 | 100.0% | 0.31 [-0.16, 0.78] |
| **Subtotal (95% CI)** | | | **40** | | | **31** | **100.0%** | **0.31 [-0.16, 0.78]** |

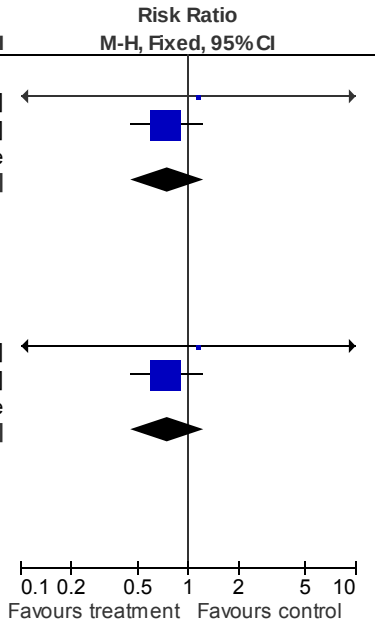
Heterogeneity: Not applicable
Test for overall effect: Z = 1.29 (P = 0.20)




Test for subgroup differences: Not applicable

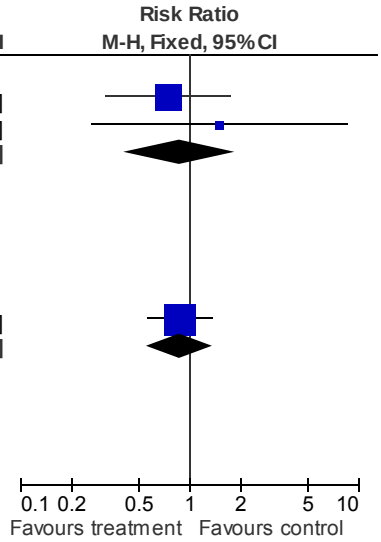
**3.15 Leaving the study early (at end of treatment)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.15.1 At end of treatment** | | | | | | |
| CATHER2005 | 1 | 14 | 1 | 16 | 3.8% | 1.14 [0.08, 16.63] |
| Hornung 1995* | 19 | 67 | 22 | 57 | 96.2% | 0.73 [0.44, 1.21] |
| Lecompte 1996 | 0 | 32 | 0 | 32 | | Not estimable |
| **Subtotal (95% CI)** | | **113** | | **105** | **100.0%** | **0.75 [0.46, 1.23]** |
| Total events | 20 | | 23 | | | |
| Heterogeneity: Chi² = 0.10, df = 1 (P = 0.75); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.14 (P = 0.25) | | | | | | |
| **3.15.2 Sensitivity analysis removing multimodal studies** | | | | | | |
| CATHER2005 | 1 | 14 | 1 | 16 | 3.8% | 1.14 [0.08, 16.63] |
| Hornung 1995* | 19 | 67 | 22 | 57 | 96.2% | 0.73 [0.44, 1.21] |
| Lecompte 1996 | 0 | 32 | 0 | 32 | | Not estimable |
| **Subtotal (95% CI)** | | **113** | | **105** | **100.0%** | **0.75 [0.46, 1.23]** |
| Total events | 20 | | 23 | | | |
| Heterogeneity: Chi² = 0.10, df = 1 (P = 0.75); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.14 (P = 0.25) | | | | | | |




**3.16 Leaving the study early (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.16.1 Up to 12 months FU** | | | | | | |
| BECHDOLF2004 | 8 | 48 | 9 | 40 | 83.1% | 0.74 [0.32, 1.74] |
| XIANG2006 | 3 | 48 | 2 | 48 | 16.9% | 1.50 [0.26, 8.58] |
| **Subtotal (95% CI)** | | **96** | | **88** | **100.0%** | **0.87 [0.41, 1.86]** |
| Total events | 11 | | 11 | | | |
| Heterogeneity: Chi² = 0.51, df = 1 (P = 0.47); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.36 (P = 0.72) | | | | | | |
| **3.16.2 Up to 24 months FU** | | | | | | |
| BECHDOLF2004 | 21 | 48 | 20 | 40 | 100.0% | 0.88 [0.56, 1.37] |
| **Subtotal (95% CI)** | | **48** | | **40** | **100.0%** | **0.88 [0.56, 1.37]** |
| Total events | 21 | | 20 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.59 (P = 0.56) | | | | | | |



# Psychological clinical evidence: Psychoeducation (subgroup analyses)

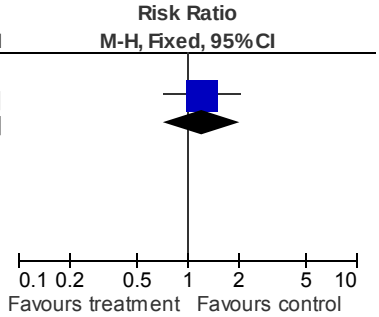
**1 Psychoeducation with booster sessions versus psychoeducation only**

**1.1 Service outcome: 1. Rehospitalisation**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.1.1 12 months after end of initial psychoeducation intervention** | | | | | | |
| SIBITZ2007 | 18 | 44 | 17 | 50 | 100.0% | 1.20 [0.71, 2.03] |
| **Subtotal (95% CI)** | | **44** | | **50** | **100.0%** | **1.20 [0.71, 2.03]** |
| Total events | 18 | | 17 | | | |

Heterogeneity: Not applicable

Test for overall effect: Z = 0.69 (P = 0.49)

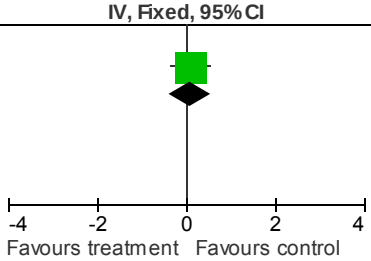



**1.2 Mental state: 1. Continuous measure - total score (PANSS)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.2.1 12 months after end of initial psychoeducation intervention** | | | | | | | | |
| SIBITZ2007 | 60.7 | 13.1 | 34 | 59.5 | 14.1 | 39 | 100.0% | 0.09 [-0.37, 0.55] |
| **Subtotal (95% CI)** | | | **34** | | | **39** | **100.0%** | **0.09 [-0.37, 0.55]** |

Heterogeneity: Not applicable

Test for overall effect: Z = 0.37 (P = 0.71)



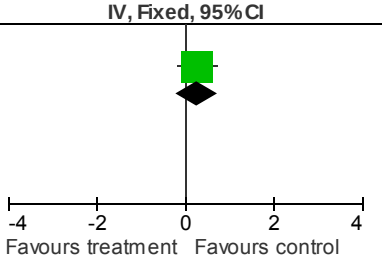

Test for subgroup differences: Not applicable

**1.3 Mental state: 2. Continuous measure - positive symptom (PANSS)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.3.1 12 months after end of initial psychoeducation intervention** | | | | | | | | |
| SIBITZ2007 | 13.9 | 4 | 34 | 12.8 | 4.4 | 39 | 100.0% | 0.26 [-0.20, 0.72] |
| **Subtotal (95% CI)** | | | **34** | | | **39** | **100.0%** | **0.26 [-0.20, 0.72]** |

Heterogeneity: Not applicable

Test for overall effect: Z = 1.09 (P = 0.27)



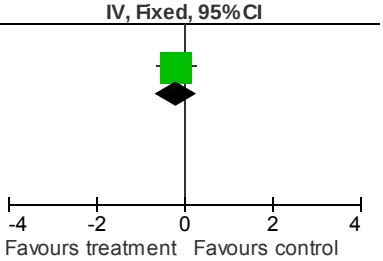

Test for subgroup differences: Not applicable

**1.4 Mental state: 3. Continuous measure - negative symptom (PANSS)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.4.1 12 months after end of initial psychoeducation intervention** | | | | | | | | |
| SIBITZ2007 | 17 | 4.7 | 34 | 18 | 5 | 39 | 100.0% | -0.20 [-0.66, 0.26] |
| **Subtotal (95% CI)** | | | **34** | | | **39** | **100.0%** | **-0.20 [-0.66, 0.26]** |

Heterogeneity: Not applicable

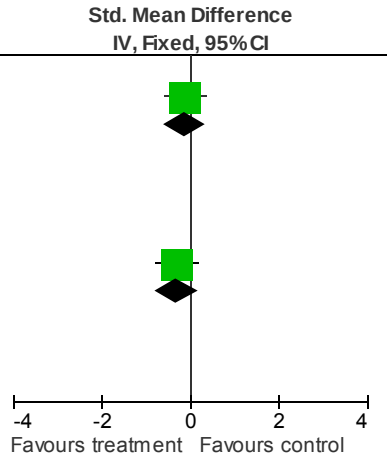
Test for overall effect: Z = 0.86 (P = 0.39)




Test for subgroup differences: Not applicable

**1.5 Compliance with medication: Drug Attitute Inventory (signs reversed)**

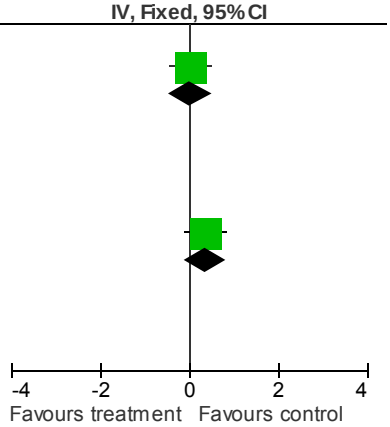
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.5.1 6 months after end of initial psychoeducation intervention** | | | | | | | | |
| SIBITZ2007 | -6.4 | 2.4 | 27 | -6.1 | 2.1 | 43 | 100.0% | -0.13 [-0.62, 0.35] |
| **Subtotal (95% CI)** | | | **27** | | | **43** | **100.0%** | **-0.13 [-0.62, 0.35]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.54 (P = 0.59) | | | | | | | | |
| **1.5.2 12 months after end of initial psychoeducation intervention** | | | | | | | | |
| SIBITZ2007 | -6.5 | 2.5 | 30 | -5.7 | 2.5 | 35 | 100.0% | -0.32 [-0.81, 0.17] |
| **Subtotal (95% CI)** | | | **30** | | | **35** | **100.0%** | **-0.32 [-0.81, 0.17]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.26 (P = 0.21) | | | | | | | | |




Test for subgroup differences: Chi² = 0.27, df = 1 (P = 0.60), I² = 0%

**1.6 Quality of Life - QLI total score (signs reversed)**

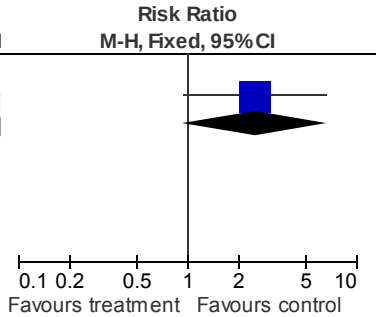
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.6.1 6 months after end of initial psychoeducation intervention** | | | | | | | | |
| SIBITZ2007 | -62.5 | 16.3 | 30 | -62.8 | 15.9 | 37 | 100.0% | 0.02 [-0.46, 0.50] |
| **Subtotal (95% CI)** | | | **30** | | | **37** | **100.0%** | **0.02 [-0.46, 0.50]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.08 (P = 0.94) | | | | | | | | |
| **1.6.2 12 months after end of initial psychoeducation intervention** | | | | | | | | |
| SIBITZ2007 | -62.4 | 20.1 | 31 | -68.9 | 16.2 | 37 | 100.0% | 0.36 [-0.13, 0.84] |
| **Subtotal (95% CI)** | | | **31** | | | **37** | **100.0%** | **0.36 [-0.13, 0.84]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.45 (P = 0.15) | | | | | | | | |




Test for subgroup differences: Chi² = 0.94, df = 1 (P = 0.33), I² = 0%

**1.7 Leaving the study early**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.7.1 12 months after end of initial psychoeducation intervention** | | | | | | |
| SIBITZ2007 | 11 | 44 | 5 | 50 | 100.0% | 2.50 [0.94, 6.64] |
| **Subtotal (95% CI)** | | **44** | | **50** | **100.0%** | **2.50 [0.94, 6.64]** |
| Total events | 11 | | 5 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.84 (P = 0.07) | | | | | | |

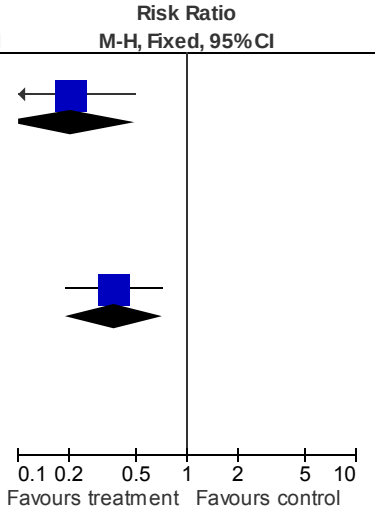



**2 Psychoeducation with social skills module versus psychoeducation only**

# Psychological clinical evidence: Psychoeducation (subgroup analyses)

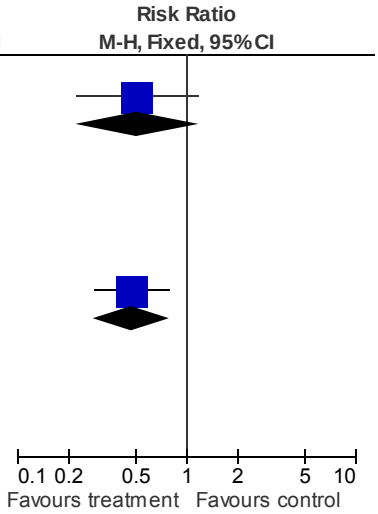
**2.1 Service outcome: 1. Rehospitalised (At FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.1.1 up to 12 months FU** | | | | | | |
| XIANG2007 | 5 | 53 | 23 | 50 | 100.0% | 0.21 [0.08, 0.50] |
| **Subtotal (95% CI)** | | **53** | | **50** | **100.0%** | **0.21 [0.08, 0.50]** |
| Total events | 5 | | 23 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 3.50 (P = 0.0005) | | | | | | |
| **2.1.2 up to 24 months FU** | | | | | | |
| XIANG2007 | 9 | 53 | 23 | 50 | 100.0% | 0.37 [0.19, 0.72] |
| **Subtotal (95% CI)** | | **53** | | **50** | **100.0%** | **0.37 [0.19, 0.72]** |
| Total events | 9 | | 23 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 2.93 (P = 0.003) | | | | | | |



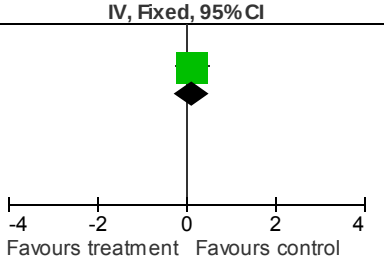

**2.2 Global state: 1. Relapse (At FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.2.1 up to 12 months FU** | | | | | | |
| XIANG2007 | 7 | 53 | 13 | 50 | 100.0% | 0.51 [0.22, 1.17] |
| **Subtotal (95% CI)** | | **53** | | **50** | **100.0%** | **0.51 [0.22, 1.17]** |
| Total events | 7 | | 13 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.59 (P = 0.11) | | | | | | |
| **2.2.2 up to 24 months FU** | | | | | | |
| XIANG2007 | 14 | 53 | 28 | 50 | 100.0% | 0.47 [0.28, 0.79] |
| **Subtotal (95% CI)** | | **53** | | **50** | **100.0%** | **0.47 [0.28, 0.79]** |
| Total events | 14 | | 28 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 2.88 (P = 0.004) | | | | | | |




**2.3 Mental state: 1. Continuous measures - positive symptoms (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.3.1 PANSS positive symptom score (at end of treatment)** | | | | | | | | |
| XIANG2007 | 8.7 | 2.54 | 53 | 8.3 | 3.99 | 50 | 100.0% | 0.12 [-0.27, 0.51] |
| **Subtotal (95% CI)** | | | **53** | | | **50** | **100.0%** | **0.12 [-0.27, 0.51]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.61 (P = 0.54) | | | | | | | | |

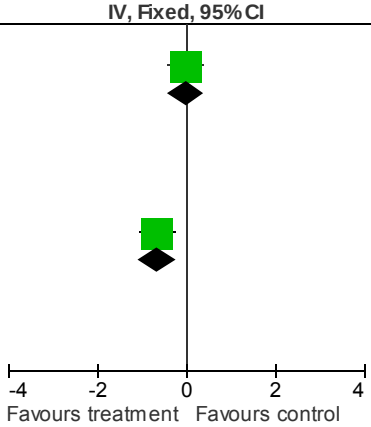



Test for subgroup differences: Not applicable

# Psychological clinical evidence: Psychoeducation (subgroup analyses)

**2.4 Mental state: 1. Continuous measures - positive symptoms (at FU)**

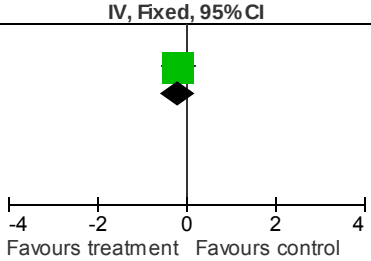
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.4.1 PANSS positive symptom score (up to 12 months FU)** | | | | | | | | |
| XIANG2007 | 8.76 | 2.68 | 49 | 8.83 | 4.58 | 45 | 100.0% | -0.02 [-0.42, 0.39] |
| **Subtotal (95% CI)** | | | **49** | | | **45** | **100.0%** | **-0.02 [-0.42, 0.39]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.09 (P = 0.93) | | | | | | | | |
| **2.4.2 PANSS positive symptom score (up to 24 months FU)** | | | | | | | | |
| XIANG2007 | 8.94 | 2.22 | 49 | 11.42 | 4.86 | 45 | 100.0% | -0.66 [-1.08, -0.24] |
| **Subtotal (95% CI)** | | | **49** | | | **45** | **100.0%** | **-0.66 [-1.08, -0.24]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.11 (P = 0.002) | | | | | | | | |




Test for subgroup differences: Chi² = 4.70, df = 1 (P = 0.03), I² = 78.7%

**2.5 Mental state: 2. Continuous measures - negative symptoms (at end of treatment)**

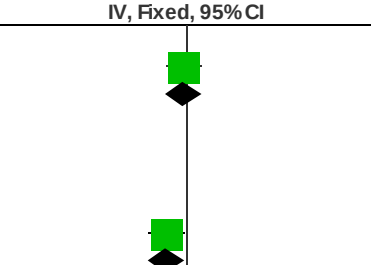
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.5.1 PANSS negative symptom score (at end of treatment)** | | | | | | | | |
| XIANG2007 | 11.06 | 4.16 | 53 | 11.93 | 4.77 | 50 | 100.0% | -0.19 [-0.58, 0.19] |
| **Subtotal (95% CI)** | | | **53** | | | **50** | **100.0%** | **-0.19 [-0.58, 0.19]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.98 (P = 0.33) | | | | | | | | |




Test for subgroup differences: Not applicable

**2.6 Mental state: 2. Continuous measures - negative symptoms (at FU)**

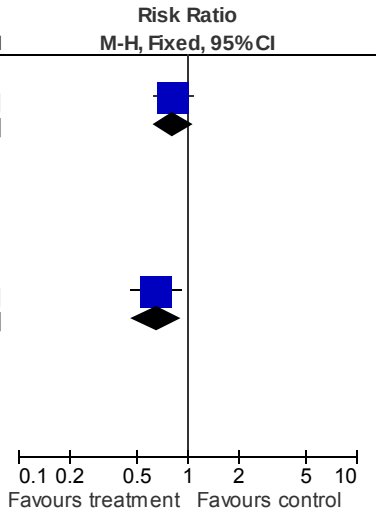
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.6.1 PANSS negative symptom score (up to 12 months FU)** | | | | | | | | |
| XIANG2007 | 11.97 | 2.91 | 49 | 12.19 | 3.98 | 45 | 100.0% | -0.06 [-0.47, 0.34] |
| **Subtotal (95% CI)** | | | **49** | | | **45** | **100.0%** | **-0.06 [-0.47, 0.34]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.31 (P = 0.76) | | | | | | | | |
| **2.6.2 PANSS negative symptom score (up to 24 months FU)** | | | | | | | | |
| XIANG2007 | 11.56 | 3.12 | 49 | 13.17 | 3.96 | 45 | 100.0% | -0.45 [-0.86, -0.04] |
| **Subtotal (95% CI)** | | | **49** | | | **45** | **100.0%** | **-0.45 [-0.86, -0.04]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.15 (P = 0.03) | | | | | | | | |




Test for subgroup differences: Chi² = 1.74, df = 1 (P = 0.19), I² = 42.4%

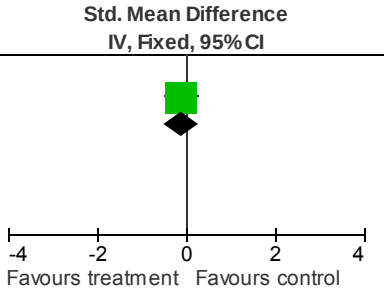
**2.7 Psychosocial functioning: 1. Not gaining re-employment (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.7.1 up to 12 months FU** | | | | | | |
| XIANG2007 | 32 | 53 | 37 | 50 | 100.0% | 0.82 [0.62, 1.07] |
| **Subtotal (95% CI)** | | **53** | | **50** | **100.0%** | **0.82 [0.62, 1.07]** |
| Total events | 32 | | 37 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.46 (P = 0.14) | | | | | | |
| **2.7.2 Up to 24 months FU** | | | | | | |
| XIANG2007 | 24 | 53 | 35 | 50 | 100.0% | 0.65 [0.46, 0.92] |
| **Subtotal (95% CI)** | | **53** | | **50** | **100.0%** | **0.65 [0.46, 0.92]** |
| Total events | 24 | | 35 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 2.46 (P = 0.01) | | | | | | |




**2.8 Psychosocial functioning: 2. Social disability Screening Schedule (at end of treatment)**

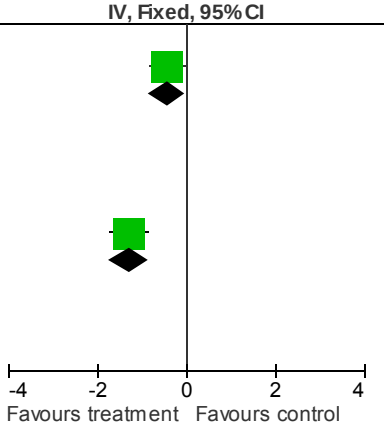
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.8.1 Total score (at end of treatment)** | | | | | | | | |
| XIANG2007 | 5.11 | 1.61 | 53 | 5.39 | 2.85 | 50 | 100.0% | -0.12 [-0.51, 0.27] |
| **Subtotal (95% CI)** | | | **53** | | | **50** | **100.0%** | **-0.12 [-0.51, 0.27]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.61 (P = 0.54) | | | | | | | | |




Test for subgroup differences: Not applicable

**2.9 Psychosocial functioning: 2. Social disability Screening Schedule (at FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.9.1 Total score (up to 12 months FU)** | | | | | | | | |
| XIANG2007 | 4.78 | 1.64 | 49 | 5.72 | 2.52 | 45 | 100.0% | -0.44 [-0.85, -0.03] |
| **Subtotal (95% CI)** | | | **49** | | | **45** | **100.0%** | **-0.44 [-0.85, -0.03]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.12 (P = 0.03) | | | | | | | | |
| **2.9.2 Total score (up to 24 months FU)** | | | | | | | | |
| XIANG2007 | 4.47 | 1.77 | 49 | 6.97 | 2.07 | 45 | 100.0% | -1.29 [-1.74, -0.85] |
| **Subtotal (95% CI)** | | | **49** | | | **45** | **100.0%** | **-1.29 [-1.74, -0.85]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 5.67 (P < 0.00001) | | | | | | | | |

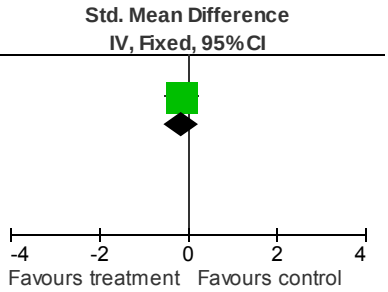



Test for subgroup differences: Chi² = 7.55, df = 1 (P = 0.006), I² = 86.7%

**2.10 Insight: 1. ITAQ total score (signs reversed) (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.10.1 Total score (at end of treatment)** | | | | | | | | |
| XIANG2007 | -16.25 | 2.88 | 53 | -15.69 | 4.5 | 50 | 100.0% | -0.15 [-0.54, 0.24] |
| **Subtotal (95% CI)** | | | **53** | | | **50** | **100.0%** | **-0.15 [-0.54, 0.24]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 0.75 (P = 0.45)



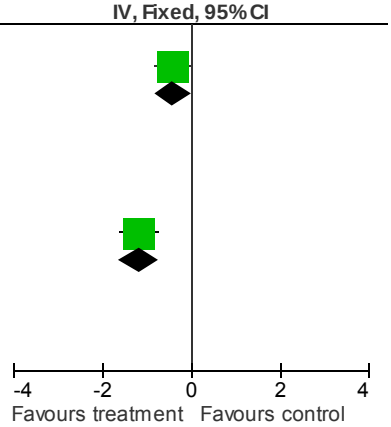

Test for subgroup differences: Not applicable

**2.11 Insight: 1. ITAQ total score (signs reversed) (at FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.11.1 Total score (up to 12 months FU)** | | | | | | | | |
| XIANG2007 | -16.65 | 2.07 | 49 | -15.44 | 3.5 | 45 | 100.0% | -0.42 [-0.83, -0.01] |
| **Subtotal (95% CI)** | | | **49** | | | **45** | **100.0%** | **-0.42 [-0.83, -0.01]** |
| **2.11.2 Total score (up to 24 months FU)** | | | | | | | | |
| XIANG2007 | -17.56 | 2.4 | 49 | -14.22 | 3.17 | 45 | 100.0% | -1.19 [-1.63, -0.75] |
| **Subtotal (95% CI)** | | | **49** | | | **45** | **100.0%** | **-1.19 [-1.63, -0.75]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 2.02 (P = 0.04)

Heterogeneity: Not applicable
Test for overall effect: Z = 5.28 (P < 0.00001)

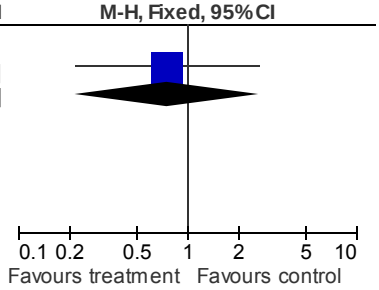



Test for subgroup differences: Chi² = 6.20, df = 1 (P = 0.01), I² = 83.9%

**2.12 Leaving the Study early (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.12.1 up to 24months FU** | | | | | | |
| XIANG2007 | 4 | 53 | 5 | 50 | 100.0% | 0.75 [0.21, 2.65] |
| **Subtotal (95% CI)** | | **53** | | **50** | **100.0%** | **0.75 [0.21, 2.65]** |
| Total events | 4 | | 5 | | | |

Heterogeneity: Not applicable
Test for overall effect: Z = 0.44 (P = 0.66)

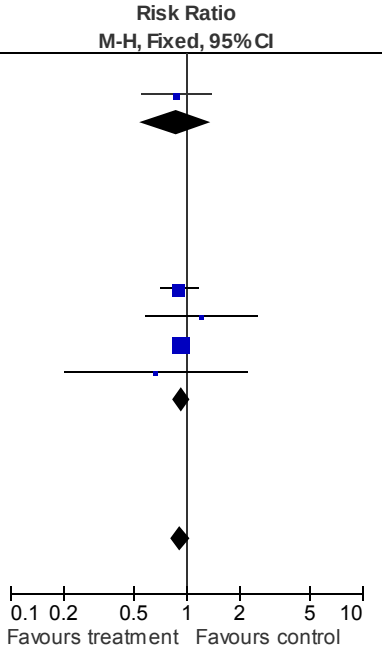



**3 Psychoeducation versus any control - subgroup analysis by country**

# Psychological clinical evidence: Psychoeducation (subgroup analyses)

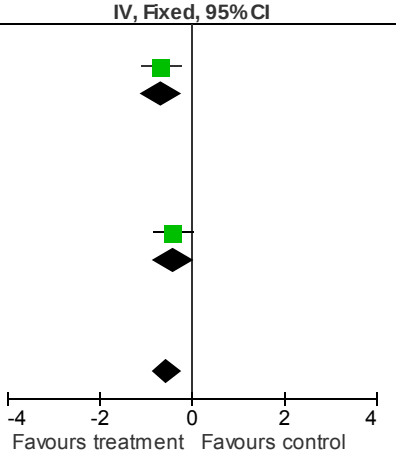
**3.1 Service Outcome: 1. Rehospitalisation (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.1.1 Up to 12 months FU (UK)** | | | | | | |
| CunninghamOwens 2001 | 22 | 61 | 22 | 53 | 11.6% | 0.87 [0.55, 1.38] |
| **Subtotal (95% CI)** | | **61** | | **53** | **11.6%** | **0.87 [0.55, 1.38]** |
| Total events | 22 | | 22 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.60 (P = 0.55) | | | | | | |
| **3.1.2 Up to 12 months FU (non-UK)** | | | | | | |
| Bauml 1996 | 61 | 125 | 60 | 111 | 31.3% | 0.90 [0.70, 1.16] |
| BECHDOLF2004 | 13 | 48 | 9 | 40 | 4.8% | 1.20 [0.57, 2.52] |
| CHABANNES2008 | 94 | 111 | 99 | 109 | 49.3% | 0.93 [0.84, 1.03] |
| XIANG2006 | 4 | 48 | 6 | 48 | 3.0% | 0.67 [0.20, 2.21] |
| **Subtotal (95% CI)** | | **332** | | **308** | **88.4%** | **0.93 [0.82, 1.04]** |
| Total events | 172 | | 174 | | | |
| Heterogeneity: Chi² = 0.82, df = 3 (P = 0.84); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.25 (P = 0.21) | | | | | | |
| **Total (95% CI)** | | **393** | | **361** | **100.0%** | **0.92 [0.82, 1.04]** |
| Total events | 194 | | 196 | | | |
| Heterogeneity: Chi² = 0.93, df = 4 (P = 0.92); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.38 (P = 0.17) | | | | | | |



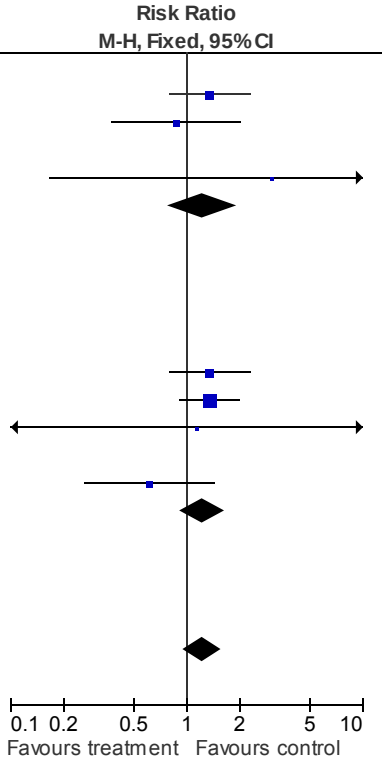

**3.2 Insight: 1. Total scores (IS, ITAQ, SUMD) (signs reversed) (At FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.2.1 ITAQ, SUMD (up to 12 months FU) (Endpt means) (UK)** | | | | | | | | |
| CunninghamOwens 2001 | -14.5 | 5.5 | 47 | -10.7 | 5.6 | 39 | 50.5% | -0.68 [-1.12, -0.24] |
| **Subtotal (95% CI)** | | | **47** | | | **39** | **50.5%** | **-0.68 [-1.12, -0.24]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.05 (P = 0.002) | | | | | | | | |
| **3.2.2 ITAQ, SUMD (up to 12 months FU) (Endpt means) (Non-UK)** | | | | | | | | |
| CHAN2007 | 6.77 | 2.56 | 44 | 7.95 | 3.2 | 37 | 49.5% | -0.41 [-0.85, 0.03] |
| **Subtotal (95% CI)** | | | **44** | | | **37** | **49.5%** | **-0.41 [-0.85, 0.03]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.81 (P = 0.07) | | | | | | | | |
| **Total (95% CI)** | | | **91** | | | **76** | **100.0%** | **-0.54 [-0.86, -0.23]** |
| Heterogeneity: Chi² = 0.73, df = 1 (P = 0.39); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 3.44 (P = 0.0006) | | | | | | | | |
| Test for subgroup differences: Chi² = 0.73, df = 1 (P = 0.39), I² = 0% | | | | | | | | |



**3.3 Leaving the study early (at end of treatment)**

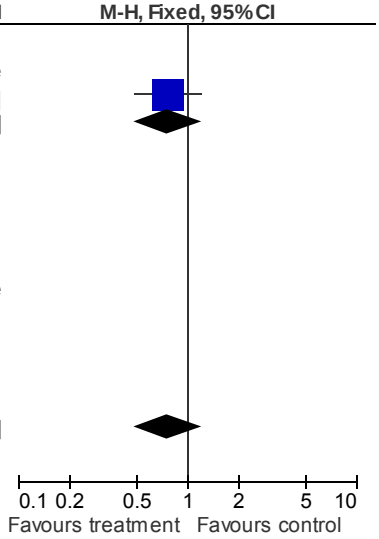
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.3.1 at end of treatment (UK)** | | | | | | |
| Atkinson 1996 | 23 | 73 | 17 | 73 | 19.9% | 1.35 [0.79, 2.31] |
| CunninghamOwens 2001 | 9 | 61 | 9 | 53 | 11.3% | 0.87 [0.37, 2.03] |
| Lecompte 1996 | 0 | 32 | 0 | 32 | | Not estimable |
| Macpherson 1996 | 3 | 47 | 0 | 20 | 0.8% | 3.06 [0.17, 56.70] |
| **Subtotal (95% CI)** | | **213** | | **178** | **32.0%** | **1.23 [0.78, 1.92]** |
| Total events | 35 | | 26 | | | |
| Heterogeneity: Chi² = 1.14, df = 2 (P = 0.57); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.89 (P = 0.37) | | | | | | |
| **3.3.2 at end of treatment (Non-UK)** | | | | | | |
| Atkinson 1996 | 23 | 73 | 17 | 73 | 19.9% | 1.35 [0.79, 2.31] |
| Bauml 1996 | 44 | 125 | 29 | 111 | 36.0% | 1.35 [0.91, 2.00] |
| CATHER2005 | 1 | 14 | 1 | 16 | 1.1% | 1.14 [0.08, 16.63] |
| Lecompte 1996 | 0 | 32 | 0 | 32 | | Not estimable |
| Merinder 1999 | 6 | 24 | 9 | 22 | 11.0% | 0.61 [0.26, 1.44] |
| **Subtotal (95% CI)** | | **268** | | **254** | **68.0%** | **1.23 [0.91, 1.64]** |
| Total events | 74 | | 56 | | | |
| Heterogeneity: Chi² = 2.90, df = 3 (P = 0.41); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.36 (P = 0.17) | | | | | | |
| **Total (95% CI)** | | **481** | | **432** | **100.0%** | **1.23 [0.96, 1.57]** |
| Total events | 109 | | 82 | | | |
| Heterogeneity: Chi² = 4.04, df = 6 (P = 0.67); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.63 (P = 0.10) | | | | | | |




**4 Psychoeducation versus any control - subgroup analysis by format**

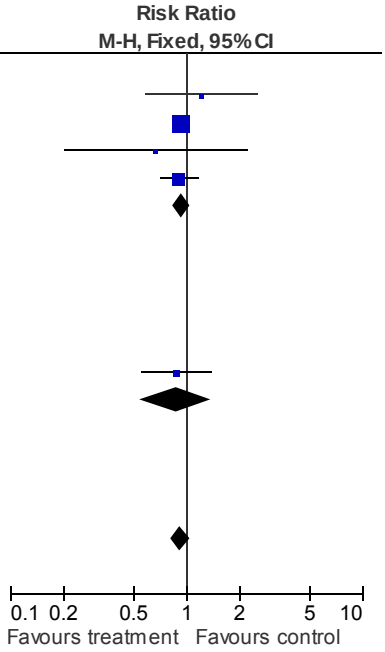
**4.1 Service outcome: 1. Rehospitalisation (at end of treatment)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **4.1.1 at end of treatment (Group psychoeducation)** | | | | | | |
| SHIN2002 | 0 | 24 | 0 | 24 | | Not estimable |
| CHABANNES2008 | 24 | 111 | 31 | 109 | 100.0% | 0.76 [0.48, 1.21] |
| **Subtotal (95% CI)** | | **135** | | **133** | **100.0%** | **0.76 [0.48, 1.21]** |
| Total events | 24 | | 31 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.16 (P = 0.25) | | | | | | |
| **4.1.2 at end of treatment (Individual psychoeducation)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **Total (95% CI)** | | **135** | | **133** | **100.0%** | **0.76 [0.48, 1.21]** |
| Total events | 24 | | 31 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.16 (P = 0.25) | | | | | | |



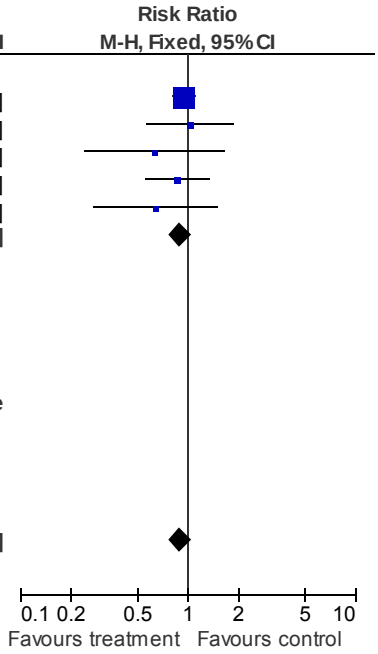
**4.2 Service Outcome: 1. Rehospitalisation (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **4.2.1 Up to 12 months FU (Group psychoeducation)** | | | | | | |
| BECHDOLF2004 | 13 | 48 | 9 | 40 | 4.8% | 1.20 [0.57, 2.52] |
| CHABANNES2008 | 94 | 111 | 99 | 109 | 49.3% | 0.93 [0.84, 1.03] |
| XIANG2006 | 4 | 48 | 6 | 48 | 3.0% | 0.67 [0.20, 2.21] |
| Bauml 1996 | 61 | 125 | 60 | 111 | 31.3% | 0.90 [0.70, 1.16] |
| **Subtotal (95% CI)** | | **332** | | **308** | **88.4%** | **0.93 [0.82, 1.04]** |
| Total events | 172 | | 174 | | | |
| Heterogeneity: Chi² = 0.82, df = 3 (P = 0.84); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.25 (P = 0.21) | | | | | | |
| **4.2.2 Up to 12 months FU (Individual psychoeducation)** | | | | | | |
| CunninghamOwens 2001 | 22 | 61 | 22 | 53 | 11.6% | 0.87 [0.55, 1.38] |
| **Subtotal (95% CI)** | | **61** | | **53** | **11.6%** | **0.87 [0.55, 1.38]** |
| Total events | 22 | | 22 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.60 (P = 0.55) | | | | | | |
| **Total (95% CI)** | | **393** | | **361** | **100.0%** | **0.92 [0.82, 1.04]** |
| Total events | 194 | | 196 | | | |
| Heterogeneity: Chi² = 0.93, df = 4 (P = 0.92); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.38 (P = 0.17) | | | | | | |




**4.3 Global state: 1. Relapse (at FU)**

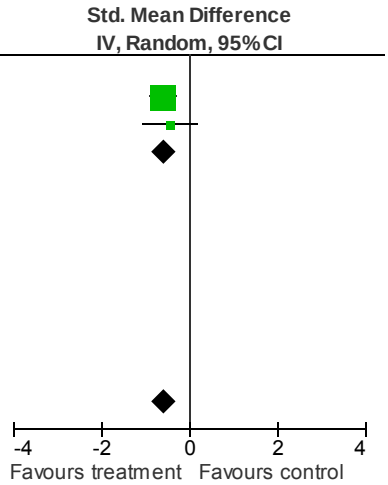
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **4.3.1 Up to 12 months FU (Group psychoeducation)** | | | | | | |
| Bauml 1996 | 86 | 125 | 81 | 111 | 63.4% | 0.94 [0.80, 1.11] |
| BECHDOLF2004 | 16 | 48 | 13 | 40 | 10.5% | 1.03 [0.56, 1.87] |
| CHAN2007 | 6 | 44 | 8 | 37 | 6.4% | 0.63 [0.24, 1.65] |
| Merinder 1999 | 14 | 24 | 15 | 22 | 11.6% | 0.86 [0.55, 1.33] |
| XIANG2006 | 7 | 48 | 11 | 48 | 8.1% | 0.64 [0.27, 1.50] |
| **Subtotal (95% CI)** | | **289** | | **258** | **100.0%** | **0.90 [0.77, 1.05]** |
| Total events | 129 | | 128 | | | |
| Heterogeneity: Chi² = 1.72, df = 4 (P = 0.79); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.37 (P = 0.17) | | | | | | |
| **4.3.2 Up to 12 months FU (Individual psychoeducation)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **Total (95% CI)** | | **289** | | **258** | **100.0%** | **0.90 [0.77, 1.05]** |
| Total events | 129 | | 128 | | | |
| Heterogeneity: Chi² = 1.72, df = 4 (P = 0.79); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.37 (P = 0.17) | | | | | | |



# Psychological clinical evidence: Psychoeducation (subgroup analyses)

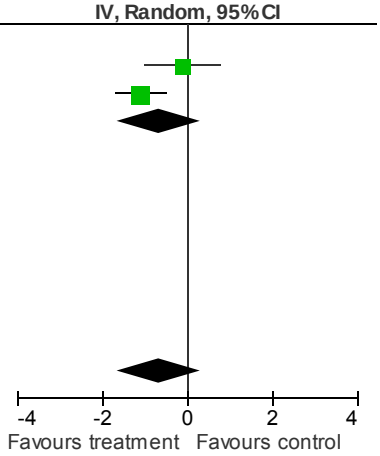
**4.4 Global state: 2. Continuous measures - GAF (signs reversed) (at FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **4.4.1 Up to 12 months FU (Group psychoeducation)** | | | | | | | | |
| Bauml 1996 | -78 | 14.5 | 79 | -68 | 17.5 | 80 | 79.7% | -0.62 [-0.94, -0.30] |
| Merinder 1999 | -62.91 | 16.34 | 22 | -55.39 | 16.35 | 18 | 20.3% | -0.45 [-1.08, 0.18] |
| **Subtotal (95% CI)** | | | **101** | | | **98** | **100.0%** | **-0.58 [-0.87, -0.30]** |
| Heterogeneity: Tau² = 0.00; Chi² = 0.22, df = 1 (P = 0.64); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 4.03 (P < 0.0001) | | | | | | | | |
| **4.4.2 Up to 12 months FU (Individual psychoeducation)** | | | | | | | | |
| **Subtotal (95% CI)** | | | **0** | | | **0** | | **Not estimable** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Not applicable | | | | | | | | |
| **Total (95% CI)** | | | **101** | | | **98** | **100.0%** | **-0.58 [-0.87, -0.30]** |
| Heterogeneity: Tau² = 0.00; Chi² = 0.22, df = 1 (P = 0.64); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 4.03 (P < 0.0001) | | | | | | | | |



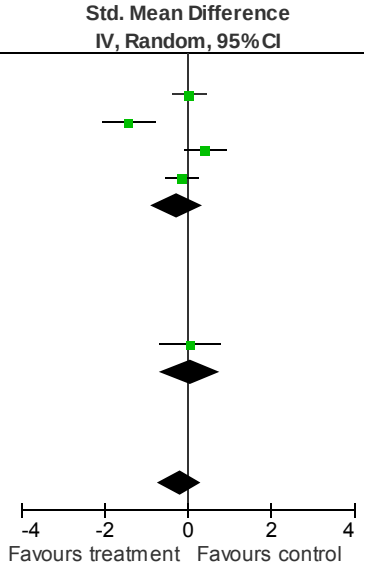

**4.5 Mental state: 1. Continuous measures - total symptom score, BPRS, PANSS (lower = better) (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **4.5.1 Total symptom score (at end of treatment) (endpt means) (Group psychoeducation)** | | | | | | | | |
| Bauml 1996 | 1.03 | 0.55 | 9 | 1.09 | 0.49 | 10 | 44.3% | -0.11 [-1.01, 0.79] |
| SHIN2002 | 74.29 | 7.04 | 24 | 82.58 | 7.62 | 24 | 55.7% | -1.11 [-1.72, -0.50] |
| **Subtotal (95% CI)** | | | **33** | | | **34** | **100.0%** | **-0.67 [-1.64, 0.31]** |
| Heterogeneity: Tau² = 0.35; Chi² = 3.25, df = 1 (P = 0.07); I² = 69% | | | | | | | | |
| Test for overall effect: Z = 1.34 (P = 0.18) | | | | | | | | |
| **4.5.2 Total symptom score (at end of treatment) (endpt means) (Individual psychoeducation)** | | | | | | | | |
| **Subtotal (95% CI)** | | | **0** | | | **0** | | **Not estimable** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Not applicable | | | | | | | | |
| **Total (95% CI)** | | | **33** | | | **34** | **100.0%** | **-0.67 [-1.64, 0.31]** |
| Heterogeneity: Tau² = 0.35; Chi² = 3.25, df = 1 (P = 0.07); I² = 69% | | | | | | | | |
| Test for overall effect: Z = 1.34 (P = 0.18) | | | | | | | | |



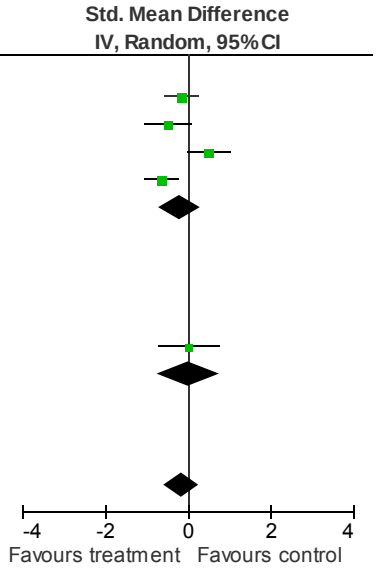
**4.6 Mental state: 2. Continuous measures - positive symptoms (PANSS, SAPS) (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **4.6.1 PANSS, SAPS, BPRS positive subscale score (at end of treament) (Group psychoeducation)** | | | | | | | | |
| BECHDOLF2004 | 11.4 | 4.5 | 48 | 11.3 | 4.2 | 40 | 21.9% | 0.02 [-0.40, 0.44] |
| SHIN2002 | 15.08 | 2.75 | 24 | 18.46 | 1.79 | 24 | 18.5% | -1.43 [-2.07, -0.79] |
| VREELAND2006 | 16.6 | 6 | 36 | 14.2 | 5.3 | 25 | 20.5% | 0.41 [-0.10, 0.93] |
| XIANG2006 | 9 | 2.7 | 48 | 9.5 | 3.5 | 48 | 22.2% | -0.16 [-0.56, 0.24] |
| **Subtotal (95% CI)** | | | **156** | | | **137** | **83.0%** | **-0.26 [-0.89, 0.37]** |
| Heterogeneity: Tau² = 0.35; Chi² = 20.67, df = 3 (P = 0.0001); I² = 85% | | | | | | | | |
| Test for overall effect: Z = 0.80 (P = 0.42) | | | | | | | | |
| **4.6.2 PANSS, SAPS, BPRS positive subscale score (at end of treament) (Individual psychoeducation)** | | | | | | | | |
| CATHER2005 | 11.08 | 3.73 | 13 | 10.93 | 2.55 | 15 | 17.0% | 0.05 [-0.70, 0.79] |
| **Subtotal (95% CI)** | | | **13** | | | **15** | **17.0%** | **0.05 [-0.70, 0.79]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.12 (P = 0.90) | | | | | | | | |
| **Total (95% CI)** | | | **169** | | | **152** | **100.0%** | **-0.20 [-0.73, 0.33]** |
| Heterogeneity: Tau² = 0.29; Chi² = 20.93, df = 4 (P = 0.0003); I² = 81% | | | | | | | | |
| Test for overall effect: Z = 0.75 (P = 0.45) | | | | | | | | |




**4.7 Mental state: 3. Continuous measures - negative symptoms (PANSS, SANS) (at end of treatment)**

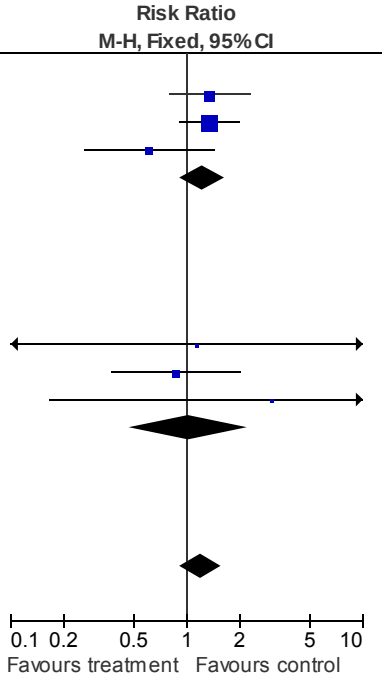
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **4.7.1 PANSS, SANS, BPRS negative subscale (at end of treatment) (Group psychoeducation)** | | | | | | | | |
| BECHDOLF2004 | 13.1 | 5.2 | 48 | 13.9 | 4.5 | 40 | 22.7% | -0.16 [-0.58, 0.26] |
| SHIN2002 | 10.88 | 1.75 | 24 | 11.71 | 1.58 | 24 | 18.9% | -0.49 [-1.06, 0.09] |
| VREELAND2006 | 18 | 6.9 | 36 | 14.9 | 4.8 | 25 | 20.3% | 0.50 [-0.02, 1.02] |
| XIANG2006 | 11 | 4.2 | 48 | 13.9 | 4.6 | 48 | 23.0% | -0.65 [-1.06, -0.24] |
| **Subtotal (95% CI)** | | | **156** | | | **137** | **84.8%** | **-0.21 [-0.69, 0.28]** |
| Heterogeneity: Tau² = 0.19; Chi² = 12.54, df = 3 (P = 0.006); I² = 76% | | | | | | | | |
| Test for overall effect: Z = 0.84 (P = 0.40) | | | | | | | | |
| **4.7.2 PANSS, SANS, BPRS negative subscale (at end of treatment) (Individual psychoeducation)** | | | | | | | | |
| CATHER2005 | 14.92 | 5.72 | 13 | 14.87 | 4.97 | 15 | 15.2% | 0.01 [-0.73, 0.75] |
| **Subtotal (95% CI)** | | | **13** | | | **15** | **15.2%** | **0.01 [-0.73, 0.75]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.02 (P = 0.98) | | | | | | | | |
| **Total (95% CI)** | | | **169** | | | **152** | **100.0%** | **-0.18 [-0.59, 0.24]** |
| Heterogeneity: Tau² = 0.15; Chi² = 12.94, df = 4 (P = 0.01); I² = 69% | | | | | | | | |
| Test for overall effect: Z = 0.84 (P = 0.40) | | | | | | | | |



# Psychological clinical evidence: Psychoeducation (subgroup analyses)

**4.8 Leaving the study early (at end of treatment)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **4.8.1 at end of treatment (group psychoeducation)** | | | | | | |
| Atkinson 1996 | 23 | 73 | 17 | 73 | 24.9% | 1.35 [0.79, 2.31] |
| Bauml 1996 | 44 | 125 | 29 | 111 | 44.9% | 1.35 [0.91, 2.00] |
| Merinder 1999 | 6 | 24 | 9 | 22 | 13.7% | 0.61 [0.26, 1.44] |
| **Subtotal (95% CI)** | | **222** | | **206** | **83.5%** | **1.23 [0.91, 1.65]** |
| Total events | 73 | | 55 | | | |
| Heterogeneity: Chi² = 2.89, df = 2 (P = 0.24); I² = 31% | | | | | | |
| Test for overall effect: Z = 1.36 (P = 0.17) | | | | | | |
| **4.8.2 at end of treatment (individual psychoeducation)** | | | | | | |
| CATHER2005 | 1 | 14 | 1 | 16 | 1.4% | 1.14 [0.08, 16.63] |
| CunninghamOwens 2001 | 9 | 61 | 9 | 53 | 14.1% | 0.87 [0.37, 2.03] |
| Macpherson 1996 | 3 | 47 | 0 | 20 | 1.0% | 3.06 [0.17, 56.70] |
| **Subtotal (95% CI)** | | **122** | | **89** | **16.5%** | **1.03 [0.47, 2.22]** |
| Total events | 13 | | 10 | | | |
| Heterogeneity: Chi² = 0.69, df = 2 (P = 0.71); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.07 (P = 0.95) | | | | | | |
| **Total (95% CI)** | | **344** | | **295** | **100.0%** | **1.19 [0.91, 1.57]** |
| Total events | 86 | | 65 | | | |
| Heterogeneity: Chi² = 3.87, df = 5 (P = 0.57); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.26 (P = 0.21) | | | | | | |

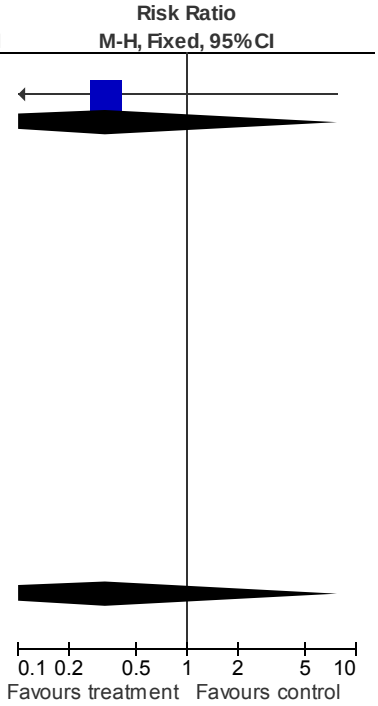



**5 Psychoeducation versus any control - subgroup analysis by duration**

# Psychological clinical evidence: Psychoeducation (subgroup analyses)

**5.1 Mortality (at FU)**

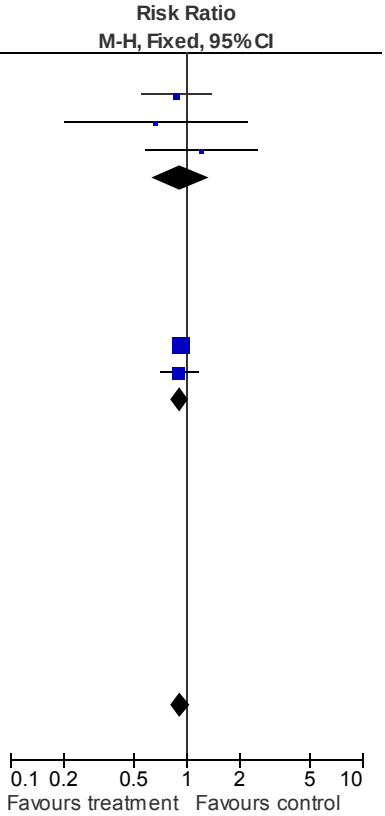
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **5.1.1 Suicide (up to 5 years FU) (Short: 0-11wks)** | | | | | | |
| Merinder 1999 | 0 | 23 | 1 | 23 | 100.0% | 0.33 [0.01, 7.78] |
| **Subtotal (95% CI)** | | **23** | | **23** | **100.0%** | **0.33 [0.01, 7.78]** |
| Total events | 0 | | 1 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.68 (P = 0.49) | | | | | | |
| **5.1.2 Suicide (up to 5 years FU) (Medium 12-51wks)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **5.1.3 Suicide (up to 5 years FU) (Long >52wks)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **Total (95% CI)** | | **23** | | **23** | **100.0%** | **0.33 [0.01, 7.78]** |
| Total events | 0 | | 1 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.68 (P = 0.49) | | | | | | |



# Psychological clinical evidence: Psychoeducation (subgroup analyses)

**5.2 Service Outcome: 1. Rehospitalisation (at FU)**

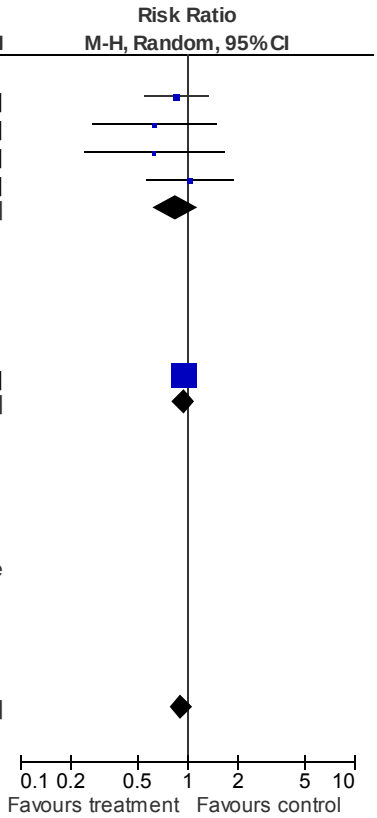
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **5.2.1 Up to 12 months FU (Short: 0-11wks)** | | | | | | |
| CunninghamOwens 2001 | 22 | 61 | 22 | 53 | 11.6% | 0.87 [0.55, 1.38] |
| XIANG2006 | 4 | 48 | 6 | 48 | 3.0% | 0.67 [0.20, 2.21] |
| BECHDOLF2004 | 13 | 48 | 9 | 40 | 4.8% | 1.20 [0.57, 2.52] |
| **Subtotal (95% CI)** | | **157** | | **141** | **19.4%** | **0.92 [0.63, 1.34]** |
| Total events | 39 | | 37 | | | |
| Heterogeneity: Chi² = 0.84, df = 2 (P = 0.66); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.43 (P = 0.67) | | | | | | |
| **5.2.2 Up to 12 months FU (Medium: 12-51wks)** | | | | | | |
| CHABANNES2008 | 94 | 111 | 99 | 109 | 49.3% | 0.93 [0.84, 1.03] |
| Bauml 1996 | 61 | 125 | 60 | 111 | 31.3% | 0.90 [0.70, 1.16] |
| **Subtotal (95% CI)** | | **236** | | **220** | **80.6%** | **0.92 [0.82, 1.03]** |
| Total events | 155 | | 159 | | | |
| Heterogeneity: Chi² = 0.08, df = 1 (P = 0.77); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.42 (P = 0.15) | | | | | | |
| **5.2.3 Up to 12 months FU (Long: >52wks)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **Total (95% CI)** | | **393** | | **361** | **100.0%** | **0.92 [0.82, 1.04]** |
| Total events | 194 | | 196 | | | |
| Heterogeneity: Chi² = 0.93, df = 4 (P = 0.92); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.38 (P = 0.17) | | | | | | |



# Psychological clinical evidence: Psychoeducation (subgroup analyses)

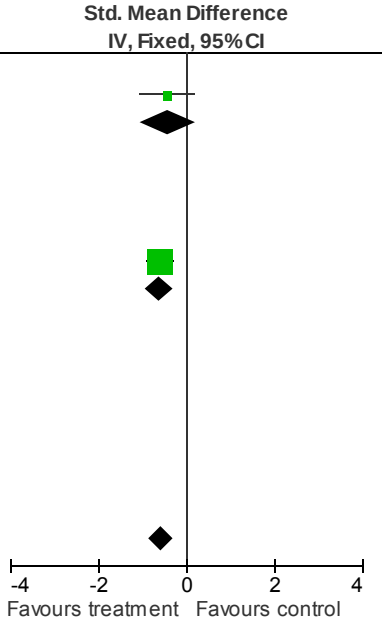
**5.3 Global state: 1. Relapse (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **5.3.1 Up to 12 months FU (Short: 0-11wks)** | | | | | | |
| Merinder 1999 | 14 | 24 | 15 | 22 | 10.7% | 0.86 [0.55, 1.33] |
| XIANG2006 | 7 | 48 | 11 | 48 | 2.8% | 0.64 [0.27, 1.50] |
| CHAN2007 | 6 | 44 | 8 | 37 | 2.3% | 0.63 [0.24, 1.65] |
| BECHDOLF2004 | 16 | 48 | 13 | 40 | 5.8% | 1.03 [0.56, 1.87] |
| **Subtotal (95% CI)** | | **164** | | **147** | **21.6%** | **0.84 [0.61, 1.14]** |
| Total events | 43 | | 47 | | | |
| Heterogeneity: Tau² = 0.00; Chi² = 1.20, df = 3 (P = 0.75); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.12 (P = 0.26) | | | | | | |
| **5.3.2 Up to 12 months FU (Medium: 12-51wks)** | | | | | | |
| Bauml 1996 | 86 | 125 | 81 | 111 | 78.4% | 0.94 [0.80, 1.11] |
| **Subtotal (95% CI)** | | **125** | | **111** | **78.4%** | **0.94 [0.80, 1.11]** |
| Total events | 86 | | 81 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.71 (P = 0.48) | | | | | | |
| **5.3.3 Up to 12 months FU (Long: >52wks)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **Total (95% CI)** | | **289** | | **258** | **100.0%** | **0.92 [0.80, 1.06]** |
| Total events | 129 | | 128 | | | |
| Heterogeneity: Tau² = 0.00; Chi² = 1.72, df = 4 (P = 0.79); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.15 (P = 0.25) | | | | | | |



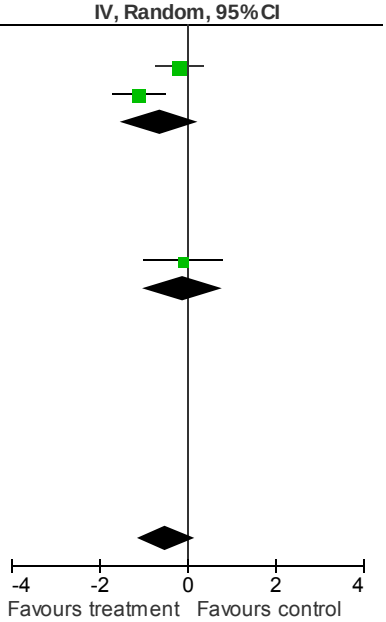
**5.4 Global state: 2. Continuous measures - GAF (signs reversed) (at FU)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **5.4.1 Up to 12 months FU (Short: 0-11wks)** | | | | | | | | |
| Merinder 1999 | -62.91 | 16.34 | 22 | -55.39 | 16.35 | 18 | 20.3% | -0.45 [-1.08, 0.18] |
| **Subtotal (95% CI)** | | | **22** | | | **18** | **20.3%** | **-0.45 [-1.08, 0.18]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.40 (P = 0.16) | | | | | | | | |
| **5.4.2 Up to 12 months FU (medium: 12-51wks)** | | | | | | | | |
| Bauml 1996 | -78 | 14.5 | 79 | -68 | 17.5 | 80 | 79.7% | -0.62 [-0.94, -0.30] |
| **Subtotal (95% CI)** | | | **79** | | | **80** | **79.7%** | **-0.62 [-0.94, -0.30]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.81 (P = 0.0001) | | | | | | | | |
| **5.4.3 Up to 12 months FU (Long: >52wks)** | | | | | | | | |
| **Subtotal (95% CI)** | | | **0** | | | **0** | | **Not estimable** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Not applicable | | | | | | | | |
| **Total (95% CI)** | | | **101** | | | **98** | **100.0%** | **-0.58 [-0.87, -0.30]** |
| Heterogeneity: Chi² = 0.22, df = 1 (P = 0.64); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 4.03 (P < 0.0001) | | | | | | | | |
| Test for subgroup differences: Chi² = 0.22, df = 1 (P = 0.64), I² = 0% | | | | | | | | |



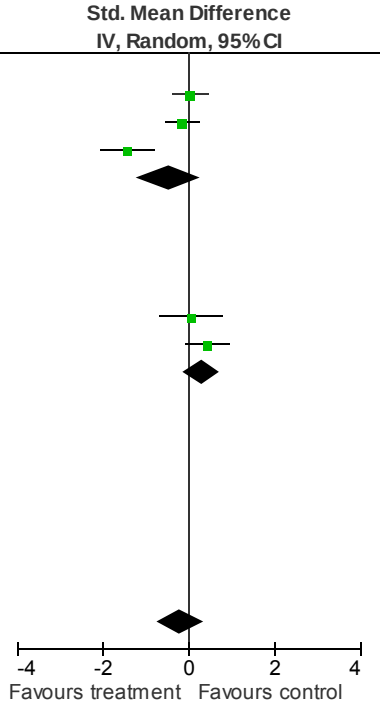

**5.5 Mental state: 1. Continuous measures - total symptom score, BPRS, PANSS (lower = better) (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **5.5.1 Total symptom score (at end of treatment) (endpt means) (Short: 0-11wks)** | | | | | | | | |
| Hayashi 2001 | 35.7 | 6.5 | 25 | 37 | 6.2 | 25 | 37.9% | -0.20 [-0.76, 0.35] |
| SHIN2002 | 74.29 | 7.04 | 24 | 82.58 | 7.62 | 24 | 35.9% | -1.11 [-1.72, -0.50] |
| **Subtotal (95% CI)** | | | **49** | | | **49** | **73.8%** | **-0.65 [-1.54, 0.24]** |
| Heterogeneity: Tau² = 0.33; Chi² = 4.66, df = 1 (P = 0.03); I² = 79% | | | | | | | | |
| Test for overall effect: Z = 1.42 (P = 0.15) | | | | | | | | |
| **5.5.2 Total symptom score (at end of treatment) (endpt means) (Medium: 12-51wks)** | | | | | | | | |
| Bauml 1996 | 1.03 | 0.55 | 9 | 1.09 | 0.49 | 10 | 26.2% | -0.11 [-1.01, 0.79] |
| **Subtotal (95% CI)** | | | **9** | | | **10** | **26.2%** | **-0.11 [-1.01, 0.79]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.24 (P = 0.81) | | | | | | | | |
| **5.5.3 Total symptom score (at end of treatment) (endpt means) (Long: >52wks)** | | | | | | | | |
| **Subtotal (95% CI)** | | | **0** | | | **0** | | **Not estimable** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Not applicable | | | | | | | | |
| **Total (95% CI)** | | | **58** | | | **59** | **100.0%** | **-0.50 [-1.16, 0.15]** |
| Heterogeneity: Tau² = 0.21; Chi² = 5.65, df = 2 (P = 0.06); I² = 65% | | | | | | | | |
| Test for overall effect: Z = 1.51 (P = 0.13) | | | | | | | | |



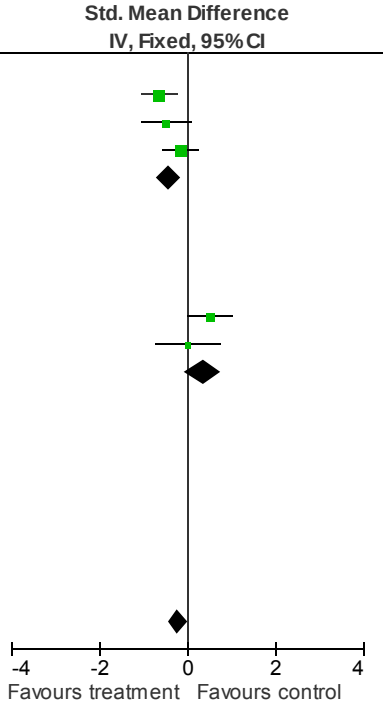
**5.6 Mental state: 2. Continuous measures - positive symptoms (PANSS, SAPS) (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **5.6.1 PANSS, SAPS, BPRS positive subscale score (at end of treament) (Short: 0-11wks)** | | | | | | | | |
| BECHDOLF2004 | 11.4 | 4.5 | 48 | 11.3 | 4.2 | 40 | 21.9% | 0.02 [-0.40, 0.44] |
| XIANG2006 | 9 | 2.7 | 48 | 9.5 | 3.5 | 48 | 22.2% | -0.16 [-0.56, 0.24] |
| SHIN2002 | 15.08 | 2.75 | 24 | 18.46 | 1.79 | 24 | 18.5% | -1.43 [-2.07, -0.79] |
| **Subtotal (95% CI)** | | | **120** | | | **112** | **62.6%** | **-0.48 [-1.23, 0.26]** |
| Heterogeneity: Tau² = 0.37; Chi² = 14.78, df = 2 (P = 0.0006); I² = 86% | | | | | | | | |
| Test for overall effect: Z = 1.27 (P = 0.21) | | | | | | | | |
| **5.6.2 PANSS, SAPS, BPRS positive subscale score (at end of treament) (Medium: 12-51wks)** | | | | | | | | |
| CATHER2005 | 11.08 | 3.73 | 13 | 10.93 | 2.55 | 15 | 17.0% | 0.05 [-0.70, 0.79] |
| VREELAND2006 | 16.6 | 6 | 36 | 14.2 | 5.3 | 25 | 20.5% | 0.41 [-0.10, 0.93] |
| **Subtotal (95% CI)** | | | **49** | | | **40** | **37.4%** | **0.29 [-0.13, 0.72]** |
| Heterogeneity: Tau² = 0.00; Chi² = 0.63, df = 1 (P = 0.43); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.36 (P = 0.17) | | | | | | | | |
| **5.6.3 PANSS, SAPS, BPRS positive subscale score (at end of treament) (Long: >52wks)** | | | | | | | | |
| **Subtotal (95% CI)** | | | **0** | | | **0** | | **Not estimable** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Not applicable | | | | | | | | |
| **Total (95% CI)** | | | **169** | | | **152** | **100.0%** | **-0.20 [-0.73, 0.33]** |
| Heterogeneity: Tau² = 0.29; Chi² = 20.93, df = 4 (P = 0.0003); I² = 81% | | | | | | | | |
| Test for overall effect: Z = 0.75 (P = 0.45) | | | | | | | | |



**5.7 Mental state: 3. Continuous measures - negative symptoms (PANSS, SANS) (at end of treatment)**

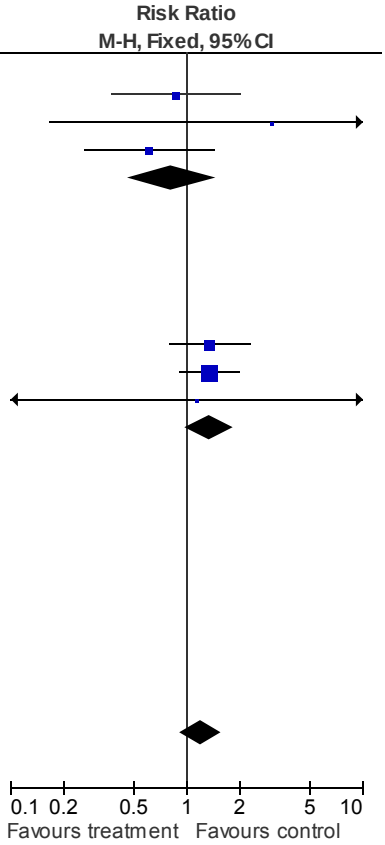
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **5.7.1 PANSS, SANS, BPRS negative subscale (at end of treatment) (Short: 0-11wks)** | | | | | | | | |
| XIANG2006 | 11 | 4.2 | 48 | 13.9 | 4.6 | 48 | 29.4% | -0.65 [-1.06, -0.24] |
| SHIN2002 | 10.88 | 1.75 | 24 | 11.71 | 1.58 | 24 | 15.0% | -0.49 [-1.06, 0.09] |
| BECHDOLF2004 | 13.1 | 5.2 | 48 | 13.9 | 4.5 | 40 | 28.1% | -0.16 [-0.58, 0.26] |
| **Subtotal (95% CI)** | | | **120** | | | **112** | **72.5%** | **-0.43 [-0.69, -0.17]** |
| Heterogeneity: Chi² = 2.74, df = 2 (P = 0.25); I² = 27% | | | | | | | | |
| Test for overall effect: Z = 3.21 (P = 0.001) | | | | | | | | |
| **5.7.2 PANSS, SANS, BPRS negative subscale (at end of treatment) (Medium: 12-51wks)** | | | | | | | | |
| VREELAND2006 | 18 | 6.9 | 36 | 14.9 | 4.8 | 25 | 18.5% | 0.50 [-0.02, 1.02] |
| CATHER2005 | 14.92 | 5.72 | 13 | 14.87 | 4.97 | 15 | 9.0% | 0.01 [-0.73, 0.75] |
| **Subtotal (95% CI)** | | | **49** | | | **40** | **27.5%** | **0.34 [-0.09, 0.76]** |
| Heterogeneity: Chi² = 1.12, df = 1 (P = 0.29); I² = 11% | | | | | | | | |
| Test for overall effect: Z = 1.56 (P = 0.12) | | | | | | | | |
| **5.7.3 PANSS, SANS, BPRS negative subscale (at end of treatment) (Long: >52wks)** | | | | | | | | |
| **Subtotal (95% CI)** | | | **0** | | | **0** | | **Not estimable** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Not applicable | | | | | | | | |
| **Total (95% CI)** | | | **169** | | | **152** | **100.0%** | **-0.22 [-0.44, 0.00]** |
| Heterogeneity: Chi² = 12.94, df = 4 (P = 0.01); I² = 69% | | | | | | | | |
| Test for overall effect: Z = 1.92 (P = 0.06) | | | | | | | | |
| Test for subgroup differences: Chi² = 9.08, df = 1 (P = 0.003), I² = 89.0% | | | | | | | | |



# Psychological clinical evidence: Psychoeducation (subgroup analyses)

**5.8 Leaving the study early (at end of treatment)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **5.8.1 At end of treatment (Short: 0-11wks)** | | | | | | |
| CunninghamOwens 2001 | 9 | 61 | 9 | 53 | 14.1% | 0.87 [0.37, 2.03] |
| Macpherson 1996 | 3 | 47 | 0 | 20 | 1.0% | 3.06 [0.17, 56.70] |
| Merinder 1999 | 6 | 24 | 9 | 22 | 13.7% | 0.61 [0.26, 1.44] |
| **Subtotal (95% CI)** | | **132** | | **95** | **28.8%** | **0.82 [0.46, 1.48]** |
| Total events | 18 | | 18 | | | |
| Heterogeneity: Chi² = 1.26, df = 2 (P = 0.53); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.65 (P = 0.52) | | | | | | |
| **5.8.2 At end of treatment (Medium: 12-51wks)** | | | | | | |
| Atkinson 1996 | 23 | 73 | 17 | 73 | 24.9% | 1.35 [0.79, 2.31] |
| Bauml 1996 | 44 | 125 | 29 | 111 | 44.9% | 1.35 [0.91, 2.00] |
| CATHER2005 | 1 | 14 | 1 | 16 | 1.4% | 1.14 [0.08, 16.63] |
| **Subtotal (95% CI)** | | **212** | | **200** | **71.2%** | **1.35 [0.98, 1.84]** |
| Total events | 68 | | 47 | | | |
| Heterogeneity: Chi² = 0.01, df = 2 (P = 0.99); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.85 (P = 0.06) | | | | | | |
| **5.8.3 At end of treatment (Long: >52wks)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **Total (95% CI)** | | **344** | | **295** | **100.0%** | **1.19 [0.91, 1.57]** |
| Total events | 86 | | 65 | | | |
| Heterogeneity: Chi² = 3.87, df = 5 (P = 0.57); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.26 (P = 0.21) | | | | | | |

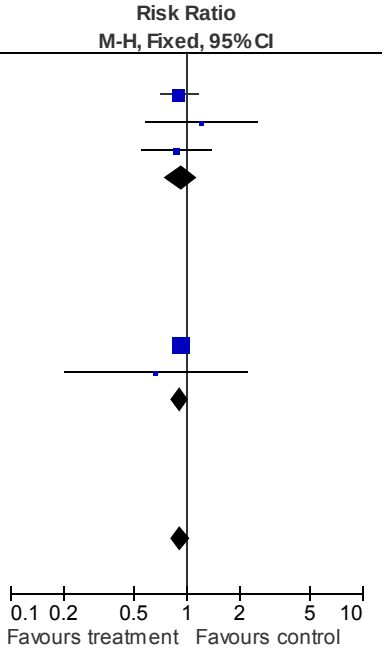



**6 Psychoeducation versus any control - subgroup analysis by number of sessions**

# Psychological clinical evidence: Psychoeducation (subgroup analyses)

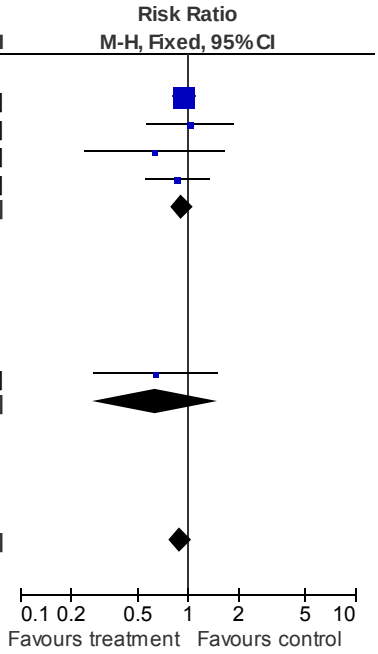
**6.1 Service outcome: 1. Rehospitalisation (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **6.1.1 Up to 12 months FU (10 or fewer planned sessions)** | | | | | | |
| Bauml 1996 | 61 | 125 | 60 | 111 | 31.3% | 0.90 [0.70, 1.16] |
| BECHDOLF2004 | 13 | 48 | 9 | 40 | 4.8% | 1.20 [0.57, 2.52] |
| CunninghamOwens 2001 | 22 | 61 | 22 | 53 | 11.6% | 0.87 [0.55, 1.38] |
| **Subtotal (95% CI)** | | **234** | | **204** | **47.8%** | **0.93 [0.75, 1.14]** |
| Total events | 96 | | 91 | | | |
| Heterogeneity: Chi² = 0.60, df = 2 (P = 0.74); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.72 (P = 0.47) | | | | | | |
| **6.1.2 Up to 12 months FU (More than 10 planned sessions)** | | | | | | |
| CHABANNES2008 | 94 | 111 | 99 | 109 | 49.3% | 0.93 [0.84, 1.03] |
| XIANG2006 | 4 | 48 | 6 | 48 | 3.0% | 0.67 [0.20, 2.21] |
| **Subtotal (95% CI)** | | **159** | | **157** | **52.2%** | **0.92 [0.82, 1.02]** |
| Total events | 98 | | 105 | | | |
| Heterogeneity: Chi² = 0.38, df = 1 (P = 0.54); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.53 (P = 0.13) | | | | | | |
| **Total (95% CI)** | | **393** | | **361** | **100.0%** | **0.92 [0.82, 1.04]** |
| Total events | 194 | | 196 | | | |
| Heterogeneity: Chi² = 0.93, df = 4 (P = 0.92); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.38 (P = 0.17) | | | | | | |



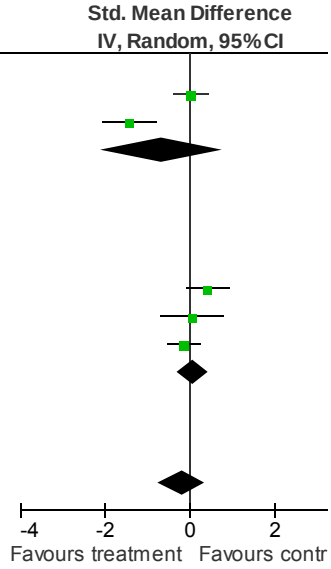

**6.2 Global state: 2. Relapse (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **6.2.1 Up to 12 months FU (10 or fewer planned sessions)** | | | | | | |
| Bauml 1996 | 86 | 125 | 81 | 111 | 63.4% | 0.94 [0.80, 1.11] |
| BECHDOLF2004 | 16 | 48 | 13 | 40 | 10.5% | 1.03 [0.56, 1.87] |
| CHAN2007 | 6 | 44 | 8 | 37 | 6.4% | 0.63 [0.24, 1.65] |
| Merinder 1999 | 14 | 24 | 15 | 22 | 11.6% | 0.86 [0.55, 1.33] |
| **Subtotal (95% CI)** | | **241** | | **210** | **91.9%** | **0.92 [0.79, 1.07]** |
| Total events | 122 | | 117 | | | |
| Heterogeneity: Chi² = 0.91, df = 3 (P = 0.82); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.06 (P = 0.29) | | | | | | |
| **6.2.2 Up to 12 months FU (More than 10 planned sessions)** | | | | | | |
| XIANG2006 | 7 | 48 | 11 | 48 | 8.1% | 0.64 [0.27, 1.50] |
| **Subtotal (95% CI)** | | **48** | | **48** | **8.1%** | **0.64 [0.27, 1.50]** |
| Total events | 7 | | 11 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.03 (P = 0.30) | | | | | | |
| **Total (95% CI)** | | **289** | | **258** | **100.0%** | **0.90 [0.77, 1.05]** |
| Total events | 129 | | 128 | | | |
| Heterogeneity: Chi² = 1.72, df = 4 (P = 0.79); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.37 (P = 0.17) | | | | | | |



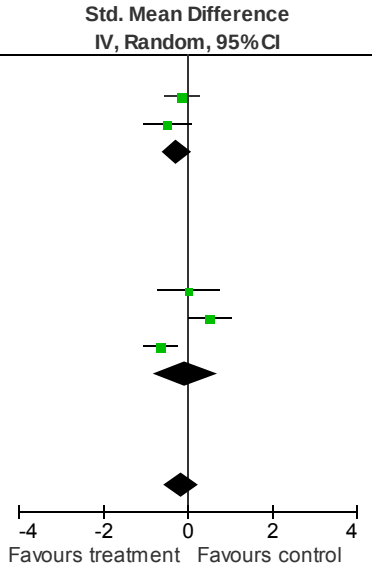
**6.3 Mental state: 1. Continuous measures - positive symptom score (PANSS, SAPS) (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **6.3.1 PANSS, SAPS, BPRS positive subscale score (at end of treament) (10 or fewer planned sessions)** | | | | | | | | |
| BECHDOLF2004 | 11.4 | 4.5 | 48 | 11.3 | 4.2 | 40 | 21.9% | 0.02 [-0.40, 0.44] |
| SHIN2002 | 15.08 | 2.75 | 24 | 18.46 | 1.79 | 24 | 18.5% | -1.43 [-2.07, -0.79] |
| **Subtotal (95% CI)** | | | **72** | | | **64** | **40.4%** | **-0.68 [-2.11, 0.74]** |
| Heterogeneity: Tau² = 0.98; Chi² = 13.90, df = 1 (P = 0.0002); I² = 93% | | | | | | | | |
| Test for overall effect: Z = 0.94 (P = 0.35) | | | | | | | | |
| **6.3.2 PANSS, SAPS, BPRS positive subscale score (at end of treament) (More than 10 planned sessions)** | | | | | | | | |
| VREELAND2006 | 16.6 | 6 | 36 | 14.2 | 5.3 | 25 | 20.5% | 0.41 [-0.10, 0.93] |
| CATHER2005 | 11.08 | 3.73 | 13 | 10.93 | 2.55 | 15 | 17.0% | 0.05 [-0.70, 0.79] |
| XIANG2006 | 9 | 2.7 | 48 | 9.5 | 3.5 | 48 | 22.2% | -0.16 [-0.56, 0.24] |
| **Subtotal (95% CI)** | | | **97** | | | **88** | **59.6%** | **0.08 [-0.29, 0.45]** |
| Heterogeneity: Tau² = 0.04; Chi² = 2.95, df = 2 (P = 0.23); I² = 32% | | | | | | | | |
| Test for overall effect: Z = 0.41 (P = 0.68) | | | | | | | | |
| **Total (95% CI)** | | | **169** | | | **152** | **100.0%** | **-0.20 [-0.73, 0.33]** |
| Heterogeneity: Tau² = 0.29; Chi² = 20.93, df = 4 (P = 0.0003); I² = 81% | | | | | | | | |
| Test for overall effect: Z = 0.75 (P = 0.45) | | | | | | | | |



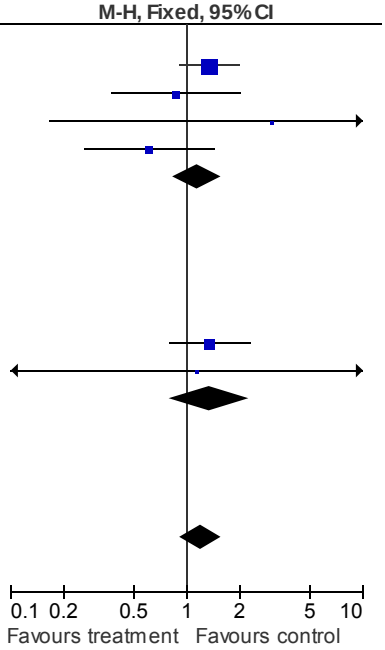

**6.4 Mental state: 2. Continuous measures - Negative symptom score (PANSS, SANS) (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **6.4.1 PANSS, SANS, BPRS negative subscale (at end of treatment) (10 or fewer planned sessions)** | | | | | | | | |
| BECHDOLF2004 | 13.1 | 5.2 | 48 | 13.9 | 4.5 | 40 | 22.7% | -0.16 [-0.58, 0.26] |
| SHIN2002 | 10.88 | 1.75 | 24 | 11.71 | 1.58 | 24 | 18.9% | -0.49 [-1.06, 0.09] |
| **Subtotal (95% CI)** | | | **72** | | | **64** | **41.6%** | **-0.28 [-0.62, 0.06]** |
| Heterogeneity: Tau² = 0.00; Chi² = 0.81, df = 1 (P = 0.37); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.60 (P = 0.11) | | | | | | | | |
| **6.4.2 PANSS, SANS, BPRS negative subscale (at end of treatment) (more than 10 planned sessions)** | | | | | | | | |
| CATHER2005 | 14.92 | 5.72 | 13 | 14.87 | 4.97 | 15 | 15.2% | 0.01 [-0.73, 0.75] |
| VREELAND2006 | 18 | 6.9 | 36 | 14.9 | 4.8 | 25 | 20.3% | 0.50 [-0.02, 1.02] |
| XIANG2006 | 11 | 4.2 | 48 | 13.9 | 4.6 | 48 | 23.0% | -0.65 [-1.06, -0.24] |
| **Subtotal (95% CI)** | | | **97** | | | **88** | **58.4%** | **-0.06 [-0.83, 0.70]** |
| Heterogeneity: Tau² = 0.37; Chi² = 11.93, df = 2 (P = 0.003); I² = 83% | | | | | | | | |
| Test for overall effect: Z = 0.16 (P = 0.87) | | | | | | | | |
| **Total (95% CI)** | | | **169** | | | **152** | **100.0%** | **-0.18 [-0.59, 0.24]** |
| Heterogeneity: Tau² = 0.15; Chi² = 12.94, df = 4 (P = 0.01); I² = 69% | | | | | | | | |
| Test for overall effect: Z = 0.84 (P = 0.40) | | | | | | | | |



**6.5 Leaving the study early (at end of treatment)**

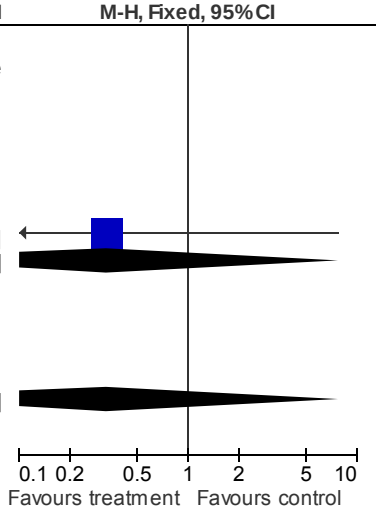
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **6.5.1 At end of treatment (10 or fewer planned sessions)** | | | | | | |
| Bauml 1996 | 44 | 125 | 29 | 111 | 44.9% | 1.35 [0.91, 2.00] |
| CunninghamOwens 2001 | 9 | 61 | 9 | 53 | 14.1% | 0.87 [0.37, 2.03] |
| Macpherson 1996 | 3 | 47 | 0 | 20 | 1.0% | 3.06 [0.17, 56.70] |
| Merinder 1999 | 6 | 24 | 9 | 22 | 13.7% | 0.61 [0.26, 1.44] |
| **Subtotal (95% CI)** | | **257** | | **206** | **73.8%** | **1.14 [0.83, 1.58]** |
| Total events | 62 | | 47 | | | |
| Heterogeneity: Chi² = 3.57, df = 3 (P = 0.31); I² = 16% | | | | | | |
| Test for overall effect: Z = 0.80 (P = 0.42) | | | | | | |
| **6.5.2 At end of treatment (more than 10 planned sessions)** | | | | | | |
| Atkinson 1996 | 23 | 73 | 17 | 73 | 24.9% | 1.35 [0.79, 2.31] |
| CATHER2005 | 1 | 14 | 1 | 16 | 1.4% | 1.14 [0.08, 16.63] |
| **Subtotal (95% CI)** | | **87** | | **89** | **26.2%** | **1.34 [0.79, 2.27]** |
| Total events | 24 | | 18 | | | |
| Heterogeneity: Chi² = 0.01, df = 1 (P = 0.90); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.10 (P = 0.27) | | | | | | |
| **Total (95% CI)** | | **344** | | **295** | **100.0%** | **1.19 [0.91, 1.57]** |
| Total events | 86 | | 65 | | | |
| Heterogeneity: Chi² = 3.87, df = 5 (P = 0.57); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.26 (P = 0.21) | | | | | | |




**7 Psychoeducation versus any control - subgroup analysis by carer participation**

**7.1 Mortality (at FU)**

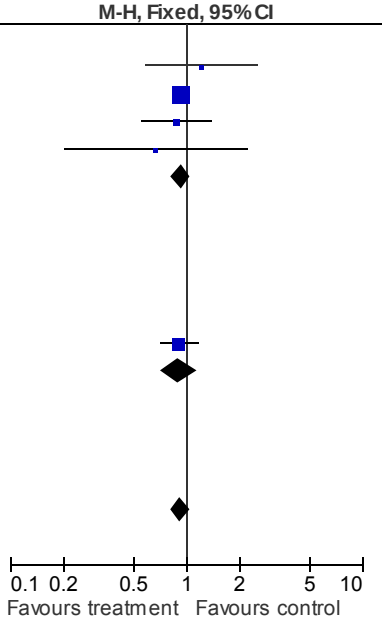
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **7.1.1 Suicide (up to 5 years FU) (patient only)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **7.1.2 Suicide (up to 5 years FU) (Patient + family)** | | | | | | |
| Merinder 1999 | 0 | 23 | 1 | 23 | 100.0% | 0.33 [0.01, 7.78] |
| **Subtotal (95% CI)** | | **23** | | **23** | **100.0%** | **0.33 [0.01, 7.78]** |
| Total events | 0 | | 1 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.68 (P = 0.49) | | | | | | |
| **Total (95% CI)** | | **23** | | **23** | **100.0%** | **0.33 [0.01, 7.78]** |
| Total events | 0 | | 1 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.68 (P = 0.49) | | | | | | |



# Psychological clinical evidence: Psychoeducation (subgroup analyses)

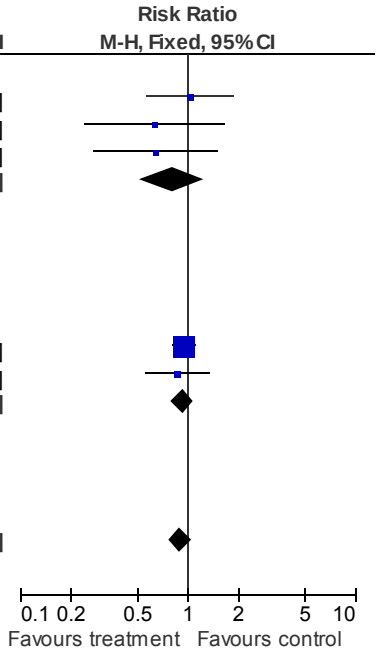
**7.2 Service Outcome: 1. Rehospitalisation (at FU)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **7.2.1 Up to 12 months FU (patient only)** | | | | | | |
| BECHDOLF2004 | 13 | 48 | 9 | 40 | 4.8% | 1.20 [0.57, 2.52] |
| CHABANNES2008 | 94 | 111 | 99 | 109 | 49.3% | 0.93 [0.84, 1.03] |
| CunninghamOwens 2001 | 22 | 61 | 22 | 53 | 11.6% | 0.87 [0.55, 1.38] |
| XIANG2006 | 4 | 48 | 6 | 48 | 3.0% | 0.67 [0.20, 2.21] |
| **Subtotal (95% CI)** | | **268** | | **250** | **68.7%** | **0.93 [0.82, 1.06]** |
| Total events | 133 | | 136 | | | |
| Heterogeneity: Chi² = 0.85, df = 3 (P = 0.84); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.13 (P = 0.26) | | | | | | |
| **7.2.2 Up to 12 months FU (Patient + family)** | | | | | | |
| Bauml 1996 | 61 | 125 | 60 | 111 | 31.3% | 0.90 [0.70, 1.16] |
| **Subtotal (95% CI)** | | **125** | | **111** | **31.3%** | **0.90 [0.70, 1.16]** |
| Total events | 61 | | 60 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.81 (P = 0.42) | | | | | | |
| **Total (95% CI)** | | **393** | | **361** | **100.0%** | **0.92 [0.82, 1.04]** |
| Total events | 194 | | 196 | | | |
| Heterogeneity: Chi² = 0.93, df = 4 (P = 0.92); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.38 (P = 0.17) | | | | | | |




**7.3 Global state: 1. Relapse (at FU)**

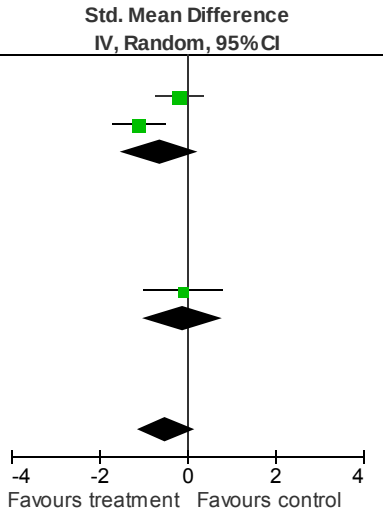
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **7.3.2 Up to 12 months FU (patient only)** | | | | | | |
| BECHDOLF2004 | 16 | 48 | 13 | 40 | 10.5% | 1.03 [0.56, 1.87] |
| CHAN2007 | 6 | 44 | 8 | 37 | 6.4% | 0.63 [0.24, 1.65] |
| XIANG2006 | 7 | 48 | 11 | 48 | 8.1% | 0.64 [0.27, 1.50] |
| **Subtotal (95% CI)** | | **140** | | **125** | **25.0%** | **0.80 [0.52, 1.24]** |
| Total events | 29 | | 32 | | | |
| Heterogeneity: Chi² = 1.17, df = 2 (P = 0.56); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.01 (P = 0.31) | | | | | | |
| **7.3.3 Up to 12 months FU (patient + family)** | | | | | | |
| Bauml 1996 | 86 | 125 | 81 | 111 | 63.4% | 0.94 [0.80, 1.11] |
| Merinder 1999 | 14 | 24 | 15 | 22 | 11.6% | 0.86 [0.55, 1.33] |
| **Subtotal (95% CI)** | | **149** | | **133** | **75.0%** | **0.93 [0.80, 1.08]** |
| Total events | 100 | | 96 | | | |
| Heterogeneity: Chi² = 0.16, df = 1 (P = 0.69); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.93 (P = 0.35) | | | | | | |
| **Total (95% CI)** | | **289** | | **258** | **100.0%** | **0.90 [0.77, 1.05]** |
| Total events | 129 | | 128 | | | |
| Heterogeneity: Chi² = 1.72, df = 4 (P = 0.79); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.37 (P = 0.17) | | | | | | |



# Psychological clinical evidence: Psychoeducation (subgroup analyses)

**7.4 Mental state: 1. Continuous measures - total symptom score, BPRS, PANSS (lower = better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **7.4.1 Total symptom score (at end of treatment) (patient only)** | | | | | | | | |
| Hayashi 2001 | 35.7 | 6.5 | 25 | 37 | 6.2 | 25 | 37.9% | -0.20 [-0.76, 0.35] |
| SHIN2002 | 74.29 | 7.04 | 24 | 82.58 | 7.62 | 24 | 35.9% | -1.11 [-1.72, -0.50] |
| **Subtotal (95% CI)** | | | **49** | | | **49** | **73.8%** | **-0.65 [-1.54, 0.24]** |
| Heterogeneity: Tau² = 0.33; Chi² = 4.66, df = 1 (P = 0.03); I² = 79% | | | | | | | | |
| Test for overall effect: Z = 1.42 (P = 0.15) | | | | | | | | |
| **7.4.2 Total symptom score (at end of treatment) (patient + family)** | | | | | | | | |
| Bauml 1996 | 1.03 | 0.55 | 9 | 1.09 | 0.49 | 10 | 26.2% | -0.11 [-1.01, 0.79] |
| **Subtotal (95% CI)** | | | **9** | | | **10** | **26.2%** | **-0.11 [-1.01, 0.79]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.24 (P = 0.81) | | | | | | | | |
| **Total (95% CI)** | | | **58** | | | **59** | **100.0%** | **-0.50 [-1.16, 0.15]** |
| Heterogeneity: Tau² = 0.21; Chi² = 5.65, df = 2 (P = 0.06); I² = 65% | | | | | | | | |
| Test for overall effect: Z = 1.51 (P = 0.13) | | | | | | | | |




**7.5 Leaving the study early (at end of treatment)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **7.5.1 at end of treatment (patient only)** | | | | | | |
| Atkinson 1996 | 23 | 73 | 17 | 73 | 24.9% | 1.35 [0.79, 2.31] |
| CATHER2005 | 1 | 14 | 1 | 16 | 1.4% | 1.14 [0.08, 16.63] |
| CunninghamOwens 2001 | 9 | 61 | 9 | 53 | 14.1% | 0.87 [0.37, 2.03] |
| Lecompte 1996 | 0 | 32 | 0 | 32 | | Not estimable |
| Macpherson 1996 | 3 | 47 | 0 | 20 | 1.0% | 3.06 [0.17, 56.70] |
| **Subtotal (95% CI)** | | **227** | | **194** | **41.3%** | **1.22 [0.79, 1.90]** |
| Total events | 36 | | 27 | | | |
| Heterogeneity: Chi² = 1.14, df = 3 (P = 0.77); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.89 (P = 0.37) | | | | | | |
| **7.5.2 at end of treatment (patient + family)** | | | | | | |
| Bauml 1996 | 44 | 125 | 29 | 111 | 44.9% | 1.35 [0.91, 2.00] |
| Merinder 1999 | 6 | 24 | 9 | 22 | 13.7% | 0.61 [0.26, 1.44] |
| **Subtotal (95% CI)** | | **149** | | **133** | **58.7%** | **1.17 [0.83, 1.67]** |
| Total events | 50 | | 38 | | | |
| Heterogeneity: Chi² = 2.71, df = 1 (P = 0.10); I² = 63% | | | | | | |
| Test for overall effect: Z = 0.89 (P = 0.37) | | | | | | |
| **Total (95% CI)** | | **376** | | **327** | **100.0%** | **1.19 [0.91, 1.57]** |
| Total events | 86 | | 65 | | | |
| Heterogeneity: Chi² = 3.87, df = 5 (P = 0.57); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.26 (P = 0.21) | | | | | | |

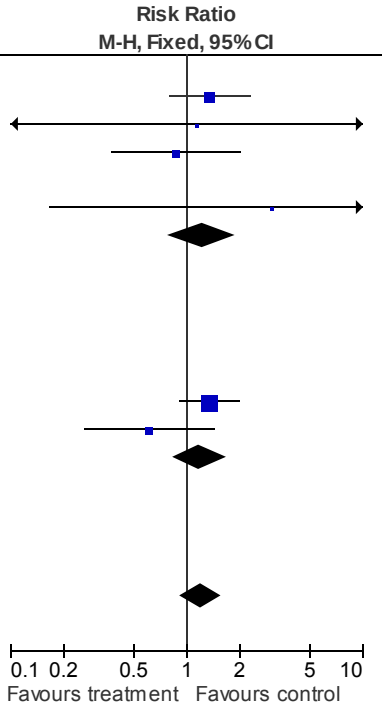


**Table 9: Studies included in the Social skills training review**

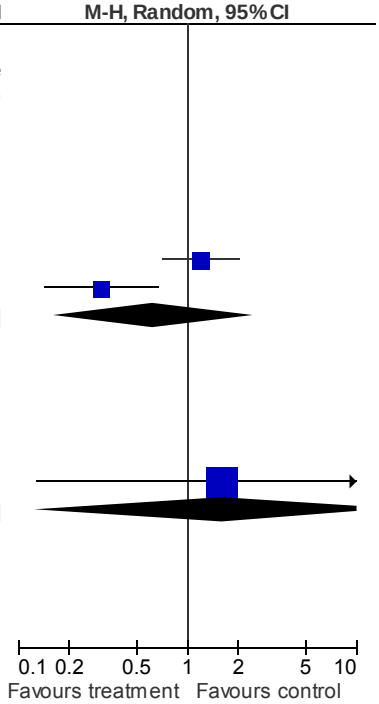
| Intervention | versus Comparator |
|---|---|
| | **Any control** |
| **Social skills training** | Bellack1994<br>BROWN1983<br>CHIEN2003<br>CHOI2006<br>Daniels1998<br>Dobson1995<br>Eckmann1992<br>GRANHOLM2005 *<br>Hayes1995<br>Liberman1998<br>Lukoff1986 *<br>Marder1996<br>NG2007<br>PATTERSON2003<br>PATTERSON206<br>PINTO1999 *<br>Peniston1988<br>RONCONE2004<br>UCOK2006<br>VALENCIA2007 * |
| | **Standard care** |
| **Social skills training** | Bellack1984<br>CHIEN2003<br>CHOI2006<br>Daniels1998<br>GRANHOLM2005<br>PATTERSON2003<br>Peniston1988<br>RONCONE2004<br>UCOK2006<br>VALENCIA2007 |
| | **Other active treatments** |
| **Social skills training** | BROWN1983<br>Dobson1995<br>Eckmann1992<br>Hayes1995<br>Liberman1998<br>Lukoff1986<br>Marder1996<br>NG2007<br>PATTERSON2006<br>PINTO1999 |

# Psychological clinical evidence: Social skills training

**1 Social skills training versus any control**

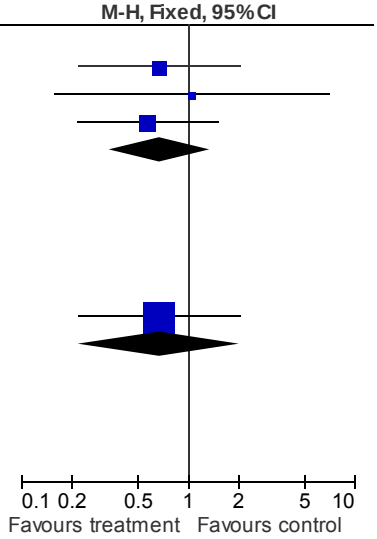
**1.1 Service Outcome: 1. Unable to be discharged from hospitalisation**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **1.1.1 At end of treatment** | | | | | | |
| NG2006 | 0 | 18 | 0 | 18 | | Not estimable |
| **Subtotal (95% CI)** | | **18** | | **18** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **1.1.2 Up to 6 months FU** | | | | | | |
| NG2006 | 12 | 18 | 10 | 18 | 52.2% | 1.20 [0.71, 2.03] |
| Peniston1988 | 4 | 14 | 14 | 14 | 47.8% | 0.31 [0.14, 0.68] |
| **Subtotal (95% CI)** | | **32** | | **32** | **100.0%** | **0.63 [0.16, 2.46]** |
| Total events | 16 | | 24 | | | |
| Heterogeneity: Tau² = 0.85; Chi² = 8.42, df = 1 (P = 0.004); I² = 88% | | | | | | |
| Test for overall effect: Z = 0.67 (P = 0.50) | | | | | | |
| **1.1.3 Readmission following discharge** | | | | | | |
| NG2006 | 1 | 5 | 1 | 8 | 100.0% | 1.60 [0.13, 20.22] |
| **Subtotal (95% CI)** | | **5** | | **8** | **100.0%** | **1.60 [0.13, 20.22]** |
| Total events | 1 | | 1 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.36 (P = 0.72) | | | | | | |




**1.2 Service Outcome: 2. Rehospitalisation**

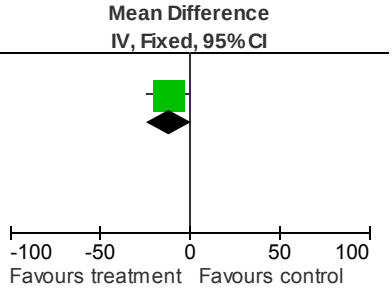
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.2.2 Up to 12 months FU** | | | | | | |
| Dobson1995 | 4 | 18 | 5 | 15 | 37.9% | 0.67 [0.22, 2.05] |
| GRANHOLM2005* | 2 | 37 | 2 | 39 | 13.5% | 1.05 [0.16, 7.10] |
| Lukoff1986* | 4 | 14 | 7 | 14 | 48.6% | 0.57 [0.21, 1.52] |
| **Subtotal (95% CI)** | | **69** | | **68** | **100.0%** | **0.67 [0.34, 1.34]** |
| Total events | 10 | | 14 | | | |
| Heterogeneity: Chi² = 0.32, df = 2 (P = 0.85); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.13 (P = 0.26) | | | | | | |
| **1.2.3 Up to 12 months FU (sensitivity analysis - possible MM interventions removed)** | | | | | | |
| Dobson1995 | 4 | 18 | 5 | 15 | 100.0% | 0.67 [0.22, 2.05] |
| **Subtotal (95% CI)** | | **18** | | **15** | **100.0%** | **0.67 [0.22, 2.05]** |
| Total events | 4 | | 5 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.71 (P = 0.48) | | | | | | |



**1.3 Service Outcome: 3. Mean duration of re-hospitalisation**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.3.1 Up to 12 months FU** | | | | | | | | |
| Dobson1995 | 3.47 | 8.25 | 18 | 15.42 | 23.48 | 15 | 100.0% | -11.95 [-24.43, 0.53] |
| **Subtotal (95% CI)** | | | **18** | | | **15** | **100.0%** | **-11.95 [-24.43, 0.53]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 1.88 (P = 0.06)

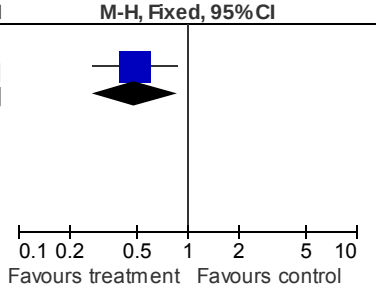



Test for subgroup differences: Not applicable

**1.4 Service Outcome: 4. Emergency service use**

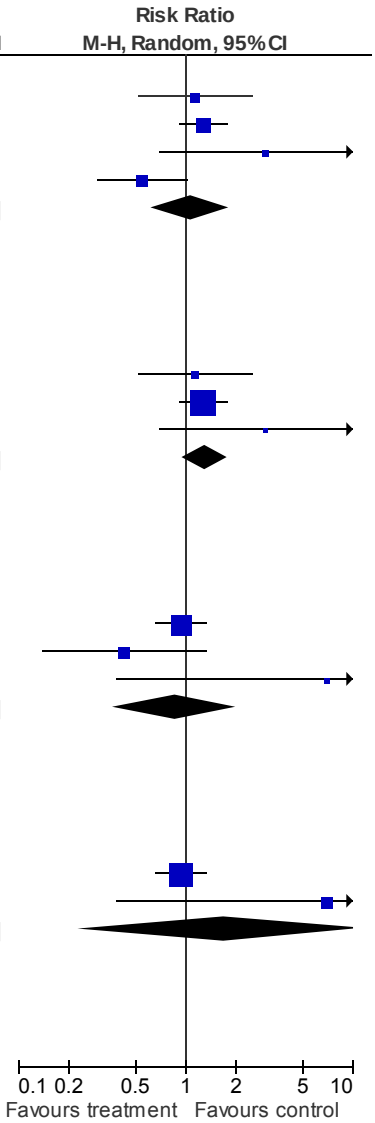
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.4.1 At end of treatment** | | | | | | |
| PATTERSON2006 | 14 | 106 | 27 | 99 | 100.0% | 0.48 [0.27, 0.87] |
| **Subtotal (95% CI)** | | **106** | | **99** | **100.0%** | **0.48 [0.27, 0.87]** |
| Total events | 14 | | 27 | | | |

Heterogeneity: Not applicable
Test for overall effect: Z = 2.43 (P = 0.02)



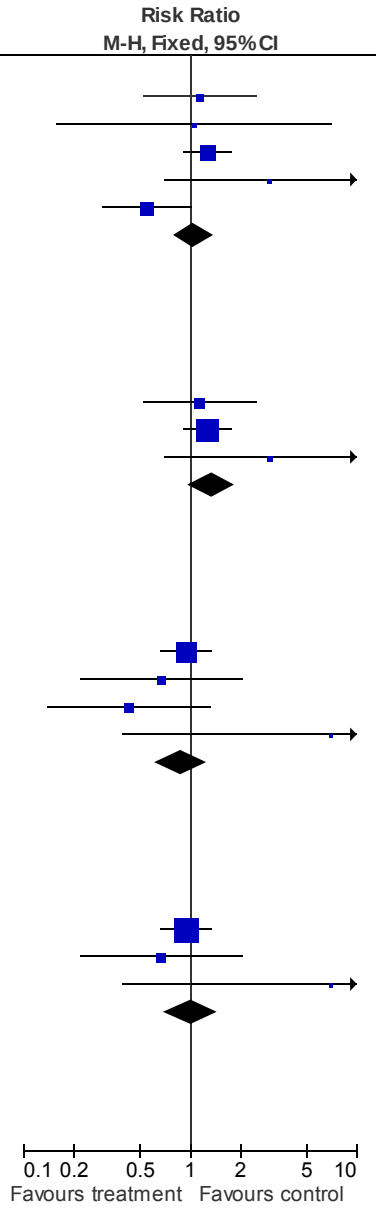
**1.5 Global state: 1. Relapse**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **1.5.1 At end of treatment** | | | | | | |
| Bellack1984 | 15 | 44 | 6 | 20 | 23.0% | 1.14 [0.52, 2.49] |
| Marder1996 | 31 | 43 | 21 | 37 | 38.4% | 1.27 [0.91, 1.78] |
| NG2006 | 6 | 18 | 2 | 18 | 10.4% | 3.00 [0.70, 12.93] |
| VALENCIA2007* | 11 | 49 | 20 | 49 | 28.2% | 0.55 [0.30, 1.02] |
| **Subtotal (95% CI)** | | **154** | | **124** | **100.0%** | **1.07 [0.63, 1.83]** |
| Total events | 63 | | 49 | | | |
| Heterogeneity: Tau² = 0.17; Chi² = 7.46, df = 3 (P = 0.06); I² = 60% | | | | | | |
| Test for overall effect: Z = 0.24 (P = 0.81) | | | | | | |
| **1.5.2 At end of treatment - sensitivity analysis removing Multimodal interventions** | | | | | | |
| Bellack1984 | 15 | 44 | 6 | 20 | 14.9% | 1.14 [0.52, 2.49] |
| Marder1996 | 31 | 43 | 21 | 37 | 80.8% | 1.27 [0.91, 1.78] |
| NG2006 | 6 | 18 | 2 | 18 | 4.3% | 3.00 [0.70, 12.93] |
| **Subtotal (95% CI)** | | **105** | | **75** | **100.0%** | **1.30 [0.96, 1.76]** |
| Total events | 52 | | 29 | | | |
| Heterogeneity: Tau² = 0.00; Chi² = 1.44, df = 2 (P = 0.49); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.68 (P = 0.09) | | | | | | |
| **1.5.3 Up to 12 months FU** | | | | | | |
| Bellack1984 | 29 | 44 | 14 | 20 | 61.8% | 0.94 [0.66, 1.35] |
| Lukoff1986* | 3 | 14 | 7 | 14 | 30.7% | 0.43 [0.14, 1.33] |
| NG2006 | 3 | 18 | 0 | 18 | 7.5% | 7.00 [0.39, 126.48] |
| **Subtotal (95% CI)** | | **76** | | **52** | **100.0%** | **0.86 [0.37, 1.99]** |
| Total events | 35 | | 21 | | | |
| Heterogeneity: Tau² = 0.26; Chi² = 3.66, df = 2 (P = 0.16); I² = 45% | | | | | | |
| Test for overall effect: Z = 0.35 (P = 0.72) | | | | | | |
| **1.5.4 Up to 12 months FU - sensitivity analysis removing Multimodal interventions** | | | | | | |
| Bellack1984 | 29 | 44 | 14 | 20 | 71.4% | 0.94 [0.66, 1.35] |
| NG2006 | 3 | 18 | 0 | 18 | 28.6% | 7.00 [0.39, 126.48] |
| **Subtotal (95% CI)** | | **62** | | **38** | **100.0%** | **1.67 [0.23, 12.13]** |
| Total events | 32 | | 14 | | | |
| Heterogeneity: Tau² = 1.40; Chi² = 2.26, df = 1 (P = 0.13); I² = 56% | | | | | | |
| Test for overall effect: Z = 0.51 (P = 0.61) | | | | | | |



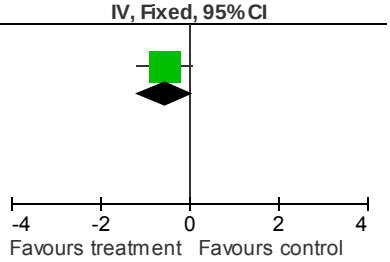
**1.6 Global state: 2. Relapse and Readmission (combined)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.6.1 By 1 year into programme** | | | | | | |
| Bellack1984 | 15 | 44 | 6 | 20 | 15.1% | 1.14 [0.52, 2.49] |
| GRANHOLM2005* | 2 | 37 | 2 | 39 | 3.6% | 1.05 [0.16, 7.10] |
| Marder1996 | 31 | 43 | 21 | 37 | 41.2% | 1.27 [0.91, 1.78] |
| NG2006 | 6 | 18 | 2 | 18 | 3.7% | 3.00 [0.70, 12.93] |
| VALENCIA2007* | 11 | 49 | 20 | 49 | 36.5% | 0.55 [0.30, 1.02] |
| **Subtotal (95% CI)** | | **191** | | **163** | **100.0%** | **1.04 [0.79, 1.38]** |
| Total events | 65 | | 51 | | | |
| Heterogeneity: Chi² = 7.46, df = 4 (P = 0.11); I² = 46% | | | | | | |
| Test for overall effect: Z = 0.29 (P = 0.77) | | | | | | |
| **1.6.2 By 1 year into programme - sensitivity analysis removing Multimodal studies** | | | | | | |
| Bellack1984 | 15 | 44 | 6 | 20 | 25.1% | 1.14 [0.52, 2.49] |
| Marder1996 | 31 | 43 | 21 | 37 | 68.8% | 1.27 [0.91, 1.78] |
| NG2006 | 6 | 18 | 2 | 18 | 6.1% | 3.00 [0.70, 12.93] |
| **Subtotal (95% CI)** | | **105** | | **75** | **100.0%** | **1.34 [0.98, 1.85]** |
| Total events | 52 | | 29 | | | |
| Heterogeneity: Chi² = 1.44, df = 2 (P = 0.49); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.81 (P = 0.07) | | | | | | |
| **1.6.3 Up to 12 months FU** | | | | | | |
| Bellack1984 | 29 | 44 | 14 | 20 | 59.8% | 0.94 [0.66, 1.35] |
| Dobson1995 | 4 | 18 | 5 | 15 | 16.9% | 0.67 [0.22, 2.05] |
| Lukoff1986* | 3 | 14 | 7 | 14 | 21.7% | 0.43 [0.14, 1.33] |
| NG2006 | 3 | 18 | 0 | 18 | 1.6% | 7.00 [0.39, 126.48] |
| **Subtotal (95% CI)** | | **94** | | **67** | **100.0%** | **0.88 [0.62, 1.24]** |
| Total events | 39 | | 26 | | | |
| Heterogeneity: Chi² = 3.90, df = 3 (P = 0.27); I² = 23% | | | | | | |
| Test for overall effect: Z = 0.73 (P = 0.46) | | | | | | |
| **1.6.4 Up to 12 months FU (sensitivity analysis - possible MM interventions removed)** | | | | | | |
| Bellack1984 | 29 | 44 | 14 | 20 | 76.4% | 0.94 [0.66, 1.35] |
| Dobson1995 | 4 | 18 | 5 | 15 | 21.6% | 0.67 [0.22, 2.05] |
| NG2006 | 3 | 18 | 0 | 18 | 2.0% | 7.00 [0.39, 126.48] |
| **Subtotal (95% CI)** | | **80** | | **53** | **100.0%** | **1.00 [0.70, 1.44]** |
| Total events | 36 | | 19 | | | |
| Heterogeneity: Chi² = 2.36, df = 2 (P = 0.31); I² = 15% | | | | | | |
| Test for overall effect: Z = 0.01 (P = 0.99) | | | | | | |




**1.7 Global state: 3. CGI - at end of treatment (8 weeks)**

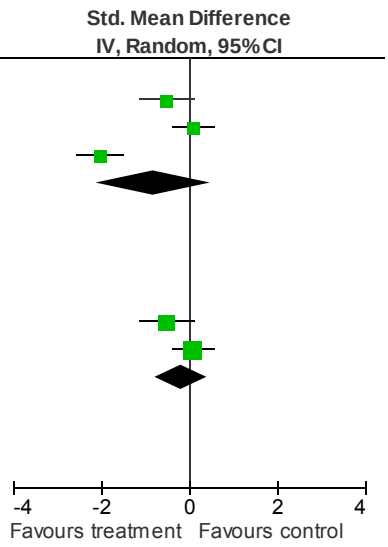
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.7.2 CGI: (signs reversed)** | | | | | | | | |
| Daniels1998 | 3.88 | 1.05 | 20 | 4.44 | 0.89 | 20 | 100.0% | -0.56 [-1.20, 0.07] |
| **Subtotal (95% CI)** | | | **20** | | | **20** | **100.0%** | **-0.56 [-1.20, 0.07]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.75 (P = 0.08) | | | | | | | | |




Test for subgroup differences: Not applicable

**1.8 Global state: 4. GAF - at end of treatment (8 weeks)**

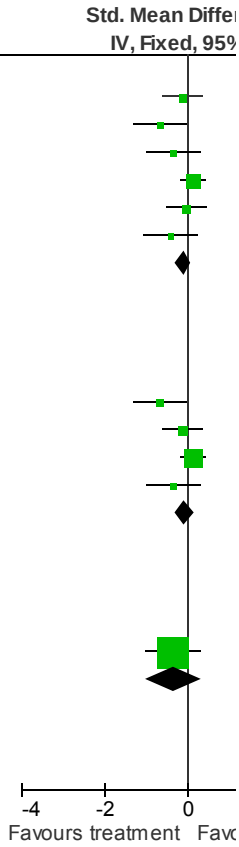
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.8.1 GAF: (signs reversed)** | | | | | | | | |
| Daniels1998 | -50.83 | 11.6 | 20 | -45.13 | 9.36 | 20 | 32.7% | -0.53 [-1.16, 0.10] |
| Hayes1995 | -49.1 | 14.2 | 32 | -50.2 | 15.8 | 32 | 33.8% | 0.07 [-0.42, 0.56] |
| VALENCIA2007* | -66 | 8.9 | 43 | -44.9 | 11.6 | 39 | 33.5% | -2.03 [-2.57, -1.50] |
| **Subtotal (95% CI)** | | | **95** | | | **91** | **100.0%** | **-0.83 [-2.12, 0.46]** |
| Heterogeneity: Tau² = 1.22; Chi² = 33.09, df = 2 (P < 0.00001); I² = 94% | | | | | | | | |
| Test for overall effect: Z = 1.26 (P = 0.21) | | | | | | | | |
| **1.8.2 GAF: (signs reversed) - Sensitivity analysis removing Multimodal interventions** | | | | | | | | |
| Daniels1998 | -50.83 | 11.6 | 20 | -45.13 | 9.36 | 20 | 44.3% | -0.53 [-1.16, 0.10] |
| Hayes1995 | -49.1 | 14.2 | 32 | -50.2 | 15.8 | 32 | 55.7% | 0.07 [-0.42, 0.56] |
| **Subtotal (95% CI)** | | | **52** | | | **52** | **100.0%** | **-0.19 [-0.78, 0.39]** |
| Heterogeneity: Tau² = 0.10; Chi² = 2.18, df = 1 (P = 0.14); I² = 54% | | | | | | | | |
| Test for overall effect: Z = 0.65 (P = 0.52) | | | | | | | | |



# Psychological clinical evidence: Social skills training

**1.9 Mental state: 1. Continuous measures - total symptom score (lower = better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.9.1 total symptom score (BPRS, PANSS) - at end of treatment** | | | | | | | | |
| Hayes1995 | 46.5 | 9.9 | 32 | 48.3 | 14.4 | 32 | 16.1% | -0.14 [-0.63, 0.35] |
| Daniels1998 | 29.88 | 9.45 | 20 | 37.06 | 11.25 | 20 | 9.5% | -0.68 [-1.32, -0.04] |
| NG2006 | 38.1 | 7.4 | 18 | 41.6 | 11.1 | 18 | 8.9% | -0.36 [-1.02, 0.30] |
| PATTERSON2006 | 61.8 | 24.45 | 82 | 59.1 | 23.54 | 76 | 39.8% | 0.11 [-0.20, 0.42] |
| GRANHOLM2005* | 51.6 | 11 | 32 | 52.2 | 14.2 | 33 | 16.4% | -0.05 [-0.53, 0.44] |
| PINTO1999* | 38.1 | 21.7 | 19 | 45.7 | 11 | 18 | 9.1% | -0.43 [-1.08, 0.22] |
| **Subtotal (95% CI)** | | | **203** | | | **197** | **100.0%** | **-0.12 [-0.32, 0.07]** |
| Heterogeneity: Chi² = 6.51, df = 5 (P = 0.26); I² = 23% | | | | | | | | |
| Test for overall effect: Z = 1.22 (P = 0.22) | | | | | | | | |
| **1.9.2 total symptom score (BPRS, PANSS) - at end of treatment - sensitivity analysis removing Multimodal studies** | | | | | | | | |
| Daniels1998 | 29.88 | 9.45 | 20 | 37.06 | 11.25 | 20 | 12.8% | -0.68 [-1.32, -0.04] |
| Hayes1995 | 46.5 | 9.9 | 32 | 48.3 | 14.4 | 32 | 21.7% | -0.14 [-0.63, 0.35] |
| PATTERSON2006 | 61.8 | 24.45 | 82 | 59.1 | 23.54 | 76 | 53.5% | 0.11 [-0.20, 0.42] |
| NG2006 | 38.1 | 7.4 | 18 | 41.6 | 11.1 | 18 | 12.0% | -0.36 [-1.02, 0.30] |
| **Subtotal (95% CI)** | | | **152** | | | **146** | **100.0%** | **-0.10 [-0.33, 0.13]** |
| Heterogeneity: Chi² = 5.54, df = 3 (P = 0.14); I² = 46% | | | | | | | | |
| Test for overall effect: Z = 0.87 (P = 0.38) | | | | | | | | |
| **1.9.3 total symptom score (BPRS, PANSS) - up to 6 months FU** | | | | | | | | |
| NG2006 | 36.6 | 11.4 | 18 | 40.7 | 10.5 | 18 | 100.0% | -0.37 [-1.03, 0.29] |
| **Subtotal (95% CI)** | | | **18** | | | **18** | **100.0%** | **-0.37 [-1.03, 0.29]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.09 (P = 0.28) | | | | | | | | |

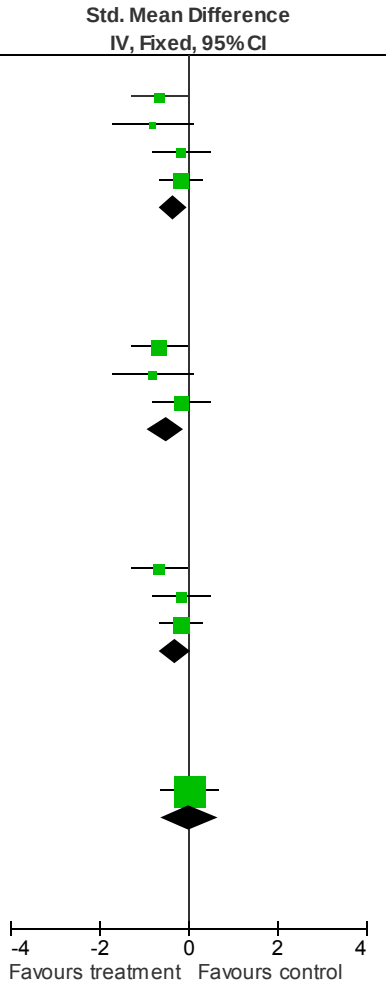



Test for subgroup differences: Chi² = 0.55, df = 2 (P = 0.76), I² = 0%

# Psychological clinical evidence: Social skills training

**1.10 Mental state: 2. Continuous measures - negative symptoms (lower = better)**

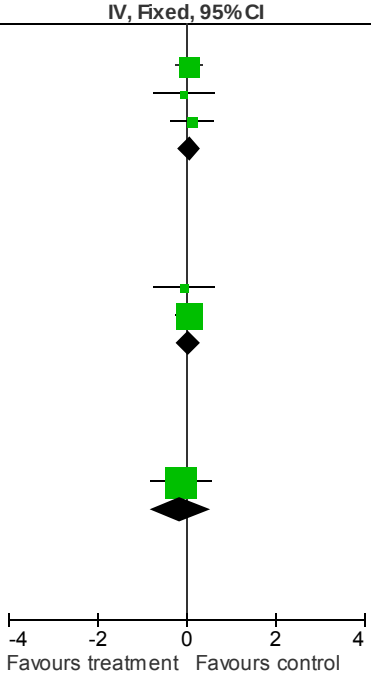
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.10.1 negative symptoms (PANSS, SANS) - at end of treatment** | | | | | | | | |
| Daniels1998 | 42.53 | 11.07 | 20 | 50.56 | 12.25 | 20 | 24.1% | -0.67 [-1.31, -0.04] |
| RONCONE2004 | 7.2 | 3.1 | 10 | 10.1 | 3.7 | 10 | 11.6% | -0.81 [-1.73, 0.11] |
| NG2006 | 38.3 | 14.8 | 18 | 41 | 14.8 | 18 | 22.9% | -0.18 [-0.83, 0.48] |
| GRANHOLM2005* | 12.9 | 3.8 | 32 | 13.7 | 5.2 | 33 | 41.4% | -0.17 [-0.66, 0.31] |
| **Subtotal (95% CI)** | | | **80** | | | **81** | **100.0%** | **-0.37 [-0.68, -0.06]** |
| Heterogeneity: Chi² = 2.72, df = 3 (P = 0.44); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 2.31 (P = 0.02) | | | | | | | | |
| **1.10.2 Sensitivity analysis removing multimodal studies** | | | | | | | | |
| Daniels1998 | 42.53 | 11.07 | 20 | 50.56 | 12.25 | 20 | 41.1% | -0.67 [-1.31, -0.04] |
| RONCONE2004 | 7.2 | 3.1 | 10 | 10.1 | 3.7 | 10 | 19.8% | -0.81 [-1.73, 0.11] |
| NG2006 | 38.3 | 14.8 | 18 | 41 | 14.8 | 18 | 39.1% | -0.18 [-0.83, 0.48] |
| **Subtotal (95% CI)** | | | **48** | | | **48** | **100.0%** | **-0.51 [-0.92, -0.10]** |
| Heterogeneity: Chi² = 1.66, df = 2 (P = 0.44); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 2.43 (P = 0.02) | | | | | | | | |
| **1.10.3 Sensitivity analysis removing RONCONE2004)** | | | | | | | | |
| Daniels1998 | 42.53 | 11.07 | 20 | 50.56 | 12.25 | 20 | 27.2% | -0.67 [-1.31, -0.04] |
| NG2006 | 38.3 | 14.8 | 18 | 41 | 14.8 | 18 | 25.9% | -0.18 [-0.83, 0.48] |
| GRANHOLM2005* | 12.9 | 3.8 | 32 | 13.7 | 5.2 | 33 | 46.8% | -0.17 [-0.66, 0.31] |
| **Subtotal (95% CI)** | | | **70** | | | **71** | **100.0%** | **-0.31 [-0.64, 0.02]** |
| Heterogeneity: Chi² = 1.71, df = 2 (P = 0.43); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.83 (P = 0.07) | | | | | | | | |
| **1.10.4 negative symptoms (PANSS, SANS) - up to 6 months FU** | | | | | | | | |
| NG2006 | 33.2 | 14 | 18 | 33 | 12.7 | 18 | 100.0% | 0.01 [-0.64, 0.67] |
| **Subtotal (95% CI)** | | | **18** | | | **18** | **100.0%** | **0.01 [-0.64, 0.67]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.04 (P = 0.96) | | | | | | | | |




Test for subgroup differences: Chi² = 1.83, df = 3 (P = 0.61), I² = 0%

**1.11 Mental state: 3. Depression - Hamilton Depression Rating scale (lower = better)**

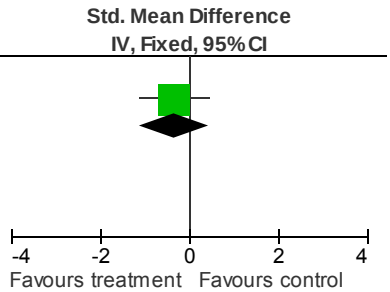
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.11.1 HAM-D (at end of treatment)** | | | | | | | | |
| PATTERSON2006 | 10.2 | 8.15 | 82 | 9.7 | 7.85 | 76 | 62.0% | 0.06 [-0.25, 0.37] |
| PATTERSON2003 | 7.7 | 5.2 | 16 | 8 | 5.3 | 16 | 12.6% | -0.06 [-0.75, 0.64] |
| GRANHOLM2005* | 11.4 | 6.3 | 32 | 10.6 | 6.3 | 33 | 25.5% | 0.13 [-0.36, 0.61] |
| **Subtotal (95% CI)** | | | **130** | | | **125** | **100.0%** | **0.06 [-0.18, 0.31]** |
| Heterogeneity: Chi² = 0.18, df = 2 (P = 0.92); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.51 (P = 0.61) | | | | | | | | |
| **1.11.2 Sensitivity analysis removing multimodal studies** | | | | | | | | |
| PATTERSON2003 | 7.7 | 5.2 | 16 | 8 | 5.3 | 16 | 16.9% | -0.06 [-0.75, 0.64] |
| PATTERSON2006 | 10.2 | 8.15 | 82 | 9.7 | 7.85 | 76 | 83.1% | 0.06 [-0.25, 0.37] |
| **Subtotal (95% CI)** | | | **98** | | | **92** | **100.0%** | **0.04 [-0.24, 0.33]** |
| Heterogeneity: Chi² = 0.09, df = 1 (P = 0.76); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.29 (P = 0.77) | | | | | | | | |
| **1.11.3 HAM-D (Up to 3 months FU)** | | | | | | | | |
| PATTERSON2003 | 7.2 | 4.9 | 16 | 7.9 | 5 | 16 | 100.0% | -0.14 [-0.83, 0.56] |
| **Subtotal (95% CI)** | | | **16** | | | **16** | **100.0%** | **-0.14 [-0.83, 0.56]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.39 (P = 0.70) | | | | | | | | |




Test for subgroup differences: Chi² = 0.29, df = 2 (P = 0.87), I² = 0%

**1.12 Mental state: 4: Anxiety - Social anxiety rating scale**

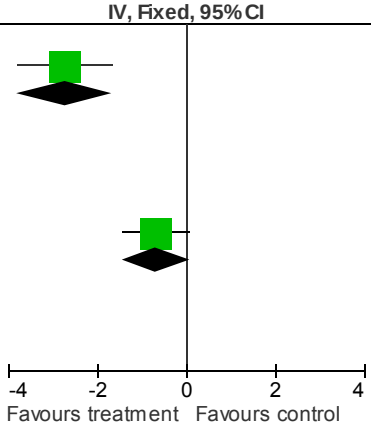
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.12.1 Hamilton Anxiety Rating Scale - end of treatment** | | | | | | | | |
| BROWN1983 | -12.56 | 26.78 | 12 | -1.93 | 31.11 | 13 | 100.0% | -0.35 [-1.14, 0.44] |
| **Subtotal (95% CI)** | | | **12** | | | **13** | **100.0%** | **-0.35 [-1.14, 0.44]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.87 (P = 0.38) | | | | | | | | |




Test for subgroup differences: Not applicable

**1.13 Psychosocial functioning: 1. Harm**

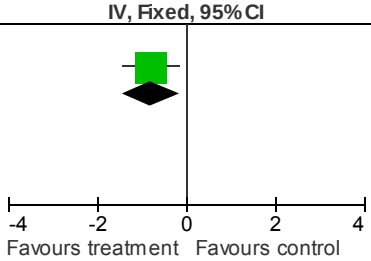
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.13.1 To others** | | | | | | | | |
| Peniston1988 | 1 | 1.16 | 14 | 5.92 | 2.17 | 14 | 100.0% | -2.75 [-3.82, -1.67] |
| **Subtotal (95% CI)** | | | **14** | | | **14** | **100.0%** | **-2.75 [-3.82, -1.67]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 5.02 (P < 0.00001) | | | | | | | | |
| **1.13.2 To self** | | | | | | | | |
| Peniston1988 | 0.28 | 0.82 | 14 | 1.14 | 1.5 | 14 | 100.0% | -0.69 [-1.46, 0.08] |
| **Subtotal (95% CI)** | | | **14** | | | **14** | **100.0%** | **-0.69 [-1.46, 0.08]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.77 (P = 0.08) | | | | | | | | |




Test for subgroup differences: Chi² = 9.33, df = 1 (P = 0.002), I² = 89.3%

**1.14 Psychosocial functioning: 2. BAT**

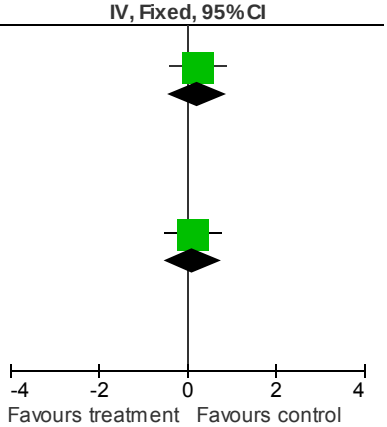
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.14.1 Behavioural Assessment Task (BAT): high=good** | | | | | | | | |
| Daniels1998 | -8.69 | 3.01 | 20 | -6.08 | 3.28 | 20 | 100.0% | -0.81 [-1.46, -0.17] |
| **Subtotal (95% CI)** | | | **20** | | | **20** | **100.0%** | **-0.81 [-1.46, -0.17]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.46 (P = 0.01) | | | | | | | | |




Test for subgroup differences: Not applicable

**1.15 Psychosocial functioning: 3. Social Behaviour Schedule (lower = better)**

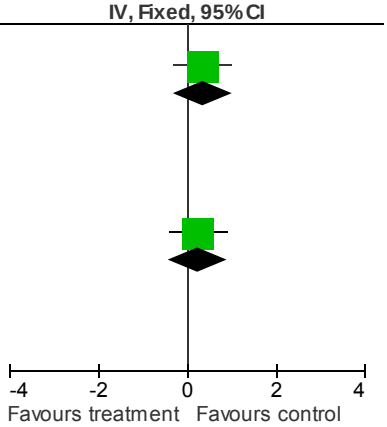
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.15.1 SBS Total - at end of treatment** | | | | | | | | |
| NG2006 | 7.2 | 3.9 | 18 | 6.3 | 4.1 | 18 | 100.0% | 0.22 [-0.44, 0.88] |
| **Subtotal (95% CI)** | | | **18** | | | **18** | **100.0%** | **0.22 [-0.44, 0.88]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.66 (P = 0.51) | | | | | | | | |
| **1.15.2 SBS Total - up to 6months** | | | | | | | | |
| NG2006 | 6.91 | 5.2 | 18 | 6.4 | 4.1 | 18 | 100.0% | 0.11 [-0.55, 0.76] |
| **Subtotal (95% CI)** | | | **18** | | | **18** | **100.0%** | **0.11 [-0.55, 0.76]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.32 (P = 0.75) | | | | | | | | |




Test for subgroup differences: Chi² = 0.06, df = 1 (P = 0.81), I² = 0%

**1.16 Psychosocial functioning: 4. Social Functioning Scale (SFS) (signs reversed)**

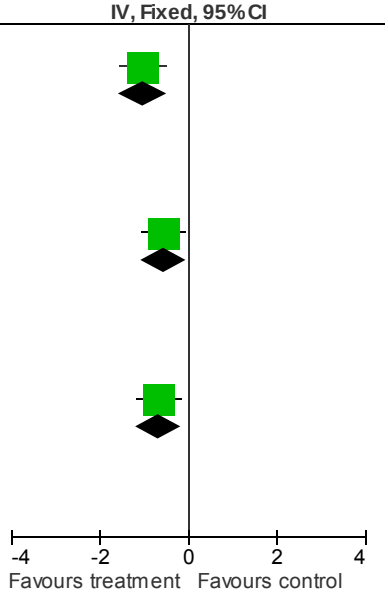
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.16.1 SFS total - end of treatment** | | | | | | | | |
| NG2006 | -115.6 | 24 | 18 | -123.7 | 22.4 | 18 | 100.0% | 0.34 [-0.32, 1.00] |
| **Subtotal (95% CI)** | | | **18** | | | **18** | **100.0%** | **0.34 [-0.32, 1.00]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.02 (P = 0.31) | | | | | | | | |
| **1.16.2 SFS total - up to 6 months FU** | | | | | | | | |
| NG2006 | -115.9 | 15.8 | 18 | -120.5 | 21 | 18 | 100.0% | 0.24 [-0.41, 0.90] |
| **Subtotal (95% CI)** | | | **18** | | | **18** | **100.0%** | **0.24 [-0.41, 0.90]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.72 (P = 0.47) | | | | | | | | |




Test for subgroup differences: Chi² = 0.04, df = 1 (P = 0.83), I² = 0%

**1.17 Psychosocial functioning: 5. Assessment of interpersonal problem solving skills (signs reversed)**

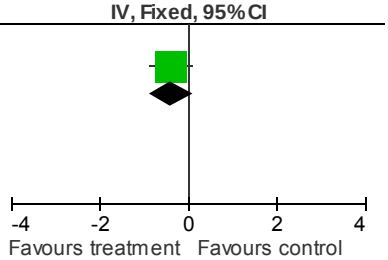
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.17.1 AIPSS Total score- at end of treatment** | | | | | | | | |
| UCOK2006 | -14.4 | 3.7 | 32 | -10.2 | 4.3 | 30 | 100.0% | -1.04 [-1.57, -0.50] |
| **Subtotal (95% CI)** | | | **32** | | | **30** | **100.0%** | **-1.04 [-1.57, -0.50]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.81 (P = 0.0001) | | | | | | | | |
| **1.17.2 AIPSS Processing skills - at end of treatment** | | | | | | | | |
| UCOK2006 | -4.2 | 2 | 32 | -3.1 | 1.8 | 30 | 100.0% | -0.57 [-1.08, -0.06] |
| **Subtotal (95% CI)** | | | **32** | | | **30** | **100.0%** | **-0.57 [-1.08, -0.06]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.20 (P = 0.03) | | | | | | | | |
| **1.17.3 AIPSS Receiving skills- at end of treatment** | | | | | | | | |
| UCOK2006 | -9.9 | 2.9 | 32 | -7.9 | 3 | 30 | 100.0% | -0.67 [-1.18, -0.16] |
| **Subtotal (95% CI)** | | | **32** | | | **30** | **100.0%** | **-0.67 [-1.18, -0.16]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.56 (P = 0.01) | | | | | | | | |




Test for subgroup differences: Chi² = 1.69, df = 2 (P = 0.43), I² = 0%

**1.18 Psychosocial functioning: 6. Conversational social skill (lower = better)**

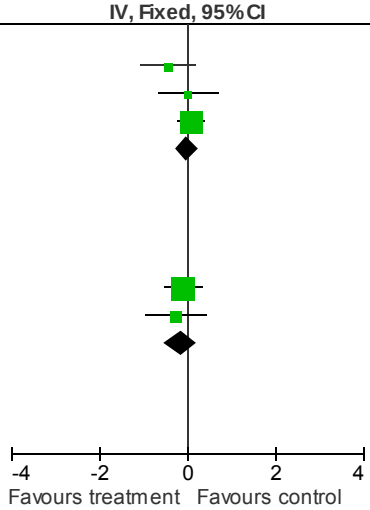
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.18.1 Conversational social skill: SCON (lower = better)** | | | | | | | | |
| Hayes1995 | -32.6 | 4.2 | 32 | -30.5 | 6.1 | 32 | 100.0% | -0.40 [-0.89, 0.10] |
| **Subtotal (95% CI)** | | | **32** | | | **32** | **100.0%** | **-0.40 [-0.89, 0.10]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.57 (P = 0.12) | | | | | | | | |




Test for subgroup differences: Not applicable

**1.19 Quality of life: 1. QLS, QWB, LQLS (signs reversed)**

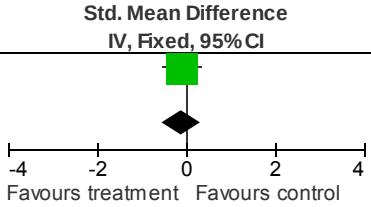
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.19.1 QLS, Quality of well-being scale - at end of treatment** | | | | | | | | |
| Daniels1998 | -60.5 | 22.84 | 20 | -50.83 | 18.53 | 20 | 17.0% | -0.46 [-1.08, 0.17] |
| PATTERSON2003 | -0.55 | 0.1 | 16 | -0.55 | 0.07 | 16 | 14.0% | 0.00 [-0.69, 0.69] |
| PATTERSON2006 | -55 | 12.68 | 82 | -55.9 | 13.08 | 76 | 69.0% | 0.07 [-0.24, 0.38] |
| **Subtotal (95% CI)** | | | **118** | | | **112** | **100.0%** | **-0.03 [-0.29, 0.23]** |
| Heterogeneity: Chi² = 2.16, df = 2 (P = 0.34); I² = 7% | | | | | | | | |
| Test for overall effect: Z = 0.22 (P = 0.82) | | | | | | | | |
| **1.19.2 QLS, Quality of well-being scale - up to 18 months FU (all data)** | | | | | | | | |
| Liberman1998 | -0.38 | 0.76 | 40 | -0.29 | 0.76 | 40 | 71.6% | -0.12 [-0.56, 0.32] |
| PATTERSON2003 | -0.51 | 0.07 | 16 | -0.49 | 0.07 | 16 | 28.4% | -0.28 [-0.98, 0.42] |
| **Subtotal (95% CI)** | | | **56** | | | **56** | **100.0%** | **-0.16 [-0.53, 0.21]** |
| Heterogeneity: Chi² = 0.15, df = 1 (P = 0.70); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.86 (P = 0.39) | | | | | | | | |




Test for subgroup differences: Chi² = 0.33, df = 1 (P = 0.56), I² = 0%

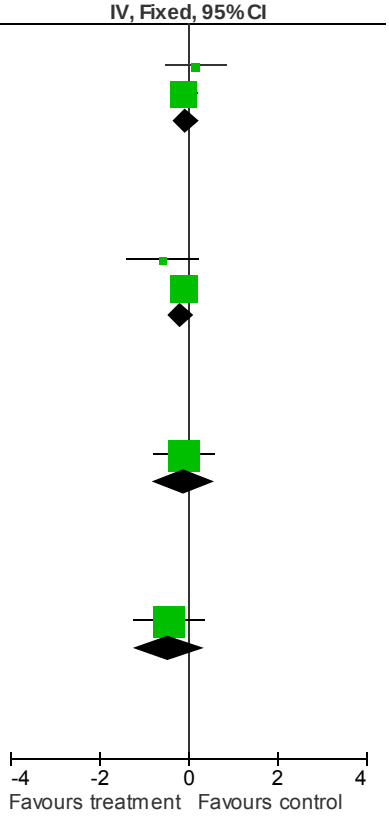
**1.20 Quality of life: 2. LQLS change score (lower = better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| Liberman1998 | -0.38 | 0.76 | 40 | -0.29 | 0.76 | 40 | 100.0% | -0.12 [-0.56, 0.32] |
| **Total (95% CI)** | | | **40** | | | **40** | **100.0%** | **-0.12 [-0.56, 0.32]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.52 (P = 0.60) | | | | | | | | |



**1.21 Other: 1. UCSD performance based skills assessment (signs reversed)**

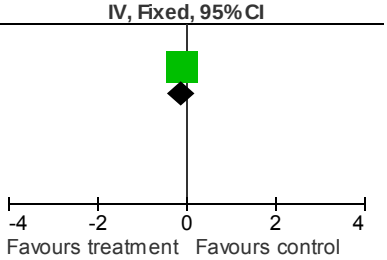
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.21.1 UCSD - at the end of treatment (all data)** | | | | | | | | |
| PATTERSON2003 | -41.5 | 9.5 | 16 | -42.8 | 7.1 | 16 | 16.8% | 0.15 [-0.54, 0.85] |
| PATTERSON2006 | -70.7 | 21.73 | 82 | -68.2 | 21.79 | 76 | 83.2% | -0.11 [-0.43, 0.20] |
| **Subtotal (95% CI)** | | | **98** | | | **92** | **100.0%** | **-0.07 [-0.35, 0.22]** |
| Heterogeneity: Chi² = 0.47, df = 1 (P = 0.49); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.48 (P = 0.63) | | | | | | | | |
| **1.21.3 UCSD - at the end of treatment (outliers removed)** | | | | | | | | |
| PATTERSON2003 | -46.5 | 3.4 | 10 | -42.8 | 7.1 | 16 | 13.0% | -0.60 [-1.41, 0.21] |
| PATTERSON2006 | -70.7 | 21.73 | 82 | -68.2 | 21.79 | 76 | 87.0% | -0.11 [-0.43, 0.20] |
| **Subtotal (95% CI)** | | | **92** | | | **92** | **100.0%** | **-0.18 [-0.47, 0.11]** |
| Heterogeneity: Chi² = 1.20, df = 1 (P = 0.27); I² = 16% | | | | | | | | |
| Test for overall effect: Z = 1.19 (P = 0.23) | | | | | | | | |
| **1.21.4 UCSD -up to 3 months FU (all data)** | | | | | | | | |
| PATTERSON2003 | -42.7 | 9.7 | 16 | -41.6 | 9.7 | 16 | 100.0% | -0.11 [-0.80, 0.58] |
| **Subtotal (95% CI)** | | | **16** | | | **16** | **100.0%** | **-0.11 [-0.80, 0.58]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.31 (P = 0.75) | | | | | | | | |
| **1.21.5 UCSD - up to 3 months FU (outliers removed)** | | | | | | | | |
| PATTERSON2003 | -46 | 8.6 | 10 | -41.6 | 9.7 | 16 | 100.0% | -0.46 [-1.26, 0.34] |
| **Subtotal (95% CI)** | | | **10** | | | **16** | **100.0%** | **-0.46 [-1.26, 0.34]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.12 (P = 0.26) | | | | | | | | |




Test for subgroup differences: Chi² = 0.91, df = 3 (P = 0.82), I² = 0%

**1.22 Other: 2. SSPA social skills performance assessment (signs reversed)**

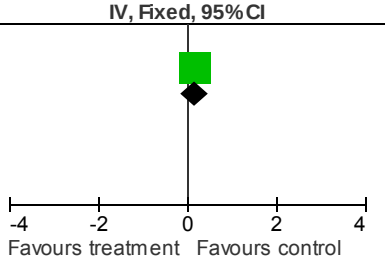
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.22.1 UCSD - at the end of treatment (all data)** | | | | | | | | |
| PATTERSON2006 | -29.3 | 8.15 | 82 | -28.4 | 7.85 | 76 | 100.0% | -0.11 [-0.42, 0.20] |
| **Subtotal (95% CI)** | | | **82** | | | **76** | **100.0%** | **-0.11 [-0.42, 0.20]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.70 (P = 0.48) | | | | | | | | |




Test for subgroup differences: Not applicable

**1.23 Other: 3. MMAA Medication management abilities(signs reversed)**

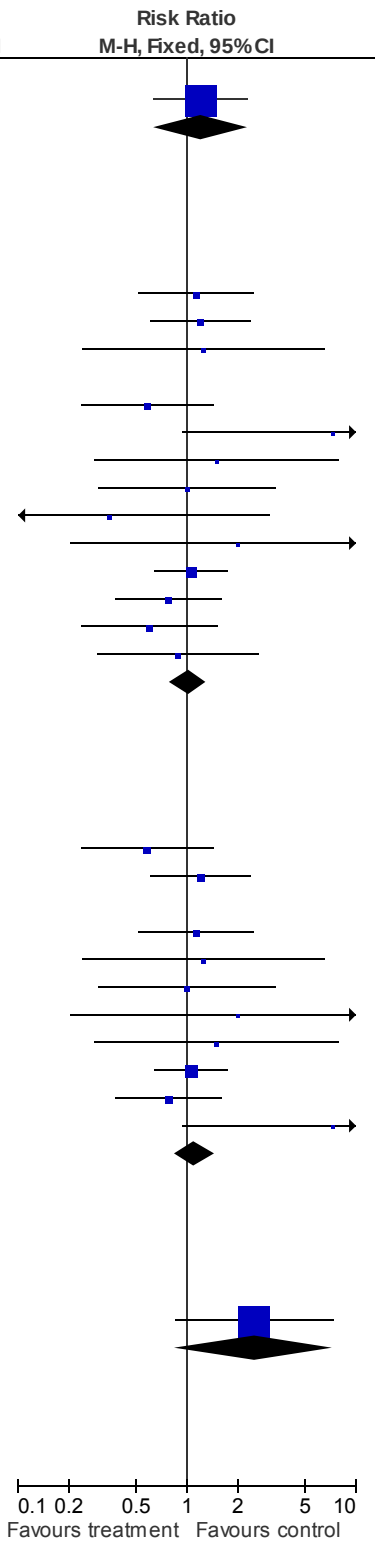
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.23.1 UCSD - at the end of treatment (all data)** | | | | | | | | |
| PATTERSON2006 | -12.7 | 9.96 | 82 | -14.6 | 13.08 | 76 | 100.0% | 0.16 [-0.15, 0.48] |
| **Subtotal (95% CI)** | | | **82** | | | **76** | **100.0%** | **0.16 [-0.15, 0.48]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.03 (P = 0.31) | | | | | | | | |




Test for subgroup differences: Not applicable

**1.24 Treatment Acceptability: 1. Leaving for any reason**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.24.1 Did not receive the intervention for any reason** | | | | | | |
| PATTERSON2006 | 18 | 106 | 14 | 99 | 100.0% | 1.20 [0.63, 2.28] |
| **Subtotal (95% CI)** | | **106** | | **99** | **100.0%** | **1.20 [0.63, 2.28]** |
| Total events | 18 | | 14 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.56 (P = 0.58) | | | | | | |
| **1.24.2 Leaving for any reason - at end of treatment** | | | | | | |
| Bellack1984 | 15 | 44 | 6 | 20 | 9.3% | 1.14 [0.52, 2.49] |
| Marder1996 | 14 | 43 | 10 | 37 | 12.2% | 1.20 [0.61, 2.38] |
| Dobson1995 | 3 | 18 | 2 | 15 | 2.5% | 1.25 [0.24, 6.53] |
| Peniston1988 | 0 | 14 | 0 | 14 | | Not estimable |
| Eckmann1992 | 5 | 20 | 9 | 21 | 9.9% | 0.58 [0.24, 1.44] |
| CHIEN2003 | 7 | 42 | 1 | 44 | 1.1% | 7.33 [0.94, 57.09] |
| NG2006 | 3 | 18 | 2 | 18 | 2.3% | 1.50 [0.28, 7.93] |
| PATTERSON2003 | 4 | 17 | 4 | 17 | 4.5% | 1.00 [0.30, 3.36] |
| PINTO1999* | 1 | 20 | 3 | 21 | 3.3% | 0.35 [0.04, 3.09] |
| BROWN1983 | 2 | 14 | 1 | 14 | 1.1% | 2.00 [0.20, 19.62] |
| PATTERSON2006 | 25 | 106 | 22 | 99 | 25.7% | 1.06 [0.64, 1.76] |
| CHOI2006 | 7 | 17 | 9 | 17 | 10.2% | 0.78 [0.38, 1.60] |
| VALENCIA2007* | 6 | 49 | 10 | 49 | 11.3% | 0.60 [0.24, 1.52] |
| GRANHOLM2005* | 5 | 37 | 6 | 39 | 6.6% | 0.88 [0.29, 2.63] |
| **Subtotal (95% CI)** | | **459** | | **425** | **100.0%** | **1.01 [0.78, 1.31]** |
| Total events | 97 | | 85 | | | |
| Heterogeneity: Chi² = 8.69, df = 12 (P = 0.73); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.10 (P = 0.92) | | | | | | |
| **1.24.3 Sensitivity analysis removing multimodal studies** | | | | | | |
| Eckmann1992 | 5 | 20 | 9 | 21 | 12.6% | 0.58 [0.24, 1.44] |
| Marder1996 | 14 | 43 | 10 | 37 | 15.4% | 1.20 [0.61, 2.38] |
| Peniston1988 | 0 | 14 | 0 | 14 | | Not estimable |
| Bellack1984 | 15 | 44 | 6 | 20 | 11.8% | 1.14 [0.52, 2.49] |
| Dobson1995 | 3 | 18 | 2 | 15 | 3.1% | 1.25 [0.24, 6.53] |
| PATTERSON2003 | 4 | 17 | 4 | 17 | 5.7% | 1.00 [0.30, 3.36] |
| BROWN1983 | 2 | 14 | 1 | 14 | 1.4% | 2.00 [0.20, 19.62] |
| NG2006 | 3 | 18 | 2 | 18 | 2.9% | 1.50 [0.28, 7.93] |
| PATTERSON2006 | 25 | 106 | 22 | 99 | 32.6% | 1.06 [0.64, 1.76] |
| CHOI2006 | 7 | 17 | 9 | 17 | 12.9% | 0.78 [0.38, 1.60] |
| CHIEN2003 | 7 | 42 | 1 | 44 | 1.4% | 7.33 [0.94, 57.09] |
| **Subtotal (95% CI)** | | **353** | | **316** | **100.0%** | **1.11 [0.84, 1.47]** |
| Total events | 85 | | 66 | | | |
| Heterogeneity: Chi² = 6.65, df = 9 (P = 0.67); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.75 (P = 0.46) | | | | | | |
| **1.24.4 Up to 18 months FU** | | | | | | |
| Liberman1998 | 10 | 42 | 4 | 42 | 100.0% | 2.50 [0.85, 7.35] |
| **Subtotal (95% CI)** | | **42** | | **42** | **100.0%** | **2.50 [0.85, 7.35]** |
| Total events | 10 | | 4 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.67 (P = 0.10) | | | | | | |

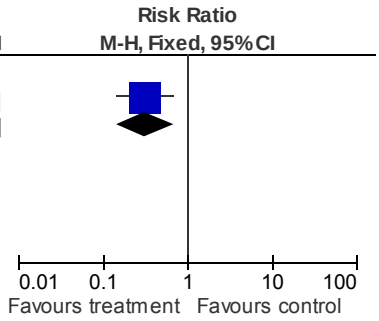



**2 Social skills training versus standard care**

# Psychological clinical evidence: Social skills training

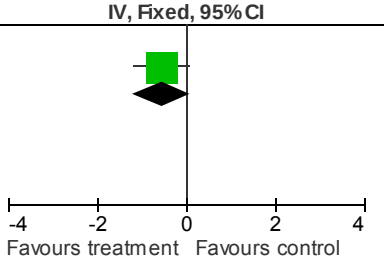
**2.1 Service Outcome: 1. Unable to be discharged from hospitalisation**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.1.2 up to 6 months FU** | | | | | | |
| Peniston1988 | 4 | 14 | 14 | 14 | 100.0% | 0.31 [0.14, 0.68] |
| **Subtotal (95% CI)** | | **14** | | **14** | **100.0%** | **0.31 [0.14, 0.68]** |
| Total events | 4 | | 14 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 2.94 (P = 0.003) | | | | | | |




**2.2 Global state: 1. CGI - At end of treatment (8 weeks)**

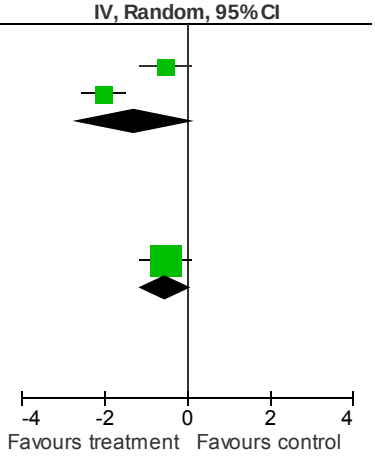
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.2.2 CGI: (signs reversed)** | | | | | | | | |
| Daniels1998 | 3.88 | 1.05 | 20 | 4.44 | 0.89 | 20 | 100.0% | -0.56 [-1.20, 0.07] |
| **Subtotal (95% CI)** | | | **20** | | | **20** | **100.0%** | **-0.56 [-1.20, 0.07]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.75 (P = 0.08) | | | | | | | | |




Test for subgroup differences: Not applicable

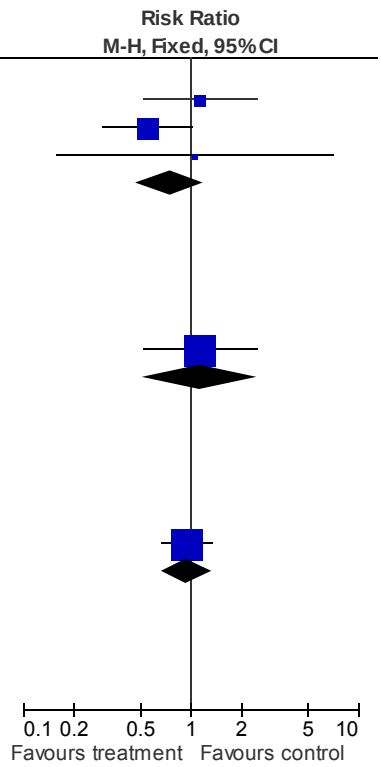
**2.3 Global state: 2. GAF - At end of treatment (8 weeks)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.3.1 GAF, GAS - at end of treatment** | | | | | | | | |
| Daniels1998 | -50.83 | 11.6 | 20 | -45.13 | 9.36 | 20 | 49.4% | -0.53 [-1.16, 0.10] |
| VALENCIA2007* | -66 | 8.9 | 43 | -44.9 | 11.6 | 39 | 50.6% | -2.03 [-2.57, -1.50] |
| **Subtotal (95% CI)** | | | **63** | | | **59** | **100.0%** | **-1.29 [-2.77, 0.18]** |
| Heterogeneity: Tau² = 1.04; Chi² = 12.63, df = 1 (P = 0.0004); I² = 92% | | | | | | | | |
| Test for overall effect: Z = 1.72 (P = 0.09) | | | | | | | | |
| **2.3.2 GAF, GAS - at end of treatment - Sensitivity analysis removing Multimodal interventions** | | | | | | | | |
| Daniels1998 | -50.83 | 11.6 | 20 | -45.13 | 9.36 | 20 | 100.0% | -0.53 [-1.16, 0.10] |
| **Subtotal (95% CI)** | | | **20** | | | **20** | **100.0%** | **-0.53 [-1.16, 0.10]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.64 (P = 0.10) | | | | | | | | |



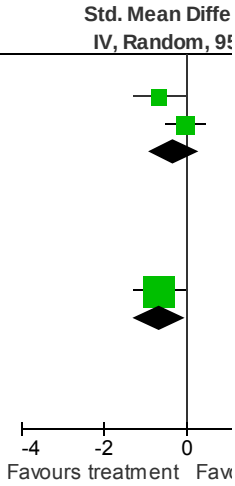
**2.4 Global state: 3. Relapse and Readmission (combined)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.4.1 by 1 year into programme** | | | | | | |
| Bellack1984 | 15 | 44 | 6 | 20 | 27.3% | 1.14 [0.52, 2.49] |
| VALENCIA2007* | 11 | 49 | 20 | 49 | 66.2% | 0.55 [0.30, 1.02] |
| GRANHOLM2005* | 2 | 37 | 2 | 39 | 6.4% | 1.05 [0.16, 7.10] |
| **Subtotal (95% CI)** | | **130** | | **108** | **100.0%** | **0.74 [0.47, 1.18]** |
| Total events | 28 | | 28 | | | |
| Heterogeneity: Chi² = 2.16, df = 2 (P = 0.34); I² = 7% | | | | | | |
| Test for overall effect: Z = 1.25 (P = 0.21) | | | | | | |
| **2.4.2 by 1 year into programme - Sensitivity analysis removing multimodal interventions** | | | | | | |
| Bellack1984 | 15 | 44 | 6 | 20 | 100.0% | 1.14 [0.52, 2.49] |
| **Subtotal (95% CI)** | | **44** | | **20** | **100.0%** | **1.14 [0.52, 2.49]** |
| Total events | 15 | | 6 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.32 (P = 0.75) | | | | | | |
| **2.4.3 up to 12 months FU** | | | | | | |
| Bellack1984 | 29 | 44 | 14 | 20 | 100.0% | 0.94 [0.66, 1.35] |
| **Subtotal (95% CI)** | | **44** | | **20** | **100.0%** | **0.94 [0.66, 1.35]** |
| Total events | 29 | | 14 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.33 (P = 0.74) | | | | | | |



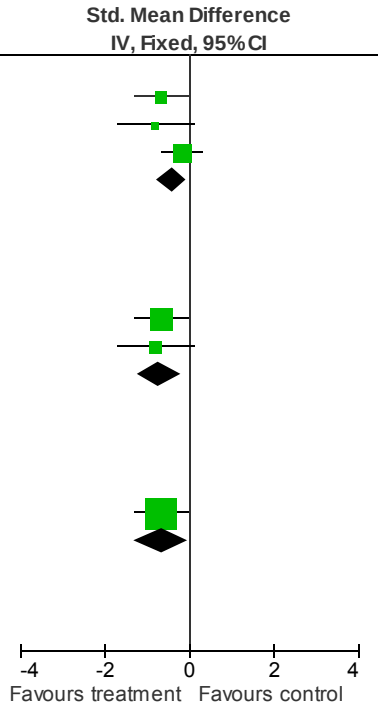

**2.5 Mental state: 1. Continuous measures - total symptom score (lower = better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.5.1 total symptom score (BPRS, PANSS) - at end of treatment** | | | | | | | | |
| Daniels1998 | 29.88 | 9.45 | 20 | 37.06 | 11.25 | 20 | 44.4% | -0.68 [-1.32, -0.04] |
| GRANHOLM2005* | 51.6 | 11 | 32 | 52.2 | 14.2 | 33 | 55.6% | -0.05 [-0.53, 0.44] |
| **Subtotal (95% CI)** | | | **52** | | | **53** | **100.0%** | **-0.33 [-0.94, 0.29]** |
| Heterogeneity: Tau² = 0.11; Chi² = 2.37, df = 1 (P = 0.12); I² = 58% | | | | | | | | |
| Test for overall effect: Z = 1.04 (P = 0.30) | | | | | | | | |
| **2.5.2 total symptom score (BPRS, PANSS) - at end of treatment - Sensitivity analysis removing Multimodal studies** | | | | | | | | |
| Daniels1998 | 29.88 | 9.45 | 20 | 37.06 | 11.25 | 20 | 100.0% | -0.68 [-1.32, -0.04] |
| **Subtotal (95% CI)** | | | **20** | | | **20** | **100.0%** | **-0.68 [-1.32, -0.04]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.08 (P = 0.04) | | | | | | | | |



**2.6 Mental state: 2. Continuous measures - negative symptoms (lower = better)**

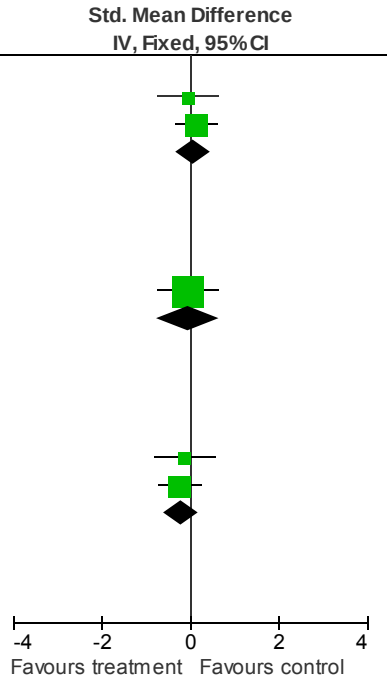
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.6.1 negative symptoms (PANSS, SANS, BPRS) - at end of treatment** | | | | | | | | |
| Daniels1998 | 42.53 | 11.07 | 20 | 50.56 | 12.25 | 20 | 31.2% | -0.67 [-1.31, -0.04] |
| RONCONE2004 | 7.2 | 3.1 | 10 | 10.1 | 3.7 | 10 | 15.0% | -0.81 [-1.73, 0.11] |
| GRANHOLM2005* | 12.9 | 3.8 | 32 | 13.7 | 5.2 | 33 | 53.7% | -0.17 [-0.66, 0.31] |
| **Subtotal (95% CI)** | | | **62** | | | **63** | **100.0%** | **-0.43 [-0.78, -0.07]** |
| Heterogeneity: Chi² = 2.30, df = 2 (P = 0.32); I² = 13% | | | | | | | | |
| Test for overall effect: Z = 2.34 (P = 0.02) | | | | | | | | |
| **2.6.2 negative symptoms at end of treatment - sensitivity analysis removing multimodal studies** | | | | | | | | |
| Daniels1998 | 42.53 | 11.07 | 20 | 50.56 | 12.25 | 20 | 67.5% | -0.67 [-1.31, -0.04] |
| RONCONE2004 | 7.2 | 3.1 | 10 | 10.1 | 3.7 | 10 | 32.5% | -0.81 [-1.73, 0.11] |
| **Subtotal (95% CI)** | | | **30** | | | **30** | **100.0%** | **-0.72 [-1.24, -0.19]** |
| Heterogeneity: Chi² = 0.06, df = 1 (P = 0.81); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 2.69 (P = 0.007) | | | | | | | | |
| **2.6.3 Sensitivity analysis removing Roncone** | | | | | | | | |
| Daniels1998 | 42.53 | 11.07 | 20 | 50.56 | 12.25 | 20 | 100.0% | -0.67 [-1.31, -0.04] |
| **Subtotal (95% CI)** | | | **20** | | | **20** | **100.0%** | **-0.67 [-1.31, -0.04]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.07 (P = 0.04) | | | | | | | | |




Test for subgroup differences: Chi² = 1.01, df = 2 (P = 0.60), I² = 0%

**2.7 Mental state: 3. Depression - Hamilton Depression Rating scale (lower = better)**

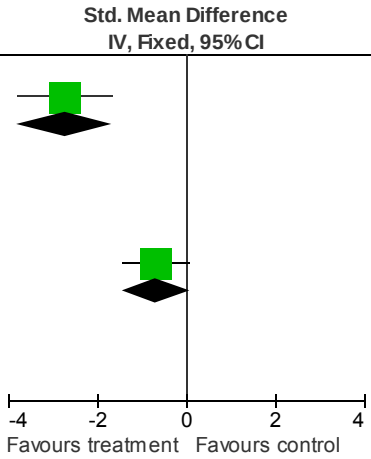
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.7.1 HAM-D (at end of treatment)** | | | | | | | | |
| PATTERSON2003 | 7.7 | 5.2 | 16 | 8 | 5.3 | 16 | 33.0% | -0.06 [-0.75, 0.64] |
| GRANHOLM2005* | 11.4 | 6.3 | 32 | 10.6 | 6.3 | 33 | 67.0% | 0.13 [-0.36, 0.61] |
| **Subtotal (95% CI)** | | | **48** | | | **49** | **100.0%** | **0.07 [-0.33, 0.46]** |
| Heterogeneity: Chi² = 0.18, df = 1 (P = 0.68); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.32 (P = 0.75) | | | | | | | | |
| **2.7.2 HAM-D (at end of treatment) - Sensitivity analysis removing Multimodal studies** | | | | | | | | |
| PATTERSON2003 | 7.7 | 5.2 | 16 | 8 | 5.3 | 16 | 100.0% | -0.06 [-0.75, 0.64] |
| **Subtotal (95% CI)** | | | **16** | | | **16** | **100.0%** | **-0.06 [-0.75, 0.64]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.16 (P = 0.87) | | | | | | | | |
| **2.7.3 HAM-D (up to 12 months FU)** | | | | | | | | |
| PATTERSON2003 | 7.2 | 4.9 | 16 | 7.9 | 5 | 16 | 33.5% | -0.14 [-0.83, 0.56] |
| GRANHOLM2005* | 9.7 | 5.5 | 31 | 11.3 | 6.8 | 33 | 66.5% | -0.25 [-0.75, 0.24] |
| **Subtotal (95% CI)** | | | **47** | | | **49** | **100.0%** | **-0.22 [-0.62, 0.19]** |
| Heterogeneity: Chi² = 0.07, df = 1 (P = 0.79); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.05 (P = 0.29) | | | | | | | | |




Test for subgroup differences: Chi² = 0.95, df = 2 (P = 0.62), I² = 0%

**2.8 Psychosocial functioning: 1. Harm**

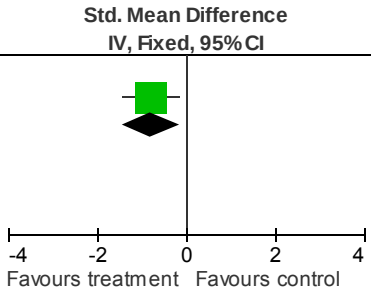
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.8.1 to others** | | | | | | | | |
| Peniston1988 | 1 | 1.16 | 14 | 5.92 | 2.17 | 14 | 100.0% | -2.75 [-3.82, -1.67] |
| **Subtotal (95% CI)** | | | **14** | | | **14** | **100.0%** | **-2.75 [-3.82, -1.67]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 5.02 (P < 0.00001) | | | | | | | | |
| **2.8.2 to self** | | | | | | | | |
| Peniston1988 | 0.28 | 0.82 | 14 | 1.14 | 1.5 | 14 | 100.0% | -0.69 [-1.46, 0.08] |
| **Subtotal (95% CI)** | | | **14** | | | **14** | **100.0%** | **-0.69 [-1.46, 0.08]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.77 (P = 0.08) | | | | | | | | |




Test for subgroup differences: Chi² = 9.33, df = 1 (P = 0.002), I² = 89.3%

**2.9 Psychosocial functioning: 2. BAT (signs reversed)**

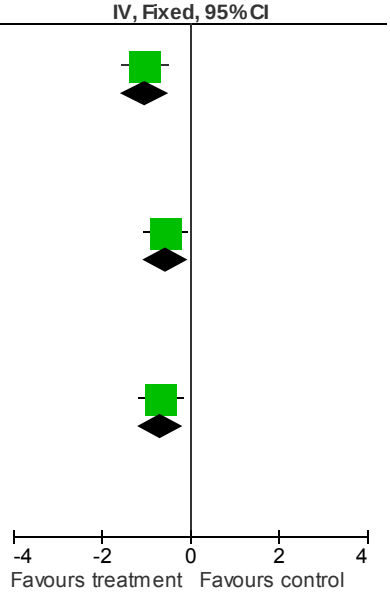
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.9.1 Behavioural Assessment Task (BAT) - at end of treatment** | | | | | | | | |
| Daniels1998 | -8.69 | 3.01 | 20 | -6.08 | 3.28 | 20 | 100.0% | -0.81 [-1.46, -0.17] |
| **Subtotal (95% CI)** | | | **20** | | | **20** | **100.0%** | **-0.81 [-1.46, -0.17]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.46 (P = 0.01) | | | | | | | | |




Test for subgroup differences: Not applicable

**2.10 Psychosocial functioning: 3. Assessment of interpersonal problem solving skills (signs reversed)**

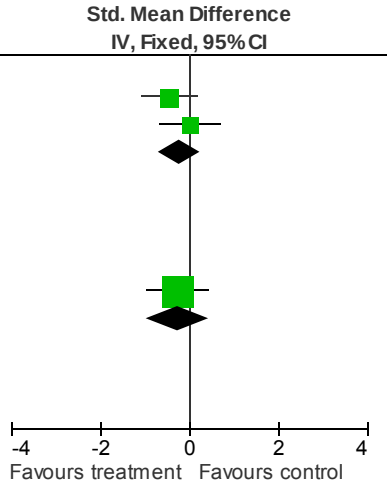
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.10.1 AIPSS Total score- at end of treatment** | | | | | | | | |
| UCOK2006 | -14.4 | 3.7 | 32 | -10.2 | 4.3 | 30 | 100.0% | -1.04 [-1.57, -0.50] |
| **Subtotal (95% CI)** | | | **32** | | | **30** | **100.0%** | **-1.04 [-1.57, -0.50]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 3.81 (P = 0.0001) | | | | | | | | |
| **2.10.2 AIPSS Processing skills - at end of treatment** | | | | | | | | |
| UCOK2006 | -4.2 | 2 | 32 | -3.1 | 1.8 | 30 | 100.0% | -0.57 [-1.08, -0.06] |
| **Subtotal (95% CI)** | | | **32** | | | **30** | **100.0%** | **-0.57 [-1.08, -0.06]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.20 (P = 0.03) | | | | | | | | |
| **2.10.3 AIPSS Receiving skills- at end of treatment** | | | | | | | | |
| UCOK2006 | -9.9 | 2.9 | 32 | -7.9 | 3 | 30 | 100.0% | -0.67 [-1.18, -0.16] |
| **Subtotal (95% CI)** | | | **32** | | | **30** | **100.0%** | **-0.67 [-1.18, -0.16]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.56 (P = 0.01) | | | | | | | | |




Test for subgroup differences: Chi² = 1.69, df = 2 (P = 0.43), I² = 0%

**2.11 Quality of life: 1. QLS, QWB (signs reversed)**

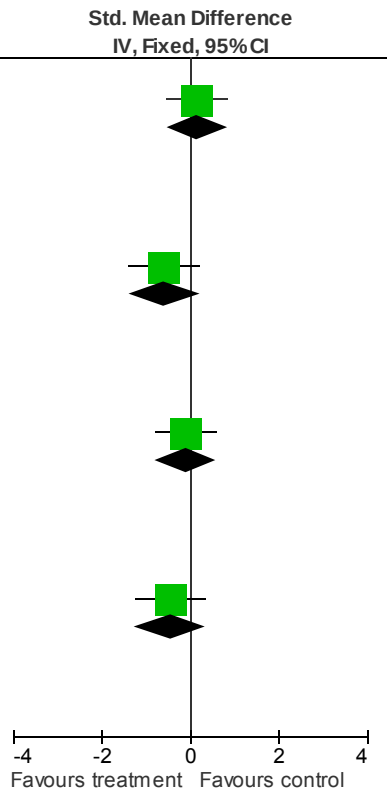
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.11.1 QLS, Quality of well-being scale - at end of treatment** | | | | | | | | |
| Daniels1998 | -60.5 | 22.84 | 20 | -50.83 | 18.53 | 20 | 54.9% | -0.46 [-1.08, 0.17] |
| PATTERSON2003 | -0.55 | 0.1 | 16 | -0.55 | 0.07 | 16 | 45.1% | 0.00 [-0.69, 0.69] |
| **Subtotal (95% CI)** | | | **36** | | | **36** | **100.0%** | **-0.25 [-0.72, 0.22]** |
| Heterogeneity: Chi² = 0.91, df = 1 (P = 0.34); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 1.05 (P = 0.29) | | | | | | | | |
| **2.11.2 QLS, Quality of well-being scale - up to 6 months FU** | | | | | | | | |
| PATTERSON2003 | -0.51 | 0.07 | 16 | -0.49 | 0.07 | 16 | 100.0% | -0.28 [-0.98, 0.42] |
| **Subtotal (95% CI)** | | | **16** | | | **16** | **100.0%** | **-0.28 [-0.98, 0.42]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.78 (P = 0.43) | | | | | | | | |




Test for subgroup differences: Chi² = 0.00, df = 1 (P = 0.95), I² = 0%

**2.12 Other: 1. UCSD performance based skills assessment (signs reversed)**

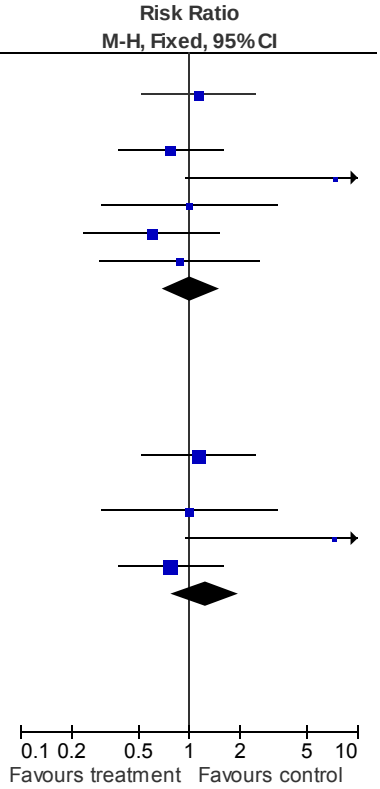
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.12.1 UCSD - at the end of treatment (all data)** | | | | | | | | |
| PATTERSON2003 | -41.5 | 9.5 | 16 | -42.8 | 7.1 | 16 | 100.0% | 0.15 [-0.54, 0.85] |
| **Subtotal (95% CI)** | | | **16** | | | **16** | **100.0%** | **0.15 [-0.54, 0.85]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.43 (P = 0.67) | | | | | | | | |
| **2.12.2 UCSD - at the end of treatment (outliers removed)** | | | | | | | | |
| PATTERSON2003 | -46.5 | 3.4 | 10 | -42.8 | 7.1 | 16 | 100.0% | -0.60 [-1.41, 0.21] |
| **Subtotal (95% CI)** | | | **10** | | | **16** | **100.0%** | **-0.60 [-1.41, 0.21]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.45 (P = 0.15) | | | | | | | | |
| **2.12.3 UCSD - up to 3 months FU (all data)** | | | | | | | | |
| PATTERSON2003 | -42.7 | 9.7 | 16 | -41.6 | 9.7 | 16 | 100.0% | -0.11 [-0.80, 0.58] |
| **Subtotal (95% CI)** | | | **16** | | | **16** | **100.0%** | **-0.11 [-0.80, 0.58]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.31 (P = 0.75) | | | | | | | | |
| **2.12.4 UCSD - up to 3 months FU (outliers removed)** | | | | | | | | |
| PATTERSON2003 | -46 | 8.6 | 10 | -41.6 | 9.7 | 16 | 100.0% | -0.46 [-1.26, 0.34] |
| **Subtotal (95% CI)** | | | **10** | | | **16** | **100.0%** | **-0.46 [-1.26, 0.34]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.12 (P = 0.26) | | | | | | | | |




Test for subgroup differences: Chi² = 2.37, df = 3 (P = 0.50), I² = 0%

**2.13 Treatment acceptability: 1. Leaving for any reason (SC)**

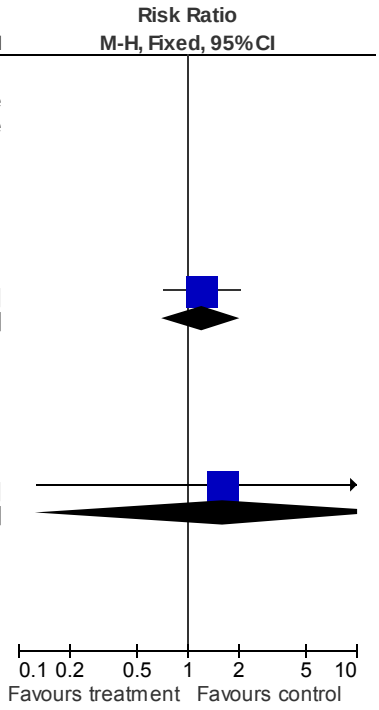
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.13.1 At end of treatment** | | | | | | |
| Bellack1984 | 15 | 44 | 6 | 20 | 21.7% | 1.14 [0.52, 2.49] |
| Peniston1988 | 0 | 14 | 0 | 14 | | Not estimable |
| CHOI2006 | 7 | 17 | 9 | 17 | 23.6% | 0.78 [0.38, 1.60] |
| CHIEN2003 | 7 | 42 | 1 | 44 | 2.6% | 7.33 [0.94, 57.09] |
| PATTERSON2003 | 4 | 17 | 4 | 17 | 10.5% | 1.00 [0.30, 3.36] |
| VALENCIA2007* | 6 | 49 | 10 | 49 | 26.3% | 0.60 [0.24, 1.52] |
| GRANHOLM2005* | 5 | 37 | 6 | 39 | 15.3% | 0.88 [0.29, 2.63] |
| **Subtotal (95% CI)** | | **220** | | **200** | **100.0%** | **1.02 [0.69, 1.50]** |
| Total events | 44 | | 36 | | | |
| Heterogeneity: Chi² = 5.46, df = 5 (P = 0.36); I² = 8% | | | | | | |
| Test for overall effect: Z = 0.08 (P = 0.94) | | | | | | |
| **2.13.2 At end of treatment - Sensitivity analysis removing Multimodal interventions** | | | | | | |
| Bellack1984 | 15 | 44 | 6 | 20 | 37.1% | 1.14 [0.52, 2.49] |
| Peniston1988 | 0 | 14 | 0 | 14 | | Not estimable |
| PATTERSON2003 | 4 | 17 | 4 | 17 | 18.0% | 1.00 [0.30, 3.36] |
| CHIEN2003 | 7 | 42 | 1 | 44 | 4.4% | 7.33 [0.94, 57.09] |
| CHOI2006 | 7 | 17 | 9 | 17 | 40.5% | 0.78 [0.38, 1.60] |
| **Subtotal (95% CI)** | | **134** | | **112** | **100.0%** | **1.24 [0.78, 1.98]** |
| Total events | 33 | | 20 | | | |
| Heterogeneity: Chi² = 4.64, df = 3 (P = 0.20); I² = 35% | | | | | | |
| Test for overall effect: Z = 0.90 (P = 0.37) | | | | | | |




**3 Social skills training versus other active treatments**

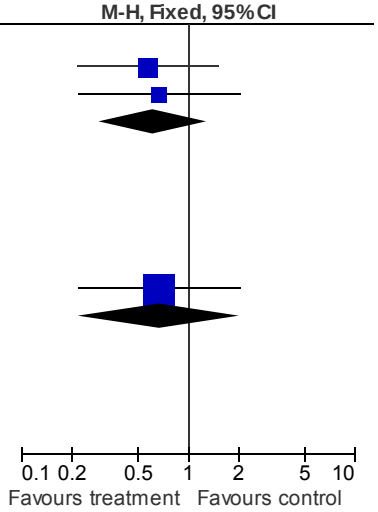
**3.1 Service Outcome: 1. Unable to be discharged from hospitalisation**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.1.1 At end of treatment** | | | | | | |
| NG2006 | 0 | 18 | 0 | 18 | | Not estimable |
| **Subtotal (95% CI)** | | **18** | | **18** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **3.1.2 Up to 6 months FU** | | | | | | |
| NG2006 | 12 | 18 | 10 | 18 | 100.0% | 1.20 [0.71, 2.03] |
| **Subtotal (95% CI)** | | **18** | | **18** | **100.0%** | **1.20 [0.71, 2.03]** |
| Total events | 12 | | 10 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.68 (P = 0.50) | | | | | | |
| **3.1.3 Readmission following discharge** | | | | | | |
| NG2006 | 1 | 5 | 1 | 8 | 100.0% | 1.60 [0.13, 20.22] |
| **Subtotal (95% CI)** | | **5** | | **8** | **100.0%** | **1.60 [0.13, 20.22]** |
| Total events | 1 | | 1 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.36 (P = 0.72) | | | | | | |




**3.2 Service Outcome: 2. Rehospitalisation**

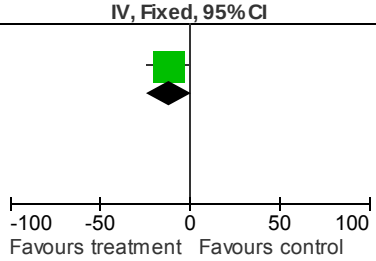
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.2.2 Up to 12 months FU** | | | | | | |
| Lukoff1986* | 4 | 14 | 7 | 14 | 56.2% | 0.57 [0.21, 1.52] |
| Dobson1995 | 4 | 18 | 5 | 15 | 43.8% | 0.67 [0.22, 2.05] |
| **Subtotal (95% CI)** | | **32** | | **29** | **100.0%** | **0.61 [0.29, 1.28]** |
| Total events | 8 | | 12 | | | |
| Heterogeneity: Chi² = 0.04, df = 1 (P = 0.84); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.30 (P = 0.19) | | | | | | |
| **3.2.3 Up to 12 months FU (sensitivity analysis - possible MM interventions removed)** | | | | | | |
| Dobson1995 | 4 | 18 | 5 | 15 | 100.0% | 0.67 [0.22, 2.05] |
| **Subtotal (95% CI)** | | **18** | | **15** | **100.0%** | **0.67 [0.22, 2.05]** |
| Total events | 4 | | 5 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.71 (P = 0.48) | | | | | | |



**3.3 Service Outcome: 3. Mean duration of re-hospitalisation**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.3.1 Up to 12 months FU** | | | | | | | | |
| Dobson1995 | 3.47 | 8.25 | 18 | 15.42 | 23.48 | 15 | 100.0% | -11.95 [-24.43, 0.53] |
| **Subtotal (95% CI)** | | | **18** | | | **15** | **100.0%** | **-11.95 [-24.43, 0.53]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 1.88 (P = 0.06)

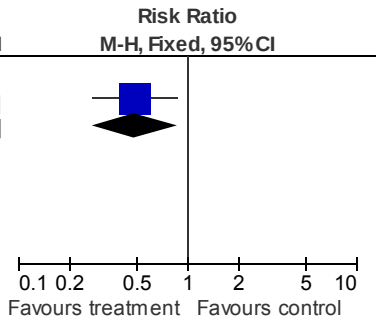



Test for subgroup differences: Not applicable

**3.4 Service Outcome: 4. Emergency service use**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.4.1 At end of treatment** | | | | | | |
| PATTERSON2006 | 14 | 106 | 27 | 99 | 100.0% | 0.48 [0.27, 0.87] |
| **Subtotal (95% CI)** | | **106** | | **99** | **100.0%** | **0.48 [0.27, 0.87]** |
| Total events | 14 | | 27 | | | |

Heterogeneity: Not applicable
Test for overall effect: Z = 2.43 (P = 0.02)



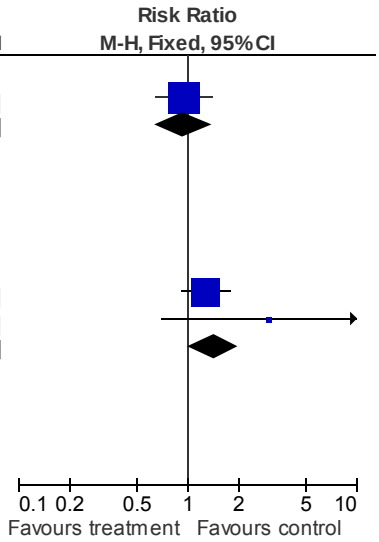

**3.5 Global state: 1. Relapse (at end of treatment)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.5.1 One year into treatment programme** | | | | | | |
| Marder1996 | 23 | 43 | 21 | 37 | 100.0% | 0.94 [0.63, 1.40] |
| **Subtotal (95% CI)** | | **43** | | **37** | **100.0%** | **0.94 [0.63, 1.40]** |
| Total events | 23 | | 21 | | | |

Heterogeneity: Not applicable
Test for overall effect: Z = 0.29 (P = 0.77)

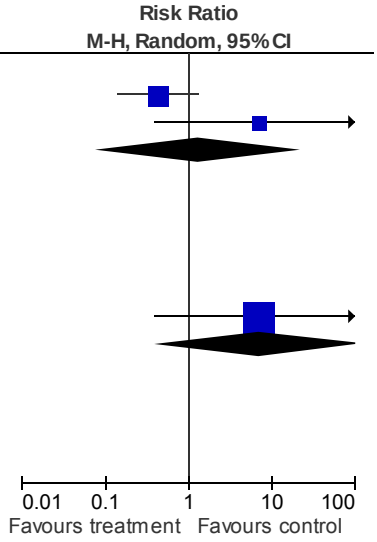
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.5.2 At end of treatment** | | | | | | |
| Marder1996 | 31 | 43 | 21 | 37 | 91.9% | 1.27 [0.91, 1.78] |
| NG2006 | 6 | 18 | 2 | 18 | 8.1% | 3.00 [0.70, 12.93] |
| **Subtotal (95% CI)** | | **61** | | **55** | **100.0%** | **1.41 [1.00, 1.98]** |
| Total events | 37 | | 23 | | | |

Heterogeneity: Chi² = 1.40, df = 1 (P = 0.24); I² = 28%
Test for overall effect: Z = 1.98 (P = 0.05)



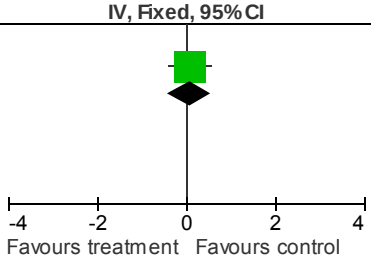
**3.6 Global state: 1. Relapse (at Follow up)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **3.6.1 Up to 12 months FU** | | | | | | |
| Lukoff1986* | 3 | 14 | 7 | 14 | 60.5% | 0.43 [0.14, 1.33] |
| NG2006 | 3 | 18 | 0 | 18 | 39.5% | 7.00 [0.39, 126.48] |
| **Subtotal (95% CI)** | | **32** | | **32** | **100.0%** | **1.29 [0.08, 22.03]** |
| Total events | 6 | | 7 | | | |
| Heterogeneity: Tau² = 3.13; Chi² = 3.49, df = 1 (P = 0.06); I² = 71% | | | | | | |
| Test for overall effect: Z = 0.18 (P = 0.86) | | | | | | |
| **3.6.2 up to 12 months FU (sensitivity analysis - possible MM interventions removed)** | | | | | | |
| NG2006 | 3 | 18 | 0 | 18 | 100.0% | 7.00 [0.39, 126.48] |
| **Subtotal (95% CI)** | | **18** | | **18** | **100.0%** | **7.00 [0.39, 126.48]** |
| Total events | 3 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.32 (P = 0.19) | | | | | | |




**3.7 Global state: 2. GAS, GAF (signs reversed)**

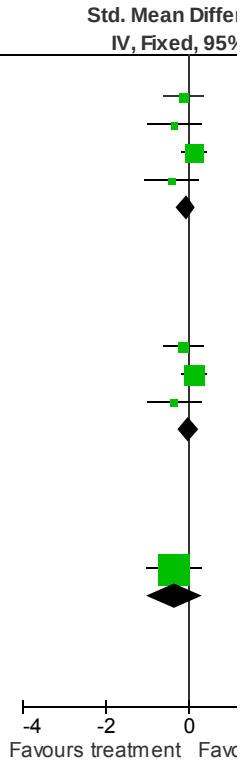
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.7.1 Global adjustment: GAS, GAF(signs reversed)** | | | | | | | | |
| Hayes1995 | -49.1 | 14.2 | 32 | -50.2 | 15.8 | 32 | 100.0% | 0.07 [-0.42, 0.56] |
| **Subtotal (95% CI)** | | | **32** | | | **32** | **100.0%** | **0.07 [-0.42, 0.56]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.29 (P = 0.77) | | | | | | | | |




Test for subgroup differences: Not applicable

**3.8 Mental state: 1. Continuous measures - total symptom score (lower = better)**

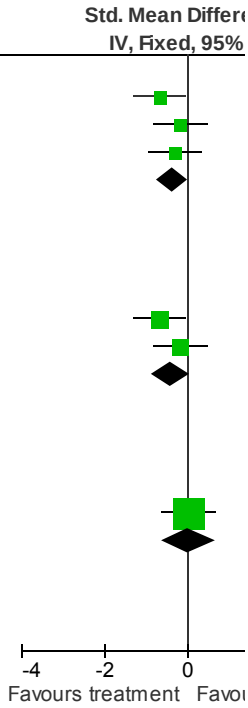
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.8.1 total symptom score (BPRS, PANSS) - at end of treatment** | | | | | | | | |
| Hayes1995 | 46.5 | 9.9 | 32 | 48.3 | 14.4 | 32 | 21.8% | -0.14 [-0.63, 0.35] |
| NG2006 | 38.1 | 7.4 | 18 | 41.6 | 11.1 | 18 | 12.1% | -0.36 [-1.02, 0.30] |
| PATTERSON2006 | 61.8 | 24.45 | 82 | 59.1 | 23.54 | 76 | 53.8% | 0.11 [-0.20, 0.42] |
| PINTO1999* | 38.1 | 21.7 | 19 | 45.7 | 11 | 18 | 12.3% | -0.43 [-1.08, 0.22] |
| **Subtotal (95% CI)** | | | **151** | | | **144** | **100.0%** | **-0.07 [-0.30, 0.16]** |
| Heterogeneity: Chi² = 3.31, df = 3 (P = 0.35); I² = 9% | | | | | | | | |
| Test for overall effect: Z = 0.58 (P = 0.56) | | | | | | | | |
| **3.8.2 total symptom score (BPRS, PANSS) - at end of treatment - sensitivity analysis removing Multimodal studies** | | | | | | | | |
| Hayes1995 | 46.5 | 9.9 | 32 | 48.3 | 14.4 | 32 | 24.9% | -0.14 [-0.63, 0.35] |
| PATTERSON2006 | 61.8 | 24.45 | 82 | 59.1 | 23.54 | 76 | 61.4% | 0.11 [-0.20, 0.42] |
| NG2006 | 38.1 | 7.4 | 18 | 41.6 | 11.1 | 18 | 13.8% | -0.36 [-1.02, 0.30] |
| **Subtotal (95% CI)** | | | **132** | | | **126** | **100.0%** | **-0.02 [-0.26, 0.23]** |
| Heterogeneity: Chi² = 1.97, df = 2 (P = 0.37); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.14 (P = 0.89) | | | | | | | | |
| **3.8.3 total symptom score (BPRS, PANSS) - up to 6 months FU** | | | | | | | | |
| NG2006 | 36.6 | 11.4 | 18 | 40.7 | 10.5 | 18 | 100.0% | -0.37 [-1.03, 0.29] |
| **Subtotal (95% CI)** | | | **18** | | | **18** | **100.0%** | **-0.37 [-1.03, 0.29]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.09 (P = 0.28) | | | | | | | | |




Test for subgroup differences: Chi² = 0.95, df = 2 (P = 0.62), I² = 0%

**3.9 Mental state: 2. Continuous measures - negative symptoms (lower = better)**

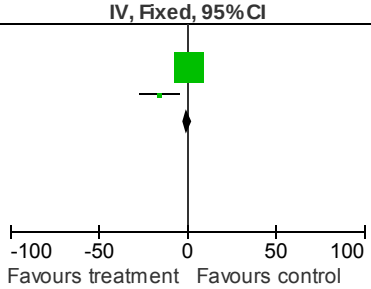
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.9.1 negative symptoms (PANSS, SANS) - at end of treatment** | | | | | | | | |
| Daniels1998 | 42.53 | 11.07 | 20 | 50.56 | 12.25 | 20 | 34.2% | -0.67 [-1.31, -0.04] |
| NG2006 | 38.3 | 14.8 | 18 | 41 | 14.8 | 18 | 32.6% | -0.18 [-0.83, 0.48] |
| PINTO1999* | 46.9 | 22.1 | 19 | 53.5 | 19.1 | 18 | 33.2% | -0.31 [-0.96, 0.34] |
| **Subtotal (95% CI)** | | | **57** | | | **56** | **100.0%** | **-0.39 [-0.77, -0.02]** |
| Heterogeneity: Chi² = 1.22, df = 2 (P = 0.54); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 2.06 (P = 0.04) | | | | | | | | |
| **3.9.2 negative symptoms (PANSS, SANS) - at end of treatment - sensitivity analysis removing Multimodal studies** | | | | | | | | |
| Daniels1998 | 42.53 | 11.07 | 20 | 50.56 | 12.25 | 20 | 51.2% | -0.67 [-1.31, -0.04] |
| NG2006 | 38.3 | 14.8 | 18 | 41 | 14.8 | 18 | 48.8% | -0.18 [-0.83, 0.48] |
| **Subtotal (95% CI)** | | | **38** | | | **38** | **100.0%** | **-0.43 [-0.89, 0.03]** |
| Heterogeneity: Chi² = 1.13, df = 1 (P = 0.29); I² = 11% | | | | | | | | |
| Test for overall effect: Z = 1.85 (P = 0.06) | | | | | | | | |
| **3.9.3 negative symptoms (PANSS, SANS) - up to 6 months FU** | | | | | | | | |
| NG2006 | 33.2 | 14 | 18 | 33 | 12.7 | 18 | 100.0% | 0.01 [-0.64, 0.67] |
| **Subtotal (95% CI)** | | | **18** | | | **18** | **100.0%** | **0.01 [-0.64, 0.67]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.04 (P = 0.96) | | | | | | | | |




Test for subgroup differences: Chi² = 1.36, df = 2 (P = 0.51), I² = 0%

**3.10 Mental state: 3. Depression - Hamilton Depression Rating scale (lower = better)**

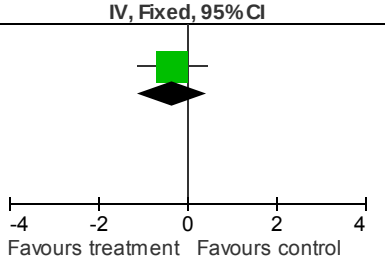
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.10.1 HAM-D (at end of treatment)** | | | | | | | | |
| PATTERSON2006 | 10.2 | 8.15 | 82 | 9.7 | 7.85 | 76 | 95.3% | 0.50 [-2.00, 3.00] |
| BROWN1983 | -16.6 | 12.89 | 12 | -0.8 | 15.8 | 13 | 4.7% | -15.80 [-27.07, -4.53] |
| **Subtotal (95% CI)** | | | **94** | | | **89** | **100.0%** | **-0.26 [-2.70, 2.17]** |
| Heterogeneity: Chi² = 7.66, df = 1 (P = 0.006); I² = 87% | | | | | | | | |
| Test for overall effect: Z = 0.21 (P = 0.83) | | | | | | | | |




Test for subgroup differences: Not applicable

**3.11 Mental state: 4: Anxiety - Social anxiety rating scale**

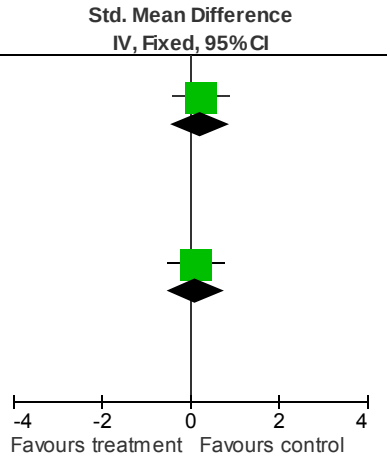
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.11.1 Hamilton Anxiety Rating Scale - end of treatment** | | | | | | | | |
| BROWN1983 | -12.56 | 26.78 | 12 | -1.93 | 31.11 | 13 | 100.0% | -0.35 [-1.14, 0.44] |
| **Subtotal (95% CI)** | | | **12** | | | **13** | **100.0%** | **-0.35 [-1.14, 0.44]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.87 (P = 0.38) | | | | | | | | |




Test for subgroup differences: Not applicable

**3.12 Psychosocial functioning: 1. Social Behaviour Schedule (lower = better)**

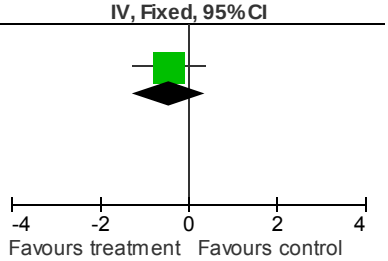
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.12.1 SBS Total - at end of treatment** | | | | | | | | |
| NG2006 | 7.2 | 3.9 | 18 | 6.3 | 4.1 | 18 | 100.0% | 0.22 [-0.44, 0.88] |
| **Subtotal (95% CI)** | | | **18** | | | **18** | **100.0%** | **0.22 [-0.44, 0.88]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.66 (P = 0.51) | | | | | | | | |
| **3.12.2 SBS Total - up to 6months** | | | | | | | | |
| NG2006 | 6.91 | 5.2 | 18 | 6.4 | 4.1 | 18 | 100.0% | 0.11 [-0.55, 0.76] |
| **Subtotal (95% CI)** | | | **18** | | | **18** | **100.0%** | **0.11 [-0.55, 0.76]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.32 (P = 0.75) | | | | | | | | |




Test for subgroup differences: Chi² = 0.06, df = 1 (P = 0.81), I² = 0%

**3.13 Psychosocial functioning: 2. SAS (lower = better)**

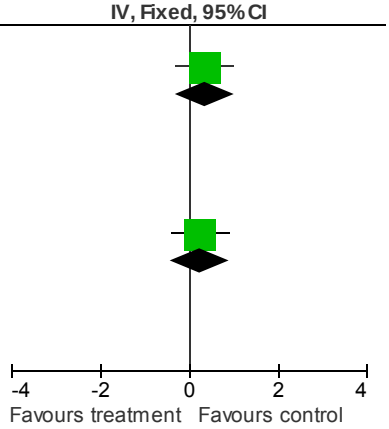
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.13.4 Social adjustment: SAS** | | | | | | | | |
| Marder1996 | 2.46 | 0.3 | 11 | 2.6 | 0.31 | 12 | 100.0% | -0.44 [-1.27, 0.39] |
| **Subtotal (95% CI)** | | | **11** | | | **12** | **100.0%** | **-0.44 [-1.27, 0.39]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.04 (P = 0.30) | | | | | | | | |




Test for subgroup differences: Not applicable

**3.14 Psychosocial functioning: 3. Social Functioning Scale (SFS) (signs reversed)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.14.1 SFS total - end of treatment** | | | | | | | | |
| NG2006 | -115.6 | 24 | 18 | -123.7 | 22.4 | 18 | 100.0% | 0.34 [-0.32, 1.00] |
| **Subtotal (95% CI)** | | | **18** | | | **18** | **100.0%** | **0.34 [-0.32, 1.00]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.02 (P = 0.31) | | | | | | | | |
| **3.14.2 SFS total - up to 6 months FU** | | | | | | | | |
| NG2006 | -115.9 | 15.8 | 18 | -120.5 | 21 | 18 | 100.0% | 0.24 [-0.41, 0.90] |
| **Subtotal (95% CI)** | | | **18** | | | **18** | **100.0%** | **0.24 [-0.41, 0.90]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.72 (P = 0.47) | | | | | | | | |

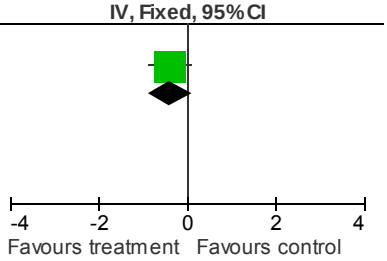



Test for subgroup differences: Chi² = 0.04, df = 1 (P = 0.83), I² = 0%

**3.15 Psychosocial functioning: 4. Conversational social skill (lower = better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.15.1 conversational social skill: SCON (lower=better)** | | | | | | | | |
| Hayes1995 | -32.6 | 4.2 | 32 | -30.5 | 6.1 | 32 | 100.0% | -0.40 [-0.89, 0.10] |
| **Subtotal (95% CI)** | | | **32** | | | **32** | **100.0%** | **-0.40 [-0.89, 0.10]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 1.57 (P = 0.12)

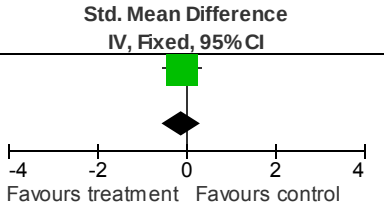



Test for subgroup differences: Not applicable

**3.16 Quality of life: 1. LQLS change score (lower=better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| Liberman1998 | -0.38 | 0.76 | 40 | -0.29 | 0.76 | 40 | 100.0% | -0.12 [-0.56, 0.32] |
| **Total (95% CI)** | | | **40** | | | **40** | **100.0%** | **-0.12 [-0.56, 0.32]** |

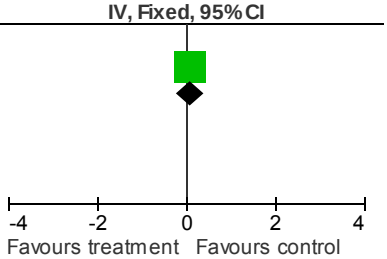
Heterogeneity: Not applicable
Test for overall effect: Z = 0.52 (P = 0.60)




**3.17 Quality of life: 2. QWB (signs reversed)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.17.1 Quality of well-being scale - at end of treatment** | | | | | | | | |
| PATTERSON2006 | -55 | 12.68 | 82 | -55.9 | 13.08 | 76 | 100.0% | 0.07 [-0.24, 0.38] |
| **Subtotal (95% CI)** | | | **82** | | | **76** | **100.0%** | **0.07 [-0.24, 0.38]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 0.44 (P = 0.66)

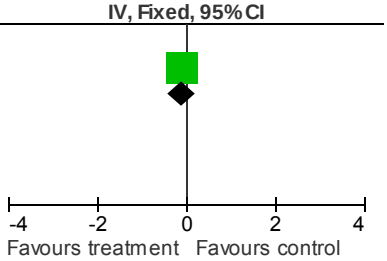



Test for subgroup differences: Not applicable

**3.18 Other: 1. UCSD performance based skills assessment (signs reversed)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.18.1 UCSD - at the end of treatment (all data)** | | | | | | | | |
| PATTERSON2006 | -70.7 | 21.73 | 82 | -68.2 | 21.79 | 76 | 100.0% | -0.11 [-0.43, 0.20] |
| **Subtotal (95% CI)** | | | **82** | | | **76** | **100.0%** | **-0.11 [-0.43, 0.20]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 0.72 (P = 0.47)

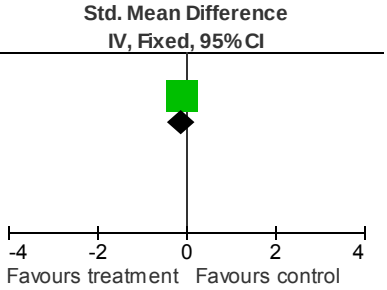



Test for subgroup differences: Not applicable

**3.19 Other: 2. SSPA social skills performance assessment (signs reversed)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.19.1 UCSD - at the end of treatment (all data)** | | | | | | | | |
| PATTERSON2006 | -29.3 | 8.15 | 82 | -28.4 | 7.85 | 76 | 100.0% | -0.11 [-0.42, 0.20] |
| **Subtotal (95% CI)** | | | **82** | | | **76** | **100.0%** | **-0.11 [-0.42, 0.20]** |

Heterogeneity: Not applicable
Test for overall effect: Z = 0.70 (P = 0.48)

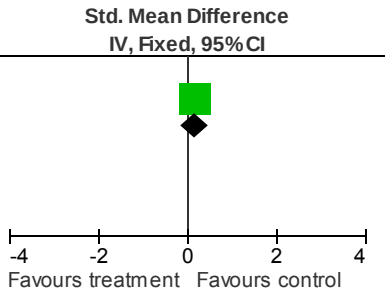



Test for subgroup differences: Not applicable

**3.20 Other: 3. MMAA Medication management abilities(signs reversed)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.20.1 UCSD - at the end of treatment (all data)** | | | | | | | | |
| PATTERSON2006 | -12.7 | 9.96 | 82 | -14.6 | 13.08 | 76 | 100.0% | 0.16 [-0.15, 0.48] |
| **Subtotal (95% CI)** | | | **82** | | | **76** | **100.0%** | **0.16 [-0.15, 0.48]** |

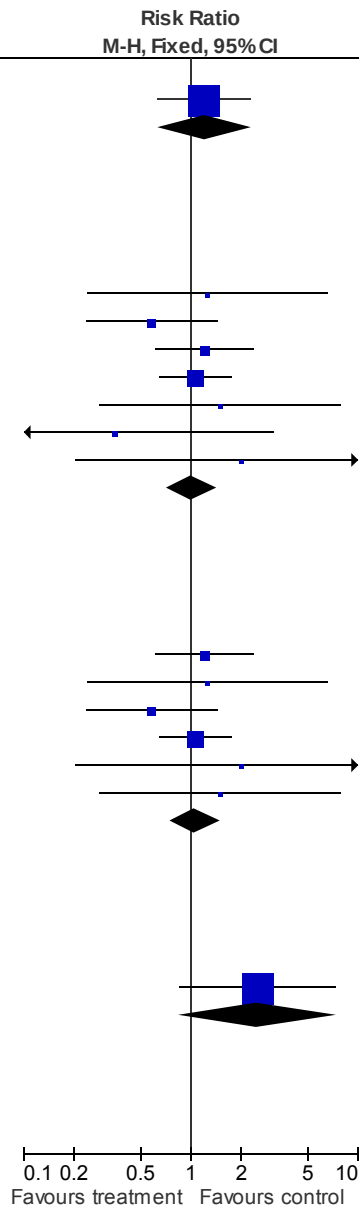
Heterogeneity: Not applicable
Test for overall effect: Z = 1.03 (P = 0.31)




Test for subgroup differences: Not applicable

**3.21 Treatment acceptability: 1. Leaving for any reason (OAT)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.21.1 Did not recieve the intervention for any reason** | | | | | | |
| PATTERSON2006 | 18 | 106 | 14 | 99 | 100.0% | 1.20 [0.63, 2.28] |
| **Subtotal (95% CI)** | | **106** | | **99** | **100.0%** | **1.20 [0.63, 2.28]** |
| Total events | 18 | | 14 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.56 (P = 0.58) | | | | | | |
| **3.21.2 Leaving for any reason - At end of treatment** | | | | | | |
| Dobson1995 | 3 | 18 | 2 | 15 | 4.3% | 1.25 [0.24, 6.53] |
| Eckmann1992 | 5 | 20 | 9 | 21 | 17.4% | 0.58 [0.24, 1.44] |
| Marder1996 | 14 | 43 | 10 | 37 | 21.3% | 1.20 [0.61, 2.38] |
| PATTERSON2006 | 25 | 106 | 22 | 99 | 45.1% | 1.06 [0.64, 1.76] |
| NG2006 | 3 | 18 | 2 | 18 | 4.0% | 1.50 [0.28, 7.93] |
| PINTO1999* | 1 | 20 | 3 | 21 | 5.8% | 0.35 [0.04, 3.09] |
| BROWN1983 | 2 | 14 | 1 | 14 | 2.0% | 2.00 [0.20, 19.62] |
| **Subtotal (95% CI)** | | **239** | | **225** | **100.0%** | **1.01 [0.72, 1.42]** |
| Total events | 53 | | 49 | | | |
| Heterogeneity: Chi² = 3.24, df = 6 (P = 0.78); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.07 (P = 0.95) | | | | | | |
| **3.21.3 Leaving for any reason - At end of treatment - sensitivity analysis removing Multimodal studies** | | | | | | |
| Marder1996 | 14 | 43 | 10 | 37 | 22.6% | 1.20 [0.61, 2.38] |
| Dobson1995 | 3 | 18 | 2 | 15 | 4.6% | 1.25 [0.24, 6.53] |
| Eckmann1992 | 5 | 20 | 9 | 21 | 18.5% | 0.58 [0.24, 1.44] |
| PATTERSON2006 | 25 | 106 | 22 | 99 | 47.9% | 1.06 [0.64, 1.76] |
| BROWN1983 | 2 | 14 | 1 | 14 | 2.1% | 2.00 [0.20, 19.62] |
| NG2006 | 3 | 18 | 2 | 18 | 4.2% | 1.50 [0.28, 7.93] |
| **Subtotal (95% CI)** | | **219** | | **204** | **100.0%** | **1.05 [0.74, 1.49]** |
| Total events | 52 | | 46 | | | |
| Heterogeneity: Chi² = 2.30, df = 5 (P = 0.81); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.29 (P = 0.77) | | | | | | |
| **3.21.4 Up to 18 months FU** | | | | | | |
| Liberman1998 | 10 | 42 | 4 | 42 | 100.0% | 2.50 [0.85, 7.35] |
| **Subtotal (95% CI)** | | **42** | | **42** | **100.0%** | **2.50 [0.85, 7.35]** |
| Total events | 10 | | 4 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.67 (P = 0.10) | | | | | | |

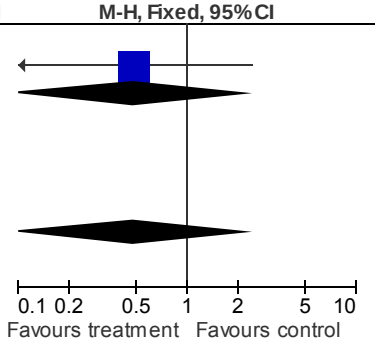


# Psychological clinical evidence: Social skills training (subgroup analyses)

**1 Clinic based social skills training versus clinic based social skills training and *in vivo* skills training**

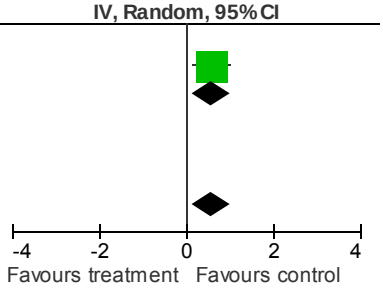
**1.1 Global state: 1. Relapse**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.1.1 At end of treatment** | | | | | | |
| GLYNN2002 | 2 | 32 | 4 | 31 | 100.0% | 0.48 [0.10, 2.46] |
| **Subtotal (95% CI)** | | **32** | | **31** | **100.0%** | **0.48 [0.10, 2.46]** |
| Total events | 2 | | 4 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.87 (P = 0.38) | | | | | | |
| **Total (95% CI)** | | **32** | | **31** | **100.0%** | **0.48 [0.10, 2.46]** |
| Total events | 2 | | 4 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.87 (P = 0.38) | | | | | | |



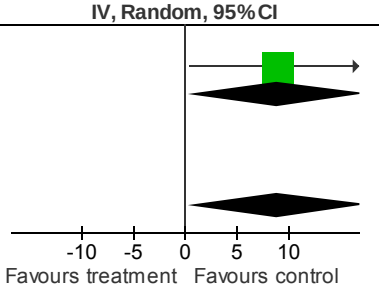

**1.2 Psychosocial functioning - Social adjustment scale**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.2.1 At end of treatment** | | | | | | | | |
| GLYNN2002 | -0.45 | 0.75 | 22 | -1.01 | 0.78 | 24 | 100.0% | 0.56 [0.12, 1.00] |
| **Subtotal (95% CI)** | | | **22** | | | **24** | **100.0%** | **0.56 [0.12, 1.00]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.48 (P = 0.01) | | | | | | | | |
| **Total (95% CI)** | | | **22** | | | **24** | **100.0%** | **0.56 [0.12, 1.00]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.48 (P = 0.01) | | | | | | | | |




**1.3 Quality of life - total score**

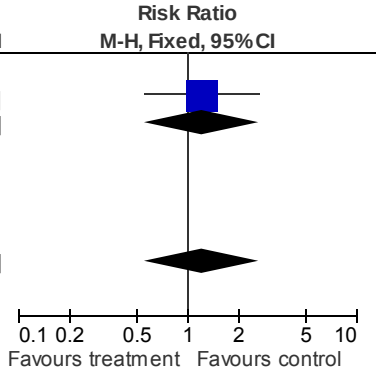
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **1.3.1 At end of treatment** | | | | | | | | |
| GLYNN2002 | -6.7 | 14.4 | 22 | -15.62 | 15.04 | 24 | 100.0% | 8.92 [0.41, 17.43] |
| **Subtotal (95% CI)** | | | **22** | | | **24** | **100.0%** | **8.92 [0.41, 17.43]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.05 (P = 0.04) | | | | | | | | |
| **Total (95% CI)** | | | **22** | | | **24** | **100.0%** | **8.92 [0.41, 17.43]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 2.05 (P = 0.04) | | | | | | | | |



# Psychological clinical evidence: Social skills training (subgroup analyses)

**1.4 Treatment acceptability - leaving the study early for any reason**

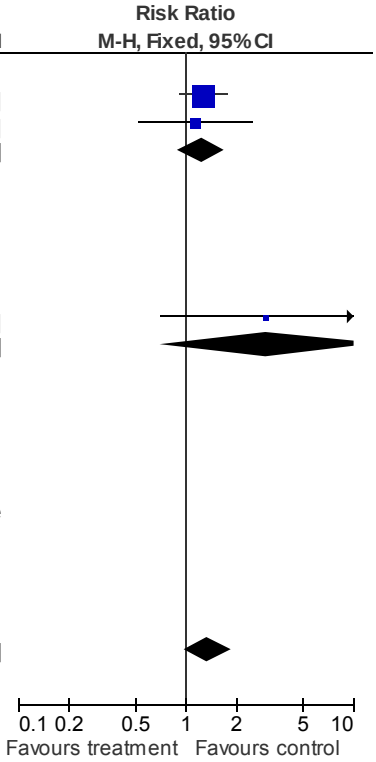
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **1.4.1 At end of treatment** | | | | | | |
| GLYNN2002 | 10 | 32 | 8 | 31 | 100.0% | 1.21 [0.55, 2.66] |
| **Subtotal (95% CI)** | | **32** | | **31** | **100.0%** | **1.21 [0.55, 2.66]** |
| Total events | 10 | | 8 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.48 (P = 0.63) | | | | | | |
| **Total (95% CI)** | | **32** | | **31** | **100.0%** | **1.21 [0.55, 2.66]** |
| Total events | 10 | | 8 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.48 (P = 0.63) | | | | | | |




**2 Social skills training versus any control - subgroup analysis by setting**

**2.1 Global State: 1. Relapse (at end of treatment)**

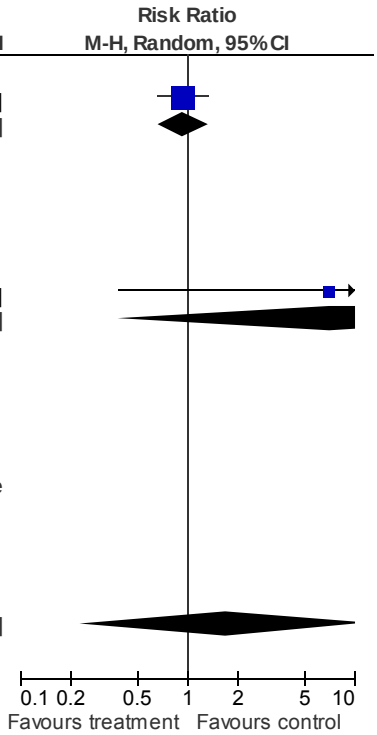
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.1.1 At end of treatment (outpatient setting)** | | | | | | |
| Marder 1996 | 31 | 43 | 21 | 37 | 68.8% | 1.27 [0.91, 1.78] |
| Bellack 1984 | 15 | 44 | 6 | 20 | 25.1% | 1.14 [0.52, 2.49] |
| **Subtotal (95% CI)** | | **87** | | **57** | **93.9%** | **1.23 [0.89, 1.70]** |
| Total events | 46 | | 27 | | | |
| Heterogeneity: Chi² = 0.07, df = 1 (P = 0.79); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.28 (P = 0.20) | | | | | | |
| **2.1.5 At end of treatment (inpatient setting)** | | | | | | |
| NG2006 | 6 | 18 | 2 | 18 | 6.1% | 3.00 [0.70, 12.93] |
| **Subtotal (95% CI)** | | **18** | | **18** | **6.1%** | **3.00 [0.70, 12.93]** |
| Total events | 6 | | 2 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.47 (P = 0.14) | | | | | | |
| **2.1.6 At end of treatment (other: e.g. day hospitals)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **Total (95% CI)** | | **105** | | **75** | **100.0%** | **1.34 [0.98, 1.85]** |
| Total events | 52 | | 29 | | | |
| Heterogeneity: Chi² = 1.44, df = 2 (P = 0.49); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.81 (P = 0.07) | | | | | | |



# Psychological clinical evidence: Social skills training (subgroup analyses)

**2.2 Global State: 1. Relapse (up to 12 months FU)**

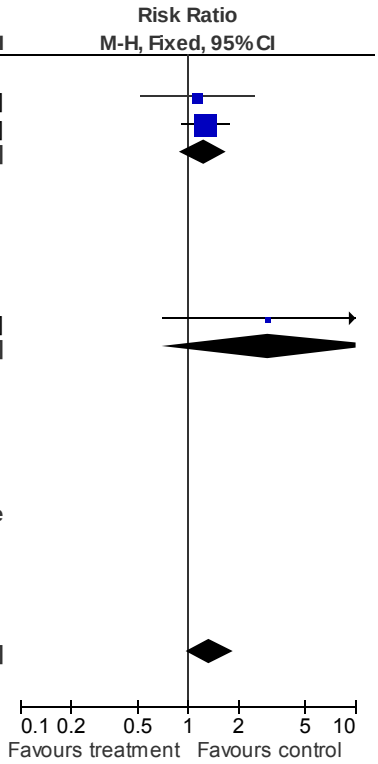
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **2.2.1 Up to 12 months FU (outpatient setting)** | | | | | | |
| Bellack 1984 | 29 | 44 | 14 | 20 | 71.4% | 0.94 [0.66, 1.35] |
| **Subtotal (95% CI)** | | **44** | | **20** | **71.4%** | **0.94 [0.66, 1.35]** |
| Total events | 29 | | 14 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.33 (P = 0.74) | | | | | | |
| **2.2.2 Up to 12 months FU (inpatient setting)** | | | | | | |
| NG2006 | 3 | 18 | 0 | 18 | 28.6% | 7.00 [0.39, 126.48] |
| **Subtotal (95% CI)** | | **18** | | **18** | **28.6%** | **7.00 [0.39, 126.48]** |
| Total events | 3 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.32 (P = 0.19) | | | | | | |
| **2.2.3 Up to 12 months FU (other: e.g. day hospitals)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **Total (95% CI)** | | **62** | | **38** | **100.0%** | **1.67 [0.23, 12.13]** |
| Total events | 32 | | 14 | | | |
| Heterogeneity: Tau² = 1.40; Chi² = 2.26, df = 1 (P = 0.13); I² = 56% | | | | | | |
| Test for overall effect: Z = 0.51 (P = 0.61) | | | | | | |



# Psychological clinical evidence: Social skills training (subgroup analyses)

**2.3 Global State: 2. Relapse and readmission (combined) (By 1 yr into treatment/ end of treatment)**

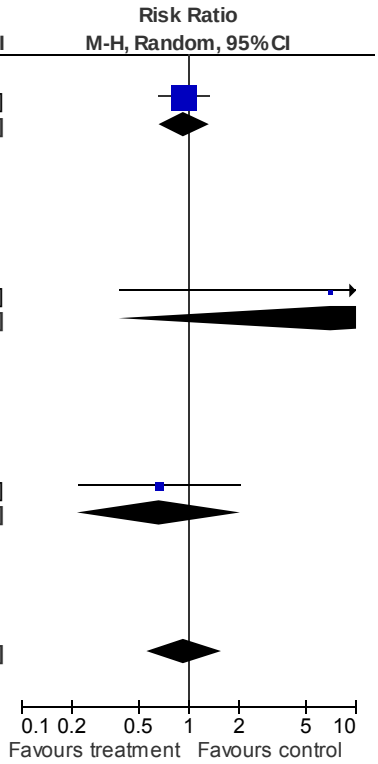
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **2.3.1 By 1 year into programme (outpatient setting)** | | | | | | |
| Bellack 1984 | 15 | 44 | 6 | 20 | 25.1% | 1.14 [0.52, 2.49] |
| Marder 1996 | 31 | 43 | 21 | 37 | 68.8% | 1.27 [0.91, 1.78] |
| **Subtotal (95% CI)** | | **87** | | **57** | **93.9%** | **1.23 [0.89, 1.70]** |
| Total events | 46 | | 27 | | | |
| Heterogeneity: Chi² = 0.07, df = 1 (P = 0.79); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.28 (P = 0.20) | | | | | | |
| **2.3.2 By 1 year into programme (inpatient setting)** | | | | | | |
| NG2006 | 6 | 18 | 2 | 18 | 6.1% | 3.00 [0.70, 12.93] |
| **Subtotal (95% CI)** | | **18** | | **18** | **6.1%** | **3.00 [0.70, 12.93]** |
| Total events | 6 | | 2 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.47 (P = 0.14) | | | | | | |
| **2.3.3 By 1 year into programme (other: e.g. day hospitals)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **Total (95% CI)** | | **105** | | **75** | **100.0%** | **1.34 [0.98, 1.85]** |
| Total events | 52 | | 29 | | | |
| Heterogeneity: Chi² = 1.44, df = 2 (P = 0.49); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.81 (P = 0.07) | | | | | | |



# Psychological clinical evidence: Social skills training (subgroup analyses)

**2.4 Global State: 2. Relapse and readmission (combined) (up to 12 months FU)**

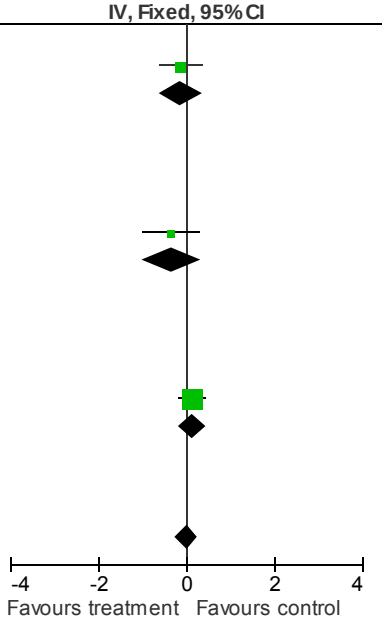
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **2.4.1 Up to 12 months FU (outpatient setting)** | | | | | | |
| Bellack 1984 | 29 | 44 | 14 | 20 | 78.6% | 0.94 [0.66, 1.35] |
| **Subtotal (95% CI)** | | **44** | | **20** | **78.6%** | **0.94 [0.66, 1.35]** |
| Total events | 29 | | 14 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.33 (P = 0.74) | | | | | | |
| **2.4.2 Up to 12 months FU (inpatient setting)** | | | | | | |
| NG2006 | 3 | 18 | 0 | 18 | 3.1% | 7.00 [0.39, 126.48] |
| **Subtotal (95% CI)** | | **18** | | **18** | **3.1%** | **7.00 [0.39, 126.48]** |
| Total events | 3 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.32 (P = 0.19) | | | | | | |
| **2.4.3 Up to 12 months FU (other: e.g. day hospitals)** | | | | | | |
| Dobson 1995 | 4 | 18 | 5 | 15 | 18.3% | 0.67 [0.22, 2.05] |
| **Subtotal (95% CI)** | | **18** | | **15** | **18.3%** | **0.67 [0.22, 2.05]** |
| Total events | 4 | | 5 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.71 (P = 0.48) | | | | | | |
| **Total (95% CI)** | | **80** | | **53** | **100.0%** | **0.94 [0.56, 1.58]** |
| Total events | 36 | | 19 | | | |
| Heterogeneity: Tau² = 0.06; Chi² = 2.36, df = 2 (P = 0.31); I² = 15% | | | | | | |
| Test for overall effect: Z = 0.23 (P = 0.82) | | | | | | |



# Psychological clinical evidence: Social skills training (subgroup analyses)

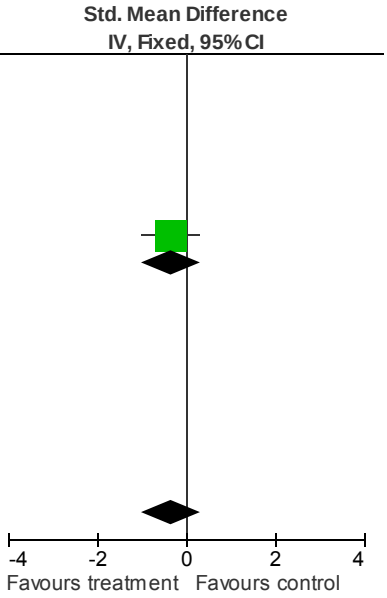
**2.5 Mental State: 1. Continuous measures - Total symptom score (Lower = better) (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.5.1 Total symptom score (BPRS, PANSS) - at end of treatment (outpatient setting)** | | | | | | | | |
| Hayes 1995 | 46.5 | 9.9 | 32 | 48.3 | 14.4 | 32 | 24.9% | -0.14 [-0.63, 0.35] |
| **Subtotal (95% CI)** | | | **32** | | | **32** | **24.9%** | **-0.14 [-0.63, 0.35]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.57 (P = 0.57) | | | | | | | | |
| **2.5.2 Total symptom score (BPRS, PANSS) - at end of treatment (inpatient setting)** | | | | | | | | |
| NG2006 | 38.1 | 7.4 | 18 | 41.6 | 11.1 | 18 | 13.8% | -0.36 [-1.02, 0.30] |
| **Subtotal (95% CI)** | | | **18** | | | **18** | **13.8%** | **-0.36 [-1.02, 0.30]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.08 (P = 0.28) | | | | | | | | |
| **2.5.3 Total symptom score (BPRS, PANSS) - at end of treatment (other: e.g. day hospitals)** | | | | | | | | |
| PATTERSON2006 | 61.8 | 24.45 | 82 | 59.1 | 23.54 | 76 | 61.4% | 0.11 [-0.20, 0.42] |
| **Subtotal (95% CI)** | | | **82** | | | **76** | **61.4%** | **0.11 [-0.20, 0.42]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.70 (P = 0.48) | | | | | | | | |
| **Total (95% CI)** | | | **132** | | | **126** | **100.0%** | **-0.02 [-0.26, 0.23]** |
| Heterogeneity: Chi² = 1.97, df = 2 (P = 0.37); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.14 (P = 0.89) | | | | | | | | |
| Test for subgroup differences: Chi² = 1.97, df = 2 (P = 0.37), I² = 0% | | | | | | | | |




**2.6 Mental State: 1. Continuous measures - Total symptom score (Lower = better) (at FU)**

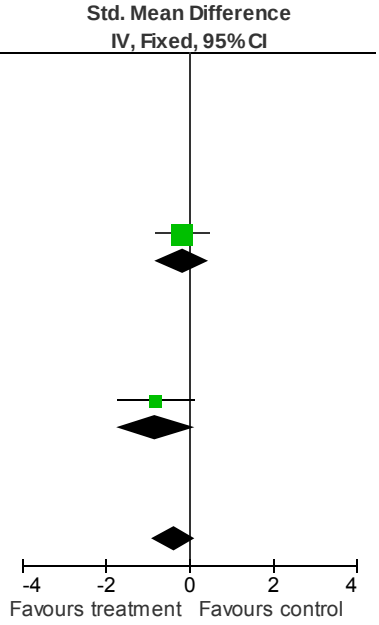
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.6.1 Total symptom score (BPRS, PANSS) - up to 6 months FU (outpatient setting)** | | | | | | | | |
| **Subtotal (95% CI)** | | | **0** | | | **0** | | **Not estimable** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Not applicable | | | | | | | | |
| **2.6.2 Total symptom score (BPRS, PANSS) - up to 6 months FU (inpatient setting)** | | | | | | | | |
| NG2006 | 36.6 | 11.4 | 18 | 40.7 | 10.5 | 18 | 100.0% | -0.37 [-1.03, 0.29] |
| **Subtotal (95% CI)** | | | **18** | | | **18** | **100.0%** | **-0.37 [-1.03, 0.29]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.09 (P = 0.28) | | | | | | | | |
| **2.6.3 Total symptom score (BPRS, PANSS) - up to 6 months FU (other: e.g. day hospitals)** | | | | | | | | |
| **Subtotal (95% CI)** | | | **0** | | | **0** | | **Not estimable** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Not applicable | | | | | | | | |
| **Total (95% CI)** | | | **18** | | | **18** | **100.0%** | **-0.37 [-1.03, 0.29]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.09 (P = 0.28) | | | | | | | | |
| Test for subgroup differences: Not applicable | | | | | | | | |



# Psychological clinical evidence: Social skills training (subgroup analyses)

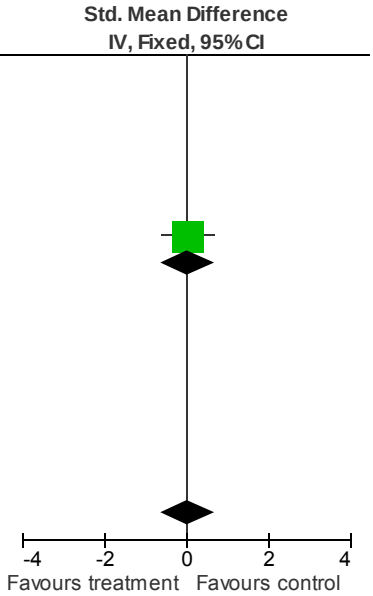
**2.7 Mental State: 2. Continuous measures - Negative symptom score (Lower = better) (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.7.1 Negative symptom score (PANSS, SANS) - at end of treatment (outpatient setting)** | | | | | | | | |
| **Subtotal (95% CI)** | | | **0** | | | **0** | | **Not estimable** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Not applicable | | | | | | | | |
| **2.7.2 Negative symptom score (PANSS, SANS) - at end of treatment (inpatient setting)** | | | | | | | | |
| NG2006 | 38.3 | 14.8 | 18 | 41 | 14.8 | 18 | 66.4% | -0.18 [-0.83, 0.48] |
| **Subtotal (95% CI)** | | | **18** | | | **18** | **66.4%** | **-0.18 [-0.83, 0.48]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.53 (P = 0.59) | | | | | | | | |
| **2.7.3 Negative symptom score (PANSS, SANS) - at end of treatment (other: e.g. day hospitals)** | | | | | | | | |
| RONCONE2004 | 7.2 | 3.1 | 10 | 10.1 | 3.7 | 10 | 33.6% | -0.81 [-1.73, 0.11] |
| **Subtotal (95% CI)** | | | **10** | | | **10** | **33.6%** | **-0.81 [-1.73, 0.11]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.73 (P = 0.08) | | | | | | | | |
| **Total (95% CI)** | | | **28** | | | **28** | **100.0%** | **-0.39 [-0.93, 0.14]** |
| Heterogeneity: Chi² = 1.22, df = 1 (P = 0.27); I² = 18% | | | | | | | | |
| Test for overall effect: Z = 1.44 (P = 0.15) | | | | | | | | |
| Test for subgroup differences: Chi² = 1.22, df = 1 (P = 0.27), I² = 17.7% | | | | | | | | |




**2.8 Mental State: 2. Continuous measures - Negative symptom score (Lower = better) (at FU)**

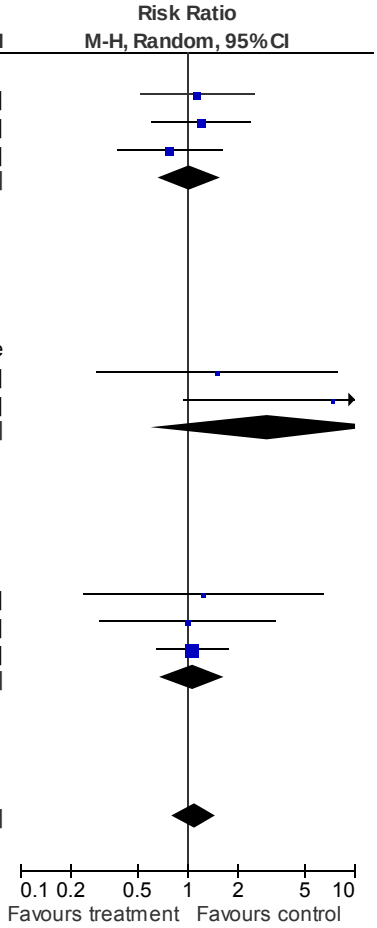
| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **2.8.1 Negative symptom score (PANSS, SANS) - up to 6 months FU (outpatient setting)** | | | | | | | | |
| **Subtotal (95% CI)** | | | **0** | | | **0** | | **Not estimable** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Not applicable | | | | | | | | |
| **2.8.2 Negative symptom score (PANSS, SANS) - up to 6 months FU (inpatient setting)** | | | | | | | | |
| NG2006 | 33.2 | 14 | 18 | 33 | 12.7 | 18 | 100.0% | 0.01 [-0.64, 0.67] |
| **Subtotal (95% CI)** | | | **18** | | | **18** | **100.0%** | **0.01 [-0.64, 0.67]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.04 (P = 0.96) | | | | | | | | |
| **2.8.3 Negative symptom score (PANSS, SANS) - up to 6 months FU (other: e.g. day hospitals)** | | | | | | | | |
| **Subtotal (95% CI)** | | | **0** | | | **0** | | **Not estimable** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Not applicable | | | | | | | | |
| **Total (95% CI)** | | | **18** | | | **18** | **100.0%** | **0.01 [-0.64, 0.67]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 0.04 (P = 0.96) | | | | | | | | |
| Test for subgroup differences: Not applicable | | | | | | | | |



# Psychological clinical evidence: Social skills training (subgroup analyses)

**2.9 Treatment Acceptability: 1. Leaving for any reason (at end of treatment)**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **2.9.1 At end of treatment (outpatient setting)** | | | | | | |
| Bellack 1984 | 15 | 44 | 6 | 20 | 14.4% | 1.14 [0.52, 2.49] |
| Marder 1996 | 14 | 43 | 10 | 37 | 19.1% | 1.20 [0.61, 2.38] |
| CHOI2006 | 7 | 17 | 9 | 17 | 16.9% | 0.78 [0.38, 1.60] |
| **Subtotal (95% CI)** | | **104** | | **74** | **50.4%** | **1.02 [0.67, 1.56]** |
| Total events | 36 | | 25 | | | |
| Heterogeneity: Tau² = 0.00; Chi² = 0.85, df = 2 (P = 0.65); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.10 (P = 0.92) | | | | | | |
| **2.9.2 At end of treatment (inpatient setting)** | | | | | | |
| Peniston 1988 | 0 | 14 | 0 | 14 | | Not estimable |
| NG2006 | 3 | 18 | 2 | 18 | 3.2% | 1.50 [0.28, 7.93] |
| CHIEN2003 | 7 | 42 | 1 | 44 | 2.1% | 7.33 [0.94, 57.09] |
| **Subtotal (95% CI)** | | **74** | | **76** | **5.3%** | **2.97 [0.61, 14.50]** |
| Total events | 10 | | 3 | | | |
| Heterogeneity: Tau² = 0.43; Chi² = 1.47, df = 1 (P = 0.23); I² = 32% | | | | | | |
| Test for overall effect: Z = 1.34 (P = 0.18) | | | | | | |
| **2.9.3 At end of treatment (other: e.g. day hospitals)** | | | | | | |
| Dobson 1995 | 3 | 18 | 2 | 15 | 3.2% | 1.25 [0.24, 6.53] |
| PATTERSON2003 | 4 | 17 | 4 | 17 | 6.0% | 1.00 [0.30, 3.36] |
| PATTERSON2006 | 25 | 106 | 22 | 99 | 35.0% | 1.06 [0.64, 1.76] |
| **Subtotal (95% CI)** | | **141** | | **131** | **44.3%** | **1.07 [0.68, 1.67]** |
| Total events | 32 | | 28 | | | |
| Heterogeneity: Tau² = 0.00; Chi² = 0.05, df = 2 (P = 0.98); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.28 (P = 0.78) | | | | | | |
| **Total (95% CI)** | | **319** | | **281** | **100.0%** | **1.10 [0.82, 1.48]** |
| Total events | 78 | | 56 | | | |
| Heterogeneity: Tau² = 0.00; Chi² = 4.63, df = 7 (P = 0.71); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.62 (P = 0.53) | | | | | | |

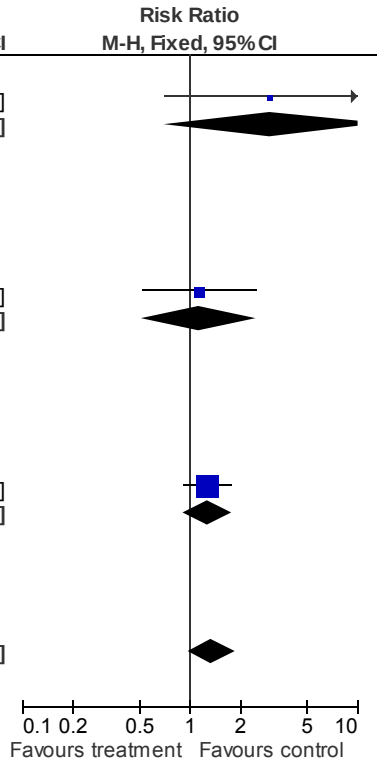



**3 Social skills training versus any control - subgroup analysis by duration**

# Psychological clinical evidence: Social skills training (subgroup analyses)

**3.1 Global State: 1. Relapse (at end of treatment)**

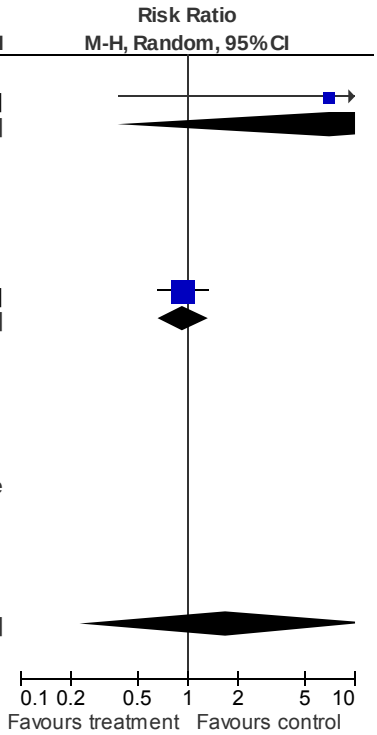
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.1.1 At end of treatment (short: 0-11 weeks)** | | | | | | |
| NG2006 | 6 | 18 | 2 | 18 | 6.1% | 3.00 [0.70, 12.93] |
| **Subtotal (95% CI)** | | **18** | | **18** | **6.1%** | **3.00 [0.70, 12.93]** |
| Total events | 6 | | 2 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.47 (P = 0.14) | | | | | | |
| **3.1.2 At end of treatment (medium: 12-51 weeks)** | | | | | | |
| Bellack 1984 | 15 | 44 | 6 | 20 | 25.1% | 1.14 [0.52, 2.49] |
| **Subtotal (95% CI)** | | **44** | | **20** | **25.1%** | **1.14 [0.52, 2.49]** |
| Total events | 15 | | 6 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.32 (P = 0.75) | | | | | | |
| **3.1.3 At end of treatment (long: >52 weeks)** | | | | | | |
| Marder 1996 | 31 | 43 | 21 | 37 | 68.8% | 1.27 [0.91, 1.78] |
| **Subtotal (95% CI)** | | **43** | | **37** | **68.8%** | **1.27 [0.91, 1.78]** |
| Total events | 31 | | 21 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.39 (P = 0.16) | | | | | | |
| **Total (95% CI)** | | **105** | | **75** | **100.0%** | **1.34 [0.98, 1.85]** |
| Total events | 52 | | 29 | | | |
| Heterogeneity: Chi² = 1.44, df = 2 (P = 0.49); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.81 (P = 0.07) | | | | | | |



# Psychological clinical evidence: Social skills training (subgroup analyses)

**3.2 Global State: 1. Relapse (up to 12 months FU)**

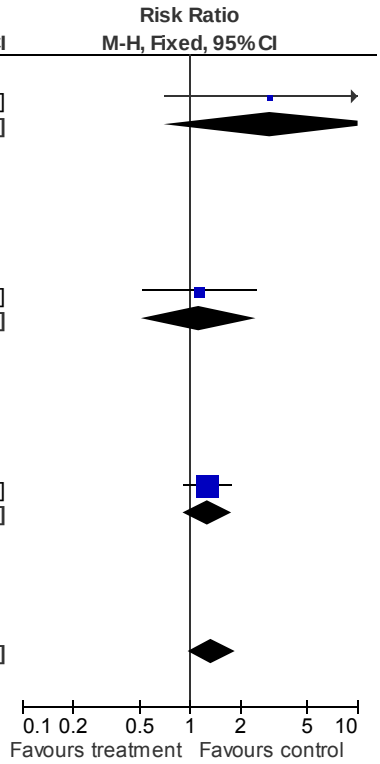
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Random, 95% CI |
|---|---|---|---|---|---|---|
| **3.2.1 Up to 12 months FU (short: 0-11 weeks)** | | | | | | |
| NG2006 | 3 | 18 | 0 | 18 | 28.6% | 7.00 [0.39, 126.48] |
| **Subtotal (95% CI)** | | **18** | | **18** | **28.6%** | **7.00 [0.39, 126.48]** |
| Total events | 3 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.32 (P = 0.19) | | | | | | |
| **3.2.2 Up to 12 months FU (medium: 12-51 weeks)** | | | | | | |
| Bellack 1984 | 29 | 44 | 14 | 20 | 71.4% | 0.94 [0.66, 1.35] |
| **Subtotal (95% CI)** | | **44** | | **20** | **71.4%** | **0.94 [0.66, 1.35]** |
| Total events | 29 | | 14 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.33 (P = 0.74) | | | | | | |
| **3.2.3 Up to 12 months FU (long: >52 weeks)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **Total (95% CI)** | | **62** | | **38** | **100.0%** | **1.67 [0.23, 12.13]** |
| Total events | 32 | | 14 | | | |
| Heterogeneity: Tau² = 1.40; Chi² = 2.26, df = 1 (P = 0.13); I² = 56% | | | | | | |
| Test for overall effect: Z = 0.51 (P = 0.61) | | | | | | |



# Psychological clinical evidence: Social skills training (subgroup analyses)

**3.3 Global State: 2. Relapse and Readmission (combined) (By 1 year into programme/ end of treatment)**

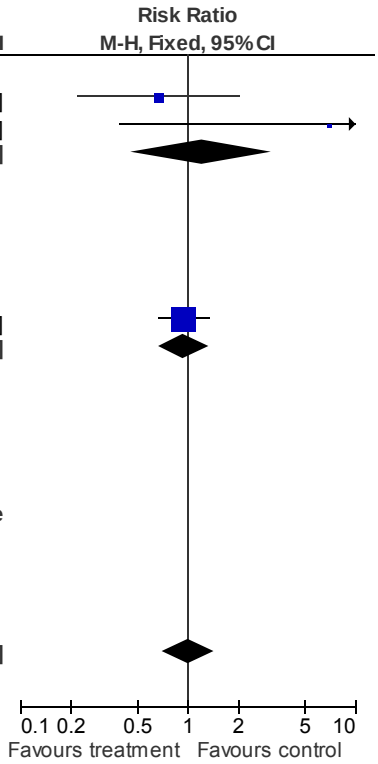
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.3.1 By 1 year into programme (short: 0-11 weeks)** | | | | | | |
| NG2006 | 6 | 18 | 2 | 18 | 6.1% | 3.00 [0.70, 12.93] |
| **Subtotal (95% CI)** | | **18** | | **18** | **6.1%** | **3.00 [0.70, 12.93]** |
| Total events | 6 | | 2 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.47 (P = 0.14) | | | | | | |
| **3.3.2 By 1 year into programme (medium: 12-51 weeks)** | | | | | | |
| Bellack 1984 | 15 | 44 | 6 | 20 | 25.1% | 1.14 [0.52, 2.49] |
| **Subtotal (95% CI)** | | **44** | | **20** | **25.1%** | **1.14 [0.52, 2.49]** |
| Total events | 15 | | 6 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.32 (P = 0.75) | | | | | | |
| **3.3.3 By 1 year into programme (long: >52 weeks)** | | | | | | |
| Marder 1996 | 31 | 43 | 21 | 37 | 68.8% | 1.27 [0.91, 1.78] |
| **Subtotal (95% CI)** | | **43** | | **37** | **68.8%** | **1.27 [0.91, 1.78]** |
| Total events | 31 | | 21 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 1.39 (P = 0.16) | | | | | | |
| **Total (95% CI)** | | **105** | | **75** | **100.0%** | **1.34 [0.98, 1.85]** |
| Total events | 52 | | 29 | | | |
| Heterogeneity: Chi² = 1.44, df = 2 (P = 0.49); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.81 (P = 0.07) | | | | | | |



# Psychological clinical evidence: Social skills training (subgroup analyses)

**3.4 Global State: 2. Relapse and Readmission (combined) (up to 12 months FU)**

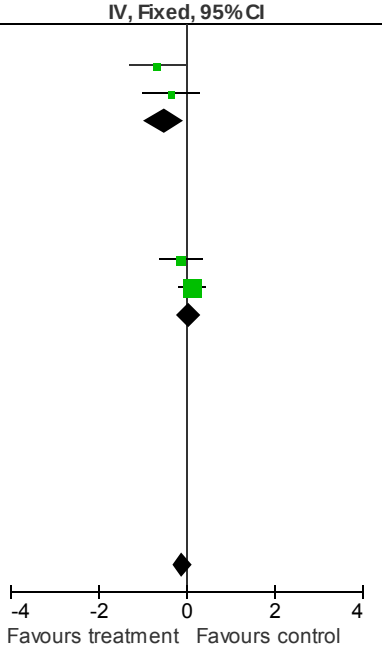
| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.4.1 Up to 12 months FU (short: 0-11 weeks)** | | | | | | |
| Dobson 1995 | 4 | 18 | 5 | 15 | 21.6% | 0.67 [0.22, 2.05] |
| NG2006 | 3 | 18 | 0 | 18 | 2.0% | 7.00 [0.39, 126.48] |
| **Subtotal (95% CI)** | | **36** | | **33** | **23.6%** | **1.20 [0.46, 3.15]** |
| Total events | 7 | | 5 | | | |
| Heterogeneity: Chi² = 2.48, df = 1 (P = 0.12); I² = 60% | | | | | | |
| Test for overall effect: Z = 0.37 (P = 0.71) | | | | | | |
| **3.4.2 Up to 12 months FU (medium: 12-51 weeks)** | | | | | | |
| Bellack 1984 | 29 | 44 | 14 | 20 | 76.4% | 0.94 [0.66, 1.35] |
| **Subtotal (95% CI)** | | **44** | | **20** | **76.4%** | **0.94 [0.66, 1.35]** |
| Total events | 29 | | 14 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.33 (P = 0.74) | | | | | | |
| **3.4.3 Up to 12 months FU (long: >52 weeks)** | | | | | | |
| **Subtotal (95% CI)** | | **0** | | **0** | | **Not estimable** |
| Total events | 0 | | 0 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Not applicable | | | | | | |
| **Total (95% CI)** | | **80** | | **53** | **100.0%** | **1.00 [0.70, 1.44]** |
| Total events | 36 | | 19 | | | |
| Heterogeneity: Chi² = 2.36, df = 2 (P = 0.31); I² = 15% | | | | | | |
| Test for overall effect: Z = 0.01 (P = 0.99) | | | | | | |



# Psychological clinical evidence: Social skills training (subgroup analyses)

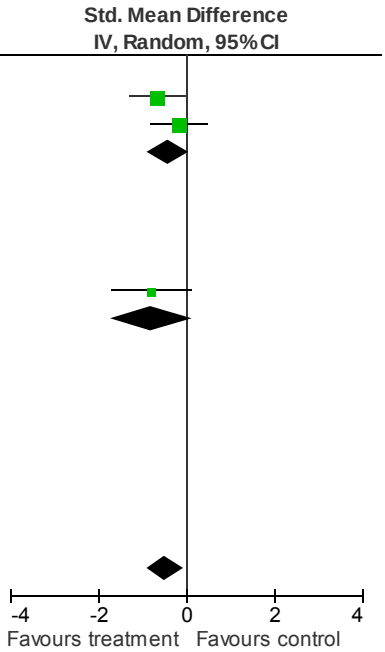
**3.5 Mental State: 1. Continuous measures - Total symptom score (lower = better) (at end of treatment)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Fixed, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.5.1 Total symptom score (BPRS, PANSS) - at end of treatment (short: 0-11 weeks)** | | | | | | | | |
| Daniels 1998 | 29.88 | 9.45 | 20 | 37.06 | 11.25 | 20 | 12.8% | -0.68 [-1.32, -0.04] |
| NG2006 | 38.1 | 7.4 | 18 | 41.6 | 11.1 | 18 | 12.0% | -0.36 [-1.02, 0.30] |
| **Subtotal (95% CI)** | | | **38** | | | **38** | **24.8%** | **-0.52 [-0.98, -0.07]** |
| Heterogeneity: Chi² = 0.45, df = 1 (P = 0.50); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 2.24 (P = 0.02) | | | | | | | | |
| **3.5.2 Total symptom score (BPRS, PANSS) - at end of treatment (medium: 12-51 weeks)** | | | | | | | | |
| Hayes 1995 | 46.5 | 9.9 | 32 | 48.3 | 14.4 | 32 | 21.7% | -0.14 [-0.63, 0.35] |
| PATTERSON2006 | 61.8 | 24.45 | 82 | 59.1 | 23.54 | 76 | 53.5% | 0.11 [-0.20, 0.42] |
| **Subtotal (95% CI)** | | | **114** | | | **108** | **75.2%** | **0.04 [-0.23, 0.30]** |
| Heterogeneity: Chi² = 0.74, df = 1 (P = 0.39); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 0.28 (P = 0.78) | | | | | | | | |
| **3.5.3 Total symptom score (BPRS, PANSS) - at end of treatment (long: >52 weeks)** | | | | | | | | |
| **Subtotal (95% CI)** | | | **0** | | | **0** | | **Not estimable** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Not applicable | | | | | | | | |
| **Total (95% CI)** | | | **152** | | | **146** | **100.0%** | **-0.10 [-0.33, 0.13]** |
| Heterogeneity: Chi² = 5.54, df = 3 (P = 0.14); I² = 46% | | | | | | | | |
| Test for overall effect: Z = 0.87 (P = 0.38) | | | | | | | | |
| Test for subgroup differences: Chi² = 4.35, df = 1 (P = 0.04), I² = 77.0% | | | | | | | | |

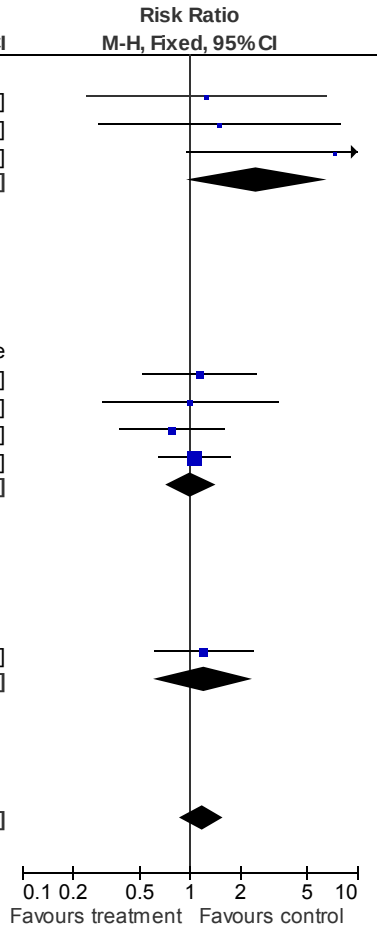



**3.6 Mental State: 2. Continuous measures - Negative symptom score (lower = better)**

| Study or Subgroup | Treatment Mean | Treatment SD | Treatment Total | Control Mean | Control SD | Control Total | Weight | Std. Mean Difference IV, Random, 95% CI |
|---|---|---|---|---|---|---|---|---|
| **3.6.1 Negative symptom score (PANSS, SANS) - at end of treatment (short: 0-11 weeks)** | | | | | | | | |
| Daniels 1998 | 42.53 | 11.07 | 20 | 50.56 | 12.25 | 20 | 41.1% | -0.67 [-1.31, -0.04] |
| NG2006 | 38.3 | 14.8 | 18 | 41 | 14.8 | 18 | 39.1% | -0.18 [-0.83, 0.48] |
| **Subtotal (95% CI)** | | | **38** | | | **38** | **80.2%** | **-0.43 [-0.92, 0.05]** |
| Heterogeneity: Tau² = 0.01; Chi² = 1.13, df = 1 (P = 0.29); I² = 11% | | | | | | | | |
| Test for overall effect: Z = 1.74 (P = 0.08) | | | | | | | | |
| **3.6.2 Negative symptom score (PANSS, SANS) - at end of treatment (medium: 12-51 weeks)** | | | | | | | | |
| RONCONE2004 | 7.2 | 3.1 | 10 | 10.1 | 3.7 | 10 | 19.8% | -0.81 [-1.73, 0.11] |
| **Subtotal (95% CI)** | | | **10** | | | **10** | **19.8%** | **-0.81 [-1.73, 0.11]** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Z = 1.73 (P = 0.08) | | | | | | | | |
| **3.6.3 Negative symptom score (PANSS, SANS) - at end of treatment (long: >52 weeks)** | | | | | | | | |
| **Subtotal (95% CI)** | | | **0** | | | **0** | | **Not estimable** |
| Heterogeneity: Not applicable | | | | | | | | |
| Test for overall effect: Not applicable | | | | | | | | |
| **Total (95% CI)** | | | **48** | | | **48** | **100.0%** | **-0.51 [-0.92, -0.10]** |
| Heterogeneity: Tau² = 0.00; Chi² = 1.66, df = 2 (P = 0.44); I² = 0% | | | | | | | | |
| Test for overall effect: Z = 2.43 (P = 0.02) | | | | | | | | |



# Psychological clinical evidence: Social skills training (subgroup analyses)

**3.7 Treatment Acceptability: 1. Leaving for any reason**

| Study or Subgroup | Treatment Events | Treatment Total | Control Events | Control Total | Weight | Risk Ratio M-H, Fixed, 95% CI |
|---|---|---|---|---|---|---|
| **3.7.1 Leaving for any reason - At end of treatment (short: 0-11 weeks)** | | | | | | |
| Dobson 1995 | 3 | 18 | 2 | 15 | 3.6% | 1.25 [0.24, 6.53] |
| NG2006 | 3 | 18 | 2 | 18 | 3.3% | 1.50 [0.28, 7.93] |
| CHIEN2003 | 7 | 42 | 1 | 44 | 1.6% | 7.33 [0.94, 57.09] |
| **Subtotal (95% CI)** | | **78** | | **77** | **8.6%** | **2.50 [0.95, 6.58]** |
| Total events | 13 | | 5 | | | |
| Heterogeneity: Chi² = 2.09, df = 2 (P = 0.35); I² = 4% | | | | | | |
| Test for overall effect: Z = 1.85 (P = 0.06) | | | | | | |
| **3.7.2 Leaving for any reason - At end of treatment (medium: 12-51 weeks)** | | | | | | |
| Peniston 1988 | 0 | 14 | 0 | 14 | | Not estimable |
| Bellack 1984 | 15 | 44 | 6 | 20 | 13.8% | 1.14 [0.52, 2.49] |
| PATTERSON2003 | 4 | 17 | 4 | 17 | 6.7% | 1.00 [0.30, 3.36] |
| CHOI2006 | 7 | 17 | 9 | 17 | 15.0% | 0.78 [0.38, 1.60] |
| PATTERSON2006 | 25 | 106 | 22 | 99 | 38.0% | 1.06 [0.64, 1.76] |
| **Subtotal (95% CI)** | | **198** | | **167** | **73.4%** | **1.01 [0.71, 1.44]** |
| Total events | 51 | | 41 | | | |
| Heterogeneity: Chi² = 0.63, df = 3 (P = 0.89); I² = 0% | | | | | | |
| Test for overall effect: Z = 0.07 (P = 0.95) | | | | | | |
| **3.7.3 Leaving for any reason - At end of treatment (long: >52 weeks)** | | | | | | |
| Marder 1996 | 14 | 43 | 10 | 37 | 17.9% | 1.20 [0.61, 2.38] |
| **Subtotal (95% CI)** | | **43** | | **37** | **17.9%** | **1.20 [0.61, 2.38]** |
| Total events | 14 | | 10 | | | |
| Heterogeneity: Not applicable | | | | | | |
| Test for overall effect: Z = 0.53 (P = 0.59) | | | | | | |
| **Total (95% CI)** | | **319** | | **281** | **100.0%** | **1.17 [0.87, 1.58]** |
| Total events | 78 | | 56 | | | |
| Heterogeneity: Chi² = 4.63, df = 7 (P = 0.71); I² = 0% | | | | | | |
| Test for overall effect: Z = 1.06 (P = 0.29) | | | | | | |