Appendix 17c: psychological therapy forest plots

The forest plots for psychological treatments are referenced 'Psych xx.xx' in the evidence profiles (appendix 18) and summary evidence profiles in the chapters.

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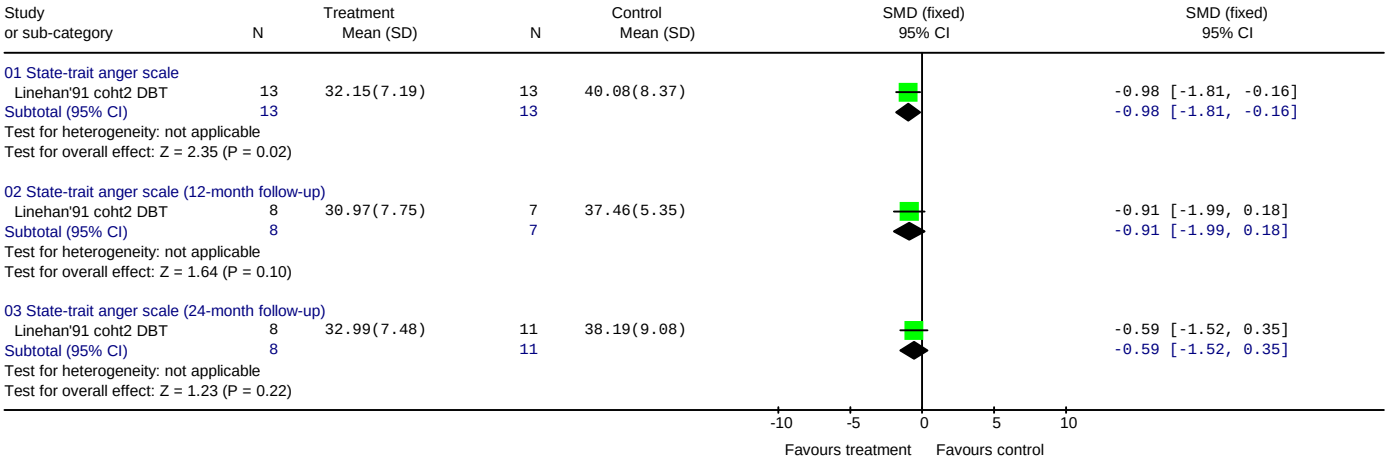
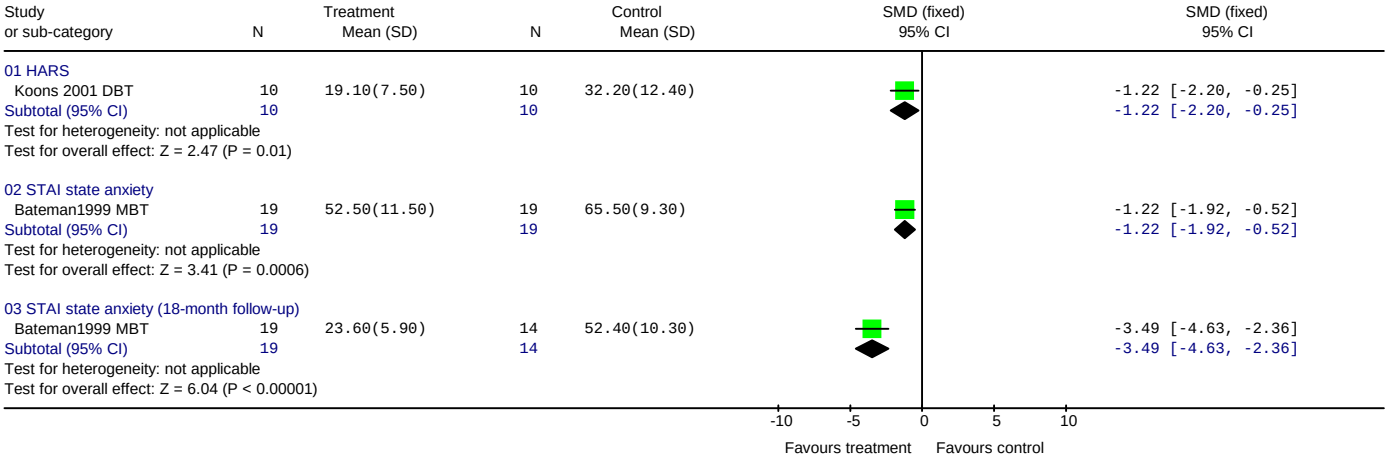
Psych 01.01 complex interventions: anger measures

Review: BPD psychology
Comparison: 01 Complex interventions
Outcome: 01 Anger outcomes



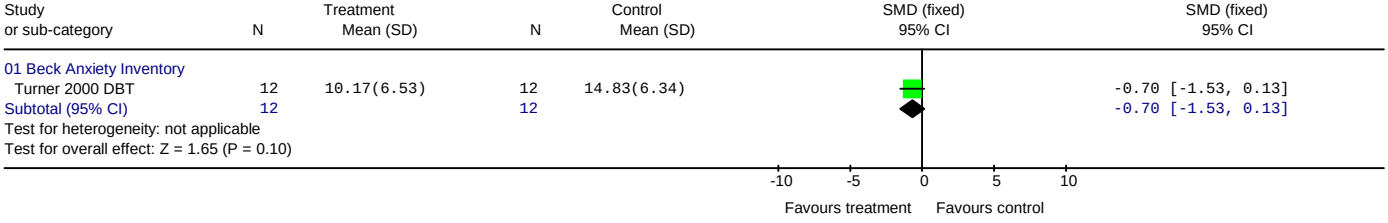
Psych 01.02 complex interventions: anxiety measures (clinician-rated)

Review: BPD psychology
Comparison: 01 Complex interventions
Outcome: 02 Anxiety outcomes (clinician-completed)



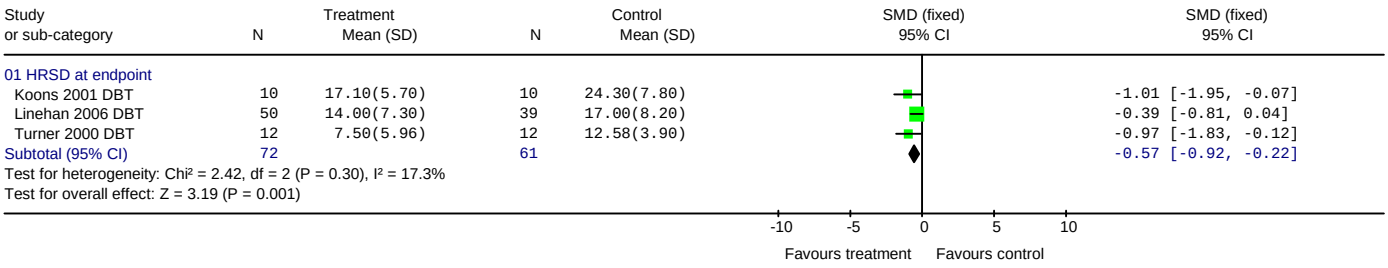
Psych 01.03 complex interventions: anxiety measures (self-rated)

Review: BPD psychology
Comparison: 01 Complex interventions
Outcome: 03 Anxiety outcomes (self-rated)



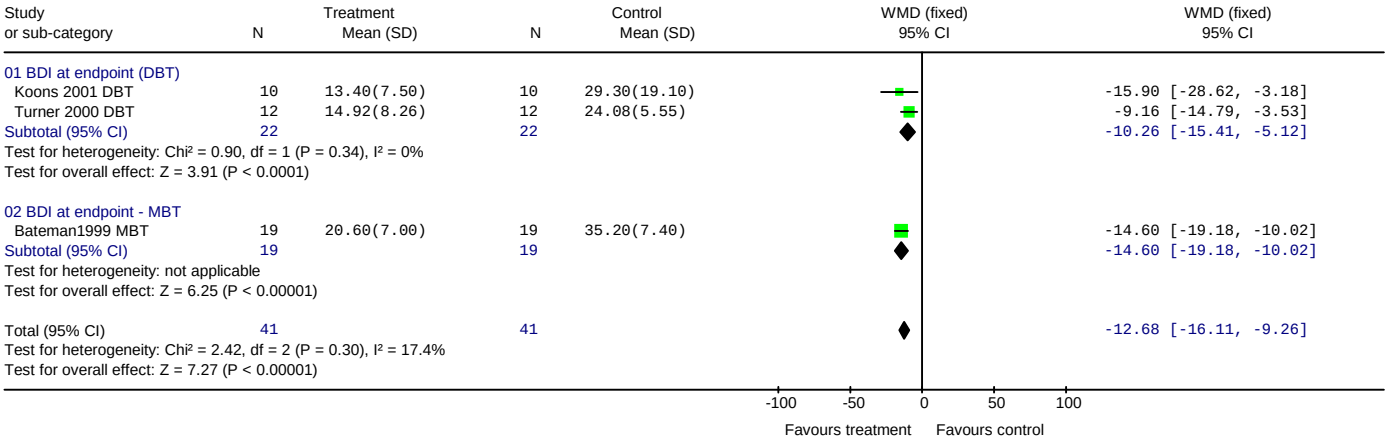
Psych 01.04 complex interventions: depression measures (clinician-rated)

Review: BPD psychology
Comparison: 01 Complex interventions
Outcome: 04 Depression outcomes (clinician-rated)



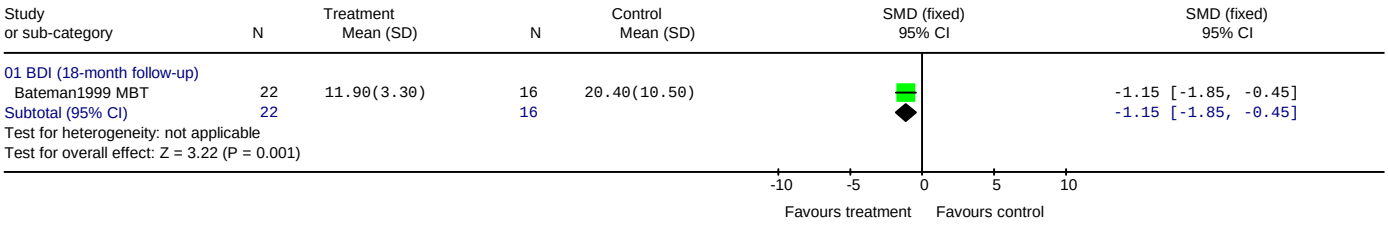
Psych 01.05 complex interventions: depression measures (self-rated)

Review: BPD psychology
Comparison: 01 Complex interventions
Outcome: 05 Depression outcomes (self-rated)



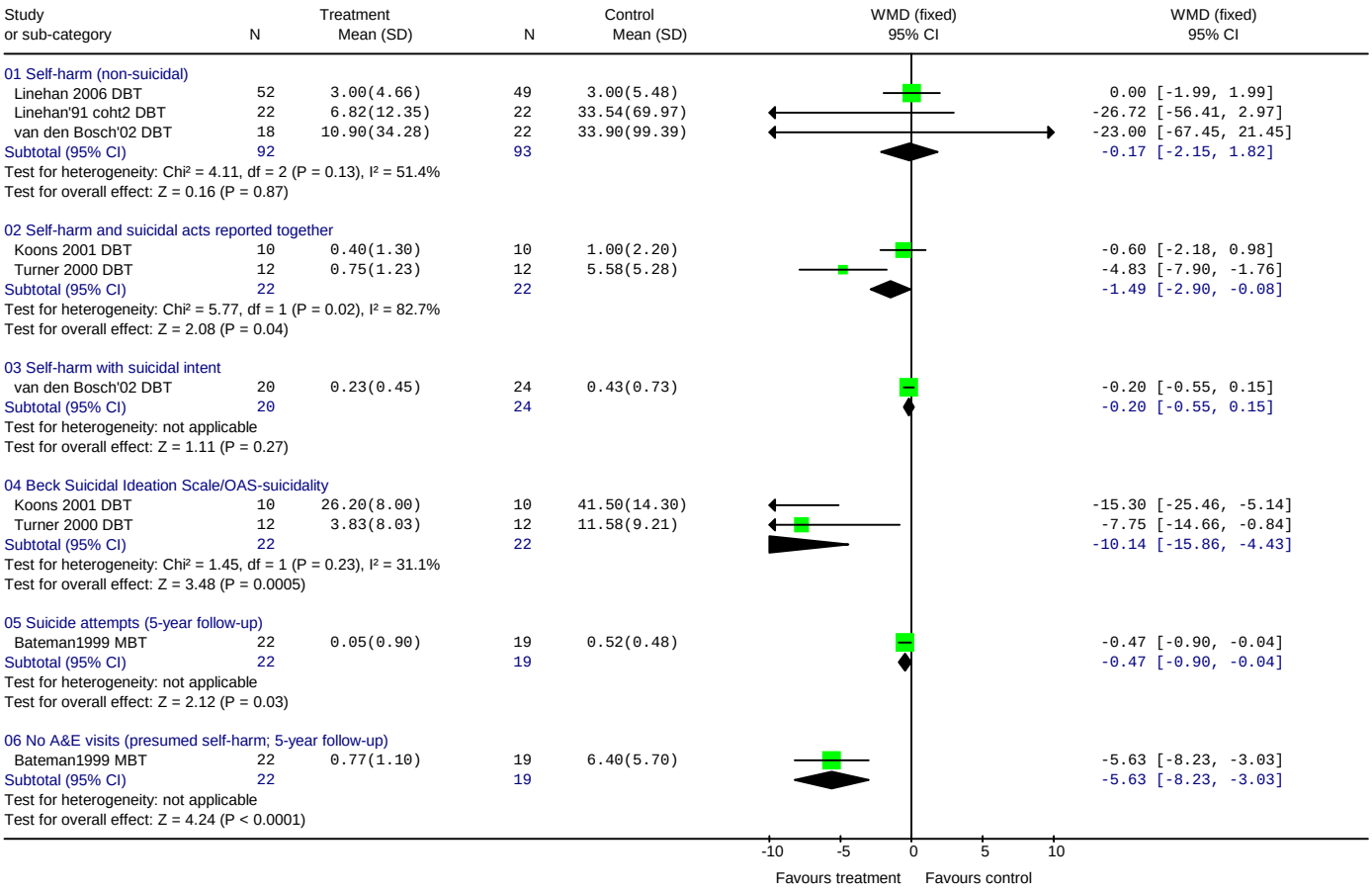
Psych 01.06 complex interventions: anxiety measures (self-rated, follow-up)

Review: BPD psychology
Comparison: 01 Complex interventions
Outcome: 06 Depression outcomes (self-rated at follow-up)



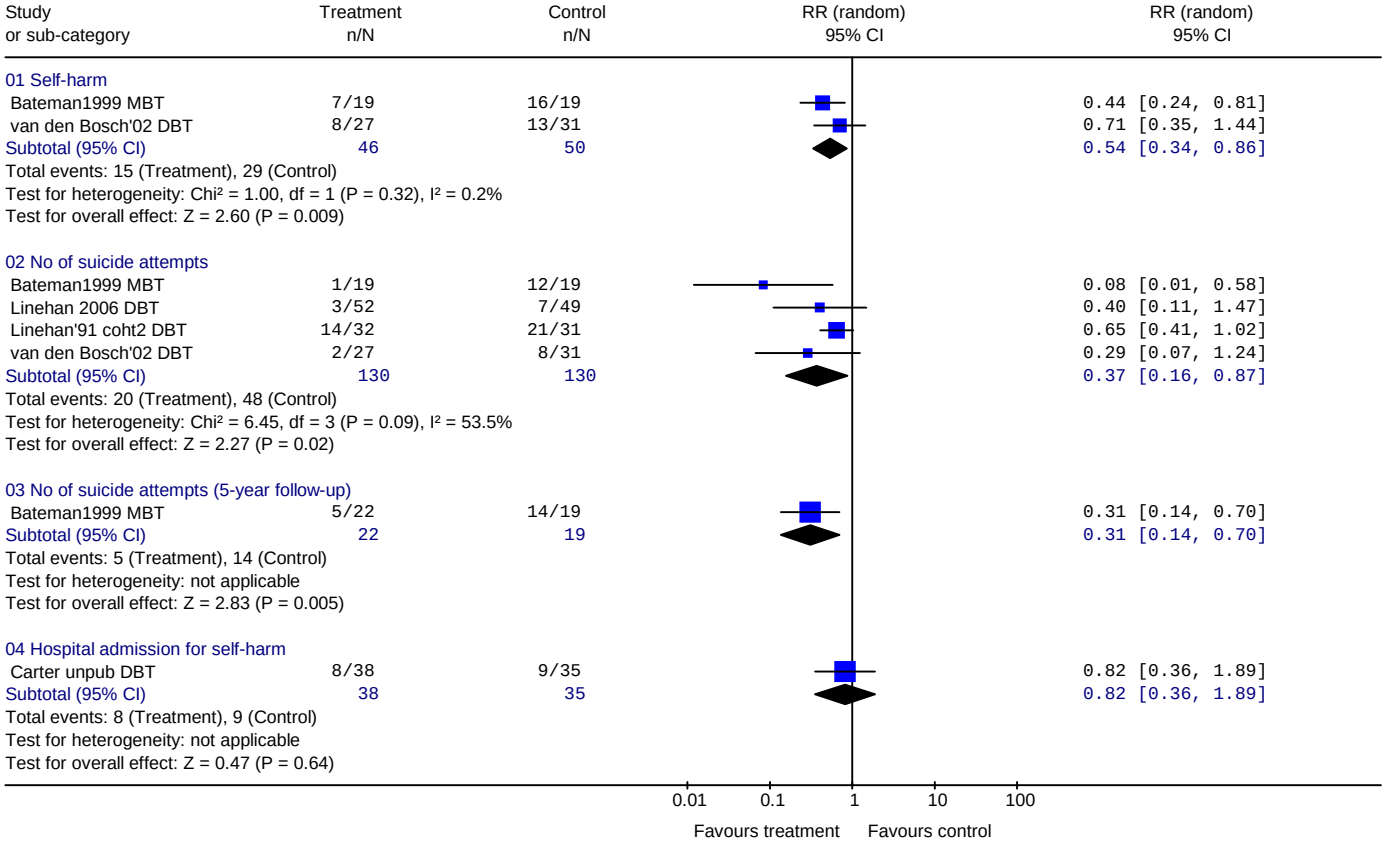
Psych 01.07 complex interventions: self-harm and suicidality measures

Review: BPD psychology
Comparison: 01 Complex interventions
Outcome: 07 Self-harm and suicide-related outcomes



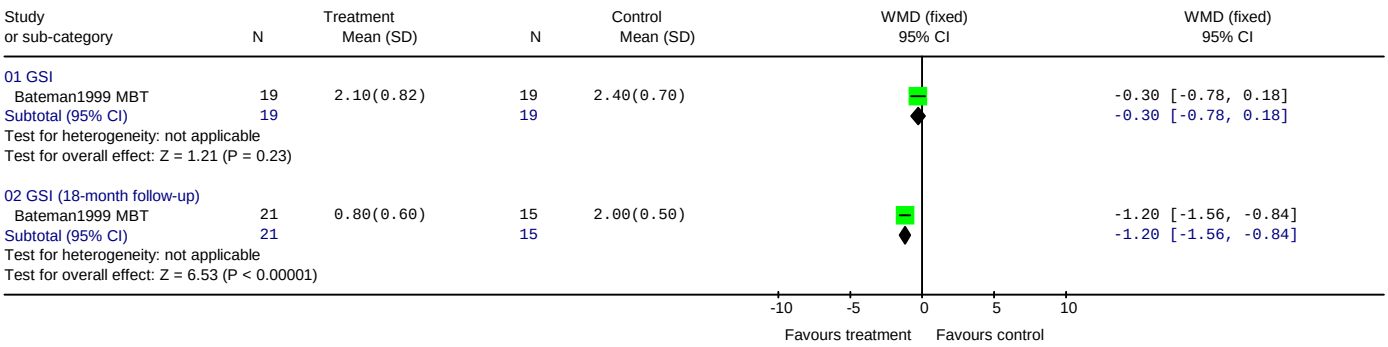
Psych 01.08 complex interventions: self-harm measures (dichotomous)

Review: BPD psychology
Comparison: 01 Complex interventions
Outcome: 08 Self-harm outcomes (dichotomous)



Psych 01.09 complex interventions: mental distress measures

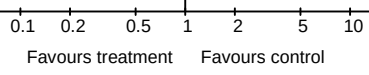
Review: BPD psychology
Comparison: 01 Complex interventions
Outcome: 09 Mental distress



Psych 01.10 complex interventions: service use measures (dichotomous). See next page.

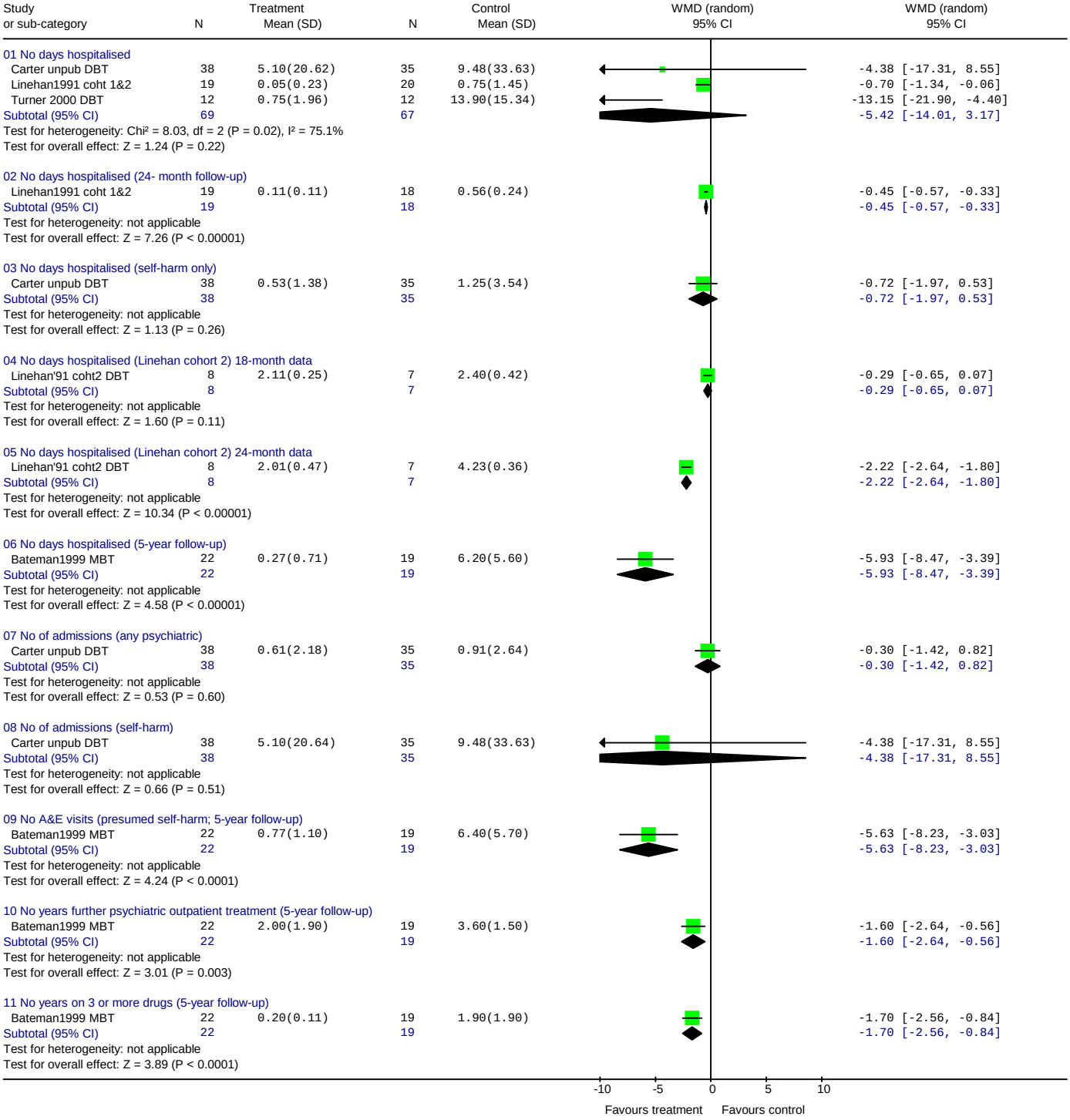
Review: BPD psychology
Comparison: 01 Complex interventions
Outcome: 10 Service use outcomes (dichotomous)

Study or sub-category	Treatment n/N	Control n/N	RR (fixed) 95% CI	RR (fixed) 95% CI
01 Emergency Department Visits for Psychiatric reasons				
Linehan 2006 DBT	22/50	28/39		0.61 [0.42, 0.89]
Subtotal (95% CI)	50	39		0.61 [0.42, 0.89]
Total events: 22 (Treatment), 28 (Control)				
Test for heterogeneity: not applicable				
Test for overall effect: Z = 2.60 (P = 0.009)				
02 Emergency Department Visits for Psychiatric reasons (24 months)				
Linehan 2006 DBT	12/46	14/35		0.65 [0.35, 1.23]
Subtotal (95% CI)	46	35		0.65 [0.35, 1.23]
Total events: 12 (Treatment), 14 (Control)				
Test for heterogeneity: not applicable				
Test for overall effect: Z = 1.32 (P = 0.19)				
03 Emergency Department Visits for suicide ideation (endpoint)				
Linehan 2006 DBT	8/50	13/39		0.48 [0.22, 1.04]
Subtotal (95% CI)	50	39		0.48 [0.22, 1.04]
Total events: 8 (Treatment), 13 (Control)				
Test for heterogeneity: not applicable				
Test for overall effect: Z = 1.86 (P = 0.06)				
04 Emergency Department Visits for suicide ideation (24 months)				
Linehan 2006 DBT	5/46	6/35		0.63 [0.21, 1.91]
Subtotal (95% CI)	46	35		0.63 [0.21, 1.91]
Total events: 5 (Treatment), 6 (Control)				
Test for heterogeneity: not applicable				
Test for overall effect: Z = 0.81 (P = 0.42)				
05 Hospital admission for psychiactric reasons				
Carter unpub DBT	7/38	7/35		0.92 [0.36, 2.36]
Linehan 2006 DBT	10/50	19/39		0.41 [0.22, 0.78]
Subtotal (95% CI)	88	74		0.54 [0.32, 0.91]
Total events: 17 (Treatment), 26 (Control)				
Test for heterogeneity: Chi² = 1.94, df = 1 (P = 0.16), I² = 48.4%				
Test for overall effect: Z = 2.32 (P = 0.02)				
06 Hospital admission for psychiactric reasons (24-month follow-up)				
Linehan 2006 DBT	11/46	8/35		1.05 [0.47, 2.32]
Subtotal (95% CI)	46	35		1.05 [0.47, 2.32]
Total events: 11 (Treatment), 8 (Control)				
Test for heterogeneity: not applicable				
Test for overall effect: Z = 0.11 (P = 0.91)				
07 Hospital admission for suicidal ideation				
Linehan 2006 DBT	5/50	14/39		0.28 [0.11, 0.71]
Subtotal (95% CI)	50	39		0.28 [0.11, 0.71]
Total events: 5 (Treatment), 14 (Control)				
Test for heterogeneity: not applicable				
Test for overall effect: Z = 2.69 (P = 0.007)				
08 Hospital admission for suicidal ideation (24-month follow-up)				
Linehan 2006 DBT	7/46	6/35		0.89 [0.33, 2.41]
Subtotal (95% CI)	46	35		0.89 [0.33, 2.41]
Total events: 7 (Treatment), 6 (Control)				
Test for heterogeneity: not applicable				
Test for overall effect: Z = 0.23 (P = 0.81)				
09 Hospital admission for self-harm				
Carter unpub DBT	8/38	9/35		0.82 [0.36, 1.89]
Subtotal (95% CI)	38	35		0.82 [0.36, 1.89]
Total events: 8 (Treatment), 9 (Control)				
Test for heterogeneity: not applicable				
Test for overall effect: Z = 0.47 (P = 0.64)				
10 No on medication at endpoint				
Bateman1999 MBT	7/19	15/19		0.47 [0.25, 0.88]
Subtotal (95% CI)	19	19		0.47 [0.25, 0.88]
Total events: 7 (Treatment), 15 (Control)				
Test for heterogeneity: not applicable				
Test for overall effect: Z = 2.36 (P = 0.02)				



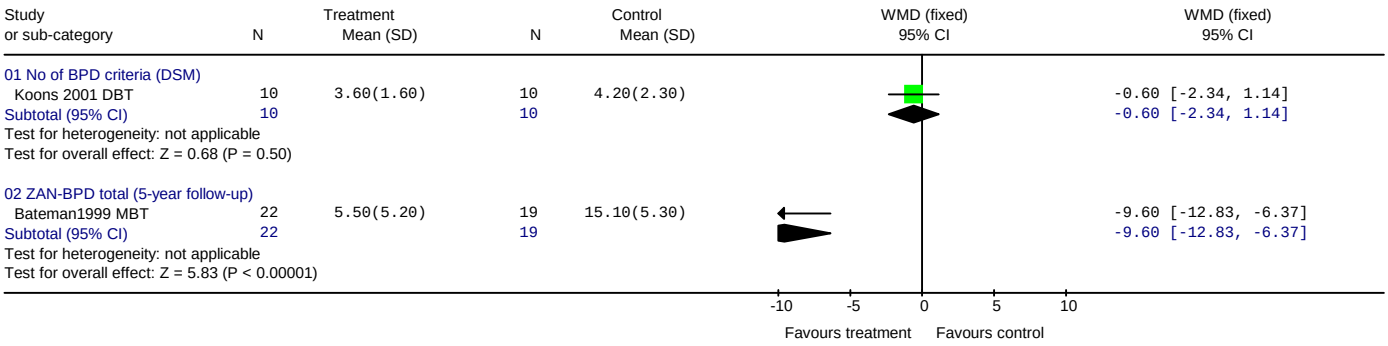
Psych 01.11 complex interventions: service use measures (continuous)

Review: BPD psychology
Comparison: 01 Complex interventions
Outcome: 11 Service use outcomes (continuous)



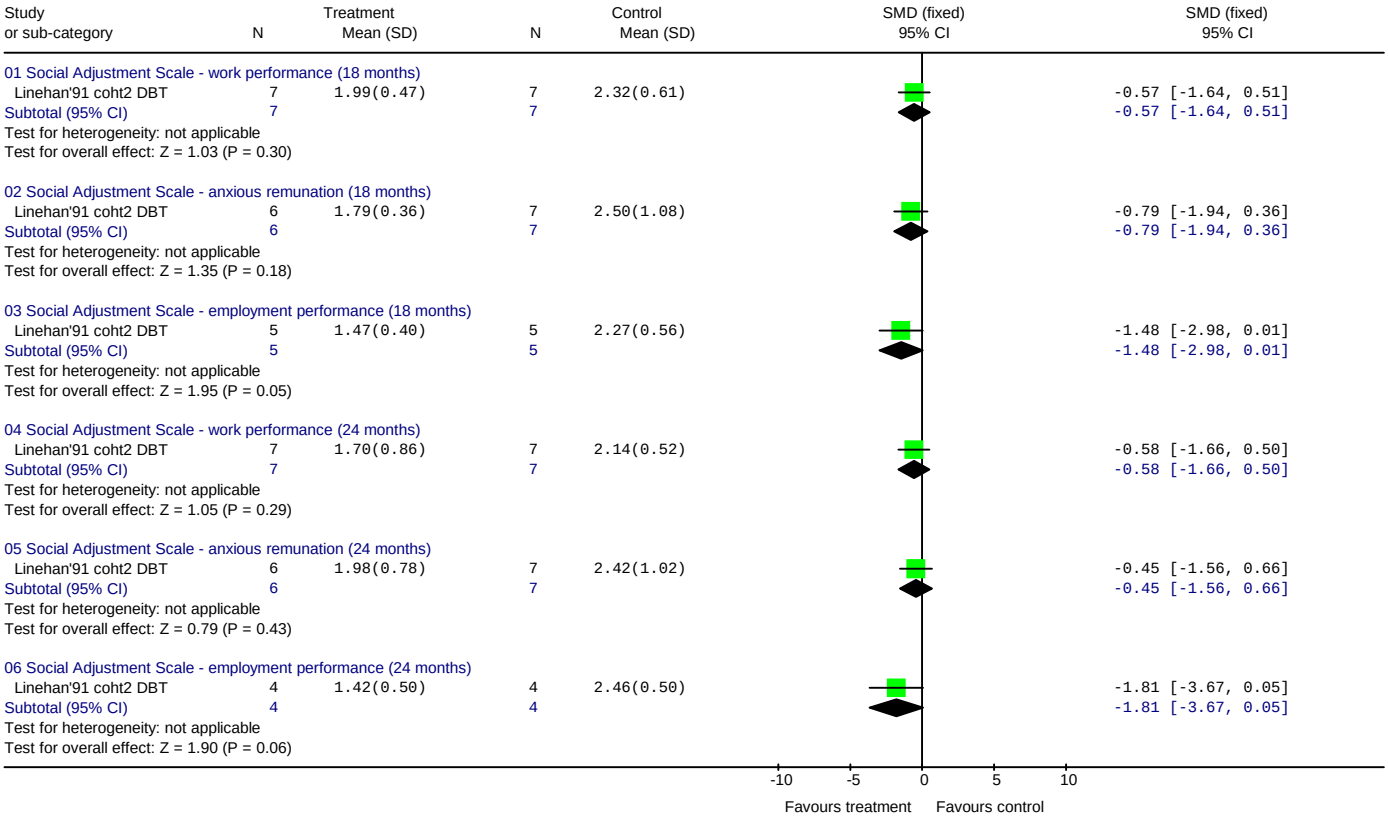
Psych 01.12 complex interventions: BPD symptoms

Review: BPD psychology
Comparison: 01 Complex interventions
Outcome: 12 BPD symptoms



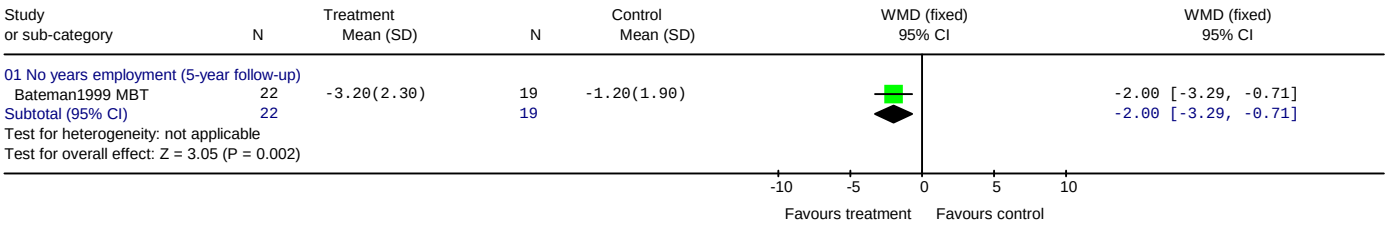
Psych 01.13 complex interventions: social functioning

Review: BPD psychology
Comparison: 01 Complex interventions
Outcome: 13 Social functioning



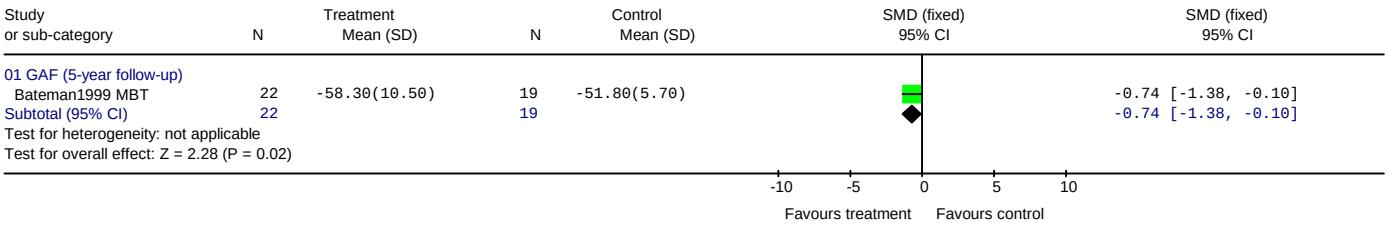
Psych 01.14 complex interventions: employment-related measures

Review: BPD psychology
Comparison: 01 Complex interventions
Outcome: 14 Employment-related outcomes



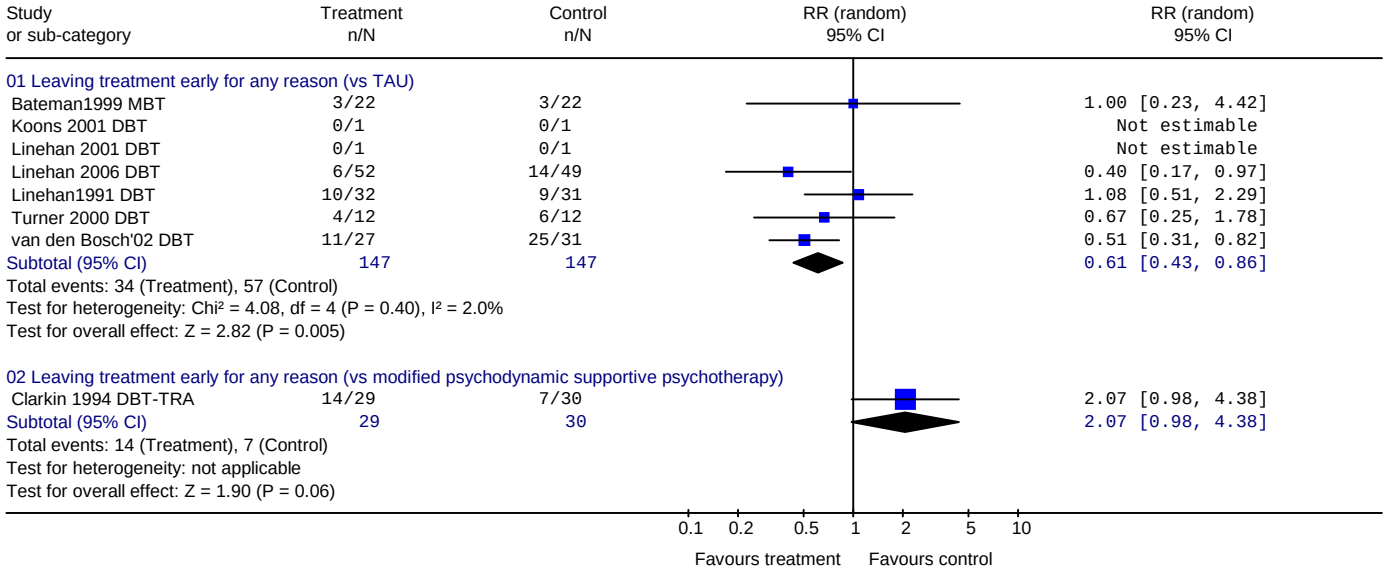
Psych 01.15 complex interventions: general functioning

Review: BPD psychology
Comparison: 01 Complex interventions
Outcome: 15 General functioning



Psych 01.16 complex interventions: acceptability and tolerability measures

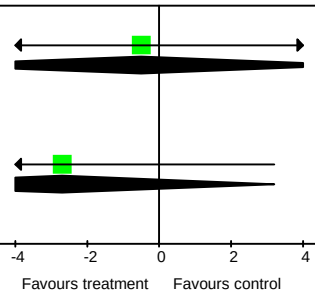
Review: BPD psychology
Comparison: 01 Complex interventions
Outcome: 16 Acceptability and tolerability outcomes



Psych 02.01 individual psychological therapies: anxiety measures

Review: BPD psychology
Comparison: 02 Individual psychological therapies
Outcome: 01 Anxiety outcomes

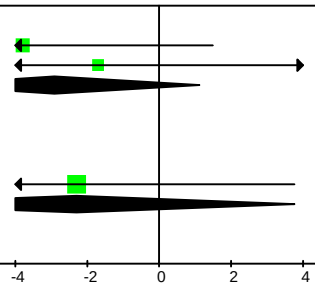
Study or sub-category	N	Treatment Mean (SD)	N	Control Mean (SD)	WMD (fixed) 95% CI	WMD (fixed) 95% CI
01 STAI state anxiety						
Davidson2006 CBT	52	49.20(14.80)	47	49.70(15.50)		-0.50 [-6.48, 5.48]
Subtotal (95% CI)	52		47			-0.50 [-6.48, 5.48]
Test for heterogeneity: not applicable						
Test for overall effect: Z = 0.16 (P = 0.87)						
02 STAI state anxiety (24-month follow-up)						
Davidson2006 CBT	53	48.20(14.40)	48	50.90(15.70)		-2.70 [-8.60, 3.20]
Subtotal (95% CI)	53		48			-2.70 [-8.60, 3.20]
Test for heterogeneity: not applicable						
Test for overall effect: Z = 0.90 (P = 0.37)						



Psych 02.02 individual psychological therapies: depression measures

Review: BPD psychology
Comparison: 02 Individual psychological therapies
Outcome: 02 Depression outcomes

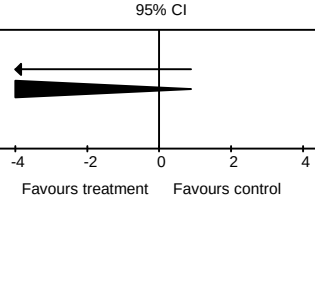
Study or sub-category	N	Treatment Mean (SD)	N	Control Mean (SD)	WMD (fixed) 95% CI	WMD (fixed) 95% CI
01 BDI						
Blum2008 STEPPS	65	22.00(16.12)	72	25.80(15.36)		-3.80 [-9.09, 1.49]
Davidson2006 CBT	52	29.60(14.80)	47	31.30(16.60)		-1.70 [-7.92, 4.52]
Subtotal (95% CI)	117		119			-2.92 [-6.95, 1.11]
Test for heterogeneity: Chi² = 0.25, df = 1 (P = 0.61), I² = 0%						
Test for overall effect: Z = 1.42 (P = 0.16)						
02 BDI (24-month follow-up)						
Davidson2006 CBT	53	26.50(15.30)	48	28.80(15.70)		-2.30 [-8.36, 3.76]
Subtotal (95% CI)	53		48			-2.30 [-8.36, 3.76]
Test for heterogeneity: not applicable						
Test for overall effect: Z = 0.74 (P = 0.46)						



Psych 02.03 individual psychological therapies: impulsiveness measures

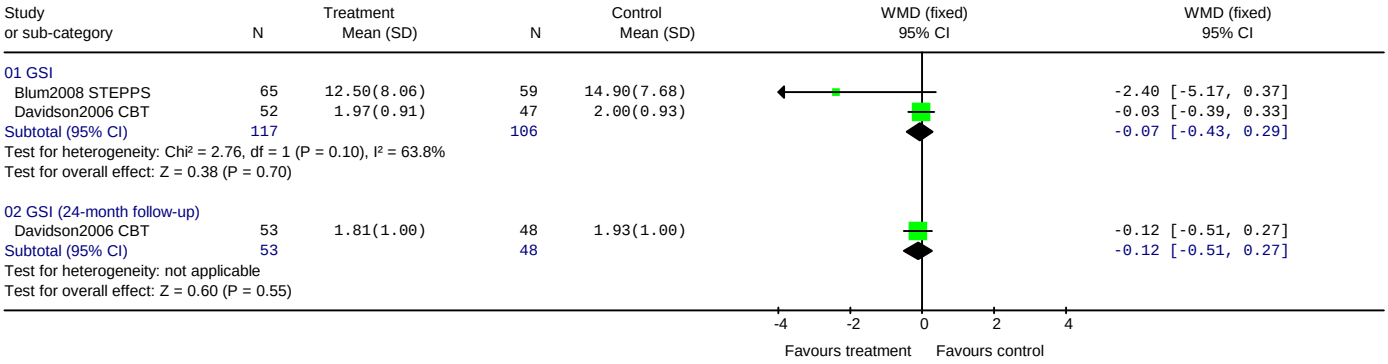
Review: BPD psychology
Comparison: 02 Individual psychological therapies
Outcome: 03 Impulsiveness outcomes

Study or sub-category	N	Treatment Mean (SD)	N	Control Mean (SD)	WMD (fixed) 95% CI	WMD (fixed) 95% CI
01 Barratt Impulsiveness Scale (STEPPS + TAU vs TAU)						
Blum2008 STEPPS	65	72.70(14.50)	59	76.80(13.82)		-4.10 [-9.09, 0.89]
Subtotal (95% CI)	65		59			-4.10 [-9.09, 0.89]
Test for heterogeneity: not applicable						
Test for overall effect: Z = 1.61 (P = 0.11)						



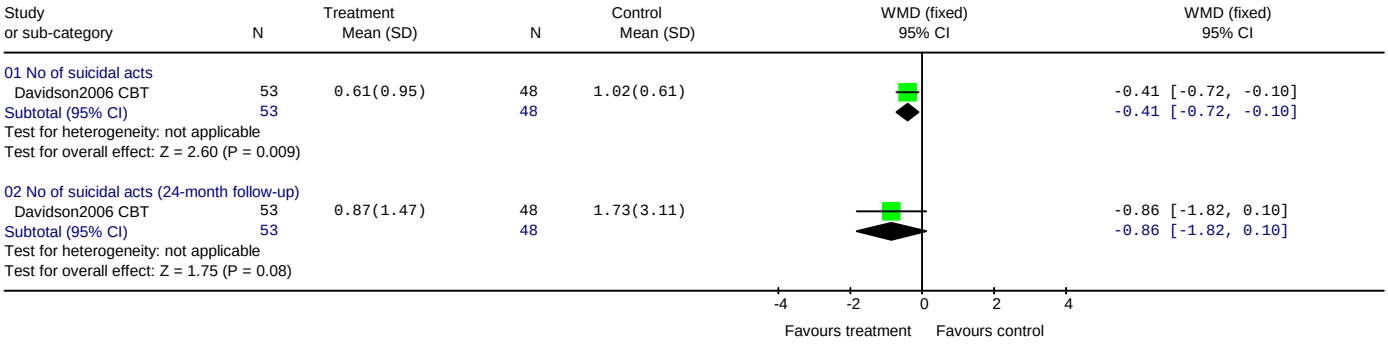
Psych 02.04 individual psychological therapies: mental distress

Review: BPD psychology
Comparison: 02 Individual psychological therapies
Outcome: 04 Mental distress



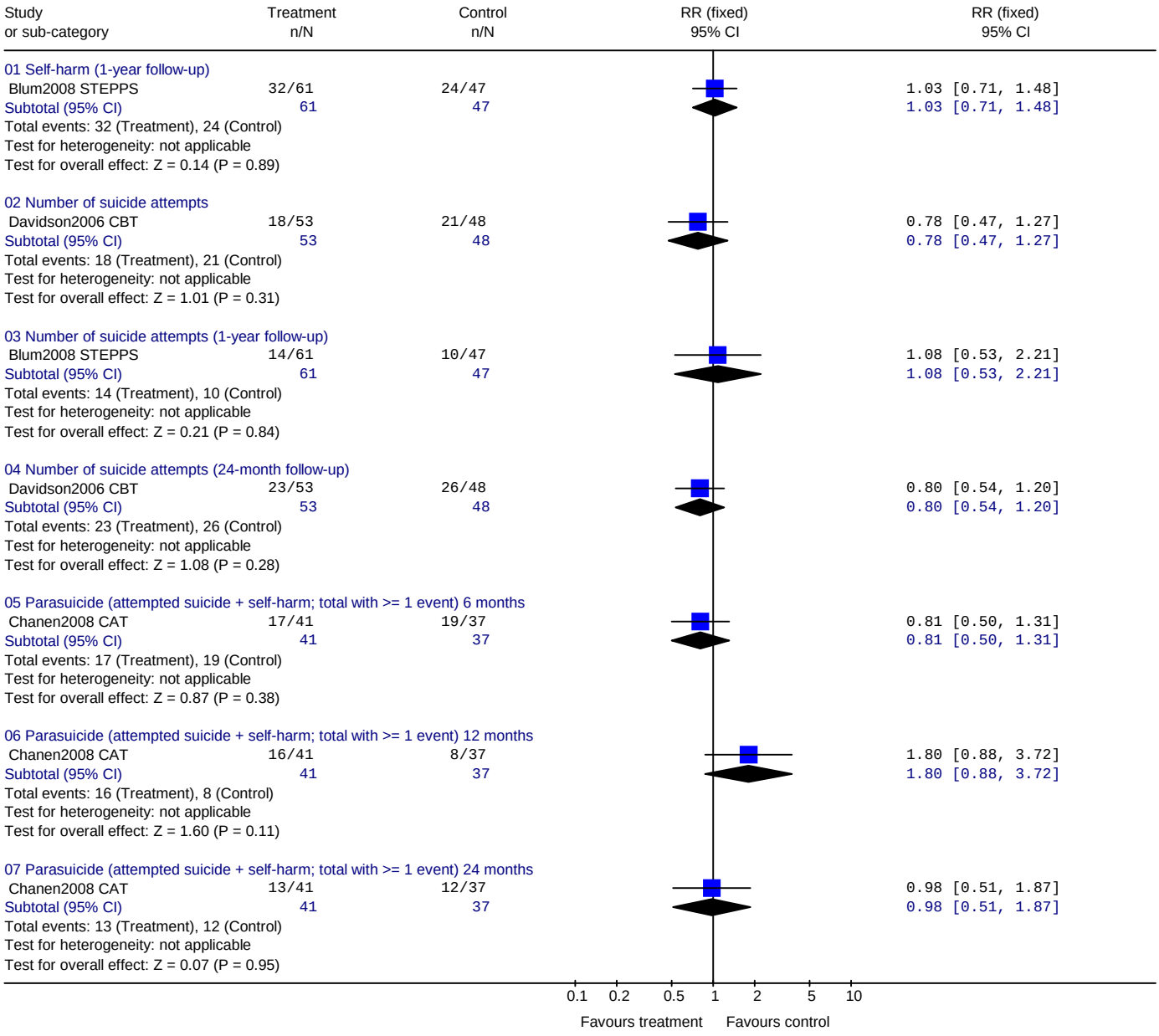
Psych 02.05 individual psychological therapies: self-harm measures (continuous)

Review: BPD psychology
Comparison: 02 Individual psychological therapies
Outcome: 05 Self-harm outcomes



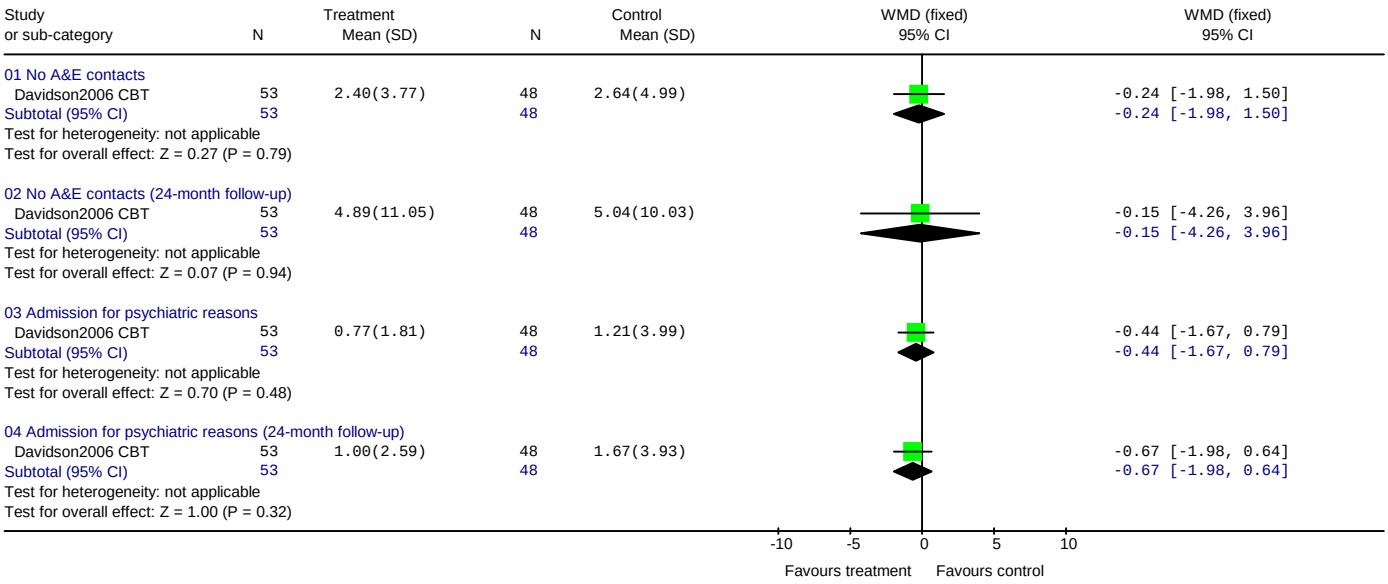
Psych 02.06 individual psychological therapies: self-harm measures (dichotomous)

Review: BPD psychology
Comparison: 02 Individual psychological therapies
Outcome: 06 Self-harm outcomes (dichotomous)



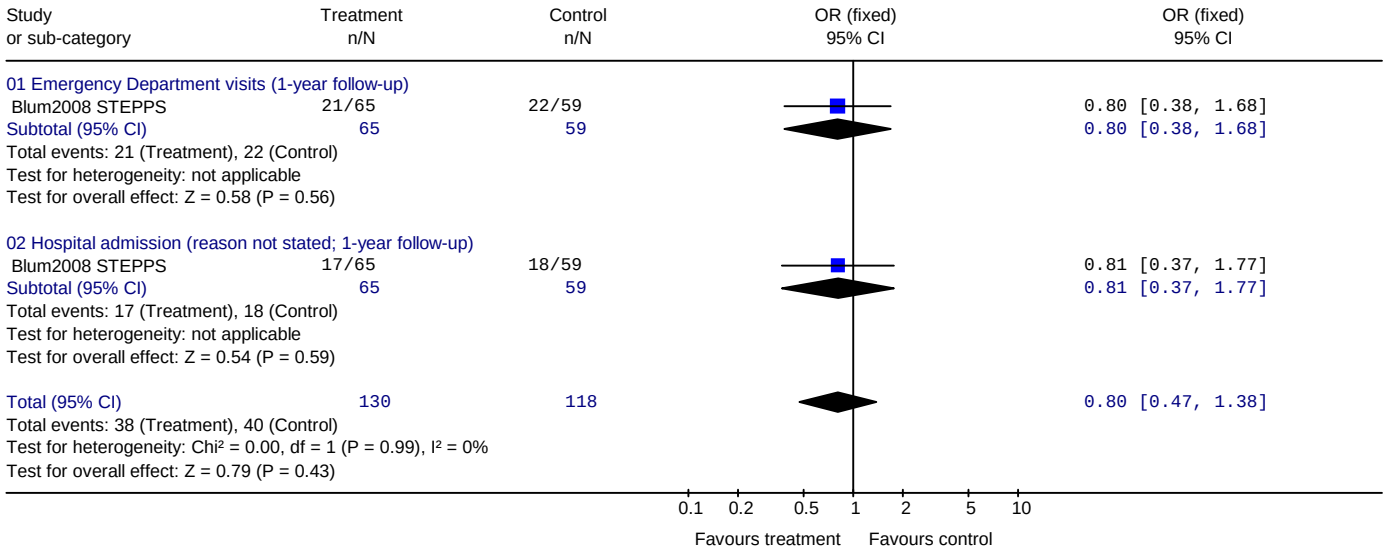
Psych 02.07 individual psychological therapies: service-use measures (continuous)

Review: BPD psychology
Comparison: 02 Individual psychological therapies
Outcome: 07 Service-use outcomes



Psych 02.08 individual psychological therapies: service-use measures (dichotomous)

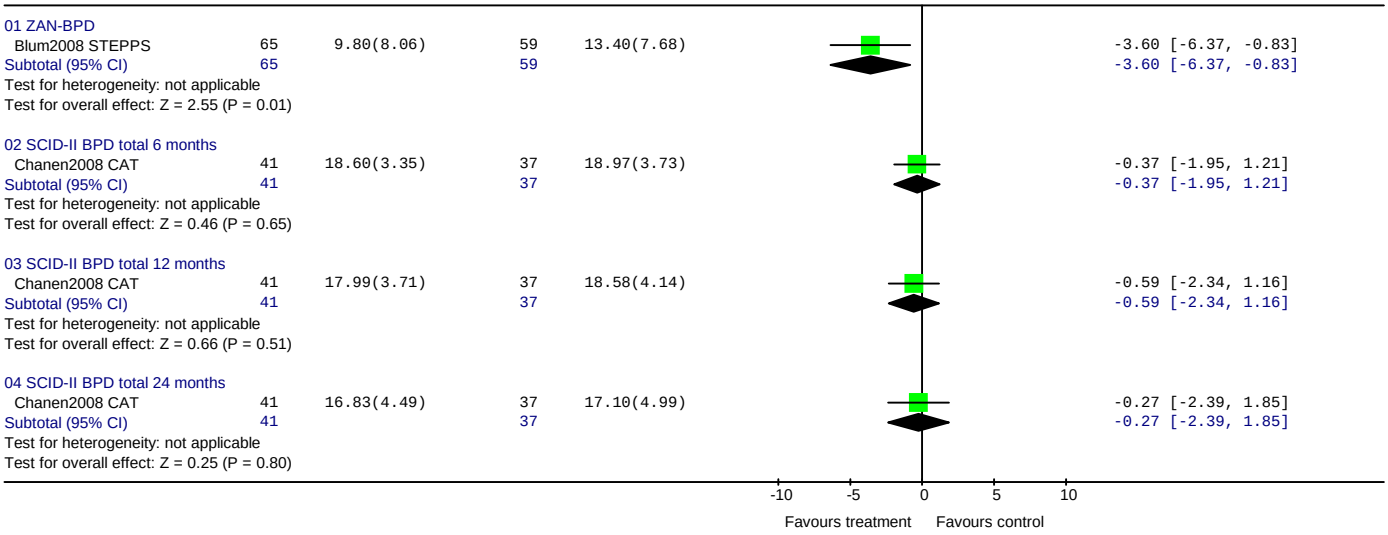
Review: BPD psychology
Comparison: 02 Individual psychological therapies
Outcome: 08 Service-use outcomes (dichotomous)



Psych 02.09 individual psychological therapies: BPD symptoms

Review: BPD psychology
Comparison: 02 Individual psychological therapies
Outcome: 09 BPD symptoms

Study or sub-category	N	Treatment Mean (SD)	N	Control Mean (SD)	WMD (fixed) 95% CI	WMD (fixed) 95% CI
01 ZAN-BPD						
Blum2008 STEPPS	65	9.80(8.06)	59	13.40(7.68)		-3.60 [-6.37, -0.83]
Subtotal (95% CI)	65		59			-3.60 [-6.37, -0.83]
Test for heterogeneity: not applicable						
Test for overall effect: Z = 2.55 (P = 0.01)						
02 SCID-II BPD total 6 months						
Chanen2008 CAT	41	18.60(3.35)	37	18.97(3.73)		-0.37 [-1.95, 1.21]
Subtotal (95% CI)	41		37			-0.37 [-1.95, 1.21]
Test for heterogeneity: not applicable						
Test for overall effect: Z = 0.46 (P = 0.65)						
03 SCID-II BPD total 12 months						
Chanen2008 CAT	41	17.99(3.71)	37	18.58(4.14)		-0.59 [-2.34, 1.16]
Subtotal (95% CI)	41		37			-0.59 [-2.34, 1.16]
Test for heterogeneity: not applicable						
Test for overall effect: Z = 0.66 (P = 0.51)						
04 SCID-II BPD total 24 months						
Chanen2008 CAT	41	16.83(4.49)	37	17.10(4.99)		-0.27 [-2.39, 1.85]
Subtotal (95% CI)	41		37			-0.27 [-2.39, 1.85]
Test for heterogeneity: not applicable						
Test for overall effect: Z = 0.25 (P = 0.80)						



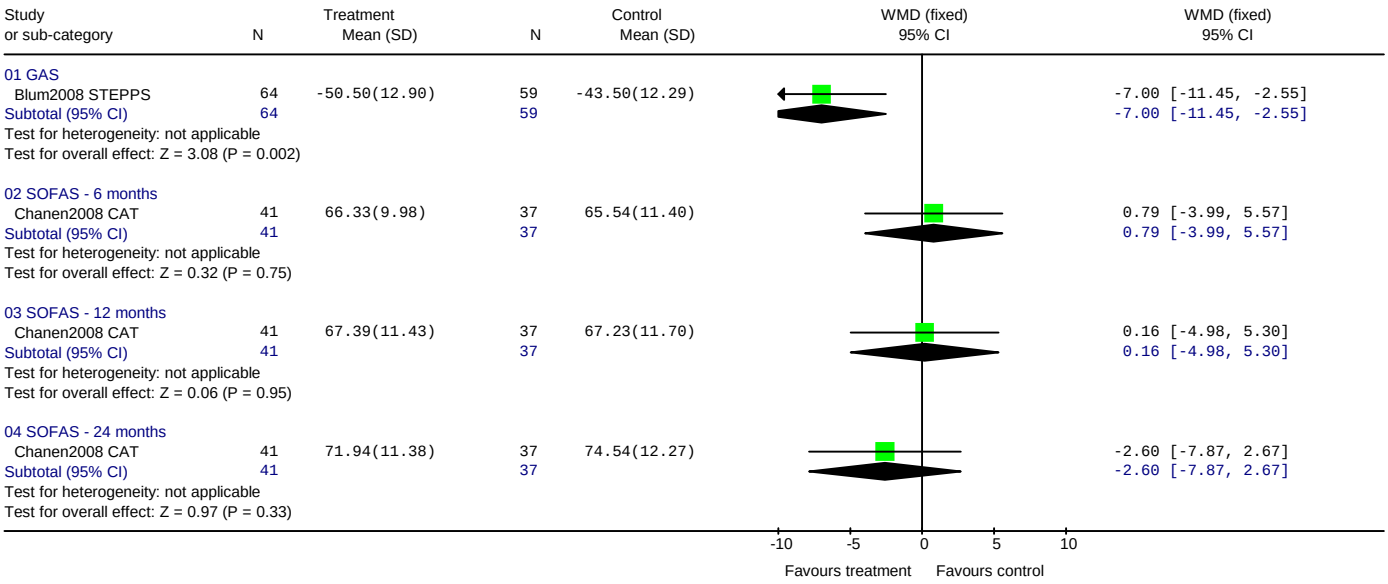
Psych 02.10 individual psychological therapies: social functioning measures

Review: BPD psychology
Comparison: 02 Individual psychological therapies
Outcome: 10 Social functioning measures

Study or sub-category	N	Treatment Mean (SD)	N	Control Mean (SD)	WMD (random) 95% CI	WMD (random) 95% CI
01 SFQ						
Davidson2006 CBT	52	13.10(4.40)	47	13.10(4.60)		0.00 [-1.78, 1.78]
Subtotal (95% CI)	52		47			0.00 [-1.78, 1.78]
Test for heterogeneity: not applicable						
Test for overall effect: Z = 0.00 (P = 1.00)						
02 SFQ (24-month follow-up)						
Davidson2006 CBT	53	13.00(5.00)	48	12.30(5.30)		0.70 [-1.31, 2.71]
Subtotal (95% CI)	53		48			0.70 [-1.31, 2.71]
Test for heterogeneity: not applicable						
Test for overall effect: Z = 0.68 (P = 0.50)						

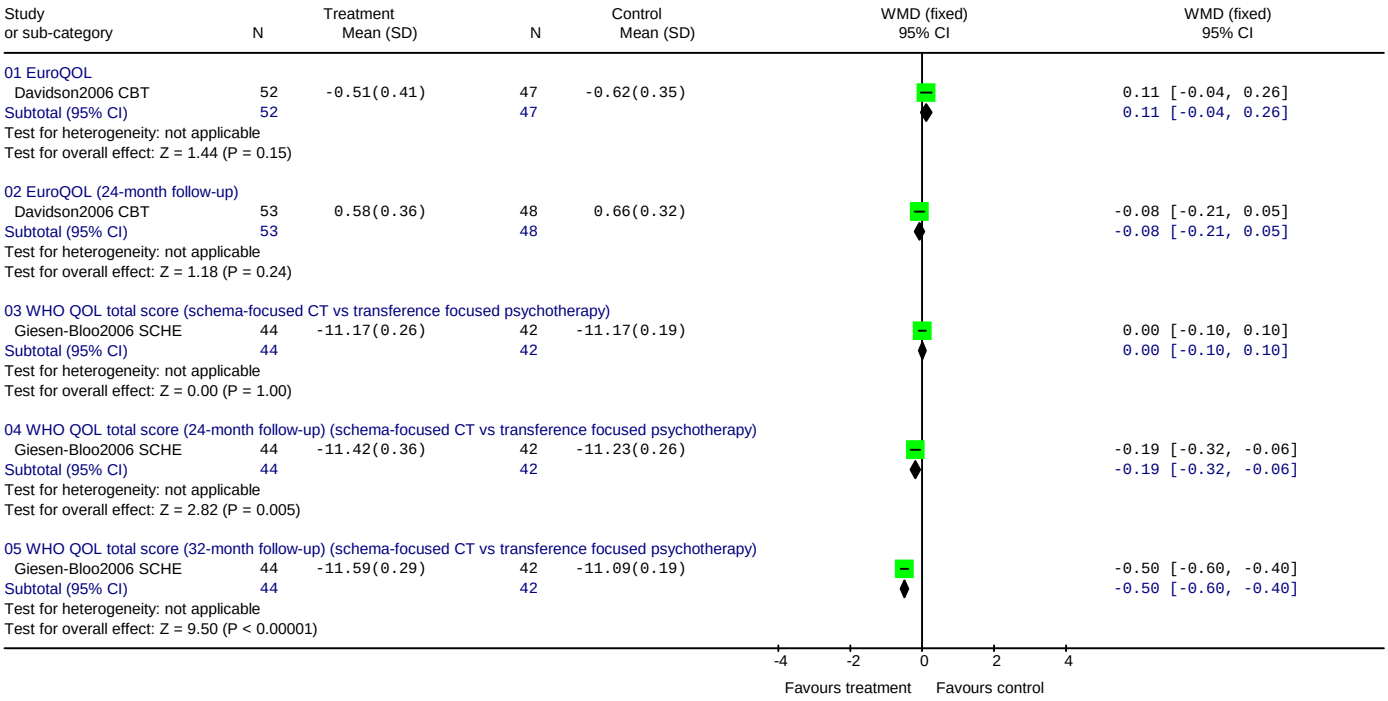
Psych 02.11 individual psychological therapies: general functioning

Review: BPD psychology
Comparison: 02 Individual psychological therapies
Outcome: 11 General functioning



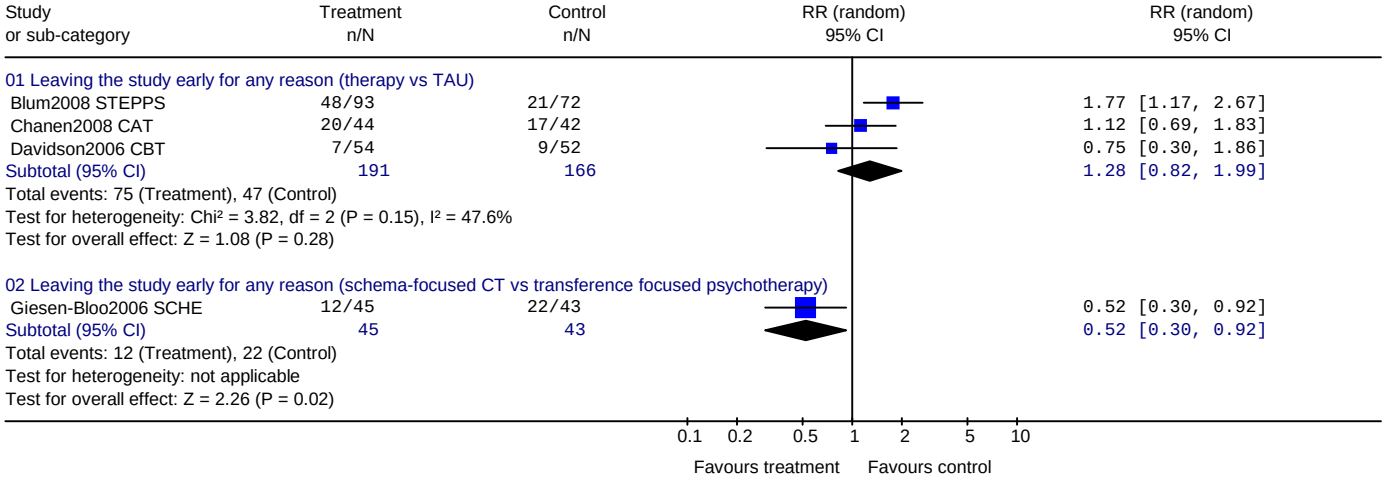
Psych 02.12 individual psychological therapies: quality of life measures

Review: BPD psychology
Comparison: 02 Individual psychological therapies
Outcome: 12 Quality of life measures



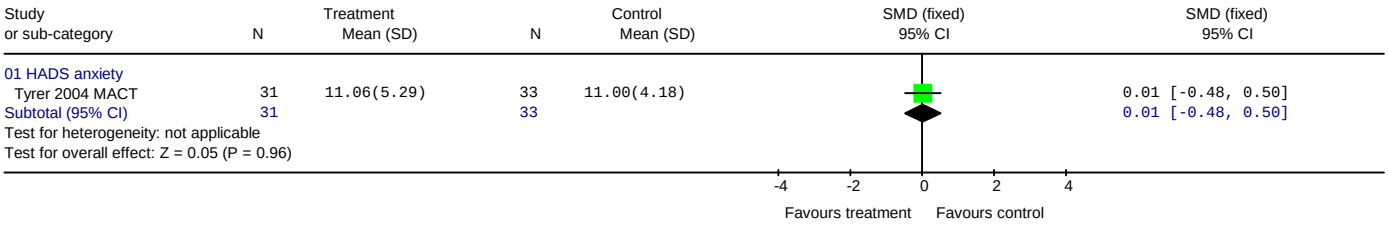
Psych 02.13 individual psychological therapies: acceptability and tolerability

Review: BPD psychology
Comparison: 02 Individual psychological therapies
Outcome: 13 Acceptability and tolerabilty outcomes



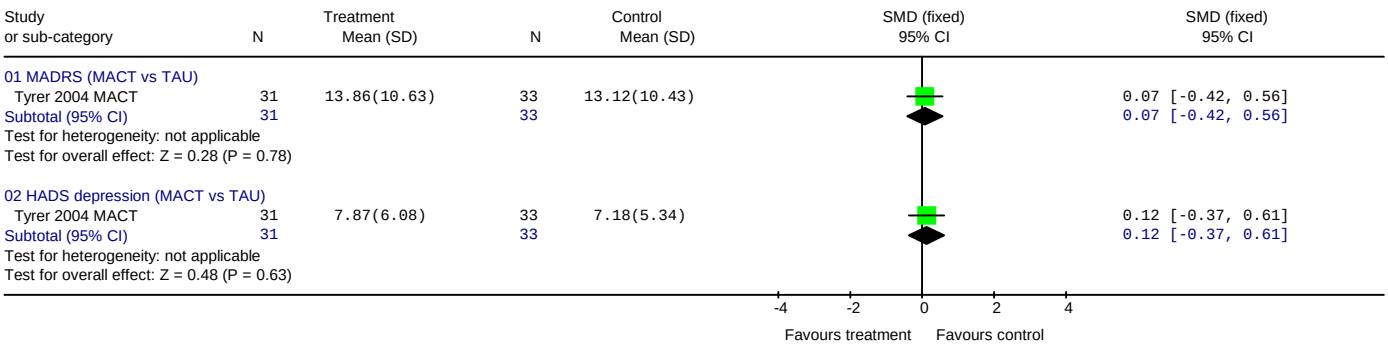
Psych 03.01 brief interventions: anxiety measures

Review: BPD psychology
Comparison: 03 Low-intensity psychological therapies
Outcome: 01 Anxiety outcomes



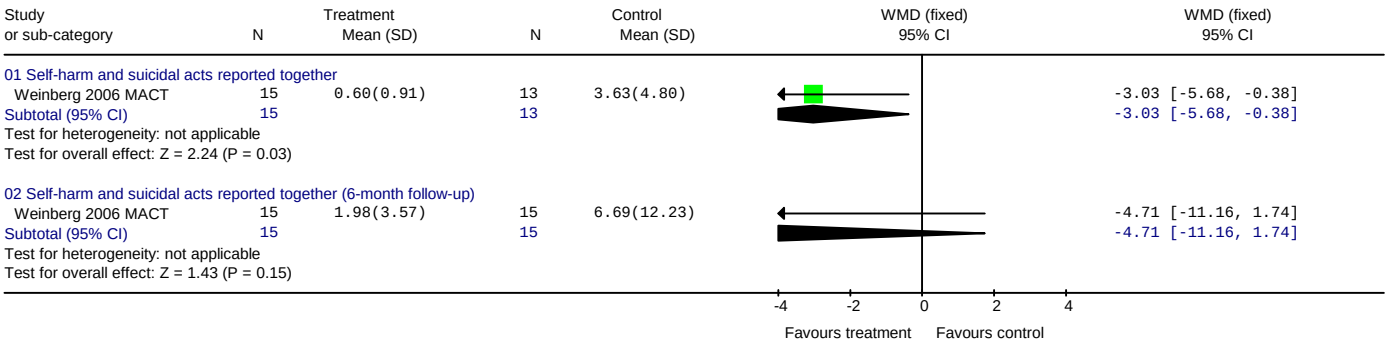
Psych 03.02 brief interventions: depression measures

Review: BPD psychology
Comparison: 03 Low-intensity psychological therapies
Outcome: 02 Depression outcomes



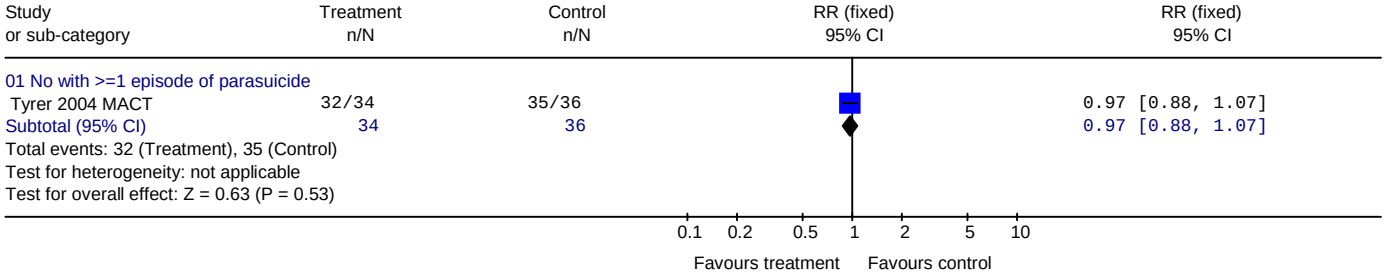
Psych 03.04 brief interventions: self-harm measures (continuous)

Review: BPD psychology
Comparison: 03 Low-intensity psychological therapies
Outcome: 04 Self-harm outcomes



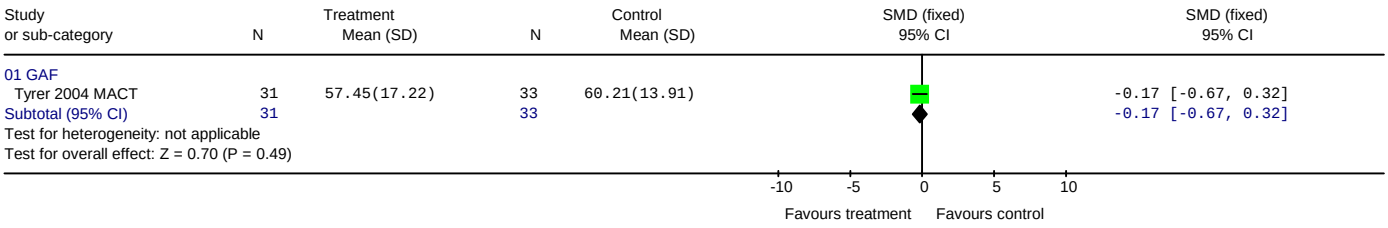
Psych 03.05 brief interventions: self-harm measures (dichotomous)

Review: BPD psychology
Comparison: 03 Low-intensity psychological therapies
Outcome: 05 Self-harm outcomes (dichotomous)



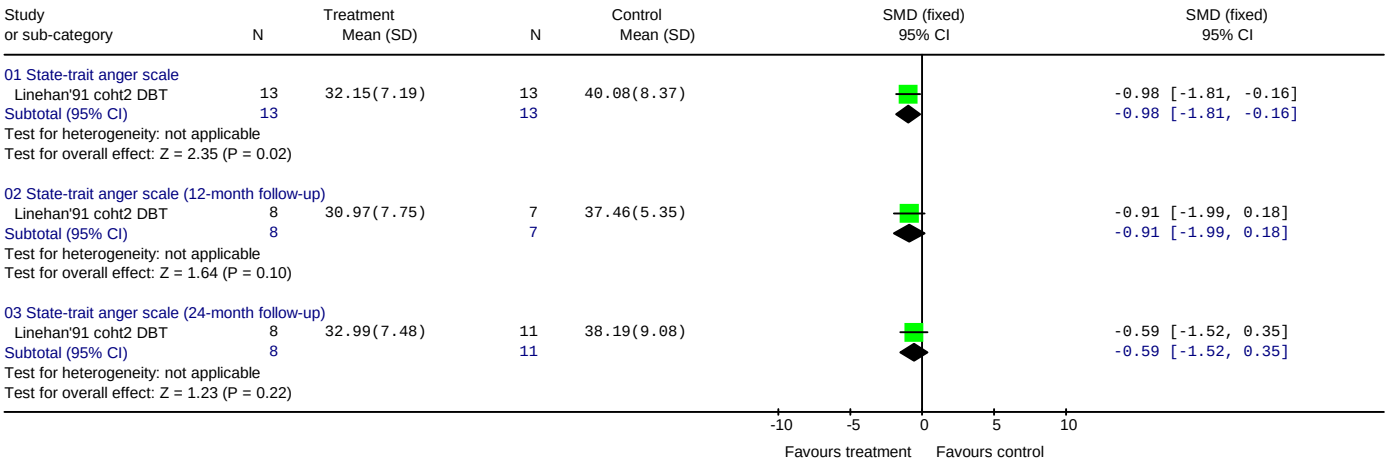
Psych 03.07 brief interventions: general functioning

Review: BPD psychology
Comparison: 03 Low-intensity psychological therapies
Outcome: 07 General functioning



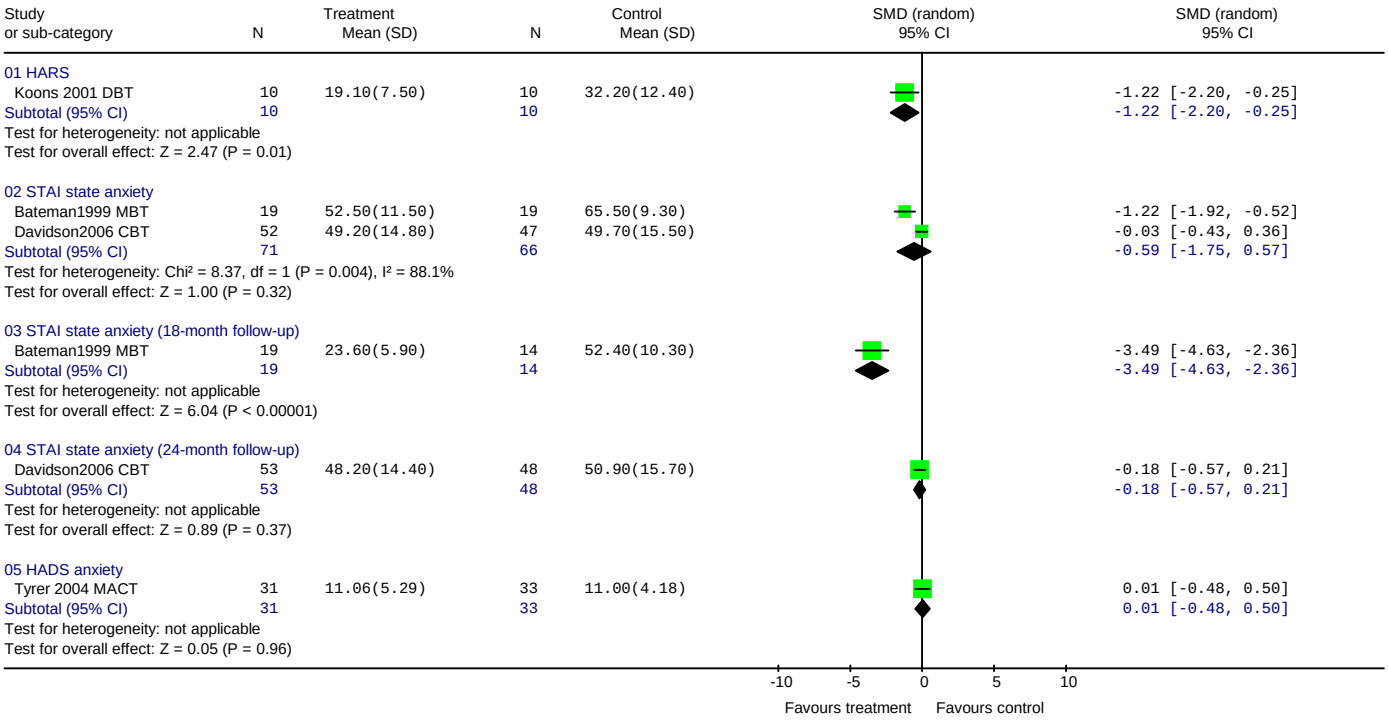
Psych 05.01 all available trials: anger measures

Review: BPD psychology
Comparison: 05 Anger measures
Outcome: 01 Clinician-rated



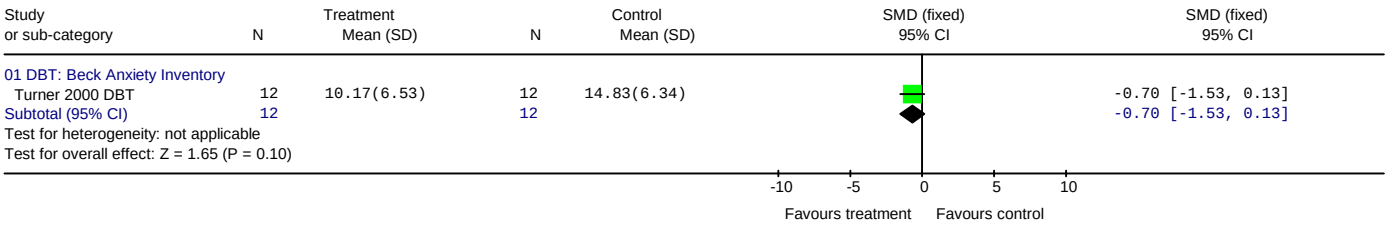
Psych 06.01 all available trials: anxiety measures (clinician-rated)

Review: BPD psychology
Comparison: 06 Anxiety measures
Outcome: 01 Clinician-rated



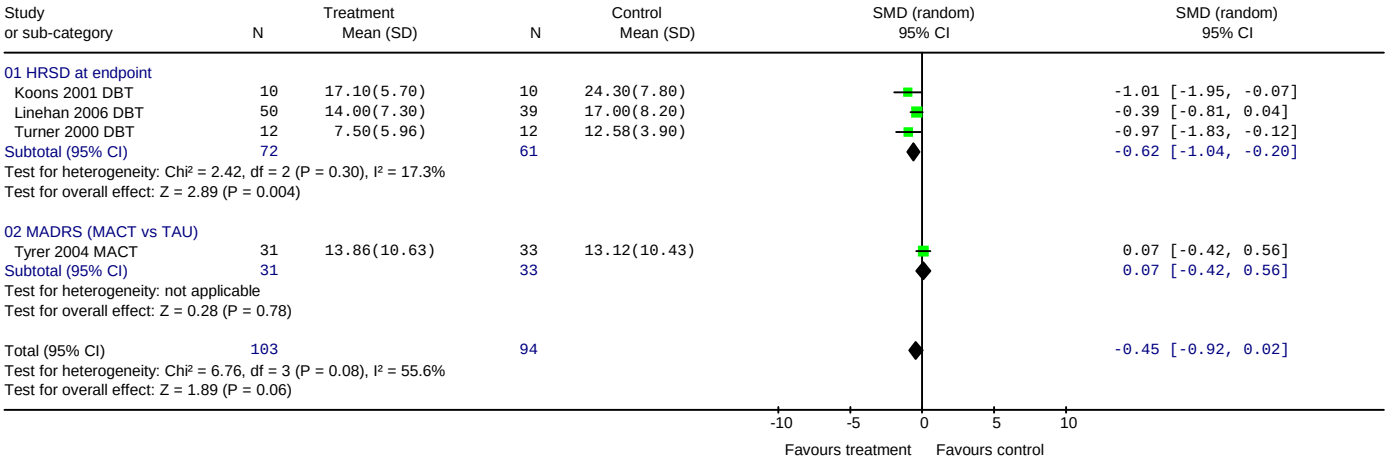
Psych 06.02 all available trials: anxiety measures (self-rated)

Review: BPD psychology
Comparison: 06 Anxiety measures
Outcome: 02 Self-rated



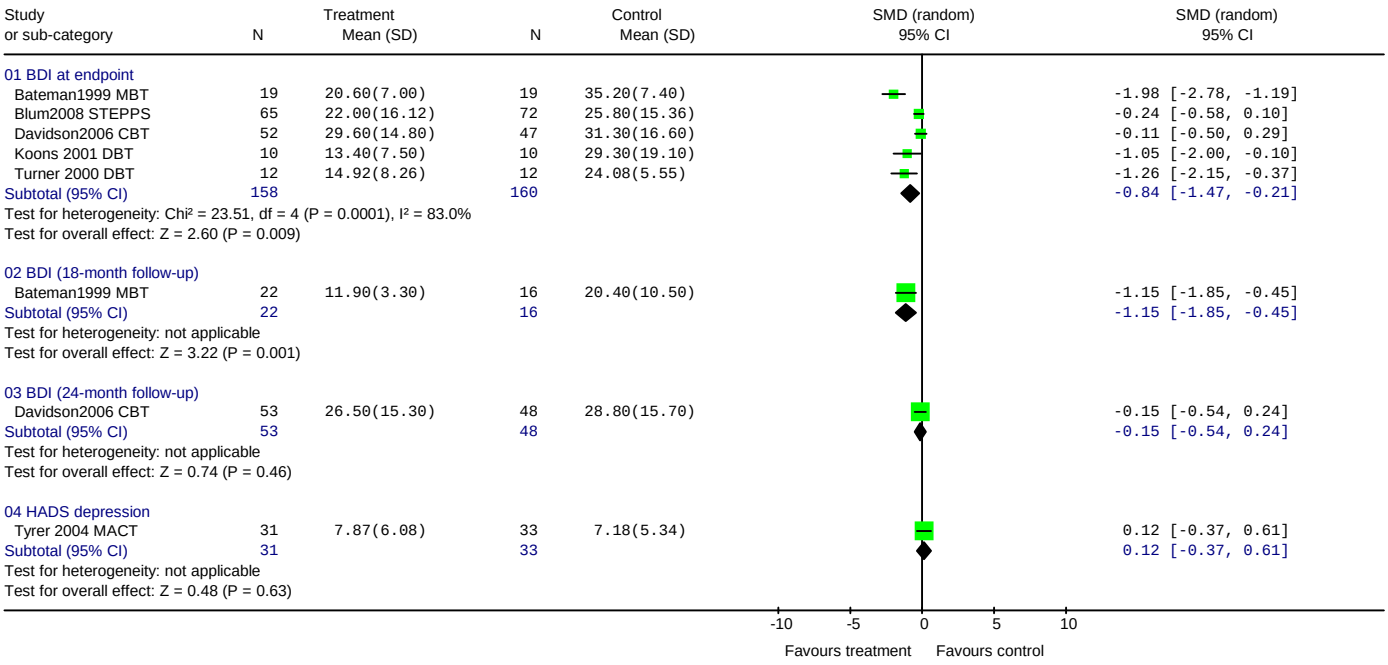
Psych 07.01 all available trials: depression measures (clinician-rated)

Review: BPD psychology
Comparison: 07 Depression measures
Outcome: 01 Depression outcomes (clinician-rated)



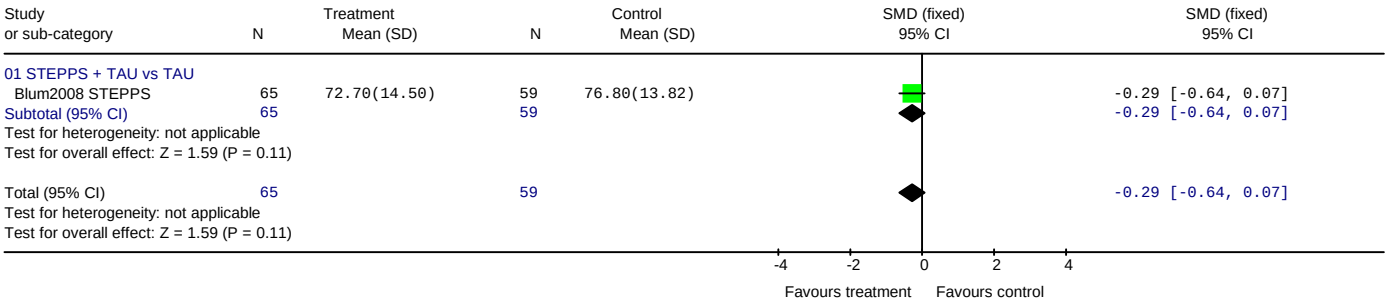
Psych 07.02 all available trials: depression measures (self-rated)

Review: BPD psychology
Comparison: 07 Depression measures
Outcome: 02 Depression outcomes (self-rated)



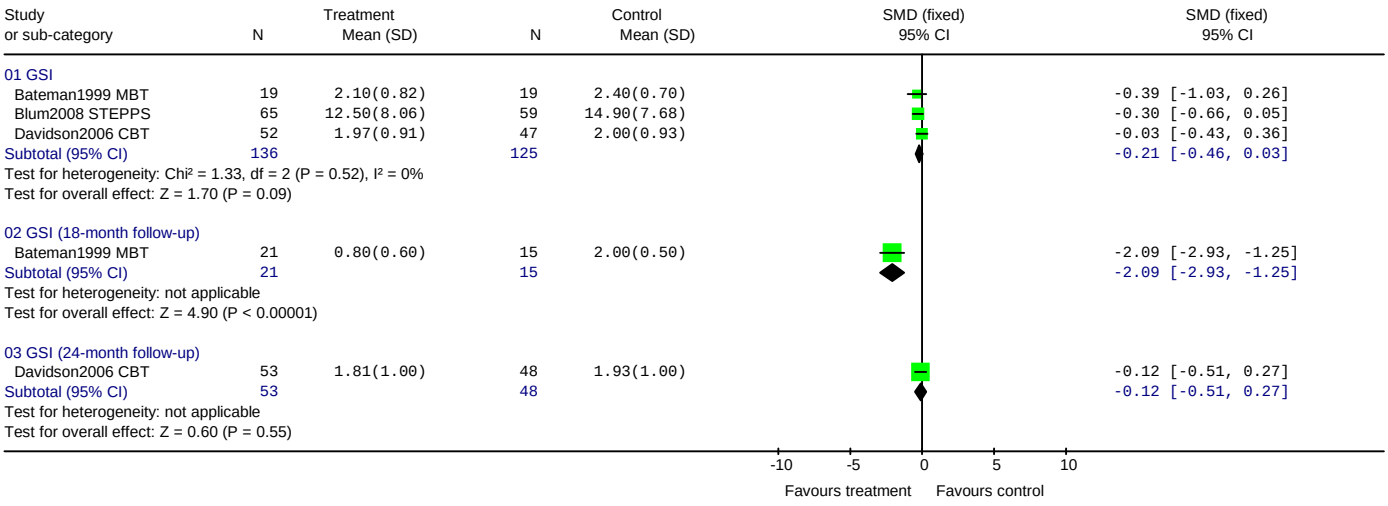
Psych 08.01 all available trials: impulsiveness measures

Review: BPD psychology
Comparison: 08 Impulsiveness measures
Outcome: 01 Barratt Impulsiveness Scale



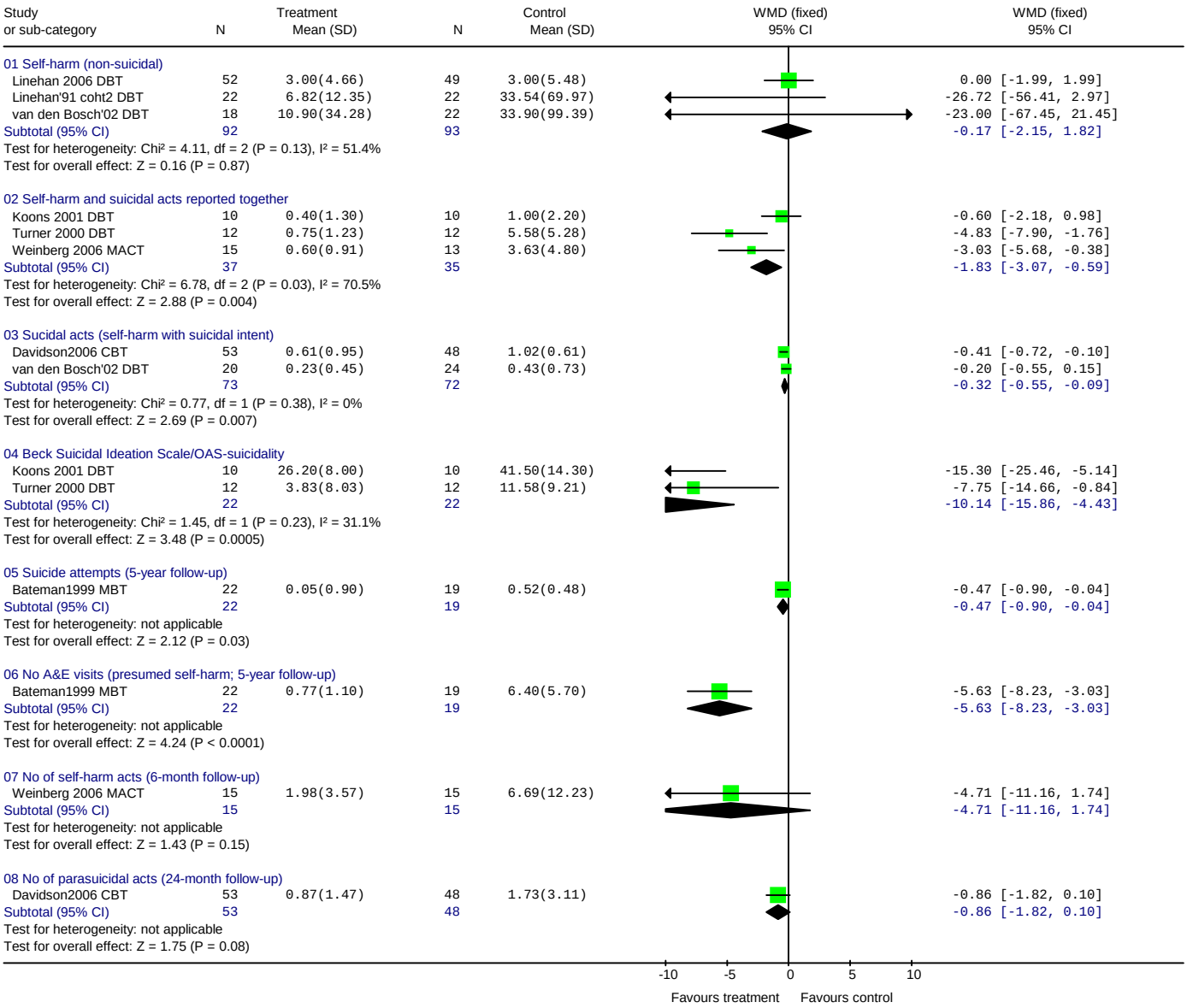
Psych 09.01 all available trials: mental distress

Review: BPD psychology
Comparison: 09 Mental distress measures
Outcome: 01 Mental distress



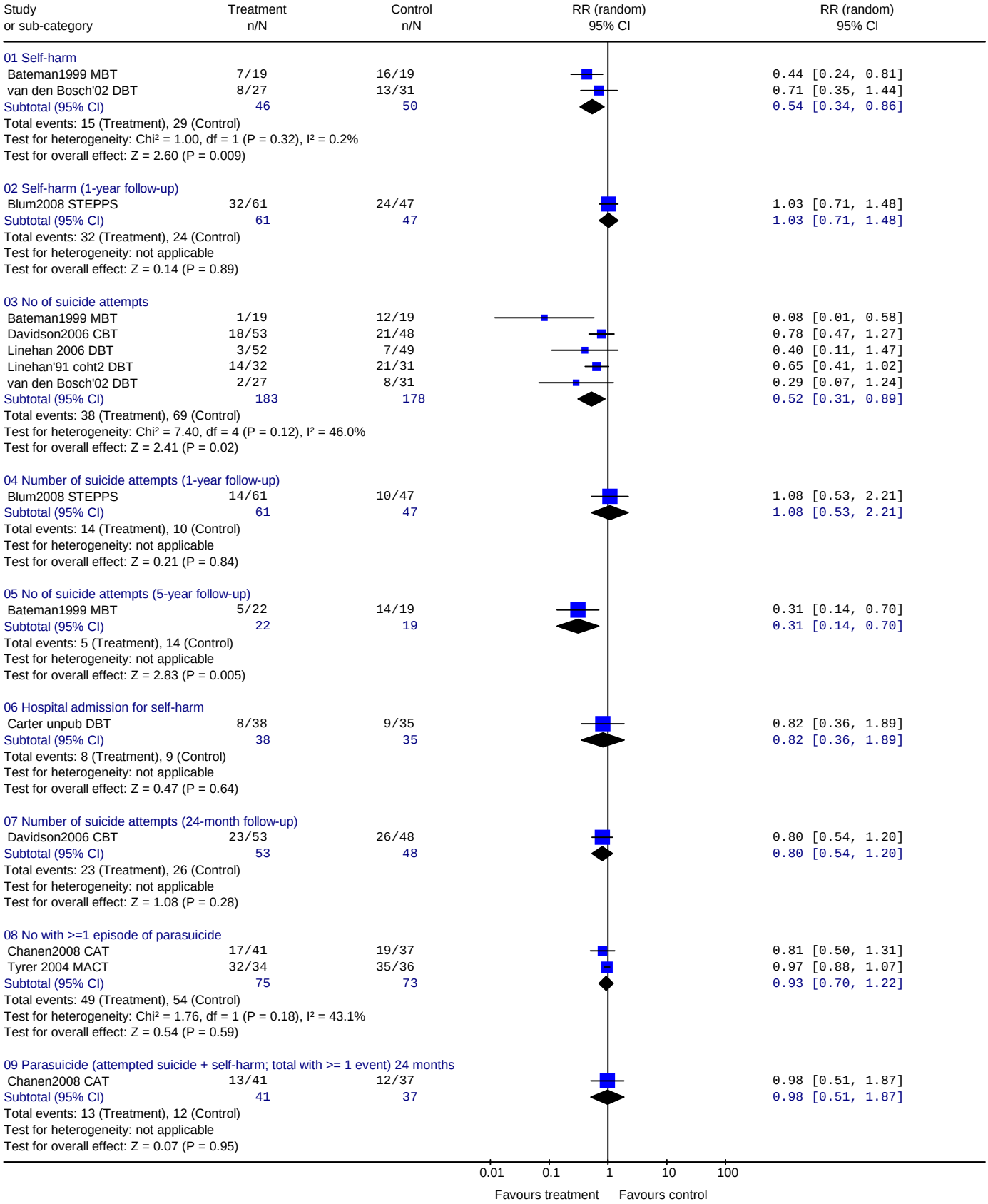
Psych 10.01 all available trials: self-harm and suicide-related measures (continuous)

Review: BPD psychology
Comparison: 10 Self-harm and suicide-related measures
Outcome: 01 Self-harm and suicide-related outcomes



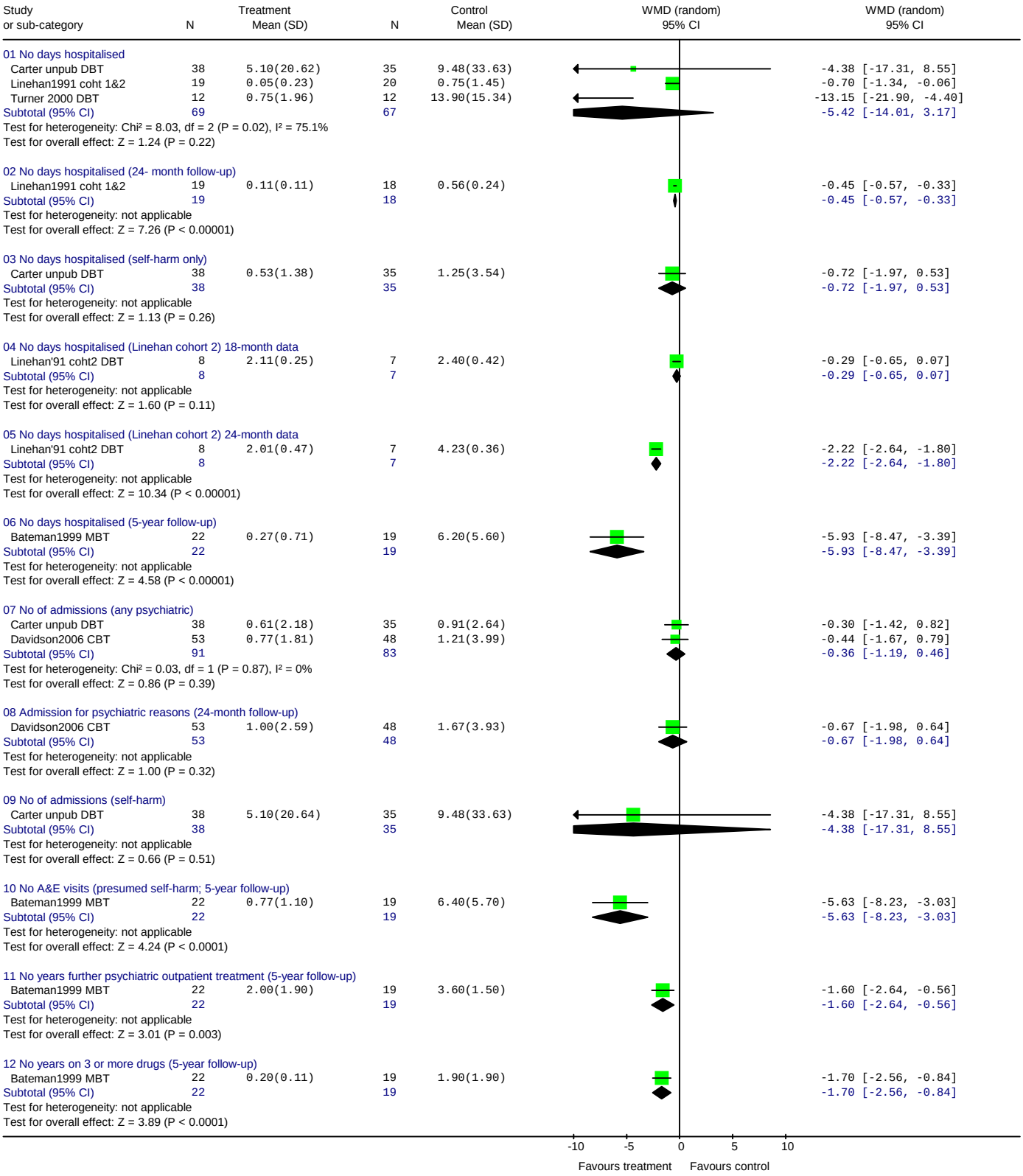
Psych 10.02 all available trials: self-harm and suicide-related measures (dichotomous).

Review: BPD psychology
Comparison: 10 Self-harm and suicide-related measures
Outcome: 02 Self-harm outcomes (dichotomous)



Psych 11.01 all available trials: service use measures - admissions

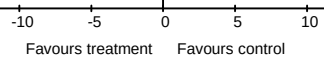
Review: BPD psychology
Comparison: 11 Service use measures
Outcome: 01 Admissions



Psych 11.02 all available trials: service use measures – emergency department use

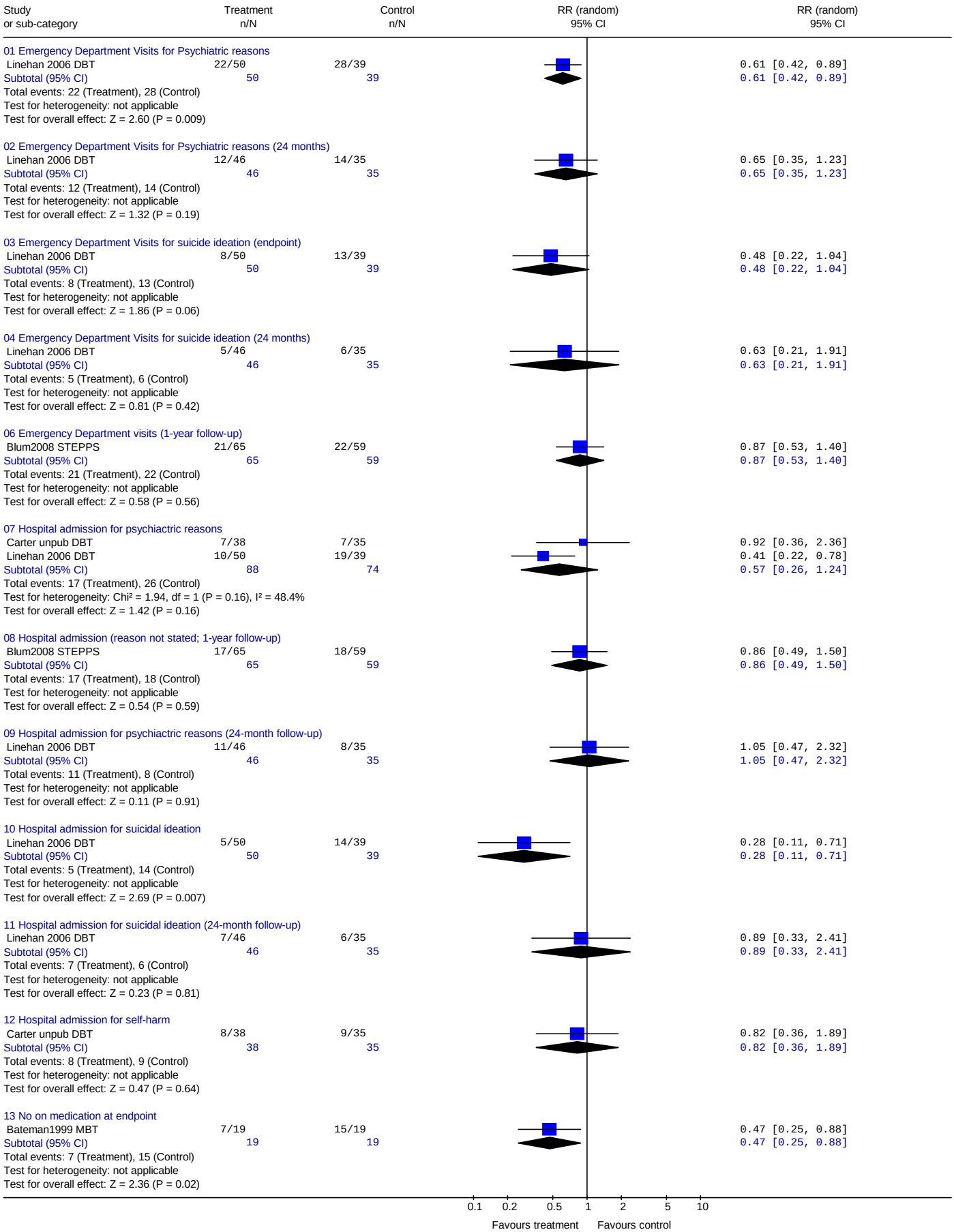
Review: BPD psychology
Comparison: 11 Service use measures
Outcome: 02 Emergency department use

Study or sub-category	N	Treatment Mean (SD)	N	Control Mean (SD)	WMD (fixed) 95% CI	WMD (fixed) 95% CI
01 No A&E contacts						
Davidson2006 CBT	53	2.40(3.77)	48	2.64(4.99)		-0.24 [-1.98, 1.50]
Subtotal (95% CI)	53		48			-0.24 [-1.98, 1.50]
Test for heterogeneity: not applicable						
Test for overall effect: Z = 0.27 (P = 0.79)						
02 No A&E contacts (24-month follow-up)						
Davidson2006 CBT	53	4.89(11.05)	48	5.04(10.03)		-0.15 [-4.26, 3.96]
Subtotal (95% CI)	53		48			-0.15 [-4.26, 3.96]
Test for heterogeneity: not applicable						
Test for overall effect: Z = 0.07 (P = 0.94)						
03 No A&E visits (presumed self-harm; 5-year follow-up)						
Bateman1999 MBT	22	0.77(1.10)	19	6.40(5.70)		-5.63 [-8.23, -3.03]
Subtotal (95% CI)	22		19			-5.63 [-8.23, -3.03]
Test for heterogeneity: not applicable						
Test for overall effect: Z = 4.24 (P < 0.0001)						



Psych 11.03 all available trials: service use measures (other, dichotomous)

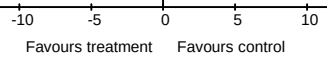
Review: BPD psychology
Comparison: 11 Service use measures
Outcome: 03 Service use outcomes (dichotomous)



Psych 12.01 all available trials: BPD symptoms

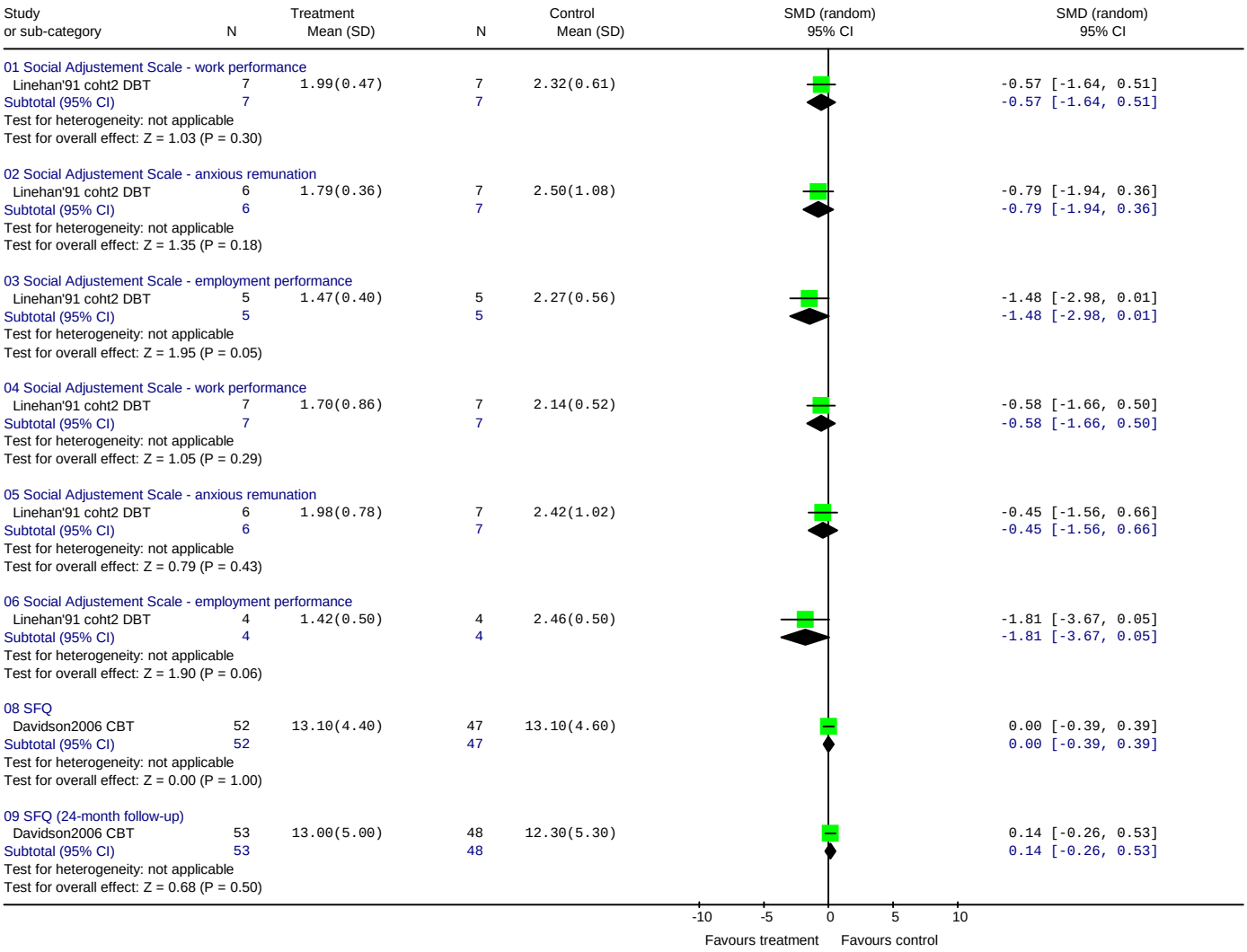
Review: BPD psychology
Comparison: 12 BPD symptoms
Outcome: 01 BPD symptoms

Study or sub-category	N	Treatment Mean (SD)	N	Control Mean (SD)	WMD (fixed) 95% CI	WMD (fixed) 95% CI
01 No of BPD criteria (DSM)						
Koons 2001 DBT	10	3.60(1.60)	10	4.20(2.30)		-0.60 [-2.34, 1.14]
Subtotal (95% CI)	10		10			-0.60 [-2.34, 1.14]
Test for heterogeneity: not applicable						
Test for overall effect: Z = 0.68 (P = 0.50)						
02 ZAN-BPD						
Blum2008 STEPPS	65	9.80(8.06)	59	13.40(7.68)		-3.60 [-6.37, -0.83]
Subtotal (95% CI)	65		59			-3.60 [-6.37, -0.83]
Test for heterogeneity: not applicable						
Test for overall effect: Z = 2.55 (P = 0.01)						
03 ZAN-BPD total (5-year follow-up)						
Bateman1999 MBT	22	5.50(5.20)	19	15.10(5.30)		-9.60 [-12.83, -6.37]
Subtotal (95% CI)	22		19			-9.60 [-12.83, -6.37]
Test for heterogeneity: not applicable						
Test for overall effect: Z = 5.83 (P < 0.00001)						
04 SCID-II BPD total 6 months						
Chanen2008 CAT	41	18.60(3.35)	37	18.97(3.73)		-0.37 [-1.95, 1.21]
Subtotal (95% CI)	41		37			-0.37 [-1.95, 1.21]
Test for heterogeneity: not applicable						
Test for overall effect: Z = 0.46 (P = 0.65)						
05 SCID-II BPD total 12 months						
Chanen2008 CAT	41	17.99(3.71)	37	18.58(4.14)		-0.59 [-2.34, 1.16]
Subtotal (95% CI)	41		37			-0.59 [-2.34, 1.16]
Test for heterogeneity: not applicable						
Test for overall effect: Z = 0.66 (P = 0.51)						
06 SCID-II BPD total 24 months						
Chanen2008 CAT	41	16.83(4.49)	37	17.10(4.99)		-0.27 [-2.39, 1.85]
Subtotal (95% CI)	41		37			-0.27 [-2.39, 1.85]
Test for heterogeneity: not applicable						
Test for overall effect: Z = 0.25 (P = 0.80)						



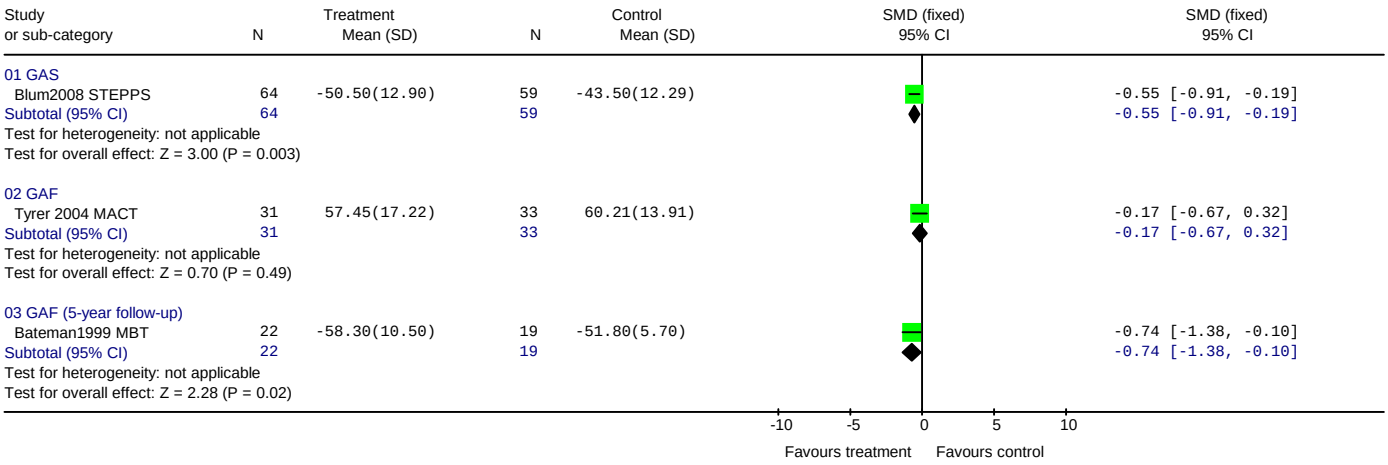
Psych 13.01 all available trials: social functioning measures

Review: BPD psychology
Comparison: 13 Social functioning measures
Outcome: 01 Social functioning



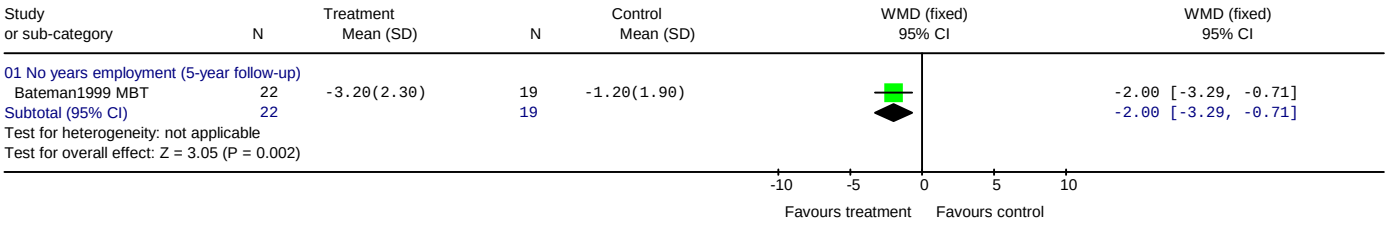
Psych 14.01 all available trials: general functioning measures

Review: BPD psychology
Comparison: 14 General functioning measures
Outcome: 01 General functioning



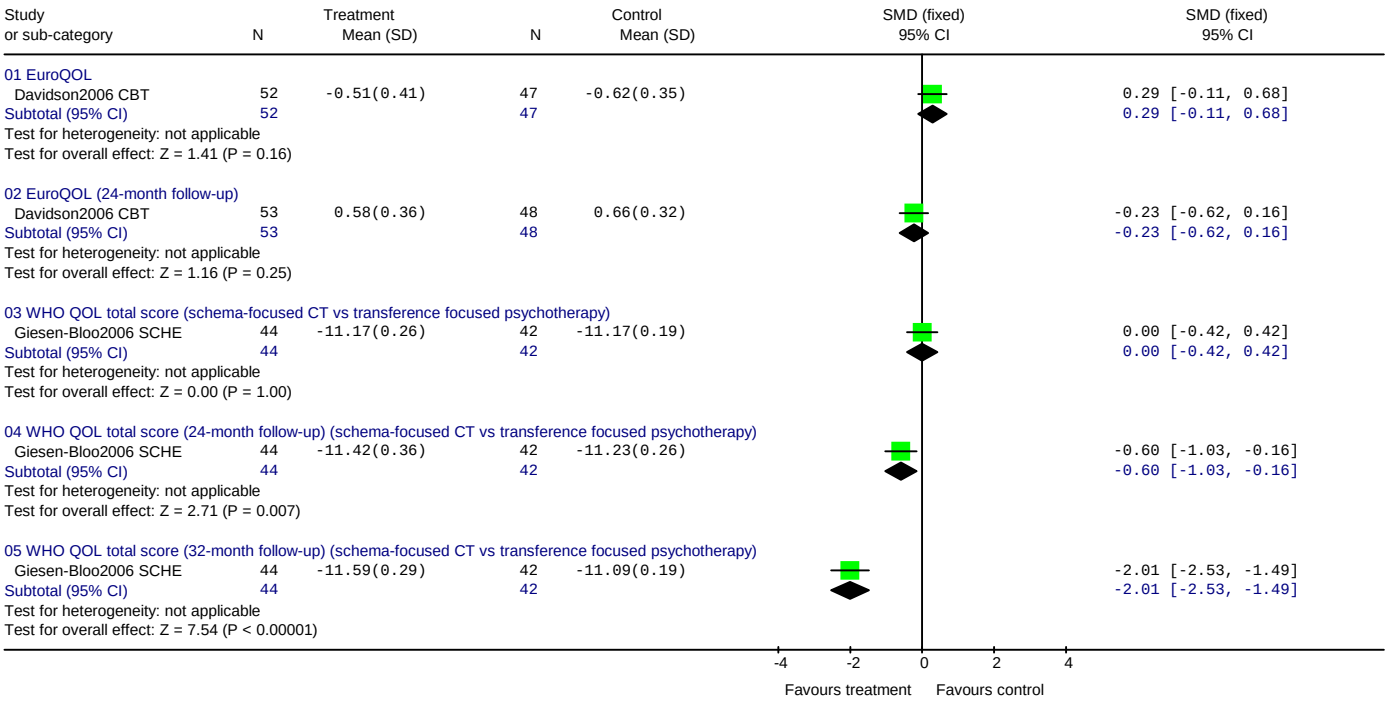
Psych 15.01 all available trials: employment-related measures

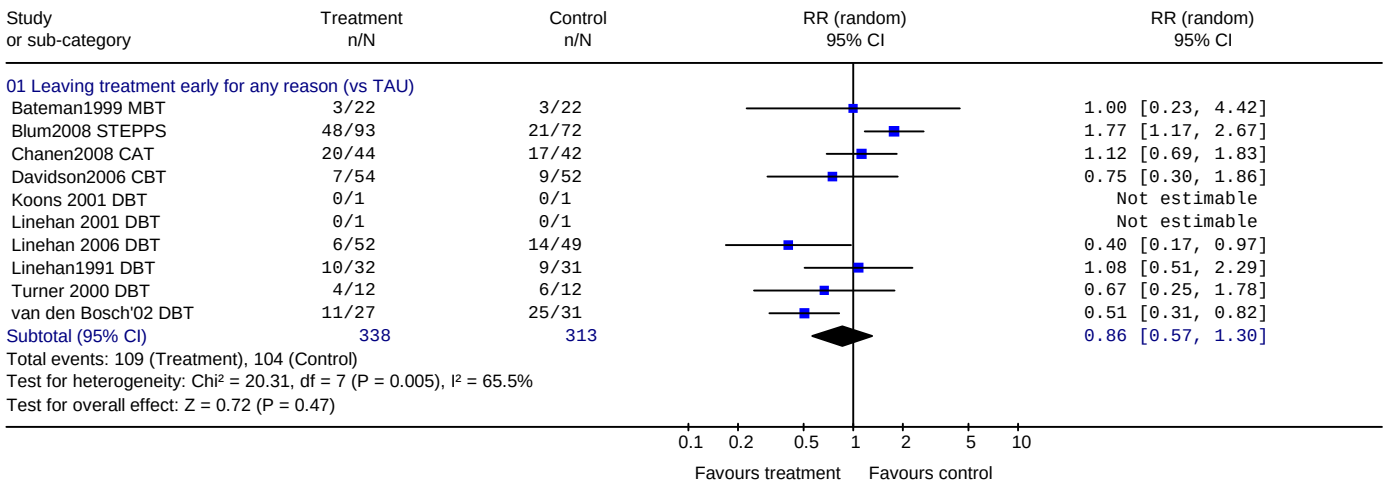
Review: BPD psychology
Comparison: 15 Employment-related outcomes
Outcome: 01 Employment-related outcomes



Psych 16.01 all available trials: quality of life measures

Review: BPD psychology
Comparison: 16 Quality of life measures
Outcome: 01 Quality of life measures



Psych 17.01 all available trials: acceptability and tolerability measures

Review: BPD psychology
Comparison: 17 Acceptability and tolerability measures
Outcome: 01 Acceptability and tolerability outcomes