APPENDIX 10. EVIDENCE TABLES

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
Author (year): Agyapong et al. (2013) **Citation:** Agyapong VI, Ahern S, McLoughlin DM, Farren CK. Supportive text messaging for depression and comorbid alcohol use disorder: single-blind randomised trial. Journal of affective disorders. 2012;141(2):168-76 **Country:** Dublin, Ireland **Geographical location**: Urban	**Details on population and sample selection:** Participants discharged from a hospital inpatient dual diagnosis treatment programme **Inclusion/ exclusion:** Major Depressive Disorder, DSM-IV (SCID). Alcohol Dependency Syndrome/Alcohol Abuse, DSM-IV (SCID). Other inclusion criteria: (1) Mini Mental State Examination score ≥25, (2) did not fulfil the criteria for bipolar affective disorder, psychotic disorder or current poly-substances dependence or	**Unit of randomisation:** Individual **Method of sequence generation:** Random numbers table, for example in a book; randomised using a series of random numbers generated using Excel. Participants were assigned the next available number from the randomisation sequence and, depending on whether the number was even or odd, they were placed respectively in the intervention group or control group. **Method of**	**Intervention (n=26):** Supportive text messaging *Description:* Patients in the intervention group received twice daily supportive text messages for three months. The messages were sent by a computer programme at 10.00 and 19.00 h each day. 180 text messages were written by the research team and two addiction counsellors to ensure that the same text message was not sent twice within a 3 month period. They were specifically designed around multiple themes aimed at dealing with stress, maintaining good mental wellbeing, promoting abstinence from alcohol, dealing with	1. Depressive symptoms assessed with Beck's Depression Inventory version II (BDI-II); 26 weeks' follow-up; lower scores represent a better outcome for participants; assessed by a researcher 2. General functioning assessed with the Global Assessment of Function (GAF); 26 weeks' follow-up; higher scores represent a better outcome for participants; assessed by a	**1. Depressive symptoms** Intervention group (n=26): Follow-up (mean, SD): 13.28 (8.7) Comparator (n=28): Follow-up (mean, SD): 15.08 (11.37) *SMD= -0.17, 95% CI, -0.71 to 0.36; p=0.52* **2. General functioning** Intervention group (n=26): Follow-up (mean, SD): 83.81 (12.34) Comparator (n=28): Follow-up (mean, SD): 74.1 (21.8) *SMD=0.53, 95% CI, -0.01 to 1.08; p=0.05* **3. Alcohol use (mean number of**	**Limitations identified by authors:** (1) small sample size which limits our power to detect differences between groups and the generalisability of our results, (2) the potential for loss of rater blinding which could be a source of bias, particularly for the secondary outcome, the observer-rated GAF scores (3) a final limitation of the study is that patients who

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
Study design: RCT **Quality rating**: [+] **Aim of the study:** Sought to explore the effects of supportive text messaging on mood and alcohol abstinence in patients with depression and comorbid alcohol use disorder following discharge from an inpatient dual diagnosis programme	abuse according to the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID), (3) patient had a mobile phone, was familiar with text messaging technology, was able to read and be available for follow-up during the study period. **Sample size (at baseline):** *Total:* 54 Intervention: 26 Comparator: 28 **Details on service users:** *Age:* 48.6 *Gender (percent*	**allocation:** Not reported **Blinding:** *Participants and providers:* Patients were asked not to disclose the allocated treatment group to the investigator who performed the follow-up assessments and who remained blinded about allocation throughout the study period. Rater correctly guessed the treatment allocation for 39 (78%) patients; 20/24 (83%) in the text message group versus 19/25 (73%) in the control	cravings, promoting adherence with medication, and providing general support. About half of the messages targeted improvement in mood and compliance with medication while the other half targeted abstinence from alcohol. **Setting:** NA **Intensity[1]:** NA **Frequency[2]:** 14 **Duration (weeks):** 13 **Fidelity to intervention:** NR **Comparator (n=28):** Control messages *Description:* Patients in the non-intervention group received text messages once fortnightly thanking them for participating in	researcher 3. Alcohol use (mean number of days abstinent); 26 weeks' follow-up; higher number represents a better outcome for participants; assessed by a researcher 4. Confidence in abstaining from alcohol assessed with the Alcohol Abstinence Self-Efficacy Scale (AASES); 26 weeks' follow-up; higher scores represent a better outcome for participants;	**days abstinent)** Intervention group (n=26): Follow-up (mean, SD): 84.14 (9.2) Comparator (n=28): Follow-up (mean, SD): 74.73 (28.97) *SMD= 0.42, 95% CI, -0.12 to 0.97; p=0.12* **4. Confidence in abstaining from alcohol** Intervention group (n=26): Follow-up (mean, SD): 75.6 (11) Comparator (n=28): Follow-up (mean, SD): 71.1 (14) *SMD= 0.35, 95% CI, -0.19 to 0.89; p=0.20*	did not meet the eligibility criteria for inclusion in the study were not assessed for demographic and clinical characteristics which could have been compared with those of participants in our study, our results may therefore not be generalisable to these groups of patients **Limitations identified by**

[1] Number of hours contact per session
[2] Number of sessions per week

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
	female): 54% *Ethnicity (percent white):* NR *Other demographics:* (1) 63% employed, (2) 15 years in education (mean), (3) 67% married or cohabiting *Details on SMI/SM diagnosis:* Major Depressive Disorder. DSM-IV (SCID). Alcohol Dependency Syndrome/Alcohol Abuse. DSM-IV (SCID).	group. Despite being asked not to discuss their treatment with the rater, many patients inadvertently did so at the follow-up assessment. *Assessors:* Patients were asked not to disclose the allocated treatment group to the investigator who performed the follow-up assessments and who remained blinded about allocation throughout the study period. Rater correctly guessed the treatment allocation for 39 (78%) patients; 20/24 (83%) in the text message group vs. 19/25 (73%) in the control group. Despite being	the study. **Setting***:* NA **Intensity**: NR **Frequency***:* 0.5 **Duration (weeks)***:* 13 **Format***:* Individual **Group size***:* NA **For both groups:** Patients were not precluded from participating in any follow-up programme, including attendance of the aftercare programme, attendance of self-help groups or counselling, review by a General Practitioner or Psychiatrist.	assessed by a researcher 5. Drink related beliefs assessed with the Obsessive Compulsive Drinking Scale (OCDS); 26 weeks' follow-up; lower scores represent a better outcome for participants; assessed by a researcher	**5. Drink related beliefs** Intervention group (n=26): Follow-up (mean, SD): 7.7 (4.9) Comparator (n=28): Follow-up (mean, SD): 10.7 (7.7) *SMD= -0.45, 95% CI, -1.00 to 0.09; p=0.10*	**review team:** (1) Objective outcome for alcohol use listed in the protocol not reported in the published paper **Funding:** St Patrick's Hospital Foundation and by a Henry Hutchinson Scholarship received by Dr Vincent Agyapong from the Department of Psychiatry, Trinity College Dublin.

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
		asked not to discuss their treatment with the rater, many patients inadvertently did so at the follow-up assessment. **Method for accounting for missing data in the analysis and loss to follow-up**: Last observation carried forward. 11% (6/54) of participants lost to follow-up.				

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
Author (year): Aubry et al. (2015) **Citation:** Aubry T, Tsemberis S, Adair CE, Veldhuizen S, Streiner D, Latimer E. One-year outcomes of a randomized controlled trial of Housing First with ACT in five Canadian cities. Psychiatric Services. 2015;66(5):463-469. **Country:** Vancouver, Winnipeg, Toronto, Montreal and Moncton, Canada	**Details on population and sample selection:** 'High-need' participants with severe mental illness, who were either absolutely homeless or precariously housed attending health and social service agencies **Inclusion/ exclusion:** Bipolar disorder or psychotic disorder, MINI 6.0. Comorbid substance use disorder. Other inclusion criteria: (1) a score on the Multnomah Community Ability Scale (MCAS) of 62 or lower (functioning indicator), (2) one of the following three criteria: (a) two or more hospitalisations for mental illness in any 1 year of the last 5 (service use indicator) OR (b) comorbid substance use (any of MINI disorders on	**Unit of randomisation:** Individual **Method of sequence generation:** Computer/Online; Participants were randomly assigned to treatment conditions at the end of the baseline interview by using a computer-generated algorithm programmed into the central data collection system. **Method of allocation:** Not reported **Blinding:** *Participants and providers:* It was not possible to hide the	**Intervention (n= 469):** Supportive housing *Description:* Housing First services for the demonstration project were developed on the basis of the Pathways to Housing approach. Rent supplements were provided so that participants' housing costs did not exceed 30% of their income. Housing coordinators provided clients with assistance to find and move into housing. Support services were provided by using ACT, a multidisciplinary team approach with a 10:1 client-to-staff ratio. At a minimum, study participants agreed to observe the terms of their lease and be available for a weekly	1. General functioning assessed with the Multnomah Community Ability Scale (MCAS); 52 weeks' follow-up; higher scores represent a better outcome for participants; assessed by interviewer 2. Housing (number of participants residing in stable housing at follow up) ; 52 weeks' follow-up; higher number represents a better outcome for participants;	**1. General functioning** Intervention group (n=469): Follow-up (mean, SD): 62.46 (8.66) Comparator (n=481): Follow-up (mean, SD): 60.34 (9.09) *SMD=0.24, 95% CI, 0.11 to 0.37; p=0.0002* **2. Housing** Intervention group: 316/433 Comparator: 124/400 *RR=2.35, 95% CI, 2.01 to 2.75; p<0.00001* **3. Mental health** Intervention group (n=469): Follow-up (mean, SD): 33.26 (11.9)	**Limitations identified by authors:** (1) nonblinding of interviewers and participants, (2) it was not possible to hide the treatment condition of participants from interviewers or from themselves. It is possible that a potential bias associated with this nonblinding contributed to differences in quality of life and community functioning between the

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
Geographical location: Mixed **Study design**: RCT **Quality rating**: [+] **Aim of the study**: to present 1-year findings from a new approach to ending chronic homelessness in people with mental illness evaluated using an RCT of Housing First with treatment as usual	the Eligibility Screening Questionnaire) (substance use indicator) OR (c) recent arrest or incarceration, (3) absolute homelessness or precarious housing, (4) legal status as a Canadian citizen, landed immigrant, refugee or claimant, (5) no receipt of ACT at study entry **Sample size (at baseline):** *Total:* 950 Intervention: 469 Comparator: 481 **Details on service users:** *Age (mean):* 39.4 *Gender (percent female*):	treatment condition of participants from interviewers or from themselves *Assessors:* the study design was non-blind **Method for accounting for missing data in the analysis and loss to follow-up**: Unclear. Conducted the analysis on the principle of intention to treat. A total of 856 (90%) participants completed the 12-month follow-up, including 406 of 481 (84%) participants in treatment as usual and 450 of 469 (96%) participants in	visit by program staff. **Setting:** NR **Intensity[3]:** NR **Frequency[4]:** NR **Duration (weeks):** NR **Fidelity to intervention:** An assessment of fidelity conducted nine to 13 months after the beginning of the study found the programs at all five sites showing on average a high level of fidelity to the Pathways Housing First model **Comparator (n=481):** Treatment as usual *Description:* Individuals assigned to treatment as usual had access to the existing network of programs (outreach; drop-in centers;	self-report 3. Mental health symptoms assessed with the Colorado Symptom Index (CSI); 52 weeks' follow-up; lower scores represent a better outcome for participants; self-report 4. Quality of Life assessed with the Quality of Life Interview (QOLI-20); 52 weeks' follow-up; higher scores represent a	Comparator (n=481): Follow-up (mean, SD): 34.51 (12.48) *SMD= -0.10, 95% CI, -0.23 to 0.02; p=0.11* **4. Quality of Life** Intervention group (n=469): Follow-up (mean, SD): 90.48 (20.75) Comparator (n=481): Follow-up (mean, SD): 83.97 (6.94) *SMD= 0.42, 95% CI, 0.29 to 0.55; p<0.00001* **5. Substance use** Intervention group:	groups, (3) the relatively short period of time that participants received Housing First was a further limitation. **Limitations identified by review team:** (1) not all participants had a dual diagnosis (73%), (2) assessors were not blinded **Funding:** Mental Health Commission of

[3] Number of hours contact per session
[4] Number of sessions per week

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
	32% *Ethnicity (percent white):* 55% *Other demographics:* (1) 73% never married, (2) 59% not a high school graduate, (3) 59% homeless for >24 months, (4) 33% arrested in past year *Details on SMI/SM diagnosis:* Bipolar disorder or psychotic disorder. MINI 6.0. Substance related problem. MINI 6.0.	Housing First.	shelters; and general medical health, addiction, and social services) and could receive any housing and support services other than services from the Housing First program. **Setting***:* NR **Intensity**: NR **Frequency***:* NR **Duration (weeks)***:* NR **Format***:* Individual **Group size***:* NA	better outcome for participants; self-report 5. Substance use (≥2 substance use problems in the past month); 52 weeks' follow-up; lower number represents a better outcome for participants; self-report	188/469 Comparator: 192/481 *RR=1.00, 95% CI, 0.86 to 1.17; p=0.96*	Canada

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
Author (year): Barrowclough et al. (2001) **Citation:** Barrowclough C, Haddock G, Tarrier N, Lewis SW, Moring J, O'Brien R, et al. Randomized Controlled Trial of Motivational Interviewing, Cognitive Behavior Therapy, and Family Intervention for Patients With Comorbid Schizophrenia and Substance Use Disorders. American Journal of Psychiatry. 2001;158(10):1706-13/ Haddock G, BarrowClough C,	**Details on population and sample selection:** People with schizophrenia and substance use disorders (and their caregivers) who were selected from hospital admission records **Inclusion/ exclusion:** DSM-IV or ICD-10. Substance abuse or dependence, DSM-IV. Other inclusion criteria: (1) In current contact with mental health services, (2) minimum of 10 hourse of face-to-face contact with the caregiver per week, (3) no evidence of organic brain diseassee, clinically significant concurrent medical illness, or learning disability	**Unit of randomisation:** Individual **Method of sequence generation:** Computer/Online; Individual patients were allocated to each condition by a third part with no affiliation to the study who used a computer generated randomisation list stratfied by sex and three types of substance use (alcohol along, drugs alone, or drugs and alcohol) to ensure equal male-female and substance use representation in each arm of the trial **Method of allocation:** Individual patients were allocated to each condition by a third	**Intervention (n=18):** Integrated intervention programme *Description:* The planned intervention period was 9 months; sessions took place in the caregivers' and patients' homes, except when patients or caregivers expressed a preference for a clinic-based appointment (one individual in the integrated care group expressed this preference). The integrated treatment program attempted to combine three treatment approaches: motivational interviewing, individual cognitive behaviour therapy, and family or caregiver intervention. All of the patients in the	1. General functioning assessed with the Global Assessment of Function (GAF) scale; 78 weeks' follow-up; higher scores represent a better outcome for participants; assessed by a researcher 2. Relapse (hospital admission or exacerbation of symptoms for ≥2 weeks); 78 weeks' follow-up; lower number represents a better outcome for participants; from hospital records 3. Psychotic symptoms	**1. General functioning** Intervention group (n=15): Follow-up (mean, SD): 60.12 (18.96) Comparator (n=14): Follow-up (mean, SD): 53.44 (13) *SMD=0.40, 95% CI, -0.34 to 1.13; p=0.29* **2. Relapse** Intervention group: 7/18 Comparator: 12/18 *RR=0.58, 95% CI, 0.30 to 1.13; p=0.11* **3. Psychotic symptoms** Intervention group (n=15): Follow-up: 52.2 (11.12)	**Limitations identified by authors:** (1) relatively small number of participants in this study, (2) the potential generalisability of the findings to other patients with comorbid schizophrenia and substance use disorders (3) little information is available to indicate what percent of patients with comorbid schizophrenia and substance use disorders have contact with their

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
Tarrier N, Moring J, O'Brien R, Schofield N, et al. Cognitive–behavioural therapy and motivational intervention for schizophrenia and substance misuse. The British Journal of Psychiatry. 2003;183(5):418-26. **Country:** Northwest of England, UK **Geographical location**: NR **Study design**:	**Sample size (at baseline):** *Total:* 36 Intervention:18 Comparator:18 **Details on service users:** *Age (mean, range):* 31, 21-57 *Gender (percent female*): 8% *Ethnicity (percent white):* 100% *Other demographics:* (1) mean number of hospitalisations was 4.9, (2) mean illness duration was 8.4 years, (3) 50% lived with their caregiver	part with no affiliation to the study **Blinding:** *Participants and providers:* Not reported, but not possible to blind *Assessors:* Assessors were blind to treatment allocation **Method for accounting for missing data in the analysis and loss to follow-up**: Last observation carried forward. Intention to treat analysis. 17/18 in the intervention group and 15/18 in the control group completed follow-up measures. 3 participants were lost-	integrated treatment program also received routine care (described below). **Setting:** Caregiver and patient homes (or clinic if the patient preferred) **Intensity[5]:** 1 **Frequency[6]:** NR **Duration (weeks):** 39 **Fidelity to intervention:** Study reported that therapists received weekly supervision based on audiotaped sessions to ensure fidelity but no data reported. **Comparator (n=18):** Routine care *Description:* Psychiatric management by the clinical team, coordinated through	assessed with the Positive and Negative Syndrome Scale Score (PANSS); 78 weeks' follow-up; lower scores represent a better outcome for participants; assessed by a researcher 4. Social functioning assessed with The Social Functioning Scale; 78 weeks' follow-up; higher scores represent a better outcome for participants; assessed by a	Comparator (n=14): Follow-up: 58.5 (15.4) *SMD=-0.47, 95% CI, -1.21 to 0.27; p=0.27* **4. Social functioning** Intervention group (n=15): Follow-up (mean, SD): 106.64 (28.157) Comparator (n=14): Follow-up (mean, SD): 100.23 (37.491) *SMD=0.19, 95% CI, -0.54 to 0.92; p=0.61* **5. Substance use** Intervention group (n=17): Change from baseline (median,	families, or whether patients with family contacts have a different profile of substance use from those without such contacts. **Limitations identified by review team:** (1) small sample size, (2) patients who refused to take part in the study were significantly older, had a longer duration of illness and fewer

[5] Number of hours contact per session
[6] Number of sessions per week

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
RCT **Quality rating**: [+] **Aim of the study:** to investigate whether the program of interventions had a beneficial effect on illness and substance use outcomes over and above that achieved by routine care.	*Details on SMI/SM diagnosis:* Schizophrenia or schizoaffective disorder, DSM-IV or ICD-10. Substance use disorder, DSM-IV.	to follow-up due to death: 1 in integrated care group (heart attack), 2 in routine care group (1 drug overdose, 1 fall from high bridge)	case management and including maintenance neuroleptic medication, monitoring through outpatient and community follow-up, and access to community-based rehabilitative activities, such as day centers and drop-in clinics. **For both groups:** All patients in the study were allocated a family support worker from the voluntary organization Making Space. The services of this support worker included providing information, giving advice on benefits, advocacy, emotional support, and practical help. The frequency and nature of contact with the support worker was decided by	researcher 5. Substance use (percent of days of abstinence from most frequent substance); 26 weeks' follow-up; higher number represents a better outcome for participants; assessed by a researcher 6. Substance use assessed with the Leeds Dependence Questionnaire 26 weeks' follow-up; higher scores represent a better outcome for participants; assessed by a	range): 15.22 (-35 to 98) Comparator (n=15): Change from baseline (median, range): 8.08 (-25 to 50) Mann-Whitney U=90.50 (reported as not significant, p-value not reported,) **6. Substance use** Authors report no significant differences in change scores between groups at follow-up assessment (p-values not reported)	admissions in the previous 3 years **Funding:** Supported by West Pennine, Manchester, and Stockport Health Authorities and Tameside & Glossop National Health Service Trust Research and Development Support funds and by Making Space, the organisation for supporting caregivers and sufferers of mental illness

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
			mutual agreement between caregiver and support worker **Setting:** Community-based **Intensity:** NR **Frequency:** NR **Duration (weeks):** 39 **Fidelity to intervention:** NR	researcher		

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
Author (year): Barrowclough et al. (2010) **Citation:** Barrowclough C, Haddock G, Wykes T, Beardmore R, Conrod P, Craig T, et al. Integrated motivational interviewing and cognitive behavioural therapy for people with psychosis and comorbid substance misuse: randomised controlled trial. BMJ. 2010;341 **Country:** Greater	**Details on population and sample selection:** People with psychosis and a comorbid substance use problem recruited from 3 adult NHS mental health trusts **Inclusion/ exclusion:** Non-affective psychotic disorder, ICD-10 and/or DSM-IV. Dependence on or abuse of drugs, alcohol or both, DSM-IV. Other inclusion criteria: (1) In current contact with mental health services, (2) minimum weekly alcohol use (>28 units for males, >21 units for females on	**Unit of randomisation:** Individual **Method of sequence generation:** Computer/Online; Random allocation to therapy plus standard care or standard care alone was performed using a remote independent service, with a minimisation algorithm taking into account substance type (alcohol alone, drugs alone, or alcohol and drugs), main drug of use (cannabis, amphetamines, opiates, or other), and NHS trust. **Method of allocation:** Random allocation to therapy plus standard care or standard care	**Intervention (n=163):** Integrated intervention programme *Description:* The psychological therapy consisted of up to 26 individual therapy sessions delivered over 12 months at the patient's location of choice, which was usually their home. Considerable emphasis was placed on initiating and maintaining engagement in therapy with strategies. Treatment was built around two phases to allow motivational interviewing and cognitive behavioural therapy to be integrated without compromising the essential spirit and fundamentals of each approach. Phase one of the intervention "motivation building"	1. General functioning assessed with the Global Assessment of Function (GAF) scale; 104 weeks' follow-up; higher scores represent a better outcome for participants; assessed by a researcher 2. Hospital admission (number of participants admitted during study period);104 weeks' follow-up; lower number represents a better outcome for participants; from hospital records 3. Relapse (or exacerbation of symptoms for ≥2	**1. General functioning** Intervention group (n=163): Follow-up (mean, SD): 35.97 (10.93) Comparator (n=163): Follow-up (mean, SD): 36.18 (10.27) *SMD= -0.02, 95% CI, -0.24 to 0.20; p=0.86* **2. Hospital admission** Intervention group: 38/163 Comparator: 33/163 *RR=1.15, 95% CI, 0.76 to 1.74; p=0.50* **3. Relapse** Intervention group: 63/161 Comparator: 61/161 *RR=1.03, 95% CI, 0.78 to 1.36; p=0.82*	**Limitations identified by authors:** (1) did not assess specific components of standard care for each participant (2) did not control for the additional therapist contact associated with study participation **Limitations identified by review team:** No additional limitations identified by the review team **Funding:**

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
Manchester, Lancashire and south London, UK **Geographical location**: Mixed **Study design**: RCT **Quality rating**: [+] **Aim of the study**: to conduct a full scale randomised controlled trial to determine the efficacy of integrated motivational interviewing and	at least half the weeks in the past 3 months or illicit drug use (at least 2 days a week in at least half of the weeks in the past three months) (3) no evidence of organic brain disease (4) english speaking, (5) fixed abode (including bed and breakfast or hostel) **Sample size (at baseline):** *Total:* 327 Intervention: 164 Comparator: 163 **Details on service users:**	alone was performed using a remote independent service **Blinding:** *Participants and providers:* Not reported, but not possible to blind *Assessors:* For outcomes requiring self reports, research assistants blind to treatment allocation assessed participants at baseline, after completion of treatment (12 months) nd one year after completion of treatment (24 months), with two additional assessment points at six and 18 months for evaluation of substance use	selectively elicited and reinforced "change talk" through use of the core skills and principles of motivational interviewing. In phase two of the intervention, a plan for change was developed. Where the person was open to change in substance use, cognitive behavioural techniques from both the psychosis and substance use evidence base were used to formulate a change plan and to help the patient implement and maintain changes such as reduction or abstinence in one or more substances. **Setting:** Location of choice, usually home **Intensity[7]:** NR **Frequency[8]:** 0.5	weeks); 104 weeks' follow-up; lower number represents a better outcome for participants; from hospital records 4 Psychotic symptoms assessed with the Positive and Negative Syndrome Scale Score (PANSS); 104 weeks' follow-up; lower scores represent a better outcome for participants; assessed by a researcher 5 Substance use (mean percent of days of abstinence	**4. Psychotic symptoms** Intervention group (n=163): Follow-up (mean, SD): 54.56 (14.7) Comparator (n=163): Follow-up (mean, SD): 51.85 (11.57) *SMD= 0.20, 95% CI, -0.01 to 0.42; p=0.07* **5. Substance use (most frequent drug)** Intervention group (n=129): Follow-up (mean, SD): 51.29 (39.8) Comparator (n=117): Follow-up (mean, SD): 48.77 (39.69)	Sponsored by University of Manchester and funded by the UK Medical Research Council (grant no: GO200471) and the Department of Health

[7] Number of hours contact per session

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
cognitive behavioural therapy delivered by trained therapists in addition to mental health services standard care	*Age (mean):* 37.84 *Gender (percent female*): 13.5% *Ethnicity (percent white):* 81% *Other demographics:* (1) 93% unemployed, (2) 46.5% living along, 30% living with family/partner, 24% living in house share, hostel or temporary housing *Details on SMI/SM diagnosis:* Schizophrenia, schizophreniform disorder, schizoaffective disorder, psychosis (NOS). ICD-10	(timeline followback). Only one assessment was completed unblinded. **Method for accounting for missing data in the analysis and loss to follow-up**: Imputation (those receiving some treatment). Data were analysed according to the intention to treat principle. Implicit in these analyses was the assumption that data were missing completely at random after conditioning on all of the baseline covariates. Data on the primary outcome were collected for 326 (99.7%) participants. Key secondary	**Duration (weeks):** 52 **Fidelity to intervention:** 81-100% treatment fidelity to the intervention across 40 audiotaped sessionsMean sessions delivered to intervention group, 16.7 (SD8.3) **Comparator (n=163):** Standard care *Description:* Standard psychiatric care in the UK comprises anti-psychotic medication, outpatient and community follow-up, and access to community-based rehabilitative activities **Setting***:* NR **Intensity**: NR **Frequency***:* NR **Duration (weeks)***:* NR **Format***:* Individual **Group size***:* NA	from most frequent substance); 104 weeks' follow-up; higher number represents a better outcome for participants; assessed by a researcher 6 Substance use (mean percent of days of abstinence from any substance); 104 weeks' follow-up; higher number represents a better outcome for participants; assessed by a researcher	*SMD= 0.06, 95% CI, -0.19 to 0.31; p=0.62* **6. Substance use (any drug)** Intervention group (n=130): Follow-up: 44.25 (38.36) Comparator (n=117): Follow-up: 37.18 (36.89) *SMD= 0.19, 95% CI, -0.06 to 0.344; p=0.14*	

[8] Number of sessions per week

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
	and/or DSM-IV. Substance dependence or abuse. DSM-IV.	outcomes (positive and negative syndrome scale and substance use) were available for 269 (82.2%) participants at 12 months and 246 (75.2%) participants at 24 months. 7 participants were lost to follow-up due to death. Intervention group=2, TAU=5. Reasons included suicide, non-dependant use of drugs, stroke, cancer, genetic disorder, heart attack and multiple physical conditions.				

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
Author (year): Bonsack et al. (2011) **Citation:** Bonsack C, Gibellini Manetti S, Favrod J, Montagrin Y, Besson J, Bovet P, et al. Motivational Intervention to Reduce Cannabis Use in Young People with Psychosis: A Randomized Controlled Trial. Psychotherapy and Psychosomatics. 2011;80(5):287-97 **Country:** Luasanne,	**Details on population and sample selection:** Participants were young people with psychosis receiving treatment as inpatients or outpatients at the University Department of Psychiatry CHUV at the time of the study. Participants were chosen from the medical records of patients receiving treatment and through systematic reviews with psychiatrists of their patient lists **Inclusion/ exclusion:** Schizophrenia, schizophreniform disorder, bipolar disorder with psychotic features, schizoaffective disorder, psychosis (NOS), DSM-IV.	**Unit of randomisation:** Individual **Method of sequence generation:** Computer/Online; Randomisation was performed by blocks of 8, based on a computer-generated allocation placed in closed envelopes. **Method of allocation:** Envelopes were generated and kept by a member of the administrative staff of the	**Intervention (n=30):** Motivational intervention *Description:* The motivational intervention (MI) sessions were conducted individually and based on written guidelines, and included 4–6 sessions depending on a patient's readiness to attend. The first session lasted about 60 min and was followed by a feedback session of 45–60 min within the next week. Two to four booster sessions tailored to the needs of the participants of 30–45 min took place during the first 6 months.	1. Cannabis use (number of joints per week); 24 weeks' follow-up; lower number represents a better outcome for participants; self-report 2. Cannabis use (number of joints per week); 52 weeks' follow-up; lower number represents a better outcome for participants; self-report 3. Positive symptoms of psychosis assessed with the Positive Subscale of the Positive and	**1. Cannabis use** Intervention group (n=30): Follow-up (median): 10.5 Comparison group (n=32): Follow-up (median): 0.5 Mann-Whitney U=308.0 (p=0.015)**2.Cannabis use** Intervention group (n=30): Follow-up (median): 10 Comparison group (n=32): Follow-up (median): 3.5 Mann-Whitney	**Limitations identified by authors:** (1) decrease in cannabis use in the control group was higher than expected in the sample size calculation. (2) participants smoked a median number of 20 joints per week at baseline, which avoided a floor effect in the outcome measure, but which may be higher than the average psychosis patient with comorbid cannabis use. It is possible that the SUD of such heavy users

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
Switzerland **Geographical location**: NR **Study design**: RCT **Quality rating**: [–]] **Aim of the study**: examined if the addition of a motivational intervention to routine care would impact on outcomes for people with psychosis and comorbid cannabis use	Smoking at least 3 joints/week during the month preceding inclusion. Excluded criteria: (1) organic brain disease, (2) poor command of French, (3) current alcohol or other substance dependence **Sample size (at baseline):** *Total:* 62 Intervention: 30 Comparator: 32 **Details on service users:** *Age (mean):* 26.4 *Gender (percent female*): 13% *Ethnicity (percent white):* NR *Other demographics:*	project. **Blinding:** *Participants and providers:* Not reported, but not possible to blind *Assessors:* The assessments were conducted by an independent member of the research team who was not the participant's therapist. **Method for accounting for missing data in the analysis and loss to follow-up**: Last observation carried forward. Missing data were handled using last	First, in an integrated dual-diagnosis approach, MI therapists strategically explored interactions between psychosis and substance use, capitalizing on the effects of recent symptoms to help patients to identify a link between cannabis use and psychotic symptoms. Second, to accommodate to cognitive impairment and disordered thinking accompanying some psychotic disorders, MI interviews were structured around the Decisional Balance Grid (DBG) and incorporated strategies of repetition and the use of simple, concrete verbal and	Negative Syndrome Scale Score (PANSS); 52 weeks' follow-up; lower scores represent a better outcome for participants; assessed by a researcher 4. Negative symptoms of psychosis assessed with the Negative Subscale of the PANSS; 52 weeks' follow-up; lower scores represent a better outcome for participants; assessed by a researcher 5. Hospital admission (number of participants	U=378.5 (not significant, p-value not reported) **3. Positive symptoms of psychosis** Intervention group (n=30): Follow-up (median, range): 15.0 (16) Comparator (n=32): Follow-up (median, range): 16.0 (21) Mann-Whitney U=418 (p=0.38) *SMD= -0.22, 95% CI, -0.72 to 0.27; p=0.38* **4. Negative symptoms of psychosis** Intervention group (n=30):	are more entrenched and therefore less amenable to long-lasting modification. Average users who smoke lower numbers of joints per day may prove more sensitive to the intervention, (3) handling missing data using LOCF has been criticised as it depends on the relative number of participants lost to follow-up in each group. However, considering the equally low number of subjects lost to follow-up in both groups, this did probably not introduce bias into our study, (4) while control group

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
	(1) 92% never married, (2) 40% post-secondary educational, (3) 22.6% employed, (4) 27% in residential care *Details on SMI/SM diagnosis:* Schizophrenia, brief psychotic disorder, schizotypal disorder, schizoaffective disorder. DSM-IV. Cannabis dependence (82.3%). DSM-IV.	observation carried forward (LOCF) technique. 83% in the intervention group and 91% in the comparison group completed 12 month follow-up assessments.	visual material. **Setting:** NR **Intensity[9]:** 1 **Frequency[10]:** 0.3 **Duration (weeks):** 24 **Fidelity to intervention:** NR **Treatment adherence:** Sessions in first 6 months, mean=5.13 (SD=2.06). **Comparator (n=32):** Treatment as usual *Description:* TAU was identical in each group. It consisted of psychiatric management by a clinical team composed of at least one psychiatrist and a psychiatric nurse or clinical psychologist,	admitted during study period); 52 weeks' follow-up; lower number represents a better outcome for participants; from case notes 6. General functioning assessed with the Global Assessment of Function scale (GAF); 52 weeks' follow-up; higher scores represent a better outcome for participants; assessed by a researcher 7. Social and occupational functioning	Follow-up (median, range): 16.0 (18) Comparator (n=32): Follow-up (median, range): 17.0 (16) Mann-Whitney U=398.5 (p=0.25) *SMD= -0.30, 95% CI, -0.80 to 0.21; p=0.25* **5. Hospital admission** Intervention group: 9/30 Comparator: 11/32 *RR=0.87, 95% CI, 0.42 to 1.80; p=0.71* **6. General functioning** Intervention group	patients received also a comprehensive treatment, MI patients benefited from additional attention and from group approach. Differences between groups may therefore be explained by the effect of additional sessions rather than by the actual content of the intervention. **Limitations identified by review team:** (1) Unclear if, and how many, participants were inpatients or outpatients during

[9] Number of hours contact per session
[10] Number of session per week

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
			with additional access to community treatment or hospital admission if needed. Treatment included antipsychotic medication, regular office-based or community contacts with the clinical team for treatment monitoring, and allowed access to community-based rehabilitation activities, such as day centers. No attempts were made to standardise this treatment, which was based on individual patient's needs. Control participants received standard counseling and psychoeducation regarding substance use, but were not exposed to any other	assessed with the Social and Occupation Functioning Scale (SOFAS); 52 weeks' follow-up; higher scores represent a better outcome for participants; assessed by a researcher	(n=30): Follow-up (median, range): 40.0 (25) Comparator (n=32): Follow-up (median, range): 40.0 (27) Mann-Whitney U=410.0 (p=0.32) **6. Social and occupational functioning** Intervention group (n=30): Follow-up (median, range): 42.5 (32) Comparator (n=32): Follow-up (median, range): 42.5 (31) Mann-Whitney U=434.5 (p=0.52)	the study period although authors state that patients were asked to participate in the study during a stable phase of their illness, (2) unable to calculate effect sizes, (3) 82% were diagnosed with cannabis dependence **Funding:** Support for the study was provided by the Swiss Research National Fund (FNS), grant No. 3200BO-108454 to Dr. Charles Bonsack. Dr. Philippe Conus received support form the Leenaards Foundation in

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
			specific MI. **Setting***:* NR **Intensity**: NR **Frequency***:* NR **Duration (weeks)***:* NR **Format***:* Individual **Group size***:* NA			Lausanne, Switzerland.

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
Author (year): Bradford et al. (2005) **Citation:** Bradford DW, Gaynes BN, Kim MM, Kaufman JS, Weinberger M. Can Shelter-Based Interventions Improve Treatment Engagement in Homeless Individuals With Psychiatric and/or Substance Misuse Disorders?: A Randomized Controlled Trial. Medical Care. 2005;43(8):763-8.	**Details on population and sample selection:** Homeless individuals or families with psychiatric and substance use problems referred to a shelter-based psychiatric clinic **Inclusion/ exclusion:** Positive mental health and substance use screen. Other inclusion criteria: (1) not receiving consistent treatment from the local community mental health center	**Unit of randomisation:** Individual **Method of sequence generation:** The psychiatric social worker drew subjects' study assignments from a container with equal number of cards for the 2 groups **Method of allocation:** Allocation was not concealed; the psychiatric social worker drew subjects' study assignments from a container with	**Intervention (n=51):** Shelter-based psychiatric clinic *Description*: Psychiatric management included supportive psychotherapy and pharmacotherapy as clinically indicated. The treatment approach emphasized continuity of care while in the shelter, short-term goal setting, identification of goal and treatment obstacles, availability of case management services, and close collaboration between the psychiatrist and psychiatric social worker (PSW). Case-management services, with emphasis on staying in mental health treatment and working towards housing,	1. Service utilisation (number of participants attending ≥1 community mental health appointment); follow-up NR; higher number represents a better outcome for participants; assessed by clinician 2. Service utilisation (number of participants attending ≥2 community mental health appointment); follow-up NR; higher number represents a better outcome for participants; assessed by clinician 3. Service utilisation (number of participants attending	**1. Service utilisation (≥1 appointments)** Intervention group:33/51 Comparator: 19/51 *RR = 1.74; 95% CI, 1.15 to 2.62; p=0.008* **2. Service utilisation (≥2 appointments)** Intervention group:17/51 Comparator: 9/51 *RR=1.89, 95% CI, 0.93 to 3.84; p=0.08*	**Limitations identified by authors:** (1) because the homeless population and the structure and operations of shelter systems serving them are not homogeneous, generalizability from a single site is limited. (2) the PSW delivered the intervention, conducted the study assessments, and collected outcome data. To address this concern, most baseline assessments

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
Country: NR, US **Geographical location**: NR **Study design**: RCT **Quality rating**: [-] **Aim of the study**: to evaluate the effectiveness of a shelter based intervention, including intensive outreach by a psychiatric social worker and availability of weekly psychiatrist visits with continuity of care to engage	**Sample size (at baseline):** *Total:* 102 Intervention: 51 Comparator: 51 **Details on service users:** *Age (mean):* 39.4 *Gender (percent female*): 33% *Ethnicity (percent white):* 38% *Other demographics:* (1) 7% employed *Details on SMI/SM diagnosis:* Mood disorder (60%), Psychotic disorder	equal number of cards for the 2 groups **Blinding:** *Participants and providers:* Not reported, but not possible to blind *Assessors:* These measures were ascertained directly from the community mental health center clinicians (blinded to study group assignment) **Method for accounting for missing data in the analysis and loss to follow-up**: Unclear. Not	employment, or disability application, were provided by a full-time PSW. Immediately after the initial psychiatric assessment, the psychiatrist and PSW met with the subject to review specific problems, set short-term goals, and schedule a follow up appointment with the PSW. Referrals to the CMHC were made by the PSW, who assertively followed up patients missing their appointments. **Setting:** Shelter **Intensity[11]:** NR **Frequency[12]:** NR **Duration (weeks):** NR **Fidelity to intervention:** NR **Comparator (n=51):**	≥3 community mental health appointment); follow-up NR; higher number represents a better outcome for participants; assessed by clinician 4. Service utilisation (number of participants who had a substance use disorder attending substance abuse programming); follow-up NR; higher number represents a better outcome for participants; assessed by clinician 5. Employment (employed at shelter exit); follow-up NR;	**3. Service utilisation (≥3 appointments)** Intervention group:10/51 Comparator: 7/51 *RR=1.43, 95% CI, 0.59 to 3.46; p=0.43* **4. Service utilisation** Intervention group: 19/37 Comparator: 4/32 *RR=4.11, 95% CI, 1.56 to 10.82; p=0.004* **5. Employment**	were completed before randomisation. **Limitations identified by review team:** (1) Randomisation carried out by the main author and treatment provider where allocation was not concealed, (2) unclear how many participants included in the analysis **Funding:** Dr. Bradford was supported by the Kate B. Reynolds Charitable Trust,

[11] Number of hours contact per session
[12] Number of sessions per week

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
homeless individuals with psychiatric and substance use problems.	(6%), anxiety disorder (6%), other (18%). DSM-IV (SCID). Substance misuse disorder (72%). DSM-IV (SCID).	reported.	Routine shelter care *Description:* Those randomised to the control group saw one of the other volunteer psychiatrists for the initial and subsequent follow up visits. Because these psychiatrists volunteered approximately monthly, there was little continuity. On their own initiative, control subjects could schedule appointments with part-time, volunteer shelter staff members (available about 25 hours per week) for case-management services. Although these individuals had social service experience, none held graduate degrees in any human services discipline. The PSW made referrals to the CMHC; however, there was no	higher number represents a better outcome for participants; assessed by clinician 6. Housing (stable housing at shelter exit); follow-up NR; higher number represents a better outcome for participants; assessed by clinician	Intervention group: 17/50 Comparator: 10/49 *RR=1.67, 95% CI, 0.85 to 3.27; p=0.14* **6. Housing** Intervention group: 22/49 Comparator: 18/47 *RR=1.17, 95% CI, 0.73 to 1.89 p=0.51*	The Robert Wood Johnson Clinical Scholars Program, American Psychiatric Institute for Research and Education, and the National Institutes of Mental Health. Dr. Gaynes was supported by an NIMH K23 Career Development Award. Dr. Weinberger was supported by the Department of Veterans Affairs HSR&D Service.

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
			systematic follow-up of missed appointments. **Setting***:* Shelter **Intensity**: NR **Frequency***:* NR **Duration (weeks)***:* NR **Format***:* Individual **Group size***:* NA			

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
Author (year): Copello et al. (2013) **Citation:** Copello A, Walsh K, Graham H, Tobin D, Griffith E, Day E, et al. A consultation-liaison service on integrated treatment: a program description. Journal of Dual Diagnosis. 2013;9(2):149-57. **Country:** Birmingham and Solihull, UK **Geographical location**: Urban	**Details on population and sample selection:** People with combined mental health and substance use problems referred to the COMPASS consultation-liaison **Inclusion/exclusion:** All clients referred to the COMPASS consultation-liaison service component between April 1, 2008, and March 31, 2011 **Sample size (at baseline):** *Total:* 173 **Details on service users:**	**Sampling:** All clients referred to the service during a 3 year period were part of the cohort **Participation:** Data available only for participants who completed the intervention (53%) **Measurement:** All measures used have been previously validated. 5/8 measures were self-report, 3/8 were clinician rated	**Intervention (n=173)**: Integrated treatment and treatment as usual *Description*: The service offered through the consultation-liaison component is time-limited and structured. It consists of an assessment followed by additional motivational work. Currently the service involves a member of COMPASS delivering a specialist assessment and brief intervention jointly with the client's care coordinator. The care coordinator is involved in the process in order to	1. Alcohol use assessed with the Clinicians' Rating Scale for Alcohol Use Scale (CAUS); 156 weeks' follow-up; lower scores represent a better outcome for participants; assessed by clinician 2. Drug use assessed with the Clinicians' Rating Scale for Drug Use Scale (CDUS); 156 weeks' follow-up; lower scores represent a better outcome for participants; assessed by clinician 3. Substance use assessed with the Substance Abuse Treatment Scale (SATS); 156 weeks' follow-up; higher	**1. Alcohol use (n=19)** Baseline (mean, SD): 3.37 (1.07) Follow-up (mean, SD): 2.53 (0.96) t=3.44, p<0.001 **2. Drug use (n=11)** Baseline (mean, SD): 2.36 (1.21) Follow-up (mean, SD): 1.55 (0.93) t=2.52, p<0.05 **3. Substance use (n=20)** Baseline (mean, SD): 3.30 (0.80) Follow-up (mean, SD): 4.90 (1.71) t=4.07, p<0.001 **4. Alcohol use (n=23)** Baseline (mean, SD): 23.61 (10.90)	**Limitations identified by authors:** (1) while the outcome measures used for those receiving the full brief intervention suggest positive changes, the absence of a control group means that causality cannot be established, (2) measures were not completed for all of the clients who received the full intervention. This could indicate a bias, where possibly higher-functioning clients completed the measures and more complex

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
Study design: Before-and-after study **Quality rating**: [-] **Aim of the study**: to report the results of an evaluation of a consultation-liaison service for people with combined mental health and substance use problems.	*Age (mean, range):* 37, 18-64 *Gender (percent female*): 30% *Ethnicity (percent white):* 62% *Other demographics:* No other demographics reported *Details on SMI/SM diagnosis:* Psychotic disorders, depressive disorders, personality disorders (12.7%), bipolar disorder, other/unknown (19.1%). Substance use. Method of diagnosis not	**Confounding factors:** (1) measures were not completed by all participants, those who did complete measures may have been more likely to improve than those who dropped out	help facilitate integrated treatment and to increase their ability to continue the work upon completion of the brief intervention. The full brief intervention comprises six sessions (two assessment, two motivational, and two follow-up sessions) conducted over a 12-week period. Each session is approximately 1 hour in length and sessions are typically delivered every other week. The initial two sessions focus on assessment and developing treatment	scores represent a better outcome for participants; assessed by clinician 4. Alcohol use assessed with the Alcohol Use Disorders Identification Test (AUDIT); 156 weeks' follow-up; lower scores represent a better outcome for participants; self-report 5. Severity of dependence assessed with the Severity of Dependence Scale (SDS); 156 weeks' follow-up; lower scores represent a better outcome for participants; self-report 6. Motivational readiness to change	Follow-up (mean, SD): 19.70 (8.69) t=2.06, p<0.05 **5. Severity of dependence** Baseline (mean, SD): 7.26 (4.43) Follow-up (mean, SD): 6.53 (4.45) t=1.15, no significant difference, p-value not reported **6. Motivational readiness to change alcohol use behaviour** (a) Readiness to Change (Pre-contemplation) (n=20) Baseline (mean, SD): −3.55 (3.76) Follow-up (mean, SD): −4.10 (3.74)	clients or those unwell at the time of assessment did not, therefore overestimating any suggested benefits, (3) outcome data for clients who received only the assessment and treatment recommendations were not available, and therefore at present we have no indication of the impact of this strand of the service on clients' substance use, (4) all of the outcome measures used within the brief intervention are substance-related;

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
	reported.		recommendations; these are followed by two motivational enhancement sessions and subsequently two follow-up sessions. **Setting:** NR **Intensity[13]:** 1 **Frequency[14]:** 0.5 **Duration (weeks):** 12 **Fidelity to intervention:** NR **Comparator:** no comparator	alcohol use behaviour assessed with the Readiness to Change Questionnaire (RTC); 156 weeks' follow-up; higher scores represent a better outcome for participants; self-report 7. Confidence in ability to change substance use assessed with the Importance and Confidence Ruler; 156 weeks' follow-up; higher scores represent a better outcome for participants; self-report 8. Substance-related beliefs assessed with the Beliefs Measure	t=0.554, no significant difference, p-value not reported (b) Readiness to Change (RTC; Contemplation) (n=20) Baseline (mean, SD): 4.50 (3.09) Follow-up (mean, SD): 4.40 (3.25) t=0.093, no significant difference, p-value not reported (c) Readiness to Change (RTC; Action) (n=20) Baseline (mean, SD): 3.55 (2.70) Follow-up (mean, SD): 5.35 (3.18) t=2.65, p<0.05	therefore, it is impossible to know whether there were any changes in clients' mental health or symptomatology **Limitations identified by review team:** No additional limitations identified by the review team **Funding:** National Institute for Health Research (NIHR) through the Collaborations for Leadership in Applied Health Research and

[13] Number of hours contact per session
[14] Number of sessions per week

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
				(mean conviction rating in the positive substance-related beliefs); 156 weeks' follow-up; lower scores represent a better outcome for participants; self-report 9. Treatment adherence (how many intervention sessions participants completed)	**7. Confidence in ability to change substance use** Baseline (mean, SD): 5.40 (3.32) Follow-up (mean, SD): 7.04 (2.73) t=2.73, p<0.001 **8. Substance-related beliefs** Baseline (%, SD): 75%, 27.06 Follow-up (%, SD): 55.75%, 33.38 **9. Treatment adherence** 53% of participants completed all sessions. Of 149 accepted referrals, 88 completed 2 sessions and 4 were referred to other services. Of the 88, 53	Care for Birmingham and Black Country (CLAHRC-BBC)

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
					completed 2 further motivational sessions, 15 were offered assessment only and 3 were referred elsewhere. Of the 53, 39 completed 2 further follow-up sessions and 1 was referred elsewhere.	

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results	Notes
Author (year): Drake et al. (2004) **Citation:** Drake RE, Xie H, McHugo GJ, Shumway M. Three-year outcomes of long-term patients with co-occurring bipolar and substance use disorders. Biological Psychiatry. 2004;56(10):749-56. **Country:** New Hampshire, US **Geographical location**: Rural **Study design**:	**Details on population and sample selection:** Informational meetings with patients, families, and mental health professionals **Inclusion/ exclusion:** Bipolar disorder, DSM-III-R (SCID). Substance use disorder, DSM-III-R (SCID). No other inclusion criteria reported. **Sample size (at baseline):** *Total:* 54 Intervention: NR Comparator: NR **Details on service users:**	**Unit of randomisation:** Individual **Method of sequence generation:** Unclear; Participants completed baseline assessment procedures and were randomly assigned within the site to one of two forms of care management **Method of allocation:** Not reported **Blinding:** *Participants:* Not reported, but not	**Intervention (n=NR)**: Assertive community treatment *Description:* Participants were randomly assigned within the site to one of two forms of care management, assertive community treatment and standard case management, both of which provided integrated mental health and substance abuse treatments. **Setting:** Community **Intensity[15]:** NR **Frequency[16]:** NR **Duration (weeks):** 156	1. Symptoms of bipolar disorder assessed on the Brief Psychiatric Rating Scale; 156 weeks' follow-up; higher scores represent a better outcome for participants; assessed by clinician 2. Alcohol use assessed with the Alcohol Use Scale; 156 weeks' follow-up; lower scores represent a better outcome for participants; assessed by clinician 3. Drug use assessed with the Drug Use Scale; 156 weeks' follow-up; lower scores represent a better outcome for participants; assessed	**1. Symptoms of bipolar disorder** Data only reported for both groups combined. Authors report no significant differences between groups (p-value not reported) **2. Alcohol use** Data only reported for both groups combined. Authors report no significant differences between groups (p-value not reported) **3. Drug use** Data only reported for both groups combined. Authors report no significant differences between groups (p-value not reported) **4. Substance use** Data only reported for	**Limitations identified by authors:** (1) This study group did not approximate a representative sample of patients with bipolar disorder and did not typify other state treatment systems, (2) if positive outcomes were due to integrated treatment, it must be acknowledged that New Hampshire, at least during the mid-1990s, had one of the only state mental health systems that provided integrated dual disorders

[15] Number of hours contact per session
[16] Number of sessions per week

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results	Notes
RCT **Quality rating**: [-] **Aim of the study:** examines the 3-year course of 51 patients with co-occurring bipolar and substance use disorders in the New Hampshire Dual Diagnosis Study.	*Age (mean):* 37.5 *Gender (percent female*): 35% *Ethnicity (percent white):* 98% *Other demographics:* (1) 9.8% currently married, (2) 62.8% completed high school or higher, (3) 14% employed in the past year *Details on SMI/SM diagnosis:* Bipolar disorder. DSM-III-R (SCID). Substance use disorder. DSM-III-R (SCID).	possible to blind *Providers:* To establish a consensus rating, a team of three independent raters, blind to study condition, considered all available data on substance use disorer (from interview rating scales, clinician ratings, and urine drug screens) to establish separate ratings on the AUS, DUS, and SATS scales **Method for accounting for missing data in the analysis and loss to follow-up**:	**Fidelity to intervention:** NR **Comparator (n=NR):** Standard care *Description:* Participants were randomly assigned within the site to one of two forms of care management, assertive community treatment and standard case management, both of which provided integrated mental health and substance abuse treatments. **Setting***:* Community-based **Intensity**: NR **Frequency***:* NR **Duration (weeks)***:* 156	by clinician 4. Substance use assessed with the Substance Abuse Treatment Scale; 156 weeks' follow-up; lower scores represent a better outcome for participants; assessed by clinician 5. Hospital admission (number of participants admitted in previous 6 months); 156 weeks' follow-up; lower number represents a better outcome for participants; outpatient and hospital records 6. Homelessness (number of participants homeless in past year); 156 weeks' follow-up; lower numbers represents a better outcome for	both groups combined. Authors report no significant differences between groups (p-value not reported) **5. Hospital admission** Data only reported for both groups combined. Authors report no significant differences between groups (p-value not reported) **6. Homelessness** Data only reported for both groups combined. Authors report no significant differences between groups (p-value not reported) **7. Housing** Data only reported for both groups combined. Authors report no significant differences between groups (p-value not reported)	treatment. **Limitations identified by review team:** (1) data not reported for each group separately **Funding:** Aspects of the study were presented at the conference, "The Impact of Substance Abuse on the Diagnosis, Course, and Treatment of Mood Disorders: A Call to Action," November 19–20, 2003, Washington, DC. The conference was sponsored by the Depression and Bipolar Support Alliance through unrestricted

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results	Notes
		Available case. 51/54 participants completed study.	**Format***:* Individual **Group size***:* NR	participants; self-report 7. Housing (days of independent living in house/trailer, apartment, rooming house, family, group home; 156 weeks' follow-up; higher number represents a better outcome for participants; self-report 8. Employment (number of participants with a competitive job in past year); 156 weeks' follow-up; higher number represents a better outcome for participants; self-report 9. Quality of life assessed with the Quality of Life Interview; 156 weeks' follow-up; higher scores represent a better outcome for	**8. Employment** Data only reported for both groups combined. Authors report no significant differences between groups (p-value not reported) **9. Quality of life** Data only reported for both groups combined. Authors report no significant differences between groups (p-value not reported)	educational grants provided by Abbott Laboratories; The American College of Neuropsychopharmacology; AstraZeneca Pharmaceuticals; Bristol-Myers Squibb Company; Cyberonics, Inc.; Eli Lilly and Company; GlaxoSmithKline; Janssen Pharmaceutica Products; Merck & Co., Inc.; and Wyeth Pharmaceuticals

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results	Notes
				participants; assessed by interviewer		

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
Author (year): Drebing et al. (2007) **Citation:** Drebing CE, Van Ormer EA, Mueller L, Hebert M, Penk WE, Petry NM, et al. Adding contingency management intervention to vocational rehabilitation: outcomes for dually diagnosed veterans. Journal of rehabilitation research and development. 2007;44(6):851-	**Details on population and sample selection:** People with psychiatric disorders and substance dependence entering a vocational rehabilitation programme (Compensated Work Therapy programme) at the Bedford VA Medical Center **Inclusion/ exclusion:** Schizophrenia, bipolar disorder, major depression, post-traumatic stress disorder, or other anxiety disorder, DSM-IV. Current drug or alcohol dependence or abuse, DSM-IV, as well as active substance use within 90 days of enrollment. Other inclusion criteria: (1) participants had to have substance dependence or abuse for alcohol, cocaine, or opiates, (2) history of some participation in competetive employment during the prior 3	**Unit of randomisation:** Individual **Method of sequence generation:** Unclear; After the baseline evaluation, participants were randomly assigned to either group **Method of allocation:** Not reported **Blinding:** *Participants and providers:* Not reported, but not possible to blind *Assessors:* Not	**Intervention (n=50):** Contingency management + compensated work therapy *Description*: Veterans assigned to the vocational rehabilitation and contingency management group received additional financial incentives for taking steps toward obtaining and maintaining competitive employment and for abstinence from substance use. The Bedford CWT programme is a multicomponent work-for-pay VR program. Veterans are placed in structured work settings, usually in private companies in the metropolitan area, and compensated for their work. While the veterans are working, the CWT staff help them negotiate and resolve difficulties on the job and prepare for obtaining their own competitive job. The	1. Employment (number of participants employed at follow-up); 39 weeks' follow-up; higher number represents a better outcome for participants; rater unclear 2. Substance use relapse; 16 weeks' follow-up; lower number represents a better outcome for participants; rater unclear	**1. Employment** Intervention group: 25/50 Comparator: 14/50 *RR=1.79, 95% CI, 1.06 to 3.02; p=0.03* **2. Substance use relapse** Intervention group: 25/50 Comparator: 36/50 *RR=0.69, 95% CI, 0.50 to 0.96; p=0.03* **3. Substance use relapse** Intervention group:	**Limitations identified by authors:** (1) the sample used in the study was clearly a select subgroup of VR participants and so findings cannot be generalised to the larger population of VR participants. A full 77 % of candidates screened were excluded, and another 14 % declined participation (reasons included: lacking confidence in their ability to obtain or maintain a competitive job , feeling that the intervention would overwhelm them or

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
65 **Country:** Bedford, Massachusetts, US **Geographical location**: NR **Study design**: RCT **Quality rating**: [-] **Aim of the study**: evaluated the efficacy of using a contingency management (CM)	years and acceptance of the stated goal of returning to competetive employment within 8 months, (3) clinically stable (no suicidal or homicidal ideation in the prior 12 weeks and abstaining from drugs or alcohol for at least 1 week. Exclusion criteria: (1) had a chronic medical problem that would make obtaining and sustaining a competitive job within 8 months unlikely, (2) did not intend to stay in vocational rehabilitation for at least 4 months, (3) did not intend to live in the local region for 12 months, (4) enrolled in other researchs studies that would affect participation, (5) less than 10 years formal education, (6) history of significant head trauma (loss	reported **Method for accounting for missing data in the analysis and loss to follow-up**: Unclear. All analyses were based on an intention-to-treat approach. 88% follow-up rate at 9 months.	program includes a supported employment component that helps participants maintain employment in their own competitive jobs through structured support and management. Participants are encouraged to perform job-search tasks, abstain from drugs and/or alcohol, and obtain and then maintain competitive employment. **Setting:** NR **Intensity[17]:** NR **Frequency[18]:** NR **Duration (weeks):** 16 **Fidelity to intervention:** NR **Comparator (n=51):** Compensated work therapy *Description:* Both groups	3. Substance use relapse; 39 weeks' follow-up; lower number represents a better outcome for participants; rater unclear	34/50 Comparator: 38/50 *RR=0.89, 95% CI, 0.70 to 1.14; p=0.38*	not wanting to complete job-search tasks (9%), not wanting to undergo drug screening (4%), and wanting to enter education instead of employment (13%)), (2) the intervention is fairly complex, raising the concern that potential problems with comprehension may limit its applicability in some VR settings, (3) reliance on self-report data for key outcome variables,

[17] Number of hours contact per session
[18] Number of sessions per week

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
intervention to enhance job acquisition and tenure among participants of a vocational rehabilitation (VR) program	of consciousness for >1 hour) or another disorder resulting in significant cognitive impairment, (7) failed to pass a 10-item quiz about the content of the intervention which was administered to screen for participants who would have difficulty comprehending the intervention. **Sample size (at baseline):** *Total:* 100 Intervention: 50 Comparator: 50 **Details on service users:** *Age (mean):* 46.3 *Gender (percent female*): 1% *Ethnicity (percent white):* 78% *Other demographics:* (1) receiving disability income (26%), (2) mean length of		participated in the compensated work therapy (CWT) program and all CWT services were available to them. **Setting***:* NR **Intensity**: NR **Frequency***:* NR **Duration (weeks)***:* 16 **Format***:* Individual **Group size***:* NA			including job-search activities, employment, and substance use during the extended follow-up. While the self-report measures used have been validated, additional means of collecting follow-up data are recommended, (4) the 9-month follow-up period was too short to provide sufficient data regarding job tenure, (5) cost is a major concern about this type of intervention. An additional cost of $1,000 in payments would almost double the cost of

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
	unemployment before evaluation (16.2 months), (3) mean length of education (12.9 years) *Details on SMI/SM diagnosis:* Major depression, bipolar disorder I or II, PTSD, anxiety disorder, psychotic disorder. DSM-IV. Dependence on alcohol, cocaine, opiates, cannabis, sedatives, stimulants, hallucinogens. DSM-IV.					care per VR participant **Limitations identified by review team:** (1) strict inclusion criteria limit generalisability of findings **Funding:** VA Rehabilitation Research and Development Service

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
Author (year): Eack et al. (2015) **Citation:** Eack SM, Hogarty SS, Greenwald DP, Litschge MY, McKnight SA, Bangalore SS, et al. Cognitive enhancement therapy in substance misusing schizophrenia: Results of an 18-month feasibility trial. Schizophrenia Research. 2015;161(2):478-83. **Country:** Pittsburgh, US **Geographical**	**Details on population and sample selection:** People with schizophrenia and substance use disorders who were recruited from psychiatric institute and community clinics**Inclusion/ exclusion:** Schizophrenia or schizoaffective disorder, DSM-IV (SCID). Moderate or high addiction severity for cannabis or alcohol, Addiction Severity Index. Other inclusion criteria: (1) stabilised on antipsychotic medications, (2) had an IQ≥80, (3)were able to read and speak fluent English, (4) were not abusing or dependent on cocaine or opioids, (5) did not have another persistent medical condition producing	**Unit of randomisation:** Individual **Method of sequence generation:** Unclear **Method of allocation:** Not reported **Blinding:** *Participants:* Not reported, but not possible to blind *Providers:* With the exception of cognitive stylesmeasures, all assessmentswere completed by	**Intervention (n=19)**: Cognitive enhancement therapy and treatment as usual *Description*: a comprehensive developmental approach to the treatment of social and non-social cognitive impairments that limit the functional recovery of patients with schizophrenia. Over the course of 18 months, CET integrates 60 h of computer-based training in attention, memory, and problem-solving with 45 structured social-cognitive groups that target the achievement of such adult social milestones as perspective-taking, social context appraisal, and emotion management. Neurocognitive training	1. Mental health symptoms based on a composite score from the following scales: Brief Psychiatric Rating Scale, Wing Negative Symptom Scale, Raskin Depression Scale, and Covi Anxiety Scale; 78 weeks' follow-up; lower scores represent a better outcome for participants; assessed by researcher 2. Social functioning based on a composite from	**1. Mental health symptoms** Intervention group (n=22): Follow-up (mean, SD): 64.14 (13.6) Comparator (n=9): Follow-up (mean, SD): 61.43 (11.19) *SMD= 0.20, 95% CI, -0.57 to 0.98; p=0.61* **2. Social functioning** Intervention group (n=22): Follow-up (mean, SD): 60.15 (12.03) Comparator (n=9): Follow-up (mean, SD): 57.56	**Limitations identified by authors:** (1) this was a small-scale trial designed to assess feasibility, and given the modest sample size, it is unknown whether effect sizes and treatment results will generalize to a larger sample, (2) the use of usual care as a control condition is a relatively weak comparator to CET, and it cannot be ruled out that the benefits associated with CET in this study are due to its non-specific effects or compensation for treatment

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
location: NR **Study design**: RCT **Quality rating**: [-] **Aim of the study**: to examine the feasibility of applying an adapted version of CET to patients with schizophrenia and comorbid alcohol and/or cannabis misuse problems, the two most commonly misused substances in the disorder, and evaluate its initial	significant cognitive impairment, (6) were not receiving any substance abuse pharmacotherapies (e.g., naltrexone), (7) did not experience persistent homicidality or suicidality, and (8) displayed significant cognitive and social disability on the Cognitive Styles and Social Cognition Eligibility Interview **Sample size (at baseline):** *Total:* 31 Intervention: 19 Comparator: 9 **Details on service users:** *Age (mean):* 38.22	trained raters and neuropsychological testers who were blind to treatment assignment **Method for accounting for missing data in the analysis and loss to follow-up**: Imputation (those receiving some treatment). Missing data were handled at the time of parameter estimation using	takes place in pairs to facilitate socialization, engagement, and providing support to each other. Because of the nature of the substance misusing population, additional psychoeducational content on substance use and schizophrenia was developed for this study, and a greater emphasis was placed on applying the stress management principles of Personal Therapy and enhancing motivation for treatment in individual therapy appointments. **Setting:** NR **Intensity[19]:** 1 **Frequency[20]:** 1.3	the following scales: Social Adjustment Scale-II, Major Role Adjustment Inventory and the Global Assessment Scale; 78 weeks' follow-up; higher scores represent a better outcome for participants; assessed by researcher 3. Substance use (percent of days of abstinence from all substances); 78 weeks'	(10.77) *SMD= 0.22, 95% CI, -0.56 to 0.99; p=0.59* **3. Substance use** Authors report no significant differences between treatment groups by the end of participation in the study (p=0.347) *SMD= -0.38, 95% CI, -1.16 to 0.40; p=0.34*	attendance, (3) this study was limited to those patients who met addiction severity criteria for alcohol and/or cannabis use, and it remains unclearwhether CET can be equally effective for patients who misuse other substances **Limitations identified by review team:** (1) randomisation was weighted toward a greater proportion of participants assigned to the intervention group

[19] Number of hours contact per session
[20] Number of sessions per week

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
efficacy compared to usual care in a small-scale randomised controlled trial.	*Gender (percent female*): 29% *Ethnicity (percent white):* 51% *Other demographics:* (1) 68% attended college, (2) 20% were employed *Details on SMI/SM diagnosis:* Schizophrenia or schizoaffective disorder. DSM-IV (SCID). Alcohol or cannabis abuse/dependence. DSM-IV (SCID).	the expectation–maximisation approach. 10/19 (53%) in the intervention group and 8/9 (88%) participants in the comparison group completed the study. Most attrition occurred early (usually in the first several months of the study), and was primarily due to increased positive symptoms resulting from high levels of substance use or medication	**Duration:** 78 **Fidelity to intervention:** NR **Comparator (n=9):** Treatment as usual *Description:* Consisted of a range of mental health and social services including psychiatry services, case management, individual supportive therapy, vocational rehabilitation services, dual diagnosis treatments, and community-driven substance use treatments. Every effort was made to connect all participants in the study, regardless of treatment assignment, to needed mental health and substance use services.	follow-up; higher number represents a better outcome for participants; rater unclear		(to facilitate the formation of the social-cognitive groups) which meant that only 9/31 participants were in the control group, (2) 50% attrition (3) unequal attrition between groups (47%in the intervention group versus 12% in the comparator group) (4) additional outcomes reported to those specified in the protocol **Funding:** Funding for this research was provided by NIH grants DA-30763 (SME), MH-95783 (SME), and RR-24154 (SME)

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
		non-adherence, as observed by the treatment team.	**Setting***:* NR **Intensity**: NR **Frequency***:* NR **Duration (weeks)***:* 78 **Format***:* Individual **Group size***:* NA			

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results	Notes
Author (year): Essock et al. (2006) **Citation:** Essock SM, Mueser KT, Drake RE, Covell NH, McHugo GJ, Frisman LK, et al. Comparison of ACT and standard case management for delivering integrated treatment for co-occurring disorders. Psychiatric Services. 2006;(2):185-96 **Country:** Conneticut, US **Geographical**	**Details on population and sample selection:** People with a dual diagnosis identified by case managers and referred for treatment across 2 sites **Inclusion/ exclusion:** DSM-III-R (SCID). Active substance use disorder (abuse or dependence on alcohol or other drugs within the past six months). (1) high service use in the past two years, (2) were homeless or unstably housed, (3) had poor independent living skills, (4) did not have any pending legal charges, medical conditions, or "mental retardation" that would preclude participation, (5) were scheduled for discharge to community living if they	**Unit of randomisation:** Individual **Method of sequence generation:** Computer/Online; Randomisation was managed centrally by using separate computer-generated randomisation streams for each site **Method of allocation:** Randomisation was managed centrally **Blinding:** *Participants and providers:* Not	**Intervention (n=99):** Assertive community treatment *Description*: Participants were randomly assigned within the site to one of two forms of care management, assertive community treatment and standard case management, both of which provided integrated mental health and substance abuse treatments. **Setting:** Community **Intensity[21]:** NR **Frequency[22]:** NR **Duration (weeks):** 156 **Fidelity to intervention:** The assertive community treatment teams	1. Psychiatric symptoms assessed with the Brief Psychiatric Rating Scale; 156 weeks' follow-up; higher scores represent a better outcome for participants; assessed by clinician 2. Substance use assessed with the Substance Abuse Treatment Scale; 156 weeks' follow-up; lower scores represent a better outcome for participants; assessed by clinician 3. Alcohol use assessed with the Alcohol Use Scale; 156 weeks' follow-up; lower scores	**1. Psychiatric symptoms** Data only reported for both groups combined. Authors report no significant differences between groups (p-value not reported) **2. Substance use** Data only reported for both groups combined. Authors report no significant differences between groups (p-value not reported) **3. Alcohol use** Data only reported for both groups combined. Authors report no significant differences between groups (p-value not reported)	**Limitations identified by authors:** (1) reliability testing for interviewers was limited to training, (2) interviewers were not blind to which treatment condition group the client was in, (3) compared the effectiveness of assertive community treatment with only one type of clinical case management. **Limitations identified by**

[21] Number of hours contact per session
[22] Number of sessions per week

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results	Notes
location: Urban **Study design**: RCT **Quality rating**: [+] **Aim of the study**: to conduct a randomised trial that compared assertive community treatment with standard clinical case management for clients with co-occurring disorders	were an inpatient **Sample size (at baseline):** *Total:* 198 Intervention: 99 Comparator: 99 *Service/settings details:* Community **Details on service users:** *Age (mean):* 36.5 *Gender (percent female*): 28% *Ethnicity (percent white):* 27% *Other demographics:* (1) 50% high school graduates, (2) 146 mean days spent in a stable residence in the past year *Details on SMI/SM diagnosis:* Schizophrenia, schizoaffective, affective	reported, but not possible to blind *Assessors:* Independent raters, blind to the study condition, considered all available data on substance use to establish consensus ratings on all three scales, with good demonstrated reliability. **Method for accounting for missing data in the analysis and loss to follow-up**: Available case. 179/205 randomised participants included in the analysis. 6 participants were lost to follow-up	were "generally very faithful" to the model and the two treatment groups were distinct from each other. **Comparator (n=99):** Standard care *Description:* Standard case management which provided integrated mental health and substance abuse treatments. **Setting***:* Community-based **Intensity**: NR **Frequency***:* NR **Duration (weeks)***:* 156 **Format***:* Individual **Group size***:* NR	represent a better outcome for participants; assessed by clinician 4. Drug use assessed with the Drug Use Scale; 156 weeks' follow-up; lower scores represent a better outcome for participants; assessed by clinician 5. Housing (number of participants in stable community housing); 156 weeks' follow-up; higher number represents a better outcome for participants; self-report 6. General functioning assessed with the Global Assessment Scale; 156 weeks' follow-	**4. Drug use** Data only reported for both groups combined. Authors report no significant differences between groups (p-value not reported) **5. Housing** Data only reported for both groups combined. Authors report no significant differences between groups (p-value not reported) **6. General functioning** Data only reported for both groups combined. Authors report no significant differences between groups (p-value not reported) **7. Quality of life**	**review team:** (1) Descriptive statistics not reported for outcomes, (2) the ACT group had significantly lower substance use at baseline from clinician interview **Funding:** US Public Health Services, the National Institute of Mental Health, National Institute on Alcohol Abuse and Alcoholism, Substance Abuse and Mental Health Services

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results	Notes
	disorder. DSM-III-R (SCID). Substance use disorder. DSM-III-R (SCID).	due to death.		up; higher scores represent a better outcome for participants; assessed by clinician 7. Quality of life assessed with the General Life Satisfaction scale; 156 weeks' follow-up; higher scores represent a better outcome for participants; assessed by clinician	Data only reported for both groups combined. Authors report no significant differences between groups (p-value not reported)	Administration

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
Author (year): Fletcher et al. (2008) **Citation:** Fletcher TD, Cunningham JL, Calsyn RJ, Morse GA, Klinkenberg WD. Evaluation of treatment programs for dual disorder individuals: modeling longitudinal and mediation effects. Administration and Policy in Mental Health. 2008;35(4):319-36. **Country:** US **Geographical**	**Details on population and sample selection:** Participants were recruited from a range of locations including emergency shelters, soup kitchens, psychiatric hospitals and street locations frequented by homeless people. **Inclusion/ exclusion:** Severe mental illness**,** DSM-IV (SCID). DSM-IV substance use disorder. Other inclusion criteria: (1) must be homeless; (2) must not be enrolled in	**Unit of randomisation:** Individual **Method of sequence generation:** Unclear, not reported **Method of allocation:** Not reported **Blinding:** *Participants and providers:* Not reported, but not possible to blind *Assessors:* Not reported **Method for accounting for missing data in the analysis and**	**Intervention A (n=61):** Integrated assertive community treatment (IACT) *Description*: The IACT team had a substance abuse specialist on staff and provided outpatient substance abuse counselling and bi-weekly treatment groups. **Setting:** Community-based **Intensity[23]:** NR **Frequency[24]:** Bi-weekly **Duration (weeks):** 130 **Fidelity to intervention:** The IACT and ACTO teams scored moderately high on a measure of fidelity	1. Housing (days living in stable housing); 130 weeks' follow-up; higher number represents a better outcome for participants; self-report 2. Psychiatric symptoms assessed with the Brief Psychiatric Rating Scale (24 items); 130 weeks' follow-up; lower scores represent a better outcome for participants; rater unclear 3. Substance use (severity of alcohol and drug use); 130 weeks' follow-up;	**1. Housing** Intervention group A (n=47): Follow-up (mean, SD): 15.99 (12.49) Intervention group B (n=53) Follow-up (mean, SD): 13.55 (13.45) Comparator (n=48): Follow-up (mean, SD): 11.81 (14.25) *SMD= 0.22, 95% CI, -0.13 to 0.56; p=0.22** **2. Psychiatric symptoms** Intervention group A (n=47): Follow-up (mean, SD): 1.83 (0.76) Intervention group B (n=53) Follow-up (mean, SD): 1.85 (0.77) Comparator (n=48): Follow-up (mean, SD): 1.83 (0.62)	**Limitations identified by authors:** Several factors limit the generalizability of our study. Like most treatment outcome studies, our interventions were confounded by agency and staff effects, i.e., different staff and agencies were used in the three treatment conditions **Limitations identified by review team:**

[23] Number of hours contact per session
[24] Number of sessions per week

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
location: NR **Study design**: RCT **Quality rating**: [-] **Aim of the study**: to evaluate the effectiveness of the three approaches for treating dual disorder clients who were homeless at intake: integrated assertive community treatment (IACT), assertive community treatment only (ACTO), and standard care (SC).	an intensive case management programme **Sample size (at baseline):** *Total:* 191 Intervention A: 61 Intervention B: 65 Comparator: 65 **Details on service users:** *Age (mean, range):* 40, 18-66 *Gender (percent female*): 20% *Ethnicity (percent white):* 28% *Other demographics:* (1) 42% failed to graduate from high school; (2) 54% never married	**loss to follow-up**: Available case. Baseline: IACT N=61, ACTO N=65, SC N=65. 30 months: IACT N=47, ACTO N=53, SC N=48 (averages across all outcomes).	**Intervention B (n=65):** Assertive community treatment (ACTO) *Description*: The ACTO team referred clients to other community providers for outpatient or individual substance abuse services and to 12-step groups **Setting:** Community-based **Intensity:** NR **Frequency:** NR **Duration:** 130 **Fidelity to intervention:** The IACT and ACTO teams scored moderately high on a measure of fidelity **Comparator:** Standard care (SC)	lower scores represent a better outcome for participants; assessed by the researcher 4. Programme contact (mean number of days contact with assigned treatment programme); 130 weeks' follow-up; higher number represents a better outcome for participants; self-report 5. Substance abuse contacts (number of days discussing substance abuse problems with assigned programme); 130 weeks' follow-up; higher number	*SMD= 0.01, 95% CI, -0.33 to 0.36; p=0.94** **3. Substance use** Intervention group A (n=47): Follow-up (mean, SD): 2.73 (1.25) Intervention group B (n=53) Follow-up (mean, SD): 2.58 (1.11) Comparator (n=48): Follow-up (mean, SD): 2.44 (1.2) *SMD= 0.18, 95% CI, -0.17 to 0.52; p=0.32** **4. Programme contact** Intervention group A (n=47): Follow-up (mean, SD): 4.56 (3.48) Intervention group B (n=53) Follow-up (mean, SD): 5.13 (3.81) Comparator (n=48): Follow-up (mean, SD): 2.45 (3.64)	(1) authors did not conduct an intention to treat analysis, (2) blinding of assessors not reported, (3) details about randomisation procedure not reported, (4) there was ≥ 20% loss to follow-u **Funding:** National Institute for Mental Health and the University of Missouri-ST. Louis

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
	Details on SMI/SM diagnosis: Schizophrenia, atypical psychosis, bipolar disorder, recurrent major depression, schizo affective disorder, delusional disorder. DSM-IV (SCID). Substance misuse disorder. DSM-IV (SCID).		*Description:* Participants assigned to SC were shown a list of community agencies that provided mental health and substance abuse treatment. Research staff provided these participanrs with information about treatment openings and assisted individuals in making their initial contact with an agency **Setting***:* Community-based **Intensity**: NR **Frequency***:* NR **Duration (weeks)***:* 130 **Format***:* Individual **Group size***:* NA	represents a better outcome for participants; self-report 6. Phone contact (number of days speaking with assigned programme on the phone); 130 weeks' follow-up; higher number represents a better outcome for participants; self-report 7. Service user satisfaction; 130 weeks' follow-up; higher scores represent a better outcome for participants; self-report	*SMD= 0.65, 95% CI,0.30 to 1.00; p=0.0003** **5. Substance abuse contacts** Intervention group A (n=47): Follow-up (mean, SD): 0.88 (1.53) Intervention group B (n=53) Follow-up (mean, SD): 0.27 (0.72) Comparator (n=48): Follow-up (mean, SD): 0.69 (2.46) *SMD= -0.09, 95% CI, -0.46 to 0.28; p=0.62** **6. Phone contact** Intervention group A (n=47): Follow-up (mean, SD): 4.69 (5.22) Intervention group B (n=53) Follow-up (mean, SD): 4.06 (3.76) Comparator (n=48): Follow-up (mean, SD): 0.82 (1.46)	

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
					*SMD= 0.94, 95% CI, 0.58 to 1.30; p<0.00001** **7. Service user satisfaction** Intervention group A (n=47): Follow-up (mean, SD): 4.2 (0.35) Intervention group B (n=53) Follow-up (mean, SD): 4.15 (0.52) Comparator (n=48): Follow-up (mean, SD): 4.36 (0.38) *SMD= -0.44, 95% CI, -0.78 to -0.09; p=0.01**	
***Meta-analysis of all three intervention arms, each intervention group was compared separately with the comparator group which was evenly split*						

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
Author (year): Graham et al. (2006) **Citation:** Graham HL, Copello A, Birchwood M, Orford J, McGovern D, Mueser KT, et al. A preliminary evaluation of integrated treatment for co-existing substance use and severe mental health problems: impact on teams and service users. Journal of Mental Health. 2006;15(5):577-91.	**Details on population and sample selection:** Staff from 5 assertive outreach teams (Northern Birmingham Mental Health NHS Trust) **Inclusion/ exclusion:** ICD-10. Substance abuse/dependent use over the last six months, (minimum score of 3 on the Alcohol/Drug Use Rating Scale). No other criteria **Sample size (at baseline):** *Total:* 58 Intervention:37 Comparator:21 **Details on service users:**	**Unit of randomisation:** NA **Method of sequence generation:** NA **Method of allocation:** Five assertive outreach teams were allocated to immediate training or delayed training. **Blinding:** *Participants and providers:* Not reported, but not possible to blind *Assessors:* NR **Missing outcome data**: Only available data were	**Intervention (n=37):** Immediate training *Description*: The whole team was trained at the same time, over six half days, to use Cognitive-Behavioural Integrated Treatment (C-BIT). Teams were provided with a manual of the approach and the intervention included two additional components: (i) training in the application of the C-BIT approach, and (ii) the allocation of a ‘‘change facilitator’’. The change facilitator was a person from the Combined Psychosis and Substance Use (COMPASS) Programme allocated to work alongside a specific Assertive Outreach (AO) team two	1. Psychiatric symptoms assessed with the Brief Psychiatric Rating Scale; 78 weeks’ follow-up; lower scores represent a better outcome for participants; assessed by interviewer 2. Engagement assessed with the Substance Abuse Treatment Scale (SATS); 78 weeks’ follow-up; lower scores represent a better outcome for participants; assessed by interviewer 3. Alcohol use (units consumed over 30 days); 78 weeks’ follow-up; lower number represents a better outcome for	**1. Psychiatric symptoms** *Authors report no significant interactions (p-values not reported)* **2. Engagement** *Authors report no significant interactions (p-values not reported)* **3. Alcohol use** Intervention: Follow-up (mean): 109 units Comparator: Follow-up (mean): 340 units Intervention group consumed less	**Limitations identified by authors:** (1) small number of assertive outreach teams (five) limited statistical power and generalisation of findings, (2) there were a number of methodological problems associated with collecting information regarding whether teams and individuals changed their practice to adopt the new treatment approach. In particular it was difficult to quantify the extent of any changes, (3) limited resources meant that only five teams were trained to use the intervention. As a consequence, only a

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
Country: Birmingham, UK **Geographical location**: Urban **Study design**: Non-randomised controlled trial **Quality rating**: [-] **Aim of the study**: to develop a methodology to measure the integration of substance use treatment within five existing assertive	*Age (mean, range):* 36.7, 23-58 *Gender (percent female*): 19% *Ethnicity (percent white):* 57% *Other demographics:* No other demographics reported *Details on SMI/SM diagnosis:* Schizophrenia, schizotypal and delusional disorder, major mood disorders. ICD-10. Substance abuse/dependence. ICD-10.	analysed. 76% of patients in the intervention group and 67% in the control group completed follow-up assessments. 4 participants in th intervention group died during the study period. **Confounding factors:** none	days per week. This person served as a ‘‘product champion’’ who modelled the approach in-situ, provided on-going training, co-working alongside the team and keyworkers and facilitated case discussion/supervision sessions. For this part of the study, it was important to demonstrate that any changes observed in immediately trained teams could be replicated in those trained after the delay. **Setting:** NR **Intensity[25]:** 8 **Frequency[26]:** 3 **Duration:** 1 **Fidelity to intervention:** NR	participants; assessed by interviewer 4. Cannabis use (amount used over past 30 days (£));78 weeks’ follow-up; lower number represents a better outcome for participants; assessed by interviewer 5. Substance related beliefs assessed with a measure adapted for the study; 78 weeks’ follow-up; lower scores represent a better outcome for participants; assessed by interviewer	alcohol compared to clients within the comparator group at all time points (p-values not reported). **4. Cannabis use** Due to the small number of cannabis-using clients participating in data capture at all time points, the authors reported that analyses could not be performed on amount of cannabis used. **5. Substance related beliefs** *Authors report no*	relatively small number of clients were approached to take part in the study and only a proportion of those clients provided consent to participate, (4) only data from clients that were available at all time points that could be analysed, (5) detailed information on reasons why participants could not be followed-up at each time point was not collected, (6) due to small number of cannabis-using clients analyses were not be performed on cannabis use outcome

[25] Number of hours contact per session
[26] Number of sessions per week

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
outreach (AO) teams in Birmingham, UK			**Comparator (n=21):** Delayed training *Description:* Same as intervention group but after an 18 month delay		*significant interactions(p-values not reported)*	**Limitations identified by review team:** (1) no mention of ethical approval, participants gave a verbal consent to participate only **Funding:** NR

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
Author (year): Havassy et al. (2000) **Citation:** Havassy BE, Shopshire MS, Quigley LA. Effects of Substance Dependence on Outcomes of Patients in a Randomised Trial of Two Case Management Models. Psychiatric Services. 2000;51(5):639-44 **Country:** San	**Details on population and sample selection:** Adults with a severe mental illness with and without substance dependence were recruited during acute psychiatric[27] hospitalisation from the San Francisco General Hospital **Inclusion/ exclusion:** Serious mental illness and substance dependence. Inclusion criteria: (1) at least one inpatient psychiatric admission in the 12	**Unit of randomisation:** Individual **Method of sequence generation:** Unclear; Subjects were stratified by the presence of at least one current co-occurring substance dependence disorder (that is, occurring in the last 12 months) and were randomly assigned, from within strata, to either intensive clinical case management or	**Intervention (n=134):** Intensive clinical case management *Description*: Case managers in the intensive program provided psychotherapy and a wide array of integrated services, including brokerage and placement, for an unlimited time. The therapeutic relationship was conceptualized as the means by which a seriously mentally ill client could be engaged in treatment. **Setting:** Community-based **Intensity[28]:** NR **Frequency[29]:** NR **Duration (weeks):** NR **Comparator (n=134):**	1.Hospitalisation (number of days participant was an inpatient on a psychiatric unity or in a state psychiatric hospital); 24 weeks' follow-up; lower number represents a better outcome for participants; rater unclear 2. Utilisation of outpatient services; 24 weeks' follow-up; higher number represents a better outcome for participants; rater unclear 3. Psychiatric	**1. Hospitalisation** Means and SDs not reported. Authors report no significant difference between groups (p-value not reported) **2. Utilisation of outpatient services** Means and SDs not reported. Authors report no significant difference between groups (p-value not reported) **3. Psychiatric emergency service visits**	**Limitations identified by authors:** NR **Limitations identified by review team:** (1) Authors do not report statistics for non-significant findings, (2) 47% of the sample did not have substance dependence diagnosis and although data were analysed seperately, statistics for disaggregated

[27] Although participants were recruited whilst they were inpatients, the study began when participants were discharged from hospital
[28] Number of hours contact per session
[29] Number of sessions per week

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
Francisco, US **Geographical location**: Urban **Study design**: RCT **Quality rating**: [-] **Aim of the study**: The effectiveness of a community-based intensive clinical case management program was compared with that of a hospital-based expanded brokerage case management program for seriously mentally ill adults with and without substance	months preceding the target hospitalisation, (2) could not be currently participating in comprehensive community-based services, (3) had to be discharged within the local metropolitan area **Sample size (at baseline):** *Total:* 268 Intervention: 134 Comparator: 134 *Service/settings details:* NR **Details on service users:** *Age:* NR (mean NR) *Gender (percent*	expanded brokerage case management **Method of allocation:** Not reported **Blinding:** *Participants and providers:* Not reported, but not possible to blind *Assessors:* Not reported **Method for accounting for missing data in the analysis and loss to follow-up**: Imputation (those receiving some treatment). To impute missing values the authors used the	Expanded brokerage case management *Description:* The expanded brokerage case management program focused on brokerage and placement services, which were provided for an average of 45 days after discharge, with a maximum of 60 days. Case managers in this program provided intensive support during the initial postdischarge period and worked assertively toward linking clients with comprehensive community services to address their specific needs. Services could be reactivated when clients were rehospitalised. **Setting***:* Hospital-based **Intensity**: NR **Frequency***:* NR **Duration (weeks)***:* NR	emergency service visits; 24 weeks' follow-up; lower number represents a better outcome for participants; rater unclear 4. Quality of Life assessed with the Quality of Life Inventory; 24 weeks' follow-up; higher scores represent a better outcome for participants; rater unclear 5. Substance use during a 30-day period assessed with the Quick Diagnostic Interview Schedule – Revised; 24 weeks' follow-up; lower scores represent a better outcome for	Means and SDs not reported. Authors report no significant difference between groups (p-value not reported) **4. Quality of life** Means and SDs not reported. Authors report no significant difference between groups (p-value not reported) **5. Substance used** Means and SDs not reported. Authors report no significant difference between groups (p-value not reported) **6. Symptoms of**	groups are not presented, (3) participant demographics reported for whole sample and not for sub-group with a dual diagnosis, (4) a proportion of participants did not have a serious mental illness, but this figure was low (10% of whole sample), (5) unclear who measured outcomes, (6) 10% of participants excluded from analyses as interviews were

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
dependence.	*female*): 35% *Ethnicity (percent white):* 41% *Other demographics:* (1) 58% never married *Details on SMI/SM diagnosis:* Schizophrenia, bipolar disorder, depressive disorder, psychotic disorder (NOS), adjustment disorder (5%), anxiety disorder (2%). DSM-III-R. Substance dependence. DSM-III-R.	expectation maximisation algorithm of SPSS 8.0. 10% of participants excluded as interviews were in non-English language, 30% were lost to follow-up.	**Format***:* Individual **Group size***:* NA **Fidelity to intervention**: A fidelity analysis indicated that the two case management programs provided services in a manner that was generally consistent with their articulated models and that two different case management interventions had been implemented	participants; rater unclear 6. Depression assessed with the Center for Epidemiological Studies -Depression Scale (CES-D); 24 weeks' follow-up; lower scores represent a better outcome for participants; rater unclear	**depression** Means and SDs not reported. Authors report no significant difference between groups (p-value not reported)	conducted in a non-English language, (7) high attrition (30%) in addition to 10% excluded from analysis **Funding:** Supported by a grant from the National Institute of Mental Health.

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
Author (year): Hjorthøj et al. (2013) **Citation:** Hjorthøj R, Fohlmann A, Larsen AM, Gluud C, Arendt M, Nordentoft M. Specialized psychosocial treatment plus treatment as usual (TAU) versus TAU for patients with cannabis use disorder and psychosis: the CapOpus randomized trial. Psychological Medicine. 2013;43(7):1499-510. **Country:**	**Details on population and sample selection:** Danish Early Psychosis Intervention Services, Community Mental Health Centres, Assertive Community Treatment (ACT) teams and psychiatric wards **Inclusion/ exclusion:** Schizophrenia and schizotypal disorder, ICD-10 diagnosis or Schedules for Clinical Assessment in Neuropsychiatry (SCAN) interview. Cannabis use disorder, ICD-10. Other inclusion	**Unit of randomisation:** Individual **Method of sequence generation:** Computer/Online; Computerised central randomisation (1:1) was performed by the Copenhagen Trial Unit, stratified by intensity of cannabis use (0–14 or 15–30 days in the past month) and type of TAU. The block size varied between 6, 8 and 10, and was known only to the Copenhagen Trial	**Intervention (n=52)**: Integrated intervention *Description:* The intervention was fully manual-based, starting with motivational interviewing to enhance alliance and motivation, and shifting to CBT as patients became motivated to change their cannabis use. One or two weekly individual sessions were offered in the first month, depending on the participants' wishes (two sessions were actively encouraged to those whom the intervention consultants deemed to be more troubled by their cannabis use or psychosis). One weekly session was offered during the remaining 5 months. The consultants met several times a month and shared experiences, and received both internal and external supervision. Meetings	1. Cannabis use (total number of days using cannabis during previous month); 43 weeks' follow-up; lower number represents a better outcome for participants; self-report 2. General functioning assessed with the Global Assessment of Functioning scale. 43 weeks' follow-up; higher scores represent a better outcome for participants; assessed by the	**1. Cannabis use** Intervention group (n=52): Follow-up (estimated marginal mean, 95% CI): 28.2, 13.1 to 43.2 Comparator (n=51): Follow-up (estimated marginal mean, 95% CI): 41.8, 25.2 to 58.4 IRR*=0.80, 95% CI 0.21–3.10; p=0.75 **2. General functioning** Means and SDs not reported.	**Limitations identified by authors:** (1) because patients were referred, they may have been selected among those most willing to change their cannabis consumption. We did not obtain data on readiness to change, and cannot exclude this potential bias, (2) CapOpus addiction consultants carried out fidelity self-ratings following sessions, shared experiences with each other and were involved in internal and

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
Copenhagen, Denmark **Geographical location**: Urban **Study design**: RCT **Quality rating**: [+] **Aim of the study**: whether adding CapOpus to treatment as usual (TAU) reduces cannabis use in patients with cannabis use disorder and psychosis	criteria: (1) residence in the Copenhagen area, (2) not requiring an interpreter **Sample size (at baseline):** *Total:* 103 Intervention:52 Comparator:51 **Details on service users:** *Age (mean):* 26.85 *Gender (percent female*): *25%* *Ethnicity (percent white):* NR *Other demographics:* (1)	Unit. T **Method of allocation:** Centrally managed **Blinding:** *Participants and providers:* participants and addiction consultants were not blind to allocation *Assessors:* The outcome assessor was kept blind to allocation by asking participants not to divulge the allocation, staff	with TAU case managers and families were sought at a predefined schedule. Patients were offered complimentary food regardless of cannabis use, in an effort to increase adherence. Weekly group sessions were planned but never implemented, as too few patients wanted to participate in them. **Setting:** NR **Intensity[30]:** 1 **Frequency[31]:** 1 **Duration (weeks):** 24 **Fidelity to intervention:** NR **Treatment adherence**: Three patients (5.8%) attended zero sessions, and 77% had at least eight sessions. 73% of patients refused family involvement, and only 19% had at least four meetings with	researcher 3. Psychiatric symptoms assessed with the Positive and Negative Syndrome Scale Score (PANSS); 43 weeks' follow-up; lower scores represent a better outcome for participants; assessed by the researcher 4. Quality of life assessed with the Manchester Short Assessment of Quality of Life	*There were no significant intervention effects on other outcomes.* **3. Psychiatric symptoms** Means and SDs not reported. IRR*= -0.7, 95% CI -7.9 to 6.6, p=0.86 *SMD= -0.04, 95% CI, -0.42 to 0.35 ; p=0.86* **4. Quality of life** Means and SDs not reported. IRR*= -2.2, 95%	external supervision. The fidelity measure used was not, however, truly quantifiable, and future trials should take more care in registering fidelity, (3) participants and addiction consultants were not blind to allocation, and we cannot exclude collateral intervention bias, (4) our trial had 34% attrition, (5) the contents of TAU regarding cannabis use disorders is not manual-based,

[30] Number of hours contact per session
[31] Number of sessions per week

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
	87.3% born in Denmark, (2) 7% employed, (3) 55% completed public school *Details on SMI/SM diagnosis:* Schizophrenia and schizotypal disorder. ICD-10 diagnosis or Schedules for Clinical Assessment in Neuropsychiatry (SCAN) interview. Cannabis abuse or dependence. ICD-10 diagnosis or Schedules for Clinical Assessment in Neuropsychiatry (SCAN) interview.	names, etc. **Method for accounting for missing data in the analysis and loss to follow-up**: Imputation (those receiving some treatment). Missing outcome data were handled by log-likelihood-based measures in the multilevel Poisson model and the LMM, and by multiple imputations in other analyses. For the follow-up interview, completion proportions were 37 (71.2%) in CapOpus and 31	the family. **Comparator:** Treatment as usual *Description:* TAU consisted of the treatment available to patients had they not participated in the trial, provided by staff not employed by CapOpus. TAU was carried out in Opus, CMHCs or ACT teams. No explicit manual exists regarding co-occurring cannabis use disorder in TAU. Instead, these facilities primarily target the psychotic disorder using both antipsychotic medication and methods such as CBT (but generally not targeted at substance use). Most patients already received TAU at inclusion, and the authors facilitated referral for the rest. TAU did not end after the 6-month trial duration.	scale; 43 weeks' follow-up; higher scores represent a better outcome for participants; assessed by the researcher 5. Treatment adherence (number of TAU sessions attended during study period); 43 weeks' follow-up; higher scores indicate a better outcome for participants	CI -1.9 to 6.2, p=0.29. *SMD= -0.21, 95% CI, 0.60 to 0.18; p=0.29* **5. Treatment adherence** Intervention (n=52): Mean (SD): 15.3 (11.8) Control (n=51) Mean (SD): 15.6 (11.9) No significant difference between group (p=0.89)	and some compensation may have occurred for participants randomised to TAU, that is case managers increasing their focus on the problem beyond their normal approach **Limitations identified by review team:** No additional limitations identified by the review team **Funding:** Bispebjerg Hospital

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
		(60.8%) in the treatment as usual group.	**Setting***:* NR **Intensity**: NR **Frequency***:* NR **Duration (weeks)***:* 24 **Treament adherence**: Intervention group received a mean 15.3 (11.8) TAU sessions, compared with 15.6 (11.9) in TAU alone (p=0.89). **Format***:* Individual **Group size***:* NA			
**Incidence rate ratio*						

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
Author (year): Johnson et al. (2007) **Citations:** Johnson S, Thornicroft G, Afuwape S, Leese M, White IR, Hughes E, et al. Effects of training community staff in interventions for substance misuse in dual diagnosis patients with psychosis (COMO study): cluster randomised trial. British Journal of Psychiatry. 2007;191:451-2./ Craig TK, Johnson S, McCrone P, Afuwape S,	**Details on population and sample selection:** All permanent case managers in 13 London CMHTs were invited to participate. Their case-loads were screened for patients who met study criteria for dual diagnosis, and all who did were included in the sample. **Inclusion/ exclusion:** Clinical diagnosis of schizophrenia, non-afective functional psychosis or bipolar affective disorder. Misusing	**Unit of randomisation:** Clustered randomisation with clinical case managers as the cluster **Method of sequence generation:** Other; Case managers were randomised to intervention or control group by an independent statistician **Method of allocation:** Not reported **Blinding:** *Participants and providers:* Not	**Intervention (n=128):** Training community staff *Description*: Consisted of a treatment manual, a 5-day training course in assessment and management of dual diagnosis, and subsequent monthly supervision. Motivational interviewing was a central source and the training also drew on cognitive-behavioural relapse prevention techniques.	1. Psychiatric symptoms assessed with the Brief Psychiatric Rating Scale (24 items); 78 weeks' follow-up; lower scores represent a better outcome for participants; assessed by the researcher 2. Hospital bed use (mean days in hospital); 78 weeks' follow-up; lower number represents a better outcome for participants; assessed by the researcher 3. Hospital admission (number of participants admitted during study period); 78 weeks' follow-up; lower number represents a	**1. Psychiatric symptoms** Intervention group (n=109) Follow-up (mean, SD): 37 (9.8) Comparator (n=97): Follow-up (mean, SD): 41.6 (11.2) *SMD= -0.44, 95% CI, -0.71 to -0.16; p=0.002* **2. Hospital bed use** Intervention group (n=113) Follow-up (mean, SD): 74.9 (142.6) Comparator (n=97): Follow-up (mean, SD): 71.8 (128.1) *SMD= 0.02, 95% CI, -0.25 to 0.29; p=0.87* **3. Hospital admission** Intervention group:	**Limitations identified by authors:** (1) investigators were not blind to patients' intervention or control group status at follow-up and thus it is possible that the positive outcomes that were dependent on observer judgment could be attributed to bias, (2) there was substantial attrition of patients at follow-up, although no significant differences in demographic or baseline scores were found between completers and non-

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
Hughes E, Gournay K. et al. Integrated care for co-occurring disorders: psychiatric symptoms, social functioning, and service costs at 18 months. Psychiatric Services. 2008;59(3):276-82. **Country:** London, UK **Geographical location**: Urban **Study design**: Cluster RCT **Quality rating**: [-] **Aim of the study**:	or dependant on at least one substance (Clinician Alcohol and Drug Use Scales). Other inclusion criteria: (1) aged 18 to 65 **Sample size (at baseline):** *Total:* 79 case managers of 233 patients Intervention: 40 case managers (of 128 patients) Comparator: 39 case managers (of 105 patients) **Details on service users:** *Age (mean):* NR *Gender (percent*	reported, but not possible to blind *Assessors:* Not reported **Method for accounting for missing data in the analysis and loss to follow-up**: Available case. Intervention: 77/128 participants interviewed at follow-up, Control:77/105 participants interviewed at follow-up. 3 participants were lost to follow-up due to death.	**Setting:** NR **Intensity[32]:** NR **Frequency:** 5 days and monthly **Duration:** 78 **Fidelity to intervention:** having received the intervention as intended was defined as whether case managers had attended at least 4 days of training and if they had remained on the case-load of a trained case manager for at least 9 months. 45/127 (35%) met these criteria. **Comparator (n=105):** No	better outcome for participants; assessed by the researcher 4. Alcohol use (total standard units); 78 weeks' follow-up; lower number represents a better outcome for participants; assessed by the researcher 5. Alcohol use (number of participants); 78 weeks' follow-up; lower number represents a better outcome for participants; assessed by the researcher 6. Cannabis use (total monetary value); 78 weeks' follow-up; lower number	49/113 Comparator: 47/97 *RR=0.89, 95% CI, 0.67 to 1.20; p=0.46* **4. Alcohol use (total standard units)** Intervention group (n=76) Follow-up (mean, SD): 104.7 (169.4) Comparator (n=76): Follow-up (mean, SD): 130.4 (223.2) *SMD= -0.13, 95% CI, -0.45 to 0.19; p=0.43* **5. Alcohol use** Intervention group: 56/76 Comparator: 54/76 *RR=1.04, 95% CI, 0.85 to 1.26; p=0.72* **6. Cannabis use (total monetary value)**	completers, (3) there were several practical challenges to the delivery of the intervention. Although training produced immediate gains in knowledge, some difficulties maintaining the interventions were encountered, (4) fewer than half of the case managers in the intervention group attended all training sessions, and supervision was occasionally disrupted by clinical service demands, (5) by the end of the study, a third of the patients were no longer seeing the same case

[32] Number of hours contact per session

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
to investigate whether a training and supervision intervention delivered to community mental health team (CMHT) case managers would improve patient outcomes	*female*): 12% *Ethnicity (percent white):* 43% *Other demographics:* (1) single 86% in the experimental group and 83% in the control group, (2) unemployed 94% in the experimental group and 93% in the control group, (3) more than 70% of all patients had had contact for more than five years. *Details on SMI/SM diagnosis:* A majority had a main diagnosis of schizophrenia,		training *Description:* The control group received community mental health team management as usual with no specific dual diagnosis intervention **Setting:** NR **Intensity[33]:** NR **Frequency[34]:** NR **Duration (weeks):** 78 **Fidelity to intervention:** 88/106 (84%) of participants received control intervention as intended	represents a better outcome for participants; assessed by the researcher 7.Cannabis use (number of participants); 78 weeks' follow-up; lower number represents a better outcome for participants; assessed by the researcher 8. Other drug use (total monetary value); 78 weeks' follow-up; lower number represents a better outcome for participants; assessed by the researcher 9. Other drug use (number of	Intervention group (n=76) Follow-up (mean, SD): 35.11 (70.26) Comparator (n=76): Follow-up (mean, SD): 32.71 (98.07) *SMD= 0.03, 95% CI, -0.29 to 0.35; p=0.86* **7.Cannabis use** Intervention group: 24/76 Comparator: 27/76 *RR=0.89, 95% CI, 0.57 to 1.39; p=0.61* **8. Other drug use (total monetary value)** Intervention group (n=76) Follow-up (mean, SD): 33.36 (154.38) Comparator (n=76): Follow-up (mean, SD):	manager with whom they started, (6) In the absence of ongoing formal assessments of fidelity, we cannot be certain that the intervention was consistently delivered, (7) we cannot be certain that there was not some contamination between the intervention and comparison groups because participants in the comparison group were working alongside others who had received training. **Limitations identified by**

[33] Number of hours contact per session
[34] Number of sessions per week

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
	schizoaffective disorder, or delusional disorder (89%, in the experimental group and 90%, in the control group).			participants); 78 weeks' follow-up; lower number represents a better outcome for participants; assessed by the researcher 10. Social functioning assessed with the Life Skills Profile; 78 weeks' follow-up; lower scores represent a better outcome for participants; assessed by the researcher 11. Quality of life assessed with the Manchester Short Assessment of Quality of Life (MSAQL); 78 weeks' follow-up; lower scores represent a better outcome for participants; assessed by the researcher 12. Service	124.79 (470.22) *SMD= -0.26, 95% CI, -0.58 to 0.06; p=0.11* **9. Other drug use** Intervention group:12/76 Comparator: 13/76 *RR=0.92, 95% CI, 0.45 to 1.89; p=0.83* **10. Social functioning** Intervention group (n=109) Follow-up (mean, SD): 121 (16.3) Comparator (n=97): Follow-up (mean, SD): 120.5 (15.8) *SMD= -0.03, 95% CI, -0.24 to 0.30; p=0.82* **12. Quality of life** Intervention group (n=109) Follow-up (mean, SD): 53.4 (12.1)	**review team:** (1) large proportion of participants were lost to follow-up, (2) loss to follow-up was unequal between groups (40% in the intervention group, 27% in the control group), (3) only 34% of the intervention group received the intervention as intended. **Funding:** Not reported

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
				satisfaction assessed with the Client Satisfaction Questionnaire (CSQ); 78 weeks' follow-up; lower scores represent a better outcome for participants; assessed by the researcher 13. Treatment satisfaction assessed with the Treatment Perceptions Questionnaire (TPQ); 78 weeks' follow-up; lower scores represent a better outcome for participants; assessed by the researcher	Comparator (n=97): Follow-up (mean, SD): 50 (12.8) Adjusted difference[35] =0.62; 95% CI, -3.8 to 2.9 *SMD= 0.27, 95% CI, -0.00 to 0.55; p=0.05*[36] **13. Service satisfaction** Intervention group (n=109) Follow-up (mean, SD): 23.5 (6.5) Comparator (n=97): Follow-up (mean, SD): 23.4 (6.3) *SMD= 0.02, 95% CI, -0.26 to 0.29; p=0.91* **14. Treatment satisfaction** Intervention group (n=109) Follow-up (mean, SD): 21.5 (0.8)	

[35] Adjusted for baseline scores
[36] Unadjusted means used

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
					Comparator (n=97): Follow-up (mean, SD): 21.1 (0.75) Adjusted difference[37] =0.68, 95% CI, -2.1 to 3.5 *SMD= 0.51, 95% CI, 0.23 to 0.79; p=0.0003*[38]	

[37] Adjusted for baseline scores
[38] Unadjusted means used

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
Author (year): Nagel et al. (2009) **Citation:** Nagel T, Robinson G, Condon J, Trauer T. Approach to treatment of mental illness and substance dependence in remote Indigenous communities: results of a mixed methods study. The Australian Journal of Rural Health. 2009;17(4):174-82. **Country:** Three remote communities in	**Details on population and sample selection:** Participants and their carers recruited from three remote island Indigenous communities **Inclusion/ exclusion:** Chronic mental illness (duration of symptoms greater than 6 months or at least one previous episode of relapse). Substance use not reported. Exclusion criteria: (1) organic mental illness, (2) intellectual	**Unit of randomisation:** Individual **Method of sequence generation:** Computer/Online; Patient participants were randomly allocated to two groups using a block randomisation random number sequence technique after completion of baseline measures. **Method of allocation:** Not reported **Blinding:**	**Intervention (n=24)**: Motivational care planning + TAU *Description*: The intervention consisted of two one-hour treatment sessions two to six weeks apart, which integrated problem-solving, motivational therapy and self-management principles. Treatment was conducted by the principal investigator with an aboriginal research officer and where possible a local aboriginal mental health worker (AMHW). The intervention involved four steps: discussion about family support, exploration of strengths and stresses, followed by goal-setting. The second session, two to six weeks later, reviewed progress and developed new strategies as appropriate. The intervention incorporated family in three sections: first, through engagement of carers in the	1. Health and social functioning was assessed with the Health of the Nation Outcome Scales (HoNOS); 24 weeks' follow-up; higher scores represent a better outcome for participants; clinician rated 2. General functioning was assessed with the Life Skills Profile; 24 weeks' follow-up; higher scores represent a better outcome for participants; clinician rated 3. Substance use assessed with the Severity of	**1. Health and social functioning** Intervention group (n=24) Follow-up (mean, SD): 18.09 (SD not reported) Comparator (n=25): Follow-up (mean, SD): 20.68 (SD not reported) *Authors report no significant difference between groups (p=0.068)* **2. General functioning** *Difference between groups unclear*	**Limitations identified by authors:** (1) there is uncertainty with regard to the validity of the chosen outcome measures in the Indigenous population, (2) the power of the study was limited by the low numbers, (3) there is a likelihood of observer bias as all clinician-rated measures were completed by the principal investigator **Limitations identified by review team:** (1) Method of diagnosis for

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
northern Australia **Geographical location**: Rural **Study design**: RCT **Quality rating**: [+] **Aim of the study**: to develop and evaluate a culturally adapted brief intervention for Indigenous people with chronic mental illness.	disability **Sample size (at baseline):** *Total:* 49 Intervention:24 Comparator:25 **Details on service users:** *Age (mean):* 33 *Gender (percent female*): 43% *Ethnicity (percent white):* all participants were from Indeigenous communitites *Other demographics:*	*Participants and providers:* Not reported, but not possible to blind *Assessors:* Not reported **Method for accounting for missing data in the analysis and loss to follow-up**: Imputation (those receiving some treatment). Intention to treat analysis. 29% were lost to follow-up. 1 participant in each intervention group was lost to follow-up due to suicide.	treatment sessions; second, through incorporation of carers on a 'family map' in step one of the intervention; and third, by involving family in the goal-setting phase of the care-planning. Two brief psycho-educational videos were shown in each session with distribution of matching handouts. **Setting:** Community-based **Intensity**[39]**:** 1 **Frequency**[40]**:** 0.3 **Duration (weeks):** 6 **Fidelity to intervention:** In terms of fidelity of treatment, there were minor variations: the presence of carer and AMHWs in sessions was inconsistent, and the number of videos viewed and handouts received. The average length of a treatment session was 50 min. **Treatment adherence**: 96% of	dependence scale; 24 weeks' follow-up; higher scores represent a better outcome for participants; clinician rated 4. Well-being was assessed with the Kessler 10 scale (K10); 24 weeks' follow-up; higher scores represent a better outcome for participants; clinician rated	**3. Substance use** *Difference between groups unclear* **4. Well-being** *Difference between groups unclear*	substance use and mental health problem not reported, (2) unable to calculate effect sizes with reported data, (3) Indigneous population in Australia is of limited applicability to the UK **Funding:** Menzies School of Health Research

[39] Number of hours contact per session
[40] Number of sessions per week

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
	NR *Details on SMI/SM diagnosis:* Schizophrenia, schizoaffective disorder, major depressive disorder, substance induced psychotic disorder, bipolar affective disorder. NR. Cannabis and/or alcohol use. NR.		early treatment group attended at least 1 treatment session **Comparator (n=25):** Treatment as usual *Description:* All participants received TAU throughout the course of the trial. The local health centre nurses and aboriginal health workers, supported by general practitioners, specialist mental health services and the local mental health team ,offered assessment, review, supportive counselling and medication **Setting:** Community-based **Intensity:** NR **Frequency:** NR **Duration:** NR **Fidelity to intervention:** NR **Treatment adherence**: NA			

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
Author (year): Smelson et al. (2012) **Citation:** Smelson D, Kalman D, Losonczy MF, Kline A, Sambamoorthi U, Hill LS, et al. A brief treatment engagement intervention for individuals with co-occurring mental illness and substance use disorders: results of a randomized clinical trial. Community mental health journal. 2012;48(2):127-	**Details on population and sample selection:** Acute care inpatient psychiatric unit in the Veterans Administration New Jersey Health Care System. **Inclusion/ exclusion:** Schizophrenia spectrum disorder or bipolar I disorder. Substance abuse or dependence, DSM-IV or ICD-10. Other inclusion criteria: (1) had used drugs within the past 3 months. Exclusion criteria: (1) lacked a residence or placement to go upon discharge and/or were non-ambulatory and	**Unit of randomisation:** Individual **Method of sequence generation:** Unclear; 55 (53.9%) were randomised into TLC and 47 (46.1%) were randomised into MA. **Method of allocation:** Not reported **Blinding:** *Participants:* Not reported, but not possible to blind *Providers:* Not	**Intervention (n=55)**: Time-limited care co-ordination (TLC) *Description*: TLC integrates mental health and substance use disorder treatment using Dual Recovery Therapy, assertive community treatment using a brief form of Critical Time Intervention. The TLC group received 5 hours per week of TLC-specific services for 8 weeks. The TLC case manager attended treatment team meetings while the participant was in acute psychiatry and, upon discharge an outpatient treatment team meeting. Case managers also provided assertive community treatment upon discharge. The TLC program	1. Alcohol use assessed with the Addiction Severity Index); 24 weeks' follow-up; lower scores represent a better outcome for participants; rated by study interviewer 2. Illicit drug use assessed with the Addiction Severity Index; 24 weeks' follow-up; lower scores represent a better outcome for participants; rated by study interviewer 3. Emergency room utilisation; 24 weeks' follow-	**1. Alcohol use** Intervention: Baseline= 68% Follow-up=33%, Comparator: Baseline= 81% Follow-up=53% *RR= 0.60, 95% CI, 0.34 to 1.07; p=0.08* **2. Illicit drug use*** *Percentages not reported* **3. Emergency room utilisation** '[…] emergency room utilization in the 6 months following the index inpatient	**Limitations identified by authors:** (1) Inability to test differences between groups on substance use and mental health outcomes and somewhat limited documentation of inpatient and outpatient group treatment visits beyond the TLC or MA conditions. (2) contact time was not identical between the two groups: TLC participants received more services following discharge from the

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
32 **Country:** New Jersey, US **Geographical location**: NR **Study design**: RCT **Quality rating**: [-] **Aim of the study**: to evaluate a brief intervention designed to facilitate outpatient engagement following an inpatient psychiatric stay for individuals with	thus could not travel to treatment on their own or through public transportation **Sample size (at baseline):** *Total:* 102 Intervention: 55 Comparator: 47 **Details on service users:** *Age (mean):* 48.4 *Gender (percent female*): 3% *Ethnicity (percent white):* 2% *Other demographics:* (1) 50% had no more than a high school	reported **Method for accounting for missing data in the analysis and loss to follow-up**: Available case. Data analyses were restricted to the 66/102 participants who attended at least one of the intervention or control sessions.	also included peer specialists who served as role models, providing participants with emotional support during the transition from inpatient to outpatient care. **Setting:** NR **Intensity[41]:** 1 **Frequency[42]:** 5 **Duration (weeks):** 8 **Fidelity to intervention:** NR **Treatment adherence**: 40/55 attended at least one session **Comparator (n=47):** Matched attention control (MA) *Description*: Participants in the MA condition received 8 weeks of health education in group sessions. These sessions were delivered on	up; lower number represents a better outcome for participants; rated by study interviewer; medical records 4. Re-hospitalisation rates; 24 weeks' follow-up; lower number represents a better outcome for participants; rated by study interviewer; medical records 5. Mental health (number of days in the past 30 days experiencing	psychiatric hospitalization did not significantly differ between groups.' **4. Re-hospitalisation** 'Rehospitalization rates […] in the 6 months following the index inpatient psychiatric hospitalization did not significantly differ between groups.' **5. Mental health*** 'More modest declines in depression and anxiety were seen for both groups	inpatient stay. **Limitations identified by review team:** (1) only 66/102 participants attended at least one session and subsequently included in the analysis, (2) unclear whether participants were randomised durng inpatient treatment or at hospital discharge, (3) unclear at what time point the primary outcome was measured, (4) authors only report statistics for

[41] Number of hours contact per session
[42] Number of sessions per week

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
mental illness and substance use.	education, (2) 14% were employed *Details on SMI/SM diagnosis:* Schizophrenia spectrum disorders or bipolar I disorder. NR. Substance dependence or abuse. DSM-IV or ICD-10.		the acute psychiatry unit and in the outpatient facility by a research assistant facilitator for 5 hours per week. Health education sessions were structured and used health education pamphlets. Topics discussed included nutrition, disease prevention, injury prevention and healthy aging. **Setting***:* Acute psychiatry unit and outpatient facility **Intensity**: 1 **Frequency***:* 5 **Duration (weeks)***:* 8 **Treatment fidelity**: NR **Treatment adherence**: 26/47 attended at least one session **Format***:* Group **Group size***:* NR	depression, anxiety and hallucinations); 24 weeks' follow-up; lower number represents a better outcome for participants; self-report 6.Service utilisation (attending an outpatient appointment within 14 days of hospital discharge); 8 weeks' follow-up; higher number represents a better outcome for participants; rated by study interviewer	with no clear pattern favoring either group.' **6.Service utilisation** Intervention group:27/39 Comparator: 8/24 *RR=2.08, 95% CI, 1.14 to 3.80; p=0.02*	outcomes which showed a significant difference between groups (favouring the intervention group) **Funding:** Supported by grants from the Department of Veterans Affairs-Health Services Research and Development Service
**Cell sizes were too small to conduct statistical tests of significance for outcomes regarding alcohol/other drug use and psychological functioning*						

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
Author (year): Striley et al. (2013) **Citation:** Striley CW, Nattala P, Ben Abdallah A, Dennis ML, Cottler LB. Enhanced Case Management versus Substance Abuse Treatment Alone among Substance Abusers with Depression. Social Work Research. 2013;37 (1): 19-25. **Country:** Madison County, Illinois,	**Details on population and sample selection:** Potential participants were referred to the study through entrance into mandated drug or alcohol treatment **Inclusion/ exclusion:** Major depression, Computerized Diagnostic Interview Schedule–IV (CDIS-IV). Substance use disorder. Other inclusion criteria: (1) be willing and able to provide validated locator information for follow-up **Sample size (at baseline):** *Total:* 120 Intervention: 64	**Unit of randomisation:** Individual **Method of sequence generation:** Unclear; Randomisation was completed by the research statistician **Method of allocation:** assignment was placed in a sealed envelope by assigned ID and opened after the baseline, in front of the participant. **Blinding:** *Participants and providers:* Not	**Intervention (n= 64):** Enhanced case management (ECM) *Description:* The central component of the study design was providing (versus not providing) psychiatric case management services. ECM included eight in-person sessions lasting about 30 minutes each during a 20-week period. Basic information was provided on the importance of treatment for depression as well as substance abuse treatment; patients were acquainted with their disorders, and specific symptoms, on the basis of CDIS-IV results, were carefully discussed in the light of their effects on an individual's life. The participants were also given a handbook that included information on depression, treatment, and expected outcomes. Therapists also received training on the following six actions: (1) assessing current symptoms, (2) providing information, (3) exploring patient concerns, (4) identifying barriers to care, (5)	1. Depression symptoms assessed with the Depressive Symptom Scale (DSS); 56 weeks' follow-up; lower scores represent a better outcome for participants; rated by researcher 2. Risk of suicide or homicide assessed with the Homicidal-suicidal Thought Index (HSTI); 56 weeks' follow-up; lower scores represent a better outcome for participants; rated by researcher 3. Involvement in mental health	**1. Depression symptoms** Intervention group (n=64): Follow-up (mean, SD): 3.13 (2.04) Comparator (n=56): Follow-up (mean, SD): 3.35 (2.25) *SMD= -0.10, 95% CI, -0.46 to 0.26; p=0.58* **2. Risk of suicide or homicide** Intervention group (n=64): Follow-up (mean, SD): 0.32 (0.81) Comparator (n=56): Follow-up (mean, SD): 0.34 (0.75) *SMD= -0.03, 95% CI, -0.38 to 0.33; p=0.89*	**Limitations identified by authors:** (1) It is possible that the substance abuse treatment professionals in the present study were directly targeting depression symptoms as a part of their treatment; this would explain the lack of difference between groups at follow-up. **Limitations identified by review team:** (1) Participants in the control group were significantly less likely to be

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
US **Geographical location**: NR **Study design**: RCT **Quality rating**: [+] **Aim of the study**: to evaluate the effectiveness of enhanced case management for substance abusers with comorbid major depression, which was an integrated approach to	Comparator: 56 **Details on service users:** *Age (mean):* 33 *Gender (percent female*): 56% *Ethnicity (percent white):* 81% *Other demographics:* (1) 36/64 participants in the intervention group were married/co-habiting, (2) 11/56 in the control group were married/co-habiting *Details on SMI/SM diagnosis:* Major depression. Computerized	reported, but not possible to blind *Assessors:* Not reported **Method for accounting for missing data in the analysis and loss to follow-up**: Unclear. 107/120 completed 6 month follow-up, 109/120 completed 12 month follow-up	encouraging patient successes, and (6) helping patients figure out "what's next." **Setting:** NR **Intensity[43]:** 0.5 **Frequency[44]:** 0.45 **Duration:** 56 **Fidelity to intervention:** Fidelity to case management was monitored by staff throughout the study through review of audiotapes of the sessions and session documentation. Fidelity outcome not reported. **Comparator (n=56):** Treatment as usual *Description:* included the treatment routinely offered at the treatment facility for the substance abuse problem and consisted of drug education, individual and group counseling, and relapse prevention efforts. Participants randomised to this	treatment (in the past 90 days) assessed with the Mental Health Treatment Index; 56 weeks' follow-up; higher scores indicate increased involvement in mental health treatment; rated by researcher	**3. Involvement in mental health treatment** Intervention group (n=64): Follow-up (mean, SD): 0.02 (0.07) Comparator (n=56): Follow-up (mean, SD): 0.01 (0.03) *SMD= 0.18, 95% CI, -0.18 to 0.54; p=0.33*	married or co-habiting at baseline than in the intervention group, and were significantly more depressed at baseline, (2) intervention group had significantly higher suicidal-homicidal thoughts at baseline compared with the control group **Funding:** Not reported

[43] Number of hours contact per session
[44] Number of sessions per week

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
care	Diagnostic Interview Schedule–IV (CDIS-IV). Substance use disorder. The Global Appraisal of Individual Needs (GAIN).		arm did not receive feedback on the results of their CDIS-IV [mental health] diagnoses. **Setting:** NR **Intensity:** NR **Frequency:** NR **Duration:** NR **Fidelity to intervention:** NR			

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
Author (year): Wenze et al. (2015) **Citation:** Wenze SJ, Gaudiano BA, Weinstock LM, Tezanos KM, Miller IW. Adjunctive psychosocial intervention following Hospital discharge for Patients with bipolar disorder and comorbid substance use: A pilot randomized controlled trial. Psychiatry research. 2015;228(3):516-25. **Country:**	**Details on population and sample selection:** Private psychiatric hospital from inpatient unit and at-risk outpatients **Inclusion/ exclusion:** Bipolar I or II disorder, DSM-IV (SCID). Drug and/or alcohol use disorder. Other inclusion criteria: (1) ≥18 years, (2) current prescription for at least on mood-stabilizing medication, (3) regular access to phone. Exclusion criteria: (1) pregnancy, (2) current	**Unit of randomisation:** Individual **Method of sequence generation:** Computer/Online; Study participants were allocated to Enhanced Assessment and Monitoring or the Integrated Treatment Adherence Program using urn randomisation procedures **Method of allocation:** Not reported **Blinding:** *Participants and*	**Intervention (n=14):** Integrated treatment adherence program *Description:* A novel, cognitive-behavioural approach that seeks to promote successful transition from acute care to maintenance treatment by fostering treatment engagement, supporting post-discharge sobriety, and helping patients stay safe, monitor symptoms, and get support from family and providers. Treatment integrates individual and family meetings via both in-person and telephone delivered sessions. Based on the Family intervention Telephone Tracking program, the Acceptance and Commitment Therapy, a "third wave" cognitive-behavioural therapy. The intervention	1. Depressive symptoms assessed with the Quick Inventory of Depressive Symptoms (QIDS-C); 24 weeks' follow-up; lower scores represent a better outcome for participants; rated by clinician 2. Manic symptoms (Clinician administered rating scale for mania); 24 weeks' follow-up; lower scores represent a better outcome for participants; rated by clinician 3. Alcohol use (number of standard drinks in the previous 3 months); 24 weeks' follow-up; lower number represents a better outcome for	1. **Depressive symptoms** b*= -0.92, SE=0.39, p<0.05 **2. Manic symptoms** b*= -1.19, SE=0.45, p<0.05 **3. Number of standard drinks** b*= 7.19, SE=8.11, not significant, p-value not reported **4. Number of days drinking** b*= 0.64, SE=0.94, not significant, p-value not reported **5. Number of heavy drinking days** b*= 0.81, SE=1.04,	**Limitations identified by authors:** (1) Our sample size is small given the pilot nature of our study and demographically homogenous (2) the Enhances Assessment and Monitoring condition did not control for time/clinician contact, (3) most participants reported that their outpatient care consisted of more than just medication management,

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
Providence Rhode Island, US **Geographical location**: NR **Study design**: RCT **Quality rating**: [+] **Aim of the study**: to develop and test an adjunctive psychosocial intervention for people with bipolar disorder and substance use disorders that was designed to improve a range of clinical outcomes in the transition from	homelessness, (3) discharge to long-term residential substance abuse treatment **Sample size (at baseline):** *Total:* 30 Intervention:14 Comparator:16 **Details on service users:** *Age (mean):* 46.86 *Gender (percent female*): 50% *Ethnicity (percent white):* 14% *Other demographics:* (1) mean years of	*providers:* Not reported, but not possible to blind *Assessors:* Assessments were conducted and administered by trained interviewers who were blind to treatment condition **Method for accounting for missing data in the analysis and loss to follow-up**: Imputation (those receiving some treatment). To circumvent the effects of non-random attrition, intent-to-treat	spanned 6 months and was comprised of: (1) 3, hour-long individual in-person sessions, (2) 1 h-long in-person family session, (3) a target of 11 brief phone contacts. Telephone contact was provided weekly for the first month after the 4 in-person contacts, and then at a decreasing frequency for the remaining months **Setting:** NR **Intensity[45]:** 0.5-1 **Frequency[46]:** NR **Duration:** 24 **Fidelity to intervention:** Treatment integrity was determined using a rating instrument developed from the Integrated Treatment Adherence Program treatment manual. Overall study therapists' treatment integrity was high, with	participants; self-report 4. Alcohol use (number of days drinking in the previous 3 months); 24 weeks' follow-up; lower number represents a better outcome for participants; self-report 5. Alcohol use (number of heavy drinking days in the previous 3 months); 24 weeks' follow-up; lower number represents a better outcome for participants; self-report 6. Drug use number of days using drugs in the previous 3 months (self-report; 24 weeks' follow-up; lower number represents a better	not significant, p-value not reported **6. Drug use** b*= -1.67, SE=0.83, p<0.10 **7. Daily activities** b*= 4.82, SE=2.09, p<0.05 **8. Psychosocial and physical disability** b*= -1.84, SE=0.86, p<0.05 **9. Satisfaction with services assessed with the Client Satisfaction Questionnaire** *Results unclear* **10. Emergency**	which is not typical of individuals with bipolar disorder, (4) the intervention was delivered by doctoral level clinicians who might not routinely provide care in many community mental ehalth care settings (may limit generalisbility of findings), (5) lack of inclusion of an objective measure of

[45] Number of hours contact per session
[46] Number of sessions per week

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
acute to maintenance treatment. We were also interested in establishing the acceptability, feasibility, and credibility of such an intervention with this challenging and high-risk population	education, 15 years, (2) 20% married *Details on SMI/SM diagnosis:* Bipolar I, bipolar II or bipolar NOS. DSM-IV (SCID-II). Drug and/or alcohol abuse disorder. DSM-IV (SCID-II).	analyses were conducted (instead of completers-only analyses) on all randomized participants. 10/14 in the intervention group and 12/16 in the control group completed study. 1 participating the intervention group was lost to follow-up due to death (natural causes).	average adherence to the specific components of the protocol of 93.8% for the inperson sessions, 100% for the patient telephone sessions, and 100% for the significant other sessions **Treatment adherence:** Participants completed an average of 2.71 (SD=0.73) in-person individual sessions, 0.36 (SD=0.50) in-person family sessions, and 9.50 (SD=4.67) individual phone sessions. **Comparator (n=16):** Enhanced assessment and monitoring *Description:* Patients medication and other outpatient providers were mailed brief feedback letters after each study assessment, thus making this condition one of enhanced monitoring.	outcome for participants; self-report 7. Daily activities assessed with the Valued Living Questionnaire; 24 weeks' follow-up; higher scores represent a better outcome for participants; self-report 8. Psychosocial and physical disability World Health Organization Disability Assessment Schedule (WHODAS 2.0); 24 weeks' follow-up; higher scores represent a better outcome for participants; self-report 9. Satisfaction with services assessed with the Client Satisfaction Questionnaire-8; 24 weeks' follow-up; higher	**room visits** b*= 0.16, SE=0.08, p<0.10 **11. Re-hospitalisations** b*= 0.02, SE=0.13, not significant, p-value not reported **12. Treatment adherence** b*= -1.34, SE=1.20, not significant, p-value not reported	adherence **Limitations identified by review team:** (1) small sample size, (2) participants mainly recruited from a private hospital, so limtis to generalisability **Funding:** Brain and Behavior Research Foundation 2007 Young Investigator Award and a National Institute of Drug Abuse Grant

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
			Releases of information were obtained for all such contacts. Letters included information on the patients overall status in the study, adherence, substance use, bipolar disorder symptoms, and suicidality. Participants were also provided with referrals to additional community treatment if requested or recommended based on the results of the assessments. **Setting:** NR **Intensity:** NR **Frequency:** NR **Duration:** 24 **Fidelity***:* NR	scores represent a better outcome for participants; self-report 10. Emergency room visits; 24 weeks' follow-up; higher number represents a better outcome for participants; researcher administered 11. Re-hospitalisations; 24 weeks' follow-up; higher number represents a better outcome for participants; researcher administered 12. Treatment adherence assessed with the Treatment Adherence Form which measure the percent of appointments missed during the study period; 24 weeks' follow-up; lower number represents a better		

Study	**Population and sample selection**	**Methods**	**Details on Intervention(s) and comparators**	**Outcomes**	**Results** *(Results in italics indicate calculations or analyses conducted by the review team)*	**Notes**
				outcome for participants; researcher administered		
**Multi-level regression coefficient reflecting change in the relationship between scores and time for the average participant in the Integrated Treatment Adherence Program (vs. Enhanced Assessment and Monitoring)*						

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
Author (year): Xie et al. (2005) **Citation:** Xie H, McHugo GJ, Helmstetter BS, Drake RE. Three-year recovery outcomes for long-term patients with co-occurring schizophrenic and substance use disorders. Schizophrenia Research. 2005;75(2-3):337-48. **Country:** New Hampshire, US **Geographical location**: Rural	**Details on population and sample selection:** Information meetings with patients, families, and mental health professionals **Inclusion/ exclusion:** Schizophrenia or schizoaffective disorder, DSM-III-R (SCID). Substance use disorder, DSM-III-R (SCID). No other inclusion criteria reported **Sample size (at baseline):** *Total:* 169 Intervention: NR	**Unit of randomisation:** Individual **Method of sequence generation:** Unclear; Participants completed baseline assessmnet procedures and were randomly assigned within the site to one of two forms of care management **Method of allocation:** Not reported **Blinding:**	**Intervention (n=NR)**: Assertive community treatment *Description:* Participants were randomly assigned within the site to one of two forms of care management, assertive community treatment and standard case management, both of which provided integrated mental health and substance abuse treatments. **Setting:** Community **Intensity[47]:** NR **Frequency[48]:** NR	1. Psychotic symptoms assessed on the Brief Psychiatric Rating Scale; 156 weeks' follow-up; higher scores represent a better outcome for participants; assessed by clinician 2. Alcohol use assessed with the Alcohol Use Scale; 156 weeks' follow-up; lower scores represent a better outcome for participants; assessed by clinician 3. Drug use assessed with the Drug Use Scale; 156 weeks' follow-up; lower scores represent a better outcome for participants; assessed by clinician	**1. Psychotic symptoms** Data only reported for both groups combined. Authors report no significant differences between groups (p-value not reported) **2. Alcohol use** Data only reported for both groups combined. Authors report no significant differences between groups (p-value not reported) **3. Drug use** Data only reported for both groups combined. Authors report no significant differences between	**Limitations identified by authors:** (1) this study group did not approximate a representative sample of people with schizophrenia and substance use disorders, though it was representative of those in treatment in the New Hampshire state mental health system. Further, the New Hampshire mental health system was atypical in offering comprehensive integrated dual disorders treatment during the early 1990s, (2) because

[47] Number of hours contact per session

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
Study design: RCT **Quality rating**: [-] **Aim of the study**: to report 3-year outcomes for 152 patients with schizophrenia or schizoaffective disorder and substance use disorders, all of whom received integrated dual disorders treatments in the New Hampshire Dual Diagnosis Study	Comparator: NR *Service/settings details:* Community **Details on service users:** *Age (mean):* 32.4 *Gender (percent female*): 22% *Ethnicity (percent white):* 97% *Other demographics:* (1) 68.4% never married, (2) 61.8% completed high school or higher *Details on SMI/SM diagnosis:* Schizophrenia or schizoaffective	*Participants and providers:* Not reported, but not possible to blind *Assessors:* To establish a consensus rating, a team of three independent raters, blind to study condition, considered all available data on substance use disorer (from interview rating scales, clinician ratings, and urine drug screens) to establish separate ratings on the AUS, DUS, and SATS	**Duration:** 156 **Fidelity to intervention:** NR **Comparator (n=NR):** Standard care *Description:* Participants were randomly assigned within the site to one of two forms of care management, assertive community treatment and standard case management, both of which provided integrated mental health and substance abuse treatments.	4. Substance use assessed with the Substance Abuse Treatment Scale; 156 weeks' follow-up; lower scores represent a better outcome for participants; assessed by clinician 5. Hospital admission (number of participants admitted in previous 6 months); 156 weeks' follow-up; lower number represents a better outcome for participants; outpatient and hospital records 6. Homelessness (number of participants homeless in past year); 156 weeks' follow-up; lower number represents a better	groups (p-value not reported) **4. Substance use** Data only reported for both groups combined. Authors report no significant differences between groups (p-value not reported) **5. Hospital admission** Data only reported for both groups combined. Authors report no significant differences between groups (p-value not reported) **6. Homelessness** Data only reported for both groups combined. Authors	the findings reported here are not based on random assignment, the longitudinal improvements cannot be definitively attributed to integrated dual disorders treatment. Other possible explanations include regression to the mean and concurrent changes in the New Hampshire mental health system during the same era. **Limitations identified by review team:** (1)

[48] Number of sessions per week

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
	disorder. DSM-III-R (SCID). Substance use disorder. DSM-III-R (SCID).	scales **Method for accounting for missing data in the analysis and loss to follow-up**: Available case. 152/169 participants completed study. 9 participants were lost to follow-up due to death.	**Setting***:* Community-based **Intensity**: NR **Frequency***:* NR **Duration (weeks)***:* 156 **Format***:* Individual **Group size***:* NR	outcome for participants; self-report 7. Housing (days of independent living in house/trailer, apartment, rooming house, family, group home; 156 weeks' follow-up; higher number represents a better outcome for participants; self-report 8. Employment (number of participants with a competitive job in past year); 156 weeks' follow-up; higher number represents a better outcome for participants; self-report 9. Quality of life assessed with the Quality of Life Interview; 156 weeks' follow-up;	report no significant differences between groups (p-value not reported) **7. Housing** Data only reported for both groups combined. Authors report no significant differences between groups (p-value not reported) **8. Employment** Data only reported for both groups combined. Authors report no significant differences between groups (p-value not reported) **9. Quality of life** Data only reported for both groups combined. Authors report no significant	data not reported for each group separately **Funding:** Aspects of the study were presented at the conference, "The Impact of Substance Abuse on the Diagnosis, Course, and Treatment of Mood Disorders: A Call to Action," November 19–20, 2003, Washington, DC. The conference was sponsored by the Depression and Bipolar Support Alliance through unrestricted educational grants provided by Abbott Laboratories; The American College of Neuropsychopharm

Study	Population and sample selection	Methods	Details on Intervention(s) and comparators	Outcomes	Results *(Results in italics indicate calculations or analyses conducted by the review team)*	Notes
				higher scores represent a better outcome for participants; assessed by interviewer	differences between groups (p-value not reported)	acology; AstraZeneca Pharmaceuticals; Bristol-Myers Squibb Company; Cyberonics, Inc.; Eli Lilly and Company; GlaxoSmithKline; Janssen Pharmaceutica Products; Merck & Co., Inc.; and Wyeth Pharmaceuticals