

## **Effect of community mental health care programs in Australia: a systematic review**

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## Appendix S1. PRISMA Checklist

Section/topic	#	Checklist item	Reported on page #
<b>TITLE</b>			
Title	1	Identify the report as a systematic review, meta-analysis, or both.	1
<b>ABSTRACT</b>			
Structured summary	2	Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number.	1
<b>INTRODUCTION</b>			
Rationale	3	Describe the rationale for the review in the context of what is already known.	4
Objectives	4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS).	5
<b>METHODS</b>			
Protocol and registration	5	Indicate if a review protocol exists, if and where it can be accessed (e.g. Web address), and, if available, provide registration information including registration number.	n/a
Eligibility criteria	6	Specify study characteristics (e.g. PICOS, length of follow-up) and report characteristics (e.g. years considered, language, publication status) used as criteria for eligibility, giving rationale.	5-6
Information sources	7	Describe all information sources (e.g. databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched.	5
Search	8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	Appendix S2
Study selection	9	State the process for selecting studies (i.e. screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis).	7
Data collection process	10	Describe method of data extraction from reports (e.g. piloted forms, independently, in duplicate) and any processes for obtaining and confirming data from investigators.	6-7
Data items	11	List and define all variables for which data were sought (e.g. PICOS, funding sources) and any assumptions and simplifications made.	5-6

Risk of bias in individual studies	12	Describe methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level), and how this information is to be used in any data synthesis.	6
Summary measures	13	State the principal summary measures (e.g. risk ratio, difference in means).	12
Synthesis of results	14	Describe the methods of handling data and combining results of studies, if done, including measures of consistency (e.g. $I^2$ ) for each meta-analysis.	6
Risk of bias across studies	15	Specify any assessment of risk of bias that may affect the cumulative evidence (e.g. publication bias, selective reporting within studies).	7
Additional analyses	16	Describe methods of additional analyses (e.g. sensitivity or subgroup analyses, meta-regression), if done, indicating which were pre-specified.	n/a
<b>RESULTS</b>			
Study selection	17	Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally with a flow diagram.	6-7
Study characteristics	18	For each study, present characteristics for which data were extracted (e.g. study size, PICOS, follow-up period) and provide the citations.	8-12
Risk of bias within studies	19	Present data on risk of bias of each study and, if available, any outcome level assessment (see item 12).	Appendix S3, 7-8
Results of individual studies	20	For all outcomes considered (benefits or harms), present, for each study: (a) simple summary data for each intervention group (b) effect estimates and confidence intervals, ideally with a forest plot.	12-14
Synthesis of results	21	Present results of each meta-analysis done, including confidence intervals and measures of consistency.	n/a
Risk of bias across studies	22	Present results of any assessment of risk of bias across studies (see Item 15).	7-8
Additional analysis	23	Give results of additional analyses, if done (e.g. sensitivity or subgroup analyses, meta-regression [see Item 16]).	n/a
<b>DISCUSSION</b>			
Summary of evidence	24	Summarize the main findings including the strength of evidence for each main outcome; consider their relevance to key groups (e.g. healthcare providers, users, and policy makers).	15-16
Limitations	25	Discuss limitations at study and outcome level (e.g. risk of bias), and at review-level (e.g. incomplete retrieval of identified research, reporting bias).	17-18

Conclusions	26	Provide a general interpretation of the results in the context of other evidence, and implications for future research.	18-19
<b>FUNDING</b>			
Funding	27	Describe sources of funding for the systematic review and other support (e.g. supply of data); role of funders for the systematic review.	2

## **Appendix S2. Systematic Search**

model\* or framework\* or program\* or intervention\* or treatment\* or recovery or service\*

AND

mental health or mental ill health or mental illness\* or mental disorder\* or severe mental illness\* or severe mental disorder\* or serious mental illness\* or chronic mental disorder\* or chronic mental illness\* or psychiatric or psychological disorder\*

AND

community mental health or community mental health care or community mental health service\* or community mental health support\* or outreach or outreach support\* or community-based support\* or community-based care or community support\* or community care or integrat\* care

### Appendix S3. Quality Assessments of the Studies

Table S1. Quality Assessment of Controlled Intervention Studies

Criteria	First Author (Year)																	
	Baker (2006)	Chatwin (2016)	Craigie (2009)	Forbes (2012)	Forsyth (2017)	Gilbert (2012)	Gordon (2018)	Hamernik (1999)	Hugo (2002)	Issakidis (1999)	Jackson (2001)	Kelly (2020)	Meadows (2019)	Mills (2012)	Nagel (2009)	Shawyer (2017)	Siskind (2013)	Waghorn (2014)
1. Was the study described as randomised, randomised trial, randomised clinical trial, or an RCT?	Y	Y	N	Y	Y	N	Y	N	N	Y	N	Y	Y	Y	Y	Y	N	Y
2. Was the method of randomisation adequate (i.e. use of randomly generated assignment)?	Y	Y	NA	Y	Y	NA	Y	NA	NA	NR	NA	Y	Y	Y	Y	Y	NA	Y
3. Was the treatment allocation concealed (so assignments could not be predicted)?	Y	Y	NA	Y	N	NA	Y	NA	NA	NR	NA	Y	Y	NR	Y	Y	NA	NR
4. Were study participants and providers blinded to treatment group assignment?	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
5. Were the people assessing the outcomes blinded to the participants' group assignments?	Y	N	N	Y	Y	N	N	N	N	N	N	Y	N	Y	N	Y	N	N
6. Were the groups similar at baseline on important characteristics that could affect outcomes (e.g. demographics, risk factors, co-morbid conditions)?	NR	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
7. Was the overall drop-out rate from the study at endpoint 20% or lower of the number allocated to treatment?	Y	Y	N	N	N	Y	Y	Y	Y	Y	N	Y	N	N	N	N	NR	N
8. Was the differential drop-out rate (between treatment groups) at endpoint 15 percentage points or lower?	Y	N	Y	Y	Y	Y	Y	Y	Y	N	N	Y	N	Y	Y	Y	CD	Y
9. Was there high adherence to intervention protocols for each treatment group?	N	Y	N	Y	NR	N	Y	NR	NR	Y	N	NR	N	Y	Y	Y	NR	Y

10. Were other interventions avoided or similar in the groups (e.g. similar background treatments)?	Y	Y	Y	Y	CD	CD	Y	CD	Y	Y	Y	Y	Y	Y	Y	Y	NR	Y
11. Were outcomes assessed using valid and reliable measures, implemented consistently across all study participants?	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
12. Did authors report that the sample size was sufficiently large to detect a difference in the main outcome between groups with at least 80% power?	NR	N	NR	Y	N	NR	N	N	Y	N	N	N	Y	N	N	Y	NR	N
13. Were outcomes reported or subgroups analysed prespecified (i.e. identified before analyses were conducted)?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
14. Were all randomised participants analysed in the group they were originally assigned?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Note. Y = Yes; N = No; CD = Cannot Determine; NA = Not applicable; NR = Not reported





9. Was the loss to follow-up after baseline 20% or less? Were those lost to follow-up accounted for in the analysis?	N	Y	N	N	Y	Y	Y	Y	N	Y	Y	Y	Y	N	Y	N	Y	N
10. Did the statistical methods examine changes in outcome measures from before to after the intervention? Were statistical tests done that provided p values for the pre-to-post changes?	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y	NR	Y	N	Y	Y	Y
11. Were outcome measures of interest taken multiple times before the intervention and multiple times after the intervention (i.e. did they use an interrupted time-series design)?	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Note. Y = Yes; N = No; NA = Not applicable; NR = Not reported.

Table S3. Quality Assessment of Before and After (Pre-Post) Studies with No Control Group – Grey Literature

Criteria	First Author (Year)			
	Australian Healthcare Associates (2012)	Department of Health and Ageing (2010)	Urbis (2015)	Ziguras (2001)
1. Study question/aim clearly stated?	Y	Y	Y	Y
2. Were eligibility/selection criteria for the study population prespecified and clearly described?	Y	Y	Y	Y
3. Were the participants in the study representative of those who would be eligible for the test/service/intervention in the general or clinical population of interest?	Y	Y	Y	Y
4. Were all eligible participants that met the prespecified entry criteria enrolled?	NR	N	Y	NR
5. Was the sample size sufficiently large to provide confidence in the findings?	N	Y	Y	N
6. Was the test/service/intervention clearly described and delivered consistently across the study population?	Y	Y	Y	Y
7. Were the outcome measures prespecified, clearly defined, valid, reliable, and assessed consistently across all study participants?	Y	Y	Y	Y
8. Were the people assessing the outcomes blinded to the participants' interventions?	N	N	N	N
9. Was the loss to follow-up after baseline 20% or less? Were those lost to follow-up accounted for in the analysis?	N	N	NR	N
10. Did the statistical methods examine changes in outcome measures from before to after the intervention? Were statistical tests done that provided p values for the pre-to-post changes?	Y	N	N	Y
11. Were outcome measures of interest taken multiple times before the intervention and multiple times after the intervention (i.e. did they use an interrupted time-series design)?	N	N	N	N

Note. Y = Yes; N = No; NA = Not applicable; NR = Not reported.

**Appendix S4.**

Table S4. Summary of Studies

<b>Therapeutic Programs</b>						
<b>1st Author (Year)</b>	<b>Type of Paper, Design</b>	<b>Mental Illness Type</b>	<b>Program Description</b>	<b>Duration of Program</b>	<b>Comparison Group Description</b>	<b>Duration of Comparison Group</b>
1. Ashton (2015), South Australia	Empirical, pre-post design	35% schizophrenia, 17% schizoaffective disorder, 19% bipolar disorder, 23% depression/anxiety	Community-based smoking cessation program: Two-hour group sessions facilitated by an experienced mental health worker and peer worker who had a mental illness and had previously been a smoker. Sessions followed the Tobacco Free Manual but were tailored to the needs of the group. Sessions incorporated motivational interviewing, problem solving, and skills training to assist clients to manage symptoms, stress, confidence, sadness, and overall coping strategies.	Variable – participants could attend as many sessions as they wanted.	No comparison group	Not applicable.
2. Baker (2006), New South Wales	Empirical, Randomised Controlled Trial (RCT)	57% schizophrenia, 43% other psychoses 100% smoking at least 15 cigarettes per day	Smoking cessation intervention: An eight-session weekly intervention delivered one-on-one by a therapist consisting of motivational interviewing, nicotine replacement therapy and cognitive behavioural therapy.	2 months	Treatment as usual: participants had usual access to general practitioners and publicly funded community mental health teams.	2 months

3. Chatwin (2016), Queensland	Empirical, 2-armed RCT	80% with clinical depression and 60% with clinical anxiety (40% crossover for those with co-morbid depression and anxiety)	Individual Cognitive Behavioural Therapy Program: Aim was to modify distorted/distressed thinking, behaviour and affect by teaching new behavioural and cognitive strategies (cognitive restructuring, behavioural activation etc). Comprised of 8 one-hour weekly sessions facilitated by trained practitioners and psychologists.	2 months	Usual care – no further details specified.	2 months
4. Contreras (2016), Victoria	Empirical, Pre-post design	30.8% schizophrenia, 15.4% bipolar, 53.9% major depressive disorder	Cognitive Remediation Intervention: Involved 20 individual computer-based sessions using CogPack designed to train participants to solve computer tasks, incorporate new strategies and discuss their applicability within daily life and vocational settings. Participants received one-hour sessions twice a week.	10 weeks	No comparison group	Not applicable.
5. Craigie (2009), Western Australia	Empirical, Non-randomised controlled study	45% depression, 49% co-morbid anxiety, 20% dysthymia	Group-based Cognitive Behavioural Therapy (CBT) Group CBT. 10 weekly 2 hour group sessions with a 1 month follow up session. Clinicians follow the agenda and activities outlined in the treatment manual, including psychoeducation, behavioural activation, relaxation techniques, thought disputing, and self-management.	10 weeks	Individual CBT. Followed same manual as the group CBT but implemented in a more flexible manner based on individual case formulation for each client. The selection, ordering, and implementation of treatment components and the number of treatment sessions could vary according to each patient's treatment plan and progress.	10 weeks
6. Forbes (2012), VIC, SA, NSW	Empirical, RCT	80% mood disorder, 45% co-morbid substance use	Cognitive Processing Therapy (CPT): delivered by therapists from the Veterans and Veterans' Families Counselling Services (VVCS). CPT is a 12-session manualised treatment for PTSD addressing key posttraumatic themes including safety, trust, power and control, self-esteem, and intimacy with cognitive therapy and written exposure. Participants received treatment	5 months	Treatment as usual: delivered by therapists from the VVCS. The intervention delivered depended on the orientation of the therapist. Fourteen percent of veterans received predominantly psycho-education and supportive counselling; 52% received non-trauma focused symptom	5 months

			for 12 bi-weekly one-hour sessions. Therapy included psychoeducation, introducing the cognitive behavioural model, challenging unhelpful beliefs, and written exposure tasks, with homework sheets and tasks.		management interventions, and 34% received CBT which included elements of exposure. The purpose of the usual treatment condition was to provide a base- line comparison of what treatment would usually be received by veterans presenting at VVCS. Participants received 12 bi-weekly one-hour sessions.	
7. Jackson (2001), Victoria	Empirical, RCT	44% schizophrenia, 20% schizophreniform disorder, 29% mood disorder, 7% delusional/psychotic disorder not otherwise specified	Cognitive Oriented Psychotherapy for Early Psychosis (COPE): Focused on the adjustment of individuals recovering from their first episode of psychosis. COPE aims to help the person resume their development tasks (e.g. career, relationships, identity), and to alleviate or prevent the development of a secondary morbidity e.g. depression, social anxiety). Consisted of engagement, assessment, adaptation, and secondary morbidity prevention. 1 year duration, average 20 sessions.	12 months	Treatment as usual – no further details reported.	12 months
8. Mills (2012), New South Wales	Empirical, RCT	All had co-morbid PTSD and substance dependence	COPE Treatment: Concurrent Treatment of PTSD and Substance Use Disorders Using Prolonged Exposure: Integrated existing CBT interventions for PTSD and substance dependence. 13 individual 90-minute sessions delivered weekly by a clinical psychologist. Treatment components include motivational enhancement and CBT for substance use, psychoeducation relating to both disorders and their interaction, in vivo exposure, imaginal exposure, and cognitive therapy for PTSD.	13 weeks	Usual treatment for substance dependence. Participants could access any type of substance use treatment currently available in the community, including outpatient counselling, inpatient or outpatient detoxification, residential rehabilitation, and pharmacotherapies.	13 weeks
9. Nagel (2009),	Empirical, RCT	59% schizophrenia, 37% depressive	Motivational Care Planning: to assist clients in understanding symptoms,	6 weeks	Treatment as usual. The local health centre nurses and	6 weeks

Northern Territory		disorder, 4% bipolar disorder,  82% reported substance use and 92% of those were substance dependent	problem solving, and developing strategies to manage relapse and pursue goals. Two one-hour sessions delivered by an Aboriginal research officer and local worker. Sessions included motivational interviewing with a focus on a change plan, videos, and information sheets. The second session, 2–6 weeks later, reviewed the previous change plan, barriers to goal achievement, and new strategies. A formal care plan was developed with the client, who received a copy 4–12 weeks post treatment.		aboriginal health workers, supported by general practitioners, specialist mental health services and the local mental health team offered assessment, review, supportive counselling and medication.	
10. Shawyer (2017), Victoria	Empirical, RCT	Patients with schizophrenia (76%) or schizoaffective disorder (24%) with residual hallucinations/delusions associated with significant distress/disability	Acceptance and Commitment Therapy: each participant was offered eight 50-minute sessions of ACT delivered weekly to fortnightly over 3 months. ACT was conducted according to the ACT manual with adaptations for psychosis. ACT aims to target the extent to which symptoms and related beliefs dominate conscious experience and behaviour. Participants were provided with handouts and sessions were recorded for home review.	3 months	Comparison group: Befriending Therapy. Participants were offered eight 50-minute sessions of befriending intervention. This is a manualised treatment often used as a control condition in psychosis trials. It involves engaging in conversation about everyday topics, while overtly avoiding discussion of symptoms and problems. It often produces similar treatment outcomes to CBT.	3 months

#### Case Management Programs

<b>1st Author (Year)</b>	<b>Type of Paper, Design</b>	<b>Mental Illness Type</b>	<b>Program Description</b>	<b>Duration of Program</b>	<b>Comparison Group Description</b>	<b>Duration of Comparison Group</b>
1. Australian Healthcare Associates (2012), Queensland	Grey literature, Pre-post	53% schizophrenia 16% depression 11% post-traumatic stress 5% anxiety 11% unknown	The Community Mental Health Transition to Recovery Program: Provides short to medium term recovery-based support and accommodation with 24 hour psychosocial support provided each day and clinical support is provided by the local integrated mental health service, following by time-	18 months	No comparison group	Not applicable

			limited transitional outreach support post departure to own accommodation. Provides targeted rehabilitative psychosocial interventions, such as improved access to social networks, support to develop skills to self-manage mental and general health, development of lifestyle skills and links to vocational/employment support.			
2. Beere (2019), Queensland	Empirical, Pre-post design	79.1% mood disorders, 65.1% anxiety disorders, 23.3% psychosis	Floresco integrated service model: A ‘one-stop’ service hub for adults with serious mental illness that aimed to deliver a suite of community-based psychosocial support services by providing access to a multidisciplinary team of social workers, psychologists, disability support workers, drug and alcohol, employment, and housing services.	Not recorded	No comparison group	Not applicable
3. Campbell (2005), Tasmania	Empirical, Prospective naturalistic longitudinal design	Serious mental illness – but type not specified.	Local (rural) primary mental health worker: mental health services were delivered in the rural community by a locally (rural) based worker. The implementation of a rural mental health worker provided treatment to participants in order to improve accessibility, availability, local acceptance of treatment, and timely interventions that would improve outcomes.	3 months	Received normal intervention from a “usual” mental health service or no treatment at all.	3 months
4. Dunt (2017), Victoria	Empirical, pre-post design	49% schizophrenia, 25% depression, 75% multiple mental health diagnoses, substance use	The Doorway Program: An integrated housing and recovery model for people with serious mental illness. Housing and recovery workers support participants to choose, access and sustain their own private rental accommodation by subsidizing rental payments where required. Participants also receive ongoing clinical care, case management, support to develop tenancy skills, improve psychosocial functioning, and build support networks.	Three years	No comparison group	Not applicable

5. Gulliver (2018), Australian Capital Territory	Empirical, Pre-post design	Severe and persistent mental illness – type not specified	Partners in Recovery: Program adopts a service linkage approach to enhance collaboration and service connectedness across the clinical and non-clinical mental health service, as well as diverse range of services accessed by individuals with SMI, such as housing. Provision of coordinated wrap-around care to meet the individual's needs and goals. A support facilitator works with individuals to identify and access the required services for them, making referral processes more streamlined and easier to access.	Variable – approximately 12 months	No comparison group	Not applicable.
6. Habibis (2002), Tasmania	Empirical, Naturalistic longitudinal design	Diagnosis of either schizophrenia or mood disorder	Extended hours community mental health team (CMHT): The CMHT saw patients daily, had direct involvement in admissions and discharge planning, shared caseloads, and case management took place in the community rather than hospital. While service personnel regarded Assertive Community Treatment as the most desirable model, they admitted that they fell short of this (e.g. not open 24 hours, caseloads averaging 20 rather than 10, referring out for substance use etc).	12 months	Participants that were recruited before the addition of the extended hours community mental health team (CMHT). Treatment as usual before the intervention was implemented.	12 months
7. Hamernik (1999), Queensland	Empirical, Non-randomised control study	71% schizophrenia 18% bipolar disorder 5% depression 5% borderline personality disorder	Assertive Community Treatment: provision of intensive case management with a focus on the clients' basic problems of living, from meeting needs to social skills. Members of a multidisciplinary team (e.g. psychiatrist, nurses, social worker, and psychologist) provide outreach support and meet with the clients in the community. Individualised services are adapted to the changing needs of clients. Support is available 24 hours 7 days, staff to patient ratio of 1:7.	12 months	The control intervention was standard community care with minimal case management, medication compliance and healthy lifestyle monitored but not directly monitored. Outside of standard hours of operation, patients had to turn to hospital emergency rooms for support. Less contact time with patients than for ACT patients, staff to patient ratio of 1:40.	12 months



8. Hancock (2018), New South Wales	Empirical, Pre-post study design	30% schizophrenia 34% Mood disorders 20% other, 15% unknown	Partners in Recovery: Program adopts a service linkage approach to enhance collaboration and service connectedness across the clinical and non-clinical mental health service, as well as diverse range of services accessed by individuals with SMI, such as housing. Provision of coordinated wrap-around care to meet the individual's needs and goals. A support facilitator works with individuals to identify and access the required services for them, making referral processes more streamlined and easier to access.	Not reported.	No comparison group	Not applicable
9. Hugo (2002), South Australia	Empirical, quasi-experimental design	Individuals with serious mental illness in crisis, type not specified	Community-based mobile treatment team: Operates from 8am to 11.30pm daily. Comprises of 13 staff including a full-time psychiatrist, three social workers, nine mental health nurses, and a half-time clinical psychologist. The team provides assessment, crisis intervention, community-based short-term treatment, home visiting, telephone triage service and facilitates hospital admission and referrals where needed. Treatment decisions made through consultation with the multidisciplinary team.	Three months	Hospital-based emergency service: part of the emergency department of the local general hospital, operating 24 hours a day. Consumers access by telephone or presenting to emergency department in person. Hospital-based psychiatrist or mental health nurse respond to requests from the emergency department. The service provides assessment, crisis intervention, and facilitates hospital admission and referral. Treatment decisions made by the psychiatrist registrar.	Not reported
10. Isaacs (2019), Victoria	Empirical, Pre-post study design	48% mood disorder 15% schizophrenia 8% personality disorder 6% stress-related disorder 8% behavioural disorder 15% other	Partners in Recovery: Program adopts a service linkage approach to enhance collaboration and service connectedness across the clinical mental health supports and non-clinical support. Provision of coordinated wrap-around care to meet the individual's needs and goals. A care coordinator/support facilitator works with individuals to develop a care plan based on their needs and then brokered services in accordance with that plan. They identify	Varies: from 14 to 101 weeks	No comparison group	Not applicable

			and access the required services for clients, making referral processes more streamlined and easier to access.			
11. Issakidis (1999), New South Wales	Empirical, RCT	89% schizophrenia, 10% bipolar disorder, 1% personality disorder	Intensive Case Management: Care by a multidisciplinary team of case managers (who undertook majority of planned client contact) psychiatric nurses, social worker, psychologists etc. Each member of the team was responsible for the management of no more than 10 clients. The team conducted daily medication rounds for clients, provided direct clinical care, offered 24-hours crisis services, rehabilitation services, and linked clients with other community and social support services e.g. accommodation. Clients were seen twice weekly on average.	12 months	The control intervention was standard case management. This was carried out by a multi-disciplinary team, but with individual caseloads of 20-40 clients, and nurses and allied health workers were not formally linked. The team did not conduct formal medication rounds. Clients were seen on average 41 times (SD=23) over 12 months, or less than once per week.	12 months
12. Lee (2010), Victoria	Empirical, pre-post design	Approximately 36% Schizophrenia or other psychotic disorder, 18% affective disorder, 14% personality disorder, 7% substance use disorder, 52% current substance misuse. Individuals at high risk of homelessness	Integrated assertive outreach model: The model comprised of a multidisciplinary care-team approach with a focus on relationship building with participants through assertive engagement on-site, comprehensive assessment and development of a care plan addressing multiple presenting concerns, ongoing review and monitoring of care plans through partnership, and outreach support to maintain ongoing engagement and prevent crisis trajectory.	Variable: 1 week to 12 months, average of one to six months of engagement	No comparison group	Not applicable
13. Lee (2014), Victoria	Empirical, pre-post design	63% Schizophrenia or other psychotic disorder, 12% bipolar disorder or manic episode, 11% depressive episode, 11% borderline personality disorder, 2% acute stress reaction,	Prevention and Recovery Service (PARCS): Provision of supported accommodation, including independent living units to promote functional independence and psychosocial recovery. Multidisciplinary psychosocial and clinical support. Group and community-oriented spaces promote interaction with others and	Maximum duration is 28 days.	No comparison group	Not applicable

		1% substance induced disorder	recovery-oriented programs, including cooking, art therapy, coping strategies etc.			
14. Meadows (2019), Victoria	Empirical, RCT	Mental illness type not reported.	<p>REFOCUS-PULSAR recovery-oriented training intervention was implemented in two mental health community support services, four prevention and recovery services, which deliver short-term, sub-acute, residential recovery-oriented care, and community outreach services.</p> <p>REFOCUS-PULSAR training program was supported by slide presentations, a manual, session plans, and videos. PULSAR active learning sessions, were offered monthly as 1 hour sessions to staff and managers of involved teams to support practice-based implementation of recovery-oriented practice, were facilitated by PULSAR investigators and local trainers.</p>	6 weeks	Standard case management treatment was governed by national standards. Care may be changed in response to clients' changing needs (i.e. moving between more intensive community teams such as crisis assessment and treatment or less intensive community options. Case management in community clinics coordinates transitions through these levels of care and seeks to ensure that needs for medication, monitoring, support, and psychosocial interventions are met. Teams typically have multidisciplinary representation from mental health care disciplines.	6 weeks
15. Mueser (2006), New South Wales	Empirical, pre-post design	42% schizophrenia, 46% schizoaffective disorder, 8% bipolar disorder, 4% delusional disorder	Illness Management and Recovery: assists individuals to manage their mental illness in pursuit of their goals. Weekly group sessions (two 45-minute sessions with 30-minute break) that include psychoeducation about mental illness, motivational techniques, cognitive behavioural approaches to medication adherence, relapse prevention, coping with stress, and social skills training.	Approximately 9 months	No comparison group	Not applicable

15. Ngo (2020), Western Australia	Empirical, pre-post design	18% schizophrenia or schizo-affective disorder, 13% bipolar disorder, 18% personality disorder, 34% depression, 5% anxiety	Step-up step-down community support - Prevention and Recovery Service (PARCS): Provision of supported accommodation, including independent living units to promote functional independence and psychosocial recovery, underpinned by the collaborative recovery model. Multidisciplinary psychosocial and clinical support. Group and community-oriented spaces promote interaction with others and are used to implement recovery-oriented activities, including cooking, art therapy, coping strategies, skill management etc.	Variable, average duration is 3.5 weeks	No comparison group	Not applicable
16. Scanlan (2019), New South Wales	Empirical, pre-post design	23% psychotic disorders, 21% bipolar disorder, 44% depression, 52% anxiety disorders, 2% personality disorders, 2% substance dependence	WorkWell: A type of Individual Placement and Support program informed by the principles of the collaborative recovery model. Individuals are supported to achieve their work-related goals, including job development, searching, and achieving employment. Employment coaches support people in line with their values, strengths, employment goals, and build their capacity for searching.	Variable, approximately 12 months	No comparison group	Not applicable
17. Siskind (2013), Queensland	Empirical, Quasi-experimental	45% psychosis, 32% affective disorder, 23% other	Alternatives to Hospitalisation (ATH) program: A four-bedroom crisis house service with five beds. Patients could stay for up to 2 weeks. 24-hour on-site staffing by enrolled nurses, with a clinical nurse and occupational therapist Monday to Friday. The service model was based on the principles of psychosocial rehabilitation. Consumers were expected to contribute to the running of the house (i.e. assisting with cooking and cleaning), involved in creating recovery plans and crisis and relapse prevention strategies, and were linked with community services, such as employment services or disability support workers.	2-week stay maximum	Treatment as usual – participants were admitted to a peer hospital district acute psychiatric unit.	Not recorded

18. Teesson (1999), New South Wales	Empirical, Pre-post design	Schizophrenia (67%), anxiety disorder (11%), bipolar affective disorder (11%), depression (8%) and personality disorder (3%).	The Gemini Project: Based on the principles of harm minimisation, this program emphasised a non-confrontational approach and did not demand immediate abstinence from co-morbid substance use in order for clients to engage in the program. Program components included engagement, assessment, provision of treatment (e.g. psycho-education about safe drinking levels, reducing unsafe sexual practices and unsafe injecting practices; advice to reduce consumption of alcohol and drug taking to safe and responsible levels; linking and referral to specialist drug and alcohol services, motivational interviewing and relapse prevention.	12 months	No comparison group	Not applicable
19. Udechuku (2005), Victoria	Empirical, Retrospective clinical audit of data over 12 months of implementation, pre-post	79% schizophrenia 19% schizoaffective disorder 2% bipolar disorder  High rates of comorbidity	Assertive Community Treatment: intensive case management in a home-based outreach format provided by a multidisciplinary team of community psychiatric nurses/case managers, occupational therapist, psychiatrist registrar, and psychiatrist. Case manager to patient ratio is 1:7, case management occurs almost exclusively in the home with support available 7 days over extended work hours. Targets the patients' individualised needs in terms of their core symptoms, basic living skills, psychosocial functioning.	12 months	No comparison group	Not applicable
20. Urbis (2015), Australia	Grey literature, Pre-post	38% mood disorders 25% schizophrenia 11% unspecified 7% stress-related disorder	Partners in Recovery: Program adopts a service linkage approach to enhance collaboration and service connectedness across the clinical mental health supports and non-clinical support. A care coordinator/support facilitator works with individuals to develop a care plan based on their needs and then brokered services in accordance with that plan. They identify and access the required services for clients,	Not recorded – variable.	No comparison group	Not applicable

			making referral processes more streamlined and easier to access.			
21. Waghorn (2014), Queensland	Empirical, RCT	81% psychotic disorder, 9% bipolar affective disorder, 7% major depressive or anxiety disorder	Individual and Placement Support (IPS) program: supported employment program. The intervention was governed by a standardised service level agreement between two agencies that enabled a full-time employment specialist employed by the employment service, to be co-located into the mental health team as the sole person delivering the employment service to volunteer consenting consumers of the mental health service.	12 months	Control condition: enhanced routine mental health case management. Mental health case managers provided assistance to engage with the most effective alternative disability employment services in the local area. Regular communication with the employment specialist was then encouraged to facilitate client engagement and to monitor referral progress.	12 months
22. Williams (2015), Queensland	Empirical, Prospective observational design	74% psychotic disorder, 24% bipolar affective disorder, 2% anxiety disorder	Individual and Placement Support (IPS) program: supported employment program. Each of the three mental health teams was allocated a full-time employment specialist by one of three different disability employment service providers. This method followed the partnership approach. This approach involves intensive and individualised support coordinated with publicly funded mental health services. Employment specialists are added to the mental health team specifically to assist service users with their competitive employment goals.	6 months	No comparison group	Not applicable
23. Ziguras (2001), Victoria	Grey literature, Pre-post	73% schizophrenia 16% psychosis	Bilingual Case Management Program: Eleven bilingual staff were employed in case management positions in community care teams comprised of multidisciplinary disciplines, including psychiatric nurse, occupational therapy, social work, and psychology.	Varied, 6,12, 18, or 24 months	No comparison group	Not applicable

**Lifestyle Programs**

<b>1st Author (Year)</b>	<b>Design</b>	<b>Mental Illness Type</b>	<b>Program Description</b>	<b>Duration of Program</b>	<b>Comparison Group Description</b>	<b>Duration of Comparison Group</b>
1. Boardman (2014), Victoria	Empirical, Multiple time-series design	Adults with a primary diagnosis of schizophrenia from a community mental health service  100% schizophrenia, prescribed oral atypical antipsychotic 82% rec drug use	Peer support intervention: Peers contacted their allocated consumer by telephone once per week for 20 minutes over 8 weeks. Peers used problem solving approach, encouraged to engage with consumer, provide mutual support, discuss adherence, propose strategies and make notes of any problems raised. Peers attended an interactive 3 hour workshop before administering the intervention.	2 months	No comparison group	Not applicable
2. Department of Health and Ageing (2010), Australia	Grey literature, Pre-post	All individuals presented with a persistent SMI. Specific SMIs were not reported.	Support for Day to Day Living in the Community: The program aimed to improve the quality of life and independence of individuals through the delivery of structured social activities (e.g. discussion and support groups, social gatherings), cultural and recreational events, skills-based training (e.g. communication skills, computer skills, budgeting), links to vocational training and support, and links to housing and income support.	Not recorded	No comparison group	Not applicable
3. Forsyth (2017), New South Wales	Empirical, RCT	51% depression, 21% anxiety, 28% comorbid depression and anxiety, 44% comorbid substance use	Lifestyle intervention modelled from the Chronic Disease Management Scheme. Participants received five visits (fortnightly over 12 weeks) to the treating dietician/exercise physiologists (DEP) including initial assessment, four consultations, and final assessment. Consultations involved psychoeducation, motivational interviewing, goal development, and implementing client-	3 months	Attention control condition. Participants were contacted by telephone by the treating dietician/exercise physiologists (DEP) for fortnightly check-ins over 12 weeks – but no consultation visits.	3 months

			driven, sustainable and affordable dietary and physical activity changes.			
4. Gilbert (2012), Northern Territory	Empirical, Non-randomised controlled design	63% schizophrenia or psychosis, 23 % mood disorder, 14% other	The Optimal Health Program - A self-management intervention delivered by case managers over 9 sessions. Aims to address both physical and psychosocial dimensions of health of individuals with SMI. Key aspects include coping strategies, monitoring, goal setting, identifying supports, and developing plans to cope with warning signs, triggers, and stressors.	12 months	The control condition comprised of routine mental healthcare, including medical treatment delivered using a case management approach.	12 months
5. Gordon (2018), Queensland	Empirical, Quasi experimental design	72% schizophrenia, disorder, 17% schizoaffective disorder, 6% psychosis, 5% other 36% co-morbid substance abuse	Social Cognition and Interaction Training (SCIT) program. Participants attended 1 hour SCIT group sessions twice weekly for 10 weeks. Sessions co-facilitated by a clinical psychologist and an allied health clinician who follow the SCIT manual and provide clients with handouts summarising the content of each session, homework and worksheets. Focuses on participants' subjective social experiences and embeds skills training within real-life context.	10 weeks	Treatment as usual consisted of regular psychiatric treatment including medication management, clinical management, psychoeducation or skill building, or family education and support (dependent on clinically assessed need). None of the control group participants received Social Cognition oriented or psychosis therapy treatments while in this cohort.	10 weeks
6. Kelly (2020), New South Wales	Empirical, randomised control trial	44% psychotic disorders, 44% depressive disorders, 40% anxiety disorders, 19% bipolar and related disorders, 16% trauma and stressor related disorders, 7% obsessive-compulsive and related disorders, 7% personality disorders	Better Health Choices: Healthy lifestyle intervention for individuals with serious mental illness, in addition to treatment as usual. An eight-session manualised program delivered by a peer worker (i.e. individuals with their own lived experience of mental illness). Support and strategies provided by the peer worker targeted low fruit and vegetable intake, leisure screen time, smoking, and alcohol use where relevant.	Two months	Control condition: Treatment as usual via regular engagement with their psychiatrist and a support worker. Participants received standard information and pamphlets outlining information about cardiometabolic risk factors.	Four months



## Appendix S5.

Table S5. Summary of Results

Therapeutic Programs				
Study	Timepoint Assessments	Sample	Outcome Measures	Results Mean (SD) or %
1. Ashton (2015), South Australia	First and last session that participants registered to attend (time-frame dependent on individual participation)	844 adults registered interest, of which 468 registered for more than one session  Mean age: 42.4 (11.1) Male: 49%	a) Smoking cessation rate  b) Number of cigarettes smoked each day	a) 15.3% not smoking at end-point, 78% reported smoking on the day of evaluation, 15% had stopped smoking for 7 days or more, 19% reported not smoking after 12 months  b) Time 1: 32.42 per day Time 2: 16.75 per day <i>p</i> <.001
2. Baker (2006), New South Wales	Participants assessed at baseline, 3 months, 6 months, and 12 months	298 adults n (Intervention): 147 n (Control): 151  Mean age (SD): 37.24 (11.09) Male: 52%	a) Percentage of those who maintained continuous abstinence: no smoking since nominated quit date  b) Percentage of those who reduced their daily consumption of cigarettes by at least 50% (%)  c) Percentage of point-prevalence abstinence: abstinence for past 7 days  d) Psychiatric symptoms: Brief Psychiatric Rating Scale	a) Intervention: 3.4% Control: 0.7% <i>p</i> >.05  b) Intervention: 31.3% Control: 17.9% <i>p</i> >.05  c) Intervention: 10.9% Control: 6.6% <i>p</i> <.001  d) Intervention: 32.16 (7.80) Control: 34.18 (7.89) <i>p</i> >.05  e) Intervention: 37.31 (12.34) Control: 39.81 (12.99)

			<p>e) Anxiety symptoms: State-Trait Anxiety Inventory State</p> <p>f) Depressive symptoms: Beck Depression Inventory-II</p> <p>g) Current functioning – mental component: 12-item Short Form survey</p> <p>h) Current functioning – physical component: 12-item Short Form survey</p>	<p>p&gt;.05</p> <p>f) Intervention: 12.27 (11.28) Control: 12.66 (11.27) p&gt;.05</p> <p>g) Intervention: 48.02 (7.61) Control: 47.45 (8.94) p&gt;.05</p> <p>h) Intervention: 47.10 (7.52) Control: 47.66 (8.16) p&gt;.05</p>
3. Chatwin (2016), Queensland	Baseline, post-intervention, 3 months follow-up and 6 months follow-up	<p>10 participants</p> <p>n (Intervention 1): 4 n (Intervention 2): 6 n (Control): 57 mean age (SD): NR male: 20%</p>	<p>a) depressive symptoms: Beck Depression Inventory</p> <p>b) anxiety symptoms: Depression, Anxiety and Stress Scale</p>	<p>a) Intervention Group 1: 16 (12.19) Intervention Group 2: 22.5 (12.14) Control Group: not recorded p&gt;.05</p> <p>b) Intervention Group 1: 3.25 (4.03) Intervention Group 2: 5.17 (4.79) Control Group: not recorded p&gt;.05</p>
4. Contreras (2016), Victoria	Baseline (T1), 3 months (T2) and 6 months (T3) follow-up	13 adults with SMI enrolled in the Health Optimisation Program for Employment (HOPE) on a stable dose of antipsychotic medication	a) vocational outcomes (mean hours a week in paid work): the Employment Module of the Australian National Survey of High Impact Psychosis	<p>a) Time 1: 4.46 (7.30) Time 2: 6.08 (8.10) Time 3: 2.31 (4.39) p&lt;.03</p> <p>b) Time 1: 34.08 (17.28) Time 2: 43.77 (16.32) Time 3: 45.77 (18.20)</p>

		Mean age (SD): 43.07 (7) Male: 31%	<p>b) cognition: Wechsler test of adult reading</p> <p>c) social relationships: The Friendship Scale</p> <p>d) self-esteem: Self Esteem Rating Scale</p> <p>e) quality of life: the Quality of Life Scale</p>	<p>P&lt;.001</p> <p>c) Time 1: 14.69 (4.64) Time 2: 17 (3.76) Time 3: 15.15 (4.18) p&lt;.05</p> <p>d) Time 1: 69.77 (17.52) Time 2: 78.15 (15.53) Time 3: 73.77 (14.87) p=.01</p> <p>e) Time 1: 14.92 (6.8) Time 2: 18.08 (6.22) Time 3: 15.92 (6.66) p=.02</p>
5. Craigie (2009), Western Australia	Baseline (Time 1) and post-treatment (10 weeks, Time 2)	<p>234 adults with SMI from the Centre for Clinical Interventions, a community-based outpatient clinic</p> <p>n (Intervention): 157 n (Comparison): 77 Intervention mean age (SD): 35.2 (12.1) Comparison mean age (SD): 38.3 (12) Male: 35%</p>	<p>a) depressive symptoms: Beck Depression Inventory</p> <p>b) anxiety symptoms: Beck Anxiety Inventory</p> <p>c) quality of life: Quality of Life Enjoyment and Satisfaction Questionnaire</p>	<p>a) Intervention: 17.7 (12.4) Comparison: 11.7 (12.4) p&lt;.001</p> <p>b) Intervention: 13.7 (10.7) Comparison: 9.2 (8.3) p&lt;.001</p> <p>c) Intervention: 55.3 (15.8) Comparison: 62.7 (14.7) p&lt;.001</p>
6. Forbes (2012), Victoria, South Australia, New South Wales	Baseline, post-intervention (5 months), and 3 month follow-up (8 months)	<p>59 veterans with Post Traumatic Stress Disorder (PTSD)</p> <p>n (Intervention): 30 n (Control): 29</p>	<p>a) PTSD symptoms: clinician administered PTSD scale</p> <p>b) depressive symptoms: Beck Depression Inventory</p>	<p>a) Intervention: 45.3 (28.15) Control: 52.55 (18.93) p&lt;.05</p> <p>b) Intervention: 14.77 (12.86) Control: 19.11 (10.15) p&lt;.05</p>

		<p>Intervention mean age (SD): 53.13 (13.97)  Control mean age (SD): 53.62 (13.33)  Male: 97%</p>	<p>c) anxiety symptoms: State Trait Anxiety Inventory Scale</p> <p>d) anger: Dimensions of Anger reactions</p> <p>e) alcohol: Alcohol used disorders identification test</p> <p>Quality of life (QoL):  World Health Organisational QoL Scale</p> <p>f) physical  g) psychological  h) social  i) environmental</p>	<p>c) Intervention: 43.59 (11.49)  Control: 47.26 (16.17)  p&lt;.05</p> <p>d) Intervention: 17.66 (12.89)  Control: 21.68 (12.54)  p&lt;.05</p> <p>e) Intervention: 6.66 (4.90)  Control: 8.48 (5.76)  p&lt;.05</p> <p>f) Intervention: 19.81 (5.38)  Control: 20.39 (4.70)  p&gt;.05</p> <p>g) Intervention: 18.40 (4.66)  Control: 16.35 (4.88)  p&lt;.05</p> <p>h) Intervention: 8.97 (3.12)  Control: 8.00 (2.38)  p&gt;.05</p> <p>i) Intervention: 28.16 (4.29)  Control: 28.14 (5.51)  p&gt;.05</p>
7. Jackson (2001), Victoria	Baseline and 12 months follow-up	<p>42 adults with first episode psychosis  n (Intervention): 34  n (Control): 8  Intervention mean age (SD): 21.47 (3.47)  Control mean age (SD): 22.63(3.34)  Male: 57%</p>	<p>1. Psychiatric symptoms</p> <p>a) Brief Psychiatric Rating Scale</p> <p>b) Schedule for the Assessment of Negative Symptoms</p> <p>c) Beck Depression Inventory</p>	<p>1a) Intervention: 15.09 (8.63)  Control: 11.63 (9.12)</p> <p>b) Intervention: 16.33 (13.75)  Control: 15.63 (19.29)</p> <p>c) Intervention: 6.33 (6.01)  Control: 2.33 (2.16)</p> <p>d) Intervention: 0.74 (0.70)</p>

			<p>d) General Symptom Index</p> <p>e) Quality of Life interview</p>	<p>Control: 0.32 (0.18)</p> <p>e) Intervention: 84.50 (21.26) Control: 85.63 (33.65)</p> <p>No statistically significant differences between groups on any outcomes.</p>
8. Mills (2012), New South Wales	Baseline, 6 weeks, 3 months, and then 9 months follow-up	<p>103 participants with serious mental illnesses</p> <p>n (Intervention): 55 n (Control): 48</p> <p>Mean age (SD): 33.7 (7.9) Male: 38%</p>	<p>a) PTSD symptoms: Clinician-administered PTSD scale</p> <p>b) depressive symptoms: Beck Depression Inventory</p> <p>c) anxiety symptoms: State-Trait Anxiety Inventory</p> <p>d) Substance dependence (no. of criteria met)</p>	<p>a) Intervention: 52.89 Control: 67.23 p&lt;.05</p> <p>b) Intervention: 24.44 Control: 24.78 p&gt;.05</p> <p>c) Intervention: 46.44 Control: 47.50 p&gt;.05</p> <p>d) Intervention: 2.27 Control: 2.98 p&gt;.05</p>
9. Mueser (2006), New South Wales	Baseline, 9 months (post-treatment), 12 months (follow-up)	<p>24 individuals with SMI</p> <p>Mean age (SD): 39.12 (11.20) Male: 63%</p>	<p>a) psychiatric symptoms: Brief Symptom Inventory</p> <p>b) coping: Coping Skills Scale</p> <p>c) social support: Multidimensional Scale of Perceived Social Support</p> <p>d) psychosocial functioning: Global Assessment of Functioning scale</p>	<p>a) Pre intervention: 1.03 (0.17) Post intervention: 0.77 (0.14) p=.03</p> <p>b) Pre intervention: 6.05 (1.07) Post intervention: 5.87 (1.18) p=.14</p> <p>c) Pre intervention: 45.82 (1.96) Post intervention: 46.90 (1.88) p=.65</p> <p>d) Pre intervention: 53.71 (2.43) Post intervention: 59.99 (3.43) p&lt;.001</p>

10. Nagel (2009), Northern Territory	Baseline, 6, 12, 18 months	49 adults of Aboriginal or Torres Strait Islander from a remote community mental health centre  n (Intervention): 24 n (Control): 25  Mean age: 33 Male: 57%	a) severity of psychiatric symptoms: Health of the Nations Outcome scale  b) functioning: Life Skills Profile  c) wellbeing: Kessler-10  d) illness behaviour and knowledge: Partners in Health scale  e) substance dependence: Severity of Dependence Scale	No means reported. Intervention group demonstrated statistically significant improvements on all outcomes compared to the control group ( $p < .05$ )
11. Sawyer (2017), Victoria	Outcomes assessed at baseline, post-therapy (3 months), and 6 months later	96 individuals with SMI  n (Intervention): 49 n (Control): 47  Mean age (SD): 36.1 (9.1) male: 62%	a) overall mental state: Positive and Negative Syndrome Scale - Total  b) Amount of distress from auditory hallucinations: Psychotic Symptom Rating Scale  c) Amount of distress from delusions: Psychotic Symptoms Rating Scale	a) Intervention: 72.4 Control: 73.3 $p = .02$ , $d = 0.52$  b) Intervention: 2.10 Control: 2.57 $p = .002$ , $d = 0.65$  c) Intervention: 1.90 Control: 2.1 $p > .05$
<b>Case Management Programs</b>				
<b>Study</b>	<b>Timepoint Assessments</b>	<b>Sample</b>	<b>Outcome Measures</b>	<b>Results Mean (SD) or %</b>
1. Australian Healthcare Associates (2012), Victoria	Two time points: upon entry and exit from program, timeframe not reported	19 adults with SMI  Mean age: 42 (no SD reported)	a) mental health recovery, psychosocial functioning: Recovery Assessment Scale	a) Time 1: 92.8 (17.3) b) Time 2: 94.3 (14.9) $p > .05$

		Male: 53%	b) number of admissions c) length of stay in days	b) Intervention: 50 Control: 141 p<.05 c) Intervention: 675 Control: 1877 p<.05
2. Beere (2019), Queensland	Data collected at baseline and 6 months	43 adults with SMI Mean age: 40 (no SD reported) Male: 42%	a) number of admissions b) number of emergency department attendances c) connection and belonging (social relationships)	1. Time 1: 12 Time 2: 10 p>.05 2. Time 1: 34 Time 2: 20 p>.05 3. Time 1: 63.8% Time 2: 68.8% p<.001
3. Campbell (2005), Tasmania	Outcomes measured at (time 1) and (time 2) – not further specified when	89 adults with SMI n (Intervention): 24 n (Control group 1 - usual care): 22 n (Control group 2 – no treatment): 43 Mean age and gender not reported.	a) global severity index: symptom checklist 90 revised b) positive symptom total c) positive symptom distress index d) quality of life: EuroQuol	No means reported. a) No statistically significant difference p>.05 b) p<.05 c) No statistically significant difference, p>.05 d) p<.05
4. Dunt (2017), Victoria	Data collected every six months over the three-year period.	59 individuals with SMI and at risk of homelessness Mean age: 39, SD not reported Male: 68%	a) behavioural symptoms and psychological distress: Behaviour and Symptom Identification Scale	a) Pre intervention: 1.3 (0.8) Post intervention: 0.8 (0.6) p<.04 b) Pre intervention: 10 (4.9) Post intervention: 8.8 (5.1) p>.05

			<p>b) health and social functioning: Health of the Nation Outcome Scale</p> <p>c) homelessness: Outcomes Star</p> <p>d) hospital admissions</p>	<p>c) <math>p &lt; .05</math></p> <p>d) Pre intervention: 1.2 (2.1) Post intervention: 0.5 (1.4) <math>p &lt; .01</math></p>
5. Gulliver (2018), Australian Capital Territory	Data collected at entry into program (Time 1) and following exit from the program (Time 2)	<p>25 adults with SMI and complex needs requiring substantial services from multiple agencies</p> <p>Mean age (SD): 42.82 (12.51) Male: 28%</p>	<p>a) quality of life</p> <p>b) social inclusion</p> <p>c) perception of recovery</p>	<p>a) Time 1: 2.50 (2.39) Time 2: 5.79 (2.05) <math>p = .008</math></p> <p>b) Time 1: 2.00 (1.31) Time 2: 2.89 (1.52) <math>p = .025</math></p> <p>c) Time 1: 1.75 (0.98) Time 2: 3.31 (0.75) <math>p = .001</math></p>
6. Habibis (2002), Tasmania	Baseline, 1 month, 6 months, 12 months	<p>74 individuals who were homeless, had a SMI, and had a co-morbid substance use disorder</p> <p>n (Intervention): 37 n (Comparison): 37</p> <p>Mean age: 30 60% male</p>	<p>a) psychiatric symptoms: Brief Psychiatric Rating Scale</p> <p>b) overall functioning: Global Assessment Scale</p> <p>c) life skills: the Life Skills Profile</p> <p>d) self-esteem: Rosenberg Self-Esteem Scale</p> <p>e) social relationships: Stein and Test's assessment of activity and social relationships</p>	<p>a) Intervention: 34.73 (12.93) Control: 35.83 (9.90) <math>p = 0.71</math></p> <p>b) Intervention: 62.83 (16.44) Control: 62.87 (16.22) <math>p = 0.99</math></p> <p>c) Intervention: 132.13 (19.99) Control: (132.56 (17.67) <math>p = 0.94</math></p> <p>d) Intervention: 1.38 (1.18) Control: 1.73 (1.37) <math>p = 0.31</math></p> <p>e) Intervention: 4.97 (2.13) Control: 4.33 (2.28) <math>p = 0.27</math></p>



7. Hamernik (1999), Queensland	Baseline and 12 months	36 individuals with SMI, recent hospital admission  n (Intervention): 18 n (Control): 18  Mean age (SD): 39 (12.21) Male: NR	a) number of hospital admissions  b) length of stay  c) psychiatric symptoms: Brief Psychiatric Rating Scale  d) quality of life: Quality of Life scale  e) Self-care and independent functioning: Life Skills Profile	a) Intervention: 3.06 (3.83) Control: 2.11 (1.41) p<.001  b) Intervention: 41.28 (55.61) Control: 66.53 (65.62) p<.001  c) Intervention: 25.09 (8.08) Control: 38.56 (15.4) p<.05  d) Intervention: 59.18 (21.52) Control: 39.64 (25.09) p>.05  e) Intervention: 125.33 (9.28) Control: 116.33 (22.13) p>.05
8. Hancock (2018), New South Wales	Two time points – intake and closure with program, specific time frame not reported	703 individuals with SMI  Mean age (SD): 42.7 (11.1) Male: 50%	a) health and social needs: the Camberwell Assessment of Need Short Appraisal Schedule  b) mental health recovery: Recovery Assessment Scale – Domains and Stages (RAS-DS)	a) Time 1: 5.9 (3.3) Time 2: 3.0 (3.2) p<.001  b) Time 1: 67.4 (15.2) Time 2: 72.9 (15.3) p<.001
9. Hugo (2002), South Australia	Upon assessment and discharge with service	461 individuals with SMI  n (Intervention): 298 n (Control): 163  Mean age: 38.3 Male: 52%	a) mental health functioning: Health of the Nation Outcome Scale  b) hospitalisations	a) means not reported, p<.001  b) Intervention: 13% admitted Control: 43% admitted p<.001

10. Isaacs (2019), Victoria	Two time points – intake and closure with program, specific time frame not reported	337 individuals with SMI  Mean age (SD): 45.7 (11.3) Male: 44%	1. Unmet health and social needs: the Camberwell Assessment of Need Short Appraisal Schedule (CANSAS)  a) psychological distress  b) daily activities  c) social company	All significant reductions in unmet needs:  a) Time 1: 89% Time 2: 27%  b) Time 1: 72% Time 2: 22%  c) Time 1: 67% Time 2: 22%
11. Issakidis (1999), New South Wales	Baseline, 6 months, and 12 months.	72 individuals with SMI, severely disabled, from the eastern suburbs community mental health service  n (Intervention): 35 n (Control): 37  Mean age: 41.5 Male: 57%	a) Community functioning and level of disability: Life Skills Profile b) Number of hospital admissions  c) Number of bed days  d) Total number of clients admitted	a) Intervention: 122 (18.1) Control: 112.4 (19.2) p<.05 b) Intervention: 1.6 (2) Control: 1.9 (2.4)  c) Intervention: 48 (69.2) Control: 37.2 (51.5)  d) Intervention: 23 (66%) Control: 19 (58%)  No statistically significant differences between groups on hospital outcomes
12. Lee (2010), Victoria	Baseline and 12 months	417 individuals with SMI at risk of homelessness  Mean age: 36.3 Male: 38%	a) accommodation stability  b) hospital admissions	a) Increase in stability, significance not reported  b) Reduced admissions, p<.001
13. Lee (2014), Victoria	Upon entry (Time 1) and exit (Time 2) from service (maximum of 28 days duration)	188 individuals  Mean age (SD): 40.7 (12.1) Male: 52%	a) clinical mental health symptoms: Health of the Nation Outcome Scale  b) psychosocial functioning: Behaviour	a) Time 1: 10.7 (4.3) Time 2: 8.2 (3.3) p<.001  b) Time 1: 1.5 (0.9) Time 2: 1.1 (0.7) p<.011

			and Symptom Identification Scale	
14. Meadows (2019), Victoria	Baseline, 12 months and 24 months	301 individuals with SMI n (Intervention): 467 n (Control): 475 Mean age not reported 41% male	a) health and community functioning: Questionnaire about the Process of Recovery	a) Intervention: 54.5 (16.2) Control: 53.6 (16.3) p<.05, Effect size = .023
15. Ngo (2020), Western Australia	Upon entry (Time 1) and exit (Time 2) from service (average of 3.5 weeks between time-points)	382 individuals with SMI  Mean age (SD): 37.5 (12.3) Male: 39%	a) psychological distress: Kessler Psychological Distress scale  b) self-efficacy: General self-efficacy scale  c) psychosocial functioning: Social and Working Adjustment scale	a) Time 1: 31.5 (9) Time 2: 24.1 (9.5) p<.001  b) Time 1: 24.8 (5.7) Time 2: 28.2 (5.6) p<.001  c) Time 1: 23.7 (9.1) Time 2: 19.3 (10.4) p<.001
16. Scanlan (2019) New South Wales	Data collected at end of engagement with program	97 individuals with SMI  Mean age (SD): 43 (10.5) Male: 48%	a) attainment of competitive employment position  b) duration of employment  c) proportion of individuals working - ongoing	a) 49.5%  b) 17.7 weeks  c) 60.4%
17. Siskind (2013), Queensland	12 months pre and post intervention	564 adults with a severe and persistent mental illness  n (Intervention): 193 n (Control): 371 mean age (SD): 36.9 (0.6) male: 41%	a) hospital readmissions  b) days in hospital for readmitted patients	a) Intervention: 46.1% Control: 25.9% p<.001  b) Intervention: 31.43 (4.87) Control: 39.24 (5.93) p>.05

			<p>c) Functioning: Health of the Nations Outcome survey</p> <p>d) problems with living conditions</p> <p>e) self-harm</p> <p>f) substance use</p>	<p>c) Intervention: 14.5 (0.63) Control: 12.77 (0.46) p=.03</p> <p>d) Intervention: 48.4% Control: 14.5% p&lt;.001</p> <p>e) Intervention: 28.9% Control: 24.7% p&gt;.05</p> <p>f) Intervention: 47.2% Control: 39.1% p&gt;.05</p>
18. Teesson (1999), New South Wales	At commencement of intervention (Time 1) and 12 months later (Time 2)	<p>89 adults with a serious mental illness, substance use over previous 6 months and current case management</p> <p>Mean age (SD): 38 (13.8) Male: 71%</p>	<p>1. Drug use: Opiate Treatment Index</p> <p>a) tobacco weekly use</p> <p>b) alcohol weekly use</p> <p>c) cannabis weekly use</p> <p>b) psychiatric symptoms: Brief Psychiatric Rating Scale</p> <p>c) social functioning</p> <p>d) HIV risk taking behaviour</p>	<p>1a) Time 1: 206.7 (125) Time 2: 161.9 (99.9) p=.03</p> <p>1b) Time 1: 13.4 (20.6) Time 2: 7.7 (11.8), p=.03</p> <p>1c) Time 1: 5.1 (18.2) Time 2: 2.1 (1.4) p=0.14</p> <p>b) Time 1: 8.0 (3.7) Time 2: 5.3 (3.8) p&gt;.05</p> <p>c) Time 1: 20.9 (6.7) Time 2: 18.0 (6.9) p=0.04</p> <p>d) Time 1: 3.3 (5.5) Time 2: 3.3 (4.4)</p>

				p=.99
19. Udechuku (2005), Victorial	Baseline and 12 months	43 adults with SMI who received ACT  Mean age: 38 Male: 56%	a) mean number of readmissions  b) length of stay	a) Time 1: 24 Time 2: 14 p=.052  b) Time 1: 70.9 (20.9) Time 2: 10.2 (3.5) p=.014