TECHNICAL COMMENTARY

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SCHIZOPHRENIA LIBRARY

Inpatient and outpatient care

Introduction

For people with schizophrenia, there are many options for receiving treatment, following an acute episode or in the longer term. Specifically, interventions can be provided to patients in a home environment, or in a community or outpatient mental health facility. These types of interventions are more commonly provided for patients in chronic or stable phases of the disorder, and are integrated as part of a comprehensive treatment program in conjunction with ongoing medication. Patients in a more acute phase of illness are usually treated through psychiatric inpatient hospital services.

Method

We have included only systematic reviews (systematic literature search, detailed methodology with inclusion/exclusion criteria) published in full text, in English, from the year 2000 that report results separately for people with a diagnosis of schizophrenia, schizoaffective disorder, schizophreniform disorder or first episode schizophrenia. Reviews were identified by searching the databases MEDLINE, EMBASE, CINAHL, Current Contents, PsycINFO and the Cochrane library. Hand searching reference lists of identified reviews was also conducted. When multiple copies of reviews were found, only the most recent version was included. Reviews with pooled data were given priority for inclusion.

Review reporting assessment was guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) checklist that describes a preferred way to present a meta-analysis[1]. Reviews rated as having less than 50% of items checked have been excluded from the library. The PRISMA flow diagram is a suggested way of providing information about studies included and excluded with reasons for exclusion. Where no flow diagram has been presented by individual reviews, but identified studies have been described in the text, reviews have been checked for this item. Note that early reviews may have been guided by less stringent reporting checklists than the PRISMA, and that some reviews may have been limited by journal guidelines.

Evidence was graded using the Grading of Recommendations Assessment, Development and Evaluation (GRADE) Working Group approach where high quality evidence such as that gained from randomised controlled trials (RCTs) may be downgraded to moderate or low if review and study quality is limited, if there is inconsistency in results, indirect comparisons, imprecise or sparse data and high probability of reporting bias. It may also be downgraded if risks associated with the intervention or other matter under review are high. Conversely, low quality evidence such as that gained from observational studies may be upgraded if effect sizes are large or if there is a dose dependent response. We have also taken into account sample size and whether results are consistent, precise and direct with low associated risks (see end of table for an explanation of these terms)[2]. The resulting table represents an objective summary of the available evidence, although the conclusions are solely the opinion of staff of NeuRA (Neuroscience Research Australia).

Results

We found 18 systematic reviews that met our inclusion criteria[3-20].

Home-based crisis intervention

- Moderate to high quality evidence suggests a small effect with home-based crisis intervention for retaining people in the study in the medium term (6-12 months), but not

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the short term (< 3 months) or long term (20 months) compared to hospitalisation.

- Moderate to low quality evidence also suggests improved overall symptoms and social adjustment by 20 months (but not 12 months), more social behaviour, less agitation, and disorientation by 4-6 months, less family burden and disruption by 3 months (but not 6 months), and greater patient and relative satisfaction with treatment.

Community/outpatient care

- Moderate quality evidence suggests no differences between compulsory and voluntary community care for the number of hospital readmissions. Lower quality evidence also suggests no differences for the number of bed days, symptom severity or functioning.
- Moderate to low quality evidence suggests community care involving assertive community treatment, intensive case management, or educational support may provide some benefit over standard care or case management for treatment adherence.
- Moderate quality evidence suggests day hospitals showed significant short-term benefit for global state and employment rates compared to outpatient care; however, these were not maintained in the long term. No benefit was reported for hospital admissions, mental state, or social function.
- Moderate to low quality evidence suggests community treatment plus family interventions may reduce the rate of transition to psychosis in the short-term (< 1 year), but not in the longer term (> 1 year) in people at an ultra-high risk of psychosis.
- Moderate to low quality evidence suggests some benefit of community based mental health programs in low and middle income countries may be conferred for improving symptoms, and reducing relapse rates and disability ratings.
- Moderate to low quality evidence suggests barriers to feasibility of community care in low and middle income countries include; low education, unavailability of caregivers, resource constraints and logistical issues. Barriers to acceptability include; fear of stigma and lack of appreciation of intervention benefits. Facilitators of acceptability include; satisfaction with, and appropriateness of, the intervention, participation rates and health worker characteristics (knowledge, trustworthiness, fluency in local dialects, listening skills).

Inpatient care

- Moderate to high quality evidence shows patients with hospital stays between 1 week and 1 month are less likely to be employed by 1 to 2 years after hospitalisation than patients with hospital stays over 2 months.
- Moderate to low quality evidence suggests some benefit of cognitive behavioural therapy provided in hospital settings for reducing symptom severity in patients with acute recent-onset psychosis.
- Moderate quality evidence suggests there is longer duration of treatment in day hospitals than in inpatient care.
- Moderate to low quality evidence suggests there may be improvements in functioning and social behaviour after discharge from long-term hospitalisation (> 6 months).
- Moderate to low quality evidence suggests inpatients who abscond from hospital are often young men in the first three weeks following admission. Absconding may occur in up to 34% of admissions, and up to 80% of absconders return within 24 hours. A large proportion of absconders indicate intent to leave, and most commonly abscond directly from the ward. There is insufficient evidence regarding interventions for preventing absconding.
- Moderate to low quality evidence suggests patients admitted involuntarily show more

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severe symptoms, less insight and higher levels of treatment-related trauma symptoms than patients admitted voluntarily.

Transitioning between inpatient to outpatient settings

- Moderate to low quality evidence suggests pre- and post-discharge transitional programs may reduce psychiatric hospital readmissions by one to two years after discharge, particularly transitioning programs that involve a psychoeducation component and that provide transition managers who start their relationship with the patient pre-discharge and follow through until the patient is settled in the community.

Babalola O, Gormez V, Alwan NA, Johnstone P, Sampson S

Length of hospitalisation for people with severe mental illness

Cochrane Database of Systematic Reviews 2014, Issue 1. Art. No.: CD000384. DOI: 10.1002/14651858.CD000384.pub3

View review abstract online

Comparison	**Short stay hospitalisation (1 week – 1 month) vs. long stay hospitalisation (>60 days).**
Summary of evidence	**Moderate to high quality evidence (medium sample size, consistent, precise, direct) shows patients with shorter hospital stays were more likely to be unemployed after 1 year.** **Moderate quality evidence (imprecise) suggests patients with shorter hospital stays were prescribed more community day care after 1 year.**

Global state

More people in the short stay group were unemployed by > 1 year;

2 RCTs, N = 330, RR = 0.61, 95%CI 0.50 to 0.76, $p < 0.0001$, $I^2 = 0\%$, $p = 0.35$

No differences in mortality rates by > 1 year;

1 RCT, N = 175, RR = 0.42, 95%CI 0.10 to 1.83, $p = 0.25$

No differences in self harm;

1 RCT, N = 247, RR 0.17, 95%CI 0.02 to 1.30, $p < 0.087$

No differences for study retention;

By 6 months: 1 RCT, N = 175, RR = 1.41, 95%CI 0.72 to 2.74, $p = 0.32$

By 1 year: 3 RCTs, N = 453, RR = 0.87, 95%CI 0.68 to 1.11, $p = 0.27$, $I^2 = 0\%$, $p = 0.81$

By > 1 year: 3 RCTs, N = 404, RR = 1.07, 95%CI 0.70 to 1.62, $p = 0.76$, $I^2 = 0\%$, $p = 0.68$

Mental state and service use

More people with shorter hospital stays were prescribed more community day care by 1 year;

1 RCT, N = 247, RR 4.52, 95%CI 2.74 to 7.45, $p < 0.00001$

No differences between groups for symptom severity by by > 1 year;

PEF scale: 1 RCT, N = 61, RR = 3.39, 95%CI 0.76 to 15.02, $p = 0.11$

HSRS: 1 RCT, N = 61, RR = 0.97, 95%CI 0.31 to 3.01, $p = 0.95$

No difference between groups in rate of readmission to hospital by; 3 months post-treatment: 1 RCT, N = 175, RR = 1.25, 95%CI 0.72 to 2.16, *p* = 0.43 6 months post-treatment: 1 RCT, N = 175, RR = 1.10, 95%CI 0.69 to 1.73, *p* = 0.70 1 year post-treatment: 4 RCTs, N = 651, RR = 1.26, 95%CI 1.00 to 1.57, *p* = 0.046, I^2 = 62%, *p* = 0.05 > 1 year post-treatment: 2 RCTs, N = 229, RR = 1.03, 95%CI 0.78 to 1.36, *p* = 0.84, I^2 = 0%, *p* = 0.91 *No differences between groups in leaving hospital prematurely by > 1 year;* 2 RCTs, N = 229, RR = 0.77, 95%CI 0.34 to 1.77, *p* = 0.55, I^2 = 55%, *p* = 0.14 *No differences between groups in delaying discharge beyond the original time planned;* 3 RCTs, N = 404, RR = 0.54, 95%CI 0.33 to 0.88, *p* = 0.13, I^2 = 0%, *p* = 0.61

Consistency in results‡	Consistent where applicable (> 1 RCT).
Precision in results§	Imprecise, except for unemployment.
Directness of results‖	Direct

Brooke-Sumner C, Petersen I, Asher L, Mall S, Egbe CO, Lund C

Systematic review of feasibility and acceptability of psychosocial interventions for schizophrenia in low and middle income countries

BMC Psychiatry 2015; 15:19

View review abstract online

Comparison	**Community care in low and middle income countries.**
Summary of evidence	**Moderate to low quality evidence (unclear sample sizes, unable to assess consistency or precision, direct) suggests barriers to feasibility of community care in low and middle income countries include; low education, unavailability of caregivers, resource constraints and logistical issues.** **Barriers to acceptability include; fear of stigma and lack of appreciation of intervention benefits.** **Facilitators of acceptability include; satisfaction with, and appropriateness of, the intervention, participation rates and health worker characteristics (knowledge, trustworthiness, fluency in local dialects, listening skills).**

Feasibility and acceptability	
Authors highlight barriers to feasibility; Patients' low education levels (2 studies). Logistical issues (3 studies) such as difficulties in rolling out programs, and unfounded concerns about safety of case managers. Unavailability of caregivers (5 studies). Resource constraints (2 studies). *Authors highlight barriers to acceptability;* Fear of stigma (4 studies). Lack of appreciation of intervention benefits (2 studies). *Authors highlight facilitators of acceptability;* Participants' satisfaction with intervention (10 studies, most reporting good satisfaction levels). Participation rates (3 studies, all reporting high to moderate levels). Appropriateness of intervention content and materials (6 studies, emphasizing psychoeducation, photos, illustrations, charts, video and internet). Health worker characteristics (3 studies, well-trained, knowledgeable of illness and cultural context, fluent in local dialects, good listener, trustworthy.	
Consistency in results	No measure of heterogeneity is reported.
Precision in results	No measure of precision is reported.
Directness of results	Direct

Drake RE, O'Neal EL, Wallach MA

A systematic review of psychosocial research on psychosocial interventions for people with co-occurring severe mental and substance use disorders

Journal of Substance Abuse Treatment 2008; 34(1): 123-138

View review abstract online

Comparison	**Integrated residential treatment vs. treatment as usual for 3 months.** **Note: only samples with defined schizophrenia spectrum**

	disorders are reported.
Summary of evidence	**Low quality evidence (small sample size, unable to assess consistency or precision, direct) is unclear as to any benefit of integrated residential treatment for reducing substance use, or improving mental state or global function.**
Global outcomes	
One trial, N = 132, compared residential treatment with standard care for homeless people with schizophrenia and substance use, and reported no difference in mental health outcomes, psychoactive substance use or housing outcomes.	
Consistency in results	No measure of heterogeneity is reported.
Precision in results	No measure of precision is reported.
Directness of results	Direct

Kallert TW, Glockner M, Schutzwohl M

Involuntary vs. voluntary hospital admission

European Archives of Psychiatry and Clinical Neuroscience 2008; 258: 195-209

View review abstract online

Comparison	**Voluntary vs. involuntary hospital admission.**
Summary of evidence	**Moderate to low quality evidence (mostly small samples, unable to assess consistency or precision, direct) suggests patients admitted involuntarily show more severe symptoms, less insight and higher levels of treatment-related trauma symptoms.**
Outcomes of admission	
General and mental state; 1 study (N = 52) reported voluntary patients showed improvements in all measured domains of general and mental state, while the involuntary patients improved only on CGI and BPRS. 1 study (N = 59) reported lower insight in patients with involuntary admission which improved on discharge. 1 study (N = 46) reported involuntary patients had higher levels of treatment-related trauma	

symptoms at follow up. 1 study (N = 320) found no differences between groups in general (GAF) or mental (PANSS) state at baseline or at follow up. *Length of stay;* Of 3 studies (N = 211) comparing the length of hospital stay in voluntary and involuntary admission in people with schizophrenia, only one reported a longer duration of admission for involuntarily admitted patients. The remaining two studies found no difference between groups. *Readmission to hospital;* 4 studies (N = 9,478) comparing the rates of hospital readmissions up to 17 years after a voluntary or involuntary admission and found no difference between groups. *Patient satisfaction;* 1 study (N = 83) compared levels of patient satisfaction and found no significant difference between the groups.

Consistency in results	No measure of heterogeneity is reported.
Precision in results	No measure of precision is reported.
Directness of results	Direct

Kisely SR, Campbell LA, O'Reilly R

Compulsory community and involuntary outpatient treatment for people with severe mental disorders

Cochrane Database of Systematic Reviews 2017; 3: CD004408

View review abstract online

Comparison	**Compulsory community treatment (an intensive, court ordered commitment) for outpatients with psychotic disorders (mainly schizophrenia) vs. voluntary community care.** **2 studies were conducted in the USA assessing court ordered outpatient commitment compared with entirely voluntary care, and 1 was conducted in the UK assessing community treatment orders compared with supervised discharge.**
Summary of evidence	**Moderate quality evidence (large samples, consistent, some imprecision and indirectness) finds no differences between compulsory and voluntary community care for the number of hospital readmissions, bed days, satisfaction with care or**

	functioning.
Service use	
No differences between compulsory community care and standard care by 12 months; Readmission: 3 RCTs, N = 749, RR = 0.98, 95%CI 0.82 to 1.16, p = 0.83, I^2 = 0%, p = 0.49 Bed days: 2 RCTs, N = 597, MD = -3.35, 95%CI -15.14 to -8.44, p = 0.58, I^2 = 0%, p = 0.58 Authors state that the quality of the included studies was not optimal. Analysis of USA and UK studies separately yielded similar results.	
Functioning	
No differences between compulsory community care and standard care by 12 months; Functioning (GAF): 2 RCTs, N = 335, MD = -1.36, 95%CI -4.07 to 1.35, p = 0.33, I^2 = 0%, p = 0.45 Satisfaction with care: 3 RCTs, N = 645, RR = 1.30, 95%CI 0.98 to 1.71, p = 0.06, I^2 = 0%, p = 0.83 Authors state that the quality of the included studies was not optimal. Analysis of USA and UK studies separately yielded similar results.	
Consistency in results	Consistent
Precision in results	Precise for readmission only.
Directness of results	Indirect for overall analysis (vs. different comparisons), direct for subgroup analyses of USA and UK studies separately (vs. same comparison).

Kunito N

From hospital to the community: The influence of deinstitutionalization on discharged long-stay psychiatric patients

Psychiatry and Clinical Neurosciences 2013; 67: 384-396

View review abstract online

Comparison	**Outcomes after discharge in people with schizophrenia who have been in hospital for over 6 months.**
Summary of evidence	**Moderate to low quality evidence (small to medium-sized samples, unable to assess consistency or precision, direct)**

	suggests there may be improvements in functioning and social behaviour after discharge from long term hospitalisation.
General functioning	
1 prospective cohort study (N = 670) reported improved community skills (BELS) over 5 years, but no changes in social behavior (SBS). 1 retrospective cohort study (N = 192) reported improved sociability (SBS), and improved ability to use transportation and leisure activities over 7-9 years. 1 prospective cohort study (N = 72 with special needs) reported improved social behavior (SBS), less problem behaviours (SPRS), and improved everyday living skills (BELS) over 5 years compared to patients who remained in hospital. 1 prospective cohort study (N = 97) reported improved functioning (GAF) over 5 years. 1 prospective cohort study (N = 92) reported improved functioning (GAF), social competence, social interest, social contacts, hostility, over- and under-activity, unacceptable manners, inappropriate sexual behavior, and concentration (SFS, SBS, NOSIE) over 6 months. Social adaptive functioning improved as measured by SAFE. Some improvements were seen for up to 2 years. 1 prospective cohort study (N = 28) reported improved staff-rated socially expected activities, expectations for performance of social activities, and level of performance of free-time activities over 2 years. 1 prospective cohort study (N = 176) reported improved autonomy and relations over 4 years. 1 prospective cohort study (N = 47) reported no differences over 6 years for life skills (LSP) or social behavior (SBS). 1 prospective cohort study (N = 87) reported no differences in social functioning (CPQ) or basic everyday living skills (BELS), and domestic skills and activity and social relations (SBS) deteriorated significantly by 5 years. 1 prospective controlled study (N = 204) reported no differences in social behavior (SBS) by 1 year post-discharge between patients who received pre-discharge transitioning training compared to patients who did not receive pre-discharge training.	
Consistency in results	No measure of heterogeneity is reported.
Precision in results	No measure of precision is reported.
Directness of results	Direct

Lloyd-Evans B, Slade M, Jagielska D, Johnson S

Residential alternatives to acute psychiatric hospital admission:

systematic review	
British Journal of Psychiatry 2009; 195(2): 109-117 View review abstract online	
Comparison	**Residential acute mental health services (time-limited stay < 14 days) vs. standard acute inpatient care.**
Summary of evidence	**Low quality evidence (very small sample, unable to assess consistency or precision, direct) is unclear as to any difference in outcomes between patients admitted to residential or standard acute mental health services.**
Outcomes of admission	
2 studies compared residential care with standard hospital care for people with schizophrenia spectrum disorders; 1 study (N = 26) reported no significant differences in mental or global state between groups, but reported that a majority of residential patients required transfer to a standard ward at the end of treatment.	
Consistency in results	No measure of heterogeneity is reported.
Precision in results	No measure of precision is reported.
Directness of results	Direct

Macpherson R, Edwards TR, Chilvers R, David C, Elliot HJ

Twenty-four hour care for schizophrenia

Cochrane Database of Systematic Reviews 2009; (2): CD004409 View review abstract online	
Comparison	**24 hour residential care vs. standard care**
Summary of evidence	**Low quality evidence (very small sample, imprecise, unable to assess consistency, direct) is unclear as to any difference in outcomes between patients admitted to 24-hr residential care compared to standard care.**

Inpatient and outpatient care

Global state	
1 study (N = 22) reported no significant difference between groups in the number of participants needing to leave the experimental ward and return to standard care; RR = 7.00, 95%CI 0.40 to 121.39, *p* = 0.18	
Consistency in results	Not applicable, 1 study.
Precision in results	Imprecise
Directness of results	Direct

Marshall M, Crowther R, Sledge WH, Rathbone J, Soares-Weiser K

Day hospital versus admission for acute psychiatric disorders

Cochrane Database of Systematic Reviews 2011; Issue 12. Art. No.: CD004026. DOI: 10.1002/14651858.CD004026.pub2

View review abstract online

Comparison	**Day hospitals vs. admission.**
Summary of evidence	**Moderate quality evidence (medium to large samples, inconsistent, unable to assess precision, direct) suggests there is longer duration of treatment in day hospitals vs. inpatient care.**
Duration of treatment	
Duration of index admission is longer for patients in day hospital care vs. inpatients; 4 RCTs, N = 1,582, MD 27.47, 95%CI 3.96 to 50.98, $p < 0.05$, $I^2 = 91\%$, $p < 0.00001$ *Duration of day patient care is longer for patients in day hospital care vs. inpatient care;* 3 RCTs, N = 465, MD 2.34 days/month 95%CI 1.97 to 2.70, $p < 0.05$, $I^2 = 67\%$, $p = 0.05$ *No differences for readmissions;* 5 RCTs, N = 667, RR 0.91 95%CI 0.72 to 1.15, $p < 0.05$, $I^2 = 36\%$, $p < 0.18$	
Employment, quality of life and treatment satisfaction	

No significant difference between groups; Employment: 1 RCT, N = 179, RR = 0.88, 95%CI 0.66 to 1.19, $p > 0.05$ Quality of life: 1 RCT, N = 1,117, MD = 0.01, 95%CI -0.13 to 0.15, $p > 0.05$ Treatment satisfaction: 1 RCT, N = 1,117, MD = 0.06, 95%CI -0.18 to 0.30, $p > 0.05$	
Consistency in results	Inconsistent for duration of treatment.
Precision in results	Precise for readmissions, unable to assess MDs (not standardised).
Directness of results	Direct

Muir-Cochrane E, Mosel KA

Absconding: A review of the literature 1996-2008

International Journal of Mental Health Nursing 2008; 17: 370-378

View review abstract online

Comparison	**Profiles, rates, outcomes and interventions for absconding in a mixed sample of psychiatric inpatients, of which the majority had a schizophrenia diagnosis.**
Summary of evidence	**Moderate to low quality evidence (small samples, unable to assess consistency or precision, direct) suggests inpatients who abscond are often young men in the first three weeks following admission. Absconding may occur in up to 34% of admissions, and up to 80% of absconders return within 24 hours. A large proportion of absconders indicate intent to leave, and most commonly abscond directly from the ward. There is insufficient evidence regarding interventions for preventing absconding.**

Absconding profiles

9 reports suggest the profile of an absconder is often a young male, less than 26 years, and legally detained, however one additional study suggests no effect of gender.

Limited evidence suggests absconders have a history of substance use and the potential for self-harm. One study suggests absconding is likely to occur within 7 to 21 days of admission.

One study (N = 52) interviewed patients regarding reasons for absconding, and found that 42% of patients felt fear, 26% felt isolated, 42% were homesick, and 42% were bored. Three studies

suggest that rational reasons (e.g., household or family responsibilities) often exceed psychiatric symptomatology as reasons for absconding.
Rate of absconding
Six studies report absconding rates between 2.5% and 34% of all admissions, however comparative data are difficult as studies calculate rates differently. Two studies report nursing handover to be peak time for absconding.
Outcomes of absconding
Two studies (N > 66) found that patients returned 91 to 100% of the time, with 69 to 80% returning within 24 hours, and around 11% did not return for more than a month. Three studies (N = 374) found that 22 to 71% returned on their own or by a relative or friend; 35% were returned while on hospital grounds; 2 to 14% were returned by ward staff; and 13 to 33% by the police. Eight studies support a link between absconding and serious harm to self or others. One study reports a 20% rate of suicide for absconders (N not reported), with over 65% of these using a violent method of suicide. Two other studies reported that around 1.6 to 4% of absconders harmed themselves or others. Four studies indicated that other risk behaviour resulting from absconding included medication non-adherence, alcohol abuse, and aggression or violence.
Methods of absconding
One study reported that over half of the patients who absconded had previously indicated their intention to leave, and that 82% absconded directly from the ward; 14% left when temporarily off the ward; 3% failed to return from day leave. Another study suggested that 61% of absconds occurred on community outings and 39% occurred directly from the ward. A third study indicated that 80% of patients in an unlocked ward simply walked out, while 29% in locked wards absconded while on agreed leave. Others methods of absconding included stealing keys, taking advantage of inadvertently unlocked doors or windows, or taking advantage of staff being distracted. Two studies indicate that on return, no changes were made to patient management. However, a third study suggests that around one-fifth of patients were transferred to a high dependency unit.
Absconding interventions
Three studies indicate that absconding produced feelings of guilt and anger in nurses. The process for reporting an abscond was time-consuming and detracted from care of the rest of the ward. Two studies also report that public perception often rested blame for the abscond on the hospital system.

Up to half of abscond events were reported by nurses to the police (1 study), particularly when patients were considered high risk or had been legally detained. Short absconds from low risk patients were often overlooked. Two further studies suggest that patients perceived as manipulative were more likely to have prior threats of suicide or abscond ignored. Limited evidence is available for interventions to reduce the occurrence of absconding. Proposed strategies include locking ward doors; close observation of patients; seclusion; or chemical restraint (4 studies), but there is limited evidence supporting the use physical containment for absconding. Other recommendations from one study included the staff engaging with patients soon after admission to develop a therapeutic relationship; involving relatives to encourage continuity of care; and establishing close contact with the police and community mental health professionals.	
Consistency in results	No measure of heterogeneity is reported.
Precision in results	No measure of precision is reported.
Directness of results	Direct

Munro SL, Baker JA, Playle J

Cognitive behaviour therapy within acute mental health care: a critical appraisal

International Journal of Mental Health Nursing 2005; 14(2): 96-102

View review abstract online

Comparison	**Cognitive behavioural therapy vs. other psychosocial therapy or routine care in psychiatric inpatients with acute psychosis**
Summary of evidence	**Moderate to low quality evidence (small to medium-sized samples, unable to assess consistency or precision, direct) suggests some benefit of cognitive behavioural therapy for reducing symptom severity in hospital inpatients with acute recent-onset psychosis.**
Symptom severity	

Inpatient and outpatient care

4 RCTs, N = 460, of psychiatric inpatients with acute non-affective psychosis. All studies reported a reduction in the severity of positive symptoms (but not all were statistically significant). 3/4 studies reported faster remission of symptoms in CBT group. Authors suggest some benefit of CBT as an adjunct to routine care.	
Consistency in results	No measure of heterogeneity is reported.
Precision in results	No measure of precision is reported.
Directness of results	Direct

Murphy S, Irving CB, Adams CE, Driver R

Crisis intervention for people with severe mental illnesses

Cochrane Database of Systematic Reviews 2012; 5: CD001087

View review abstract online

Comparison	**Home-based care plus crisis intervention (24-hour emergency care) vs. standard care (hospitalisation), treatment duration 1-2 years.** **This review includes samples of people with severe mental illness, of which patients with schizophrenia make up around 50%. The sample also includes patients with other psychotic disorders, neuroses, and depression. This review includes both patients and their families.**
Summary of evidence	**Moderate to high quality evidence (large samples, consistent, some imprecision, direct) suggests a small effect for retaining people in the study in the medium term (6-12 months), but not the short (< 3 months) or long (20 months) term.** **Moderate to low quality evidence (mostly 1 RCT with small to medium-sized samples, mostly imprecise, direct) suggests improved overall symptoms and social adjustment by 20 months (but not 12 months), reduced unsociable behaviour, agitation, and disorientation by 4-6 months, reduced family burden and disruption by 3 months (but not 6 months), and greater patient and relative satisfaction.**

Inpatient and outpatient care

Study retention
There was a small effect of fewer people leaving the home-based crisis intervention group in the medium term (6-12 months), with no significant differences between groups for study retention in the short term (3 month), or the long term (20 months); 3 months: 3 RCTs, N = 463, RR = 0.80, 95%CI 0.55 to 1.15, *p* = 0.23, I^2 = 0%, *p* = 0.85 6 months: 5 RCTs, N = 718, RR = 0.73, 95%CI 0.55 to 0.97, *p* = 0.031, I^2 = 0%, *p* = 0.71 12 months: 4 RCTs, N = 594, RR = 0.74, 95%CI 0.56 to 0.98, *p* = 0.036, I^2 = 0%, *p* = 0.91 20 months: 3 RCTs, N = 475, RR = 0.78, 95%CI 0.57 to 1.06, *p* = 0.11, I^2 = 0%, *p* = 0.70
Functioning
There were no significant differences between groups in Global Assessment of Functioning Scale endpoint or change from baseline scores; Endpoint, 3 months: 1 RCT, N = 27, WMD = 0.0, 95%CI -12.82 to 12.82, *p* = 1.0 Endpoint, 6 months: 1 RCT, N = 129, WMD = 5.10, 95%CI -0.86 to 11.06, *p* = 0.094 Endpoint, 12 months: 1 RCT, N = 131, WMD = 3.50, 95%CI -3.15 to 10.15, *p* = 0.30 Endpoint, 20 months: 1 RCT, N = 142, WMD = 5.70, 95%CI -0.26 to 11.66, *p* = 0.061 Change from baseline: 2 RCTs, N = 156, WMD = 4.17, 95%CI -1.56 to 9.89, *p* = 0.15, I^2 = 0%, *p* = 0.48
Quality of life
There were no significant differences between groups in quality of life ratings at the end of treatment; MANSA scale: 1 RCT, N = 226, WMD = -1.50, 95%CI -5.15 to 2.15, *p* = 0.42 EQ-5D scale: 1 RCT, N = 26, WMD = 0.01, 95%CI -0.32 to 0.34, *p* = 0.95
Social functioning
There was a benefit of home-based crisis intervention for improved social adjustment endpoint scores by 20 months, with no differences reported in the medium term (6-12 months), or on change from baseline scores; Endpoint, 6 months: 1 RCT, N = 130, WMD = -0.20, 95%CI -0.75 to 0.35, *p* = 0.48 Endpoint, 12 months: 1 RCT, N = 120, WMD = -0.30, 95%CI -0.85 to 0.25, *p* = 0.29 Endpoint, 20 months: 1 RCT, N = 139, WMD = -0.60, 95%CI -1.15 to -0.05, *p* = 0.032 Change from baseline: 1 RCT, N = 127, WMD = -0.09, 95%CI -0.31 to 0.13, *p* = 0.42 *Significant, medium effects of more sociable behaviour by 6 months (with no difference by 3*

months), and less agitation and disorientation by 4 months;
Social behaviour, 3 months: 1 RCT, N = 120, RR = 0.86, 95%CI 0.66 to 1.12, *p* = 0.25
Social behaviour, 6 months: 1 RCT, N = 120, RR = 0.43, 95%CI 0.30 to 0.64, *p* = 0.000021
Agitation, 4 months: 1 RCT, N = 120, RR = 0.59, 95%CI 0.36 to 0.95, *p* = 0.029
Disorientation, 4 months: 1 RCT, N = 120, RR = 0.47, 95%CI 0.28 to 0.79, *p* = 0.0043
There were no significant differences in;
Aggression, 3 months: 1 RCT, N = 120, RR = 0.97, 95%CI 0.72 to 1.31, *p* = 0.85
Aggression, 6 months: 1 RCT, N = 120, RR = 0.70, 95%CI 0.39 to 1.25, *p* = 0.23
Depression: 1 RCT, N = 120, RR = 0.80, 95%CI 0.57 to 1.13, *p* = 0.20
Psychotic behaviour: 1 RCT, N = 120, RR = 0.58, 95%CI 0.30 to 1.11, *p* = 0.10
Substance abuse: 1 RCT, N = 120, RR = 0.67, 95%CI 0.33 to 1.36, *p* = 0.27
Withdrawal: 1 RCT, N = 120, RR = 0.72, 95%CI 0.48 to 1.07, *p* = 0.10
Social problems: 1 RCT, N = 255, WMD = -0.60, 95%CI -2.07 to 0.87, *p* = 0.42
Mental state
There was a significant benefit of home-based crisis intervention for improving symptoms (endpoint scores) by 20 months, though no significant difference were reported in the short or medium term;
3 months: 2 RCTs, N = 248, WMD = -4.03, 95%CI -8.18 to 0.12, *p* = 0.057, I^2 = 31%, *p* = 0.23
6 months: 1 RCT, N = 129, WMD = -2.10, 95%CI -6.40 to 2.20, *p* = 0.34
12 months: 1 RCT, N = 131, WMD = -2.00, 95%CI -6.03 to 2.03, *p* = 0.33
20 months: 1 RCT, N = 142, WMD = -4.50, 95%CI -8.68 to -0.32, *p* = 0.035
There were no significant differences between groups in Psychiatric Evaluation Form endpoint scores;
3 months: 1 RCT, N = 118, WMD = 0.20, 95%CI -0.22 to 0.62, *p* = 0.35
6 months: 1 RCT, N = 111, WMD = 0.10, 95%CI -0.42 to 0.62, *p* = 0.71
12 months: 1 RCT, N = 97, WMD = -0.40, 95%CI -0.84 to 0.04, *p* = 0.074
20 months: 1 RCT, N = 100, WMD = 0.10, 95%CI -0.47 to 0.67, *p* = 0.73
There were no significant differences between groups for repeat hospital admissions (including and excluding the index admission) or for involuntary hospital admissions;
Including index, 12 months: 3 RCTs, N = 465, RR = 0.71, 95%CI 0.31 to 1.61, *p* = 0.41, I^2 = 0%, *p* = 0.85
Including index, 20 months: 1 RCT, N = 188, RR = 1.10, 95%CI 0.75 to 1.60, *p* = 0.63
Excluding index, 3 months: 1 RCT, N = 260, RR = 0.53, 95%CI 0.41 to 0.68, *p* < 0.001
Excluding index, 6 months: 2 RCTs, N = 369, RR = 0.75, 95%CI 0.50 to 1.13, *p* = 0.17, I^2 = 80%, *p*

= 0.03 Involuntary, 3 months: 1 RCT, N = 260, RR = 0.62, 95%CI 0.34 to 1.11, *p* = 0.11 Involuntary, 6 months: 1 RCT, N = 258, RR = 0.69, 95%CI 0.43 to 1.11, *p* = 0.13
Family impact
Significantly fewer families of patients receiving home-based crisis intervention reported that the overall family burden was substantial compared to families receiving standard care; 3 months: 1 RCT, N = 120, RR = 0.57, 95%CI 0.41 to 0.80, *p* = 0.00098 6 months: 1 RCT, N = 120, RR = 0.34, 95%CI 0.20 to 0.59, *p* = 0.00013 *Families of patients receiving home-based crisis intervention reported significantly less disruption to daily routine and social lives by 3 months, but not by 6 months;* Daily routine, 3 months: 2 RCTs, N = 220, RR = 0.76, 95%CI 0.59 to 0.97, *p* = 0.031, I^2 = 0%, *p* = 0.38 Daily routine, 6 months: 2 RCTs, N = 220, RR = 0.67, 95%CI 0.37 to 1.21, *p* = 0.19, I^2 = 69%, *p* = 0.07 Social lives, 3 months: 2 RCTs, N = 220, RR = 0.69, 95%CI 0.53 to 0.91, *p* = 0.0083, I^2 = 10%, *p* = 0.29 Social lives, 6 months: 2 RCTs, N = 220, RR = 0.72, 95%CI 0.43 to 1.22, *p* = 0.23, I^2 = 74%, *p* = 0.05 *Families of patients receiving home-based crisis intervention reported significantly fewer instances of physical illness due to the patient's illness;* 3 months: 1 RCT, N = 100, RR = 0.78, 95%CI 0.65 to 0.95, *p* = 0.012 6 months: 1 RCT, N = 100, RR = 0.71, 95%CI 0.55 to 0.92, *p* = 0.010 *There was no difference between groups in family reports of financial strain;* 3 months: 1 RCT, N = 120, RR = 0.76, 95%CI 0.52 to 1.10, *p* = 0.15 6 months: 1 RCT, N = 120, RR = 0.84, 95%CI 0.53 to 1.33, *p* = 0.45 *There was no difference between groups in community burden;* Employment rates by 20 months: 1 RCT, N = 189, RR = 0.97, 95%CI 0.85 to 1.12, *p* = 0.72 Homelessness: 1 RCT, N = 113, RR = 1,23, 95%CI 0.59 to 2.57, *p* = 0.58 Rates of at least one arrest by 6 months: 1 RCT, N = 111, RR = 5.36, 95%CI 0.28 to 101.35, *p* = 0.26 Rates of at least one arrest by 12 months: 1 RCT, N = 120, RR = 0.71, 95%CI 0.46 to 1.12, *p* = 0.14 Rates of at least one usage of emergency services by 12 months: 1 RCT, N = 120, RR = 0.81, 95%CI 0.43 to 1.54, *p* = 0.52

Inpatient and outpatient care

Satisfaction with treatment
Home-based crisis intervention was associated with significantly higher levels of patient satisfaction; Perceived improvement: 1 RCT, N = 119, RR = 0.48, 95%CI 0.31 to 0.74, *p* = 0.00086 Treatment satisfaction: 1 RCT, N = 119, RR = 0.66, 95%CI 0.50 to 0.88, *p* = 0.0040 Treatment preference: 1 RCT, N = 119, RR = 0.46, 95%CI 0.27 to 0.77, *p* = 0.0035 Perceived ability to cope: 1 RCT, N = 119, RR = 0.36, 95%CI 0.21 to 0.62, *p* = 0.00028 Satisfaction Scale, 3 months: 1 RCT, N = 226, WMD = 1.60, 95%CI -0.22 to 3.42, *p* = 0.085 Satisfaction Scale, 6 months: 1 RCT, N = 115, WMD = 5.10, 95%CI 3.16 to 7.04, *p* < 0.00001 Satisfaction Scale, 12 months: 1 RCT, N = 121, WMD = 4.80, 95%CI 3.11 to 6.49, *p* < 0.00001 Satisfaction Scale, 20 months: 1 RCT, N = 137, WMD = 5.40, 95%CI 3.91 to 6.89, *p* < 0.00001 *Relatives of patients receiving home-based crisis intervention showed significantly more treatment satisfaction;* 3 months: 1 RCT, N = 120, RR = 0.63, 95%CI 0.44 to 0.89, *p* = 0.0083 6 months: 1 RCT, N = 120, RR = 0.57, 95%CI 0.42 to 0.78, *p* = 0.00045 12 months: 1 RCT, N = 120, RR = 0.46, 95%CI 0.29 to 0.72, *p* = 0.00069 *There was no difference in perceived need for out-of-hours assistance in the future;* 1 RCT, N = 119, RR = 1.48, 95%CI 0.88 to 2.48, *p* = 0.14
Risk of death
There was no significant difference between groups in risk of death or homicide; Any cause: 6 RCTs, N = 980, RR = 0.88, 95%CI 0.37 to 2.07, *p* = 0.76, I^2 = 0% Natural cause: 6 RCTs, N = 980, RR = 0.63, 95%CI 0.18 to 2.24, *p* = 0.48, I^2 = 0% Suicide/suspicious death: 6 RCTs, N = 980, RR = 1.06, 95%CI 0.36 to 3.11, *p* = 0.92, I^2 = 0% Attempted suicide: 3 RCTs, N = 369, RR = 2.62, 95%CI 0.21 to 32.02, *p* = 0.45, I^2 = 70%, *p* = 0.07 Homicide: 3 RCTs, N = 568, RR = 2.96, 95%CI 0.31 to 28.28, *p* = 0.35, I^2 = 0%%, *p* = 0.96

Consistency in results	Consistent where applicable (> 1 RCT).
Precision in results	Precise for unsociable behaviour, family burden and treatment satisfaction; all other outcomes imprecise or not assessable (WMD).
Directness of results	Direct

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Preti A, Cella M

Randomized-controlled trials in people at ultra-high risk of psychosis: A review of treatment

Schizophrenia Research 2010; 123: 30-36

View review abstract online

Comparison	**Two years of community treatment including family intervention vs. standard care.** **Sample: Ultra High Risk group based on ICD-10 criteria for Schizotypal disorder (deemed at high risk of psychosis).**
Summary of evidence	**Moderate to low quality evidence (1 small RCT, imprecise, direct) suggests a short term (< 1 year) benefit, but no long term benefit (> 1 year) of community treatment plus family intervention in reducing the risk of transition to psychosis.**
Transition to psychosis **Measured by ICD-10 diagnosis of a psychotic disorder within the F2 spectrum (Raters were not blind)**	
Significant large effect of reduced risk of transition to psychosis at 1 year for the treatment group compared to the control group; Community treatment 3/37 (8.1%) transition vs. standard care 10/30 (33.3%) transition 1 RCT, N = 79, RR = 0.264, 95%CI 0.079 to 0.888, *p* = 0.031 *No difference in the risk of transition at more than 1 year (within 2 years);* Community treatment 9/36 (25.0%) transition vs. standard care 14/26 (48.2%) transition RR = 0.566, 95%CI 0.278 to 1.153, *p* = 0.117	
Dropout rates	
1 RCT, N = 79 *During treatment;* Dropout = 12 (5 treatment / 7 controls) *At more than 1 year (within 2 years);* Dropout = 14 (6 treatment / 8 controls)	
Consistency in results	Not applicable, 1 RCT

Inpatient and outpatient care

Precision in results	Imprecise
Directness of results	Direct

Shek E, Stein AT, Shansis FM, Marshall M, Crowther R, Tyrer P

Day hospital versus outpatient care for people with schizophrenia

Cochrane Database of Systematic Reviews; 2009(4): CD003240

View review abstract online

Comparison	**Day hospitals vs. outpatient care.**
Summary of evidence	**Moderate quality evidence (medium-sized samples, consistent where applicable, imprecise, direct) suggests no benefit of day hospitals over outpatient care for reducing hospital admissions. Lower quality evidence (small samples) is unable to determine any benefit for global state, employment, mental state, or social functioning.**

Global state

There were no significant differences in the number of participants admitted to hospital;

By 6 months: 2 RCT, N = 110, RR = 0.58, 95%CI 0.26 to 1.33, $p = 0.20$

Q = 0.00, $p = 1.00$, $I^2 = 0\%$

By 12 months: 2 RCT, N = 242, RR = 0.68, 95%CI 0.38 to 1.22, $p = 0.20$

Q = 2.49, $p = 0.11$, $I^2 = 60\%$

Beyond 12 months: 2 RCT, N = 242, RR = 0.63, 95%CI 0.34 to 1.19, $p = 0.15$

Q = 3.90, $p = 0.05$, $I^2 = 74\%$

There was no significant difference in the number of participants lost to follow up;

By 12 months: 2 RCT, N = 117, RR = 0.97, 95%CI 0.48 to 1.95, $p = 0.93$

Q = 2.14, $p = 0.14$, $I^2 = 53\%$

Participants receiving day hospital care showed significantly better global state (GAS score) than those receiving outpatient care in the short term, but this was not maintained in the long term;

By 6 months: 1 RCT, N = 27, WMD = -7.90, 95%CI -15.68 to -0.12, $p = 0.046$

By 12 months: 1 RCT, N = 27, WMD = -4.31, 95%CI -15.24 to 6.62, $p = 0.44$

There was no significant difference between groups in level of social functioning (CAS score); By 6 months: 1 RCT, N = 27, WMD = 0.36, 95%CI -0.07 to 0.79, *p* = 0.10 By 12 months: 1 RCT, N = 27, WMD = 0.97, 95%CI -0.25 to 0.59, *p* = 0.43 *Participants receiving day hospital care showed significantly higher levels of employment than those receiving outpatient care in the short term, but this was not maintained in the long term;* By 6 months: 1 RCT, N = 30, RR = 0.04, 95%CI 0.00 to 0.62, *p* = 0.021 By 12 months: 1 RCT, N = 80, RR = 0.86, 95%CI 0.69 to 1.06, *p* = 0.16
Mental state
No significant difference between groups for mental state (averaged scores across scales); By 6 months: 1 RCT, N = 27, WMD = 0.52, 95%CI -0.02 to 1.06, *p* = 0.059 By 12 months: 1 RCT, N = 27, WMD = 0.15, 95%CI -0.46 to 0.76, *p* = 0.63

Consistency in results	Consistent where applicable.
Precision in results	Imprecise where assessable.
Directness of results	Direct

Steffen S, Kosters M, Becker T, Puschner B

Discharge planning in mental health care: a systematic review of the literature

Acta Psychiatrica Scandinavica 2009; 120: 1-9

View review abstract online

Comparison	**Discharge planning interventions (organising outpatient care, ensuring a smooth transition from in- to out-patient) vs. standard care.** **Note: results are reported for schizophrenia only.**
Summary of evidence	**Moderate to low quality evidence (small to medium-sized samples, imprecise, unable to assess consistency, direct) is unclear as to any benefit of discharge planning interventions for improving post-discharge outcomes in people with schizophrenia.**

Global state
1 study favoured the discharge planning group for rate of treatment adherence, post-discharge; N = 104, RR = 1.56, 95%CI 1.26 to 1.94, $p < 0.05$ *1 study reported no difference between groups in rate of readmission after discharge;* N = 104, RR = 0.72, 95%CI 0.34 to 1.54, $p = 0.39$ *2 studies reported no difference between groups for mental state outcomes post-discharge;* 1 study, N = 30, $g = -0.37$, 95%CI -1.07 to 0.34, $p = 0.30$ 1 study, N = 104, $g = -0.37$, 95%CI -0.75 to 0.02, $p = 0.06$ *2 studies reported no difference between groups in patients' quality of life post-discharge;* 1 study, N = 30, $g = 0.12$, 95%CI -0.57 to 0.81, $p = 0.73$ 1 study, N = 104, $g = 0.18$, 95%CI -0.84 to 0.90, $p = 0.94$

Consistency in results	Consistent where applicable.
Precision in results	Imprecise where applicable.
Directness of results	Direct

Vigod SN, Kurdyak PA, Dennis C, Leszcz T, Taylor VH, Blumberger DM, Seitz DP

Transitional interventions to reduce early psychiatric readmissions in adults: systematic review

British Journal of Psychiatry 2013; 202: 187-194

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Comparison	**Transitional programs for preparation for discharge into the community vs. standard care.**
Summary of evidence	**Moderate to low quality evidence (small to medium-sized samples, appears inconsistent, unable to assess precision, direct) suggests pre- and post-discharge transitional programs my reduce psychiatric hospital readmissions by 1 - 2 years after discharge, particularly transitioning programs that involve a psychoeducation component and that provide transition managers.**

Inpatient and outpatient care

Psychiatric hospital readmission
Pre-discharge components; 2 RCTs (N = 57 and 103) evaluated a Community Re-entry Program/Module, a psychoeducation intervention that includes inpatient social and living skills training, and reported significantly less readmissions than the control groups at 12 and 24 months. 1 RCT (N = 97) of pharmacy discharge planning with bridge to community pharmacist, showed a trend effect (p = 0.065) of reduced readmissions in the treatment group by 3 months. 1 non-randomised controlled trial (N = 484) assessing Critical Time Intervention (CTI), involving case managers providing time-limited inpatient support, access to resources for the transition, identifying potential crises, monitoring treatment plans, and focusing on transfer of care, reported significantly less readmissions than the control group by 12 months. However, 1 RCT (N = 135) assessing CTI reported no differences between groups for readmission rates by 6 months. 1 non-randomised controlled trial (N = 13) included a program where a nurse provided in-patient discharge assessment, reported information to community case managers, and provided pre-paid mobile phones to patients, reported no significant differences by 2 months. 1 non-randomised controlled trial (N = 286) evaluated scheduling of a follow-up appointment and reported no differences by 24 weeks. *Post-discharge components;* 1 non-randomised controlled trial (N = 75) and 1 cohort study (N = 263) involving post-discharge psychoeducation reported significant reductions in readmission in the intervention groups compared to controls by 12 months. 1 non-randomised controlled trial (N = 484) assessing CTI which provided on-going community support reported significant reductions in readmission in the intervention groups compared to controls by 12 months, however 1 RCT (N = 135) assessing CTI reported no differences between groups by 6 months. The non-randomised controlled trial (N = 484) assessing CTI also included a telephone and home visit follow-up component and reported significant reductions in readmission in the intervention groups compared to controls by 12 months. Another RCT (N = 210) assessing a Transitional Discharge Model with a telephone follow-up also reported reduced readmissions by 12 months. However an additional 5 studies (3 RCT, 2 non-randomised trials) that involved telephone or home visit follow-up reported no differences between groups. Both of the interventions with positive findings also included a transition manager (bridging component) as well as other pre- and/or post-discharge components. 1 non-randomised controlled trial (N = 93) involving a structured post-discharge needs assessment reported positive findings at 3 months. 1 non-randomised controlled trial (N = 210) involving peer support reported a trend towards positive findings at 5 months (p = 0.065), but an RCT (N = 25) reported no differences between groups. None of the studies assessing patient ‘hotlines’ or family intervention reported significant findings.

Bridging components; 1 RCT (N = 210) assessing a Transitional Discharge Model and 1 non-randomised trial (N = 484) assessing CTI, both of which involved transitioning managers reported reduced readmissions by 12 months. However, 4 additional studies (2 RCT, 2 non-randomised controlled trials) with shorter follow-up (~6 months) reported no differences between groups. 1 RCT (N = 97) of pharmacy discharge planning with bridge to community pharmacist + continual needs assessment, showed a trend effect (p = 0.065) of reduced readmissions in the treatment group by 3 months.	
Consistency in results	No measure of consistency is reported; results appears inconsistent.
Precision in results	No measure of precision is reported.
Directness of results	Direct

Wiley-Exley E

Evaluations of community mental health care in low- and middle-income countries: a 10-year review of the literature

Social Science & Medicine 2007; (6): 1231-41

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Comparison	**Community based mental health programs in low and middle income countries vs. standard in- or outpatient care.**
Summary of evidence	**Moderate to low quality evidence (small to medium-sized samples, unable to assess consistency or precision, direct) suggests some benefit of community based mental health programs in low and middle income countries may be conferred for improving symptoms, and reducing relapse rates and disability ratings.**
Effectiveness of community care programs	
5 studies (1 RCT, 4 quasi-experimental) explored community mental health care programs for schizophrenia. 1 study in India (N = 207) compared community-based rehabilitation with outpatient care over 1 year, and reported some improvement in disability ratings (non-significant in ITT analysis). One study in Jamaica (N = 317) compared community mental health services with standard outpatient care over 1 year and reported significantly reduced relapse rates.	

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1 RCT in China (N = 357) compared family interventions plus medication with medication alone over 9 months and reported significantly better compliance and lower relapse rates, with no differences in disability measures. 1 study in Poland (N = 90) investigated a community mobile team (control group details not reported) over 1 year and reported improved social function, hospital admission and treatment satisfaction. 1 study in India (N = 100) investigated a community outreach program (control group not reported) over 1.5 years and reported improvement in symptoms, family burden and disability.	
Consistency in results	No measure of consistency is reported.
Precision in results	No measure of consistency is reported.
Directness of results	Direct

Zygmunt A, Olfson M, Boyer CA, Mechanic D

Interventions to improve medication adherence in schizophrenia.

American Journal of Psychiatry 2002; 159(10): 1653-64

View review abstract online

Comparison	**Community-based care (up to 24 months) vs. standard care or case management.**
Summary of evidence	**Moderate to low quality evidence (large sample, unable to assess consistency or precision, indirect) suggests community care may provide some benefit over standard care for treatment adherence.**
Medication adherence	
Community care programs were broadly defined to require a social network, monitoring of clinical status, stable housing and supportive services. Specific interventions in 10 studies (6 randomised, N = 2,509) included assertive community treatment, intensive case management, educational support. 4 of the 10 studies (3 randomised), reported better medication adherence in the community care group over the comparison condition. One study reported assertive community treatment was more effective than intensive case management for increasing adherence.	
Consistency in results	No measure of consistency is reported.

Inpatient and outpatient care

Precision in results	No measure of consistency is reported.
Directness of results	Indirect; mixed community interventions.

Explanation of acronyms

BELS = Basic Everyday Living Skills Schedule, CI = Confidence Interval, CPQ = Community Placement Questionnaire, GAF = Global Assessment of Functioning, I^2 = the percentage of the variability in effect estimates that is due to heterogeneity rather than sampling error (chance), ICD-10 = International Classification of Disease, tenth edition, World Health Organization, ILSS = Independent Living Skills Schedule, ITT = intention to treat analysis, KAS = Katz Adjustment Scale, LSP = Life Skills Profile, NOSIE = Nurses' Observation Scale for Inpatient Evaluation, N = number of participants, *p* = statistical probability of obtaining that result ($p < 0.05$ generally regarded as significant), Q = Q statistic for the test of heterogeneity, RCT = randomised controlled trial, REHAB = Rehabilitation Evaluation Hall and Baker, RR = risk ratio, SAFE = Social Adaptive Functioning Evaluation, SBS = Social Behavior Schedule, SFS = Social Functioning Scale, SPRS = Special Problems Rating Scale, vs. = versus

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Inpatient and outpatient care

Explanation of technical terms

* Bias has the potential to affect reviews of both RCT and observational studies. Forms of bias include; reporting bias – selective reporting of results; publication bias - trials that are not formally published tend to show less effect than published trials, further if there are statistically significant differences between groups in a trial, these trial results tend to get published before those of trials without significant differences; language bias – only including English language reports; funding bias - source of funding for the primary research with selective reporting of results within primary studies; outcome variable selection bias; database bias - including reports from some databases and not others; citation bias - preferential citation of authors. Trials can also be subject to bias when evaluators are not blind to treatment condition and selection bias of participants if trial samples are small[21].

† Different effect measures are reported by different reviews.

Prevalence refers to how many existing cases there are at a particular point in time. Incidence refers to how many new cases there are per population in a specified time period. Incidence is usually reported as the number of new cases per 100,000 people per year. Alternatively some studies present the number of new cases that have accumulated over several years against a person-years denominator. This denominator is the sum of individual units of time that the persons in the population are at risk of becoming a case. It takes into account the size of the underlying population sample and its age structure over the duration of observation.

Reliability and validity refers to how accurate the instrument is. Sensitivity is the proportion of actual positives that are correctly identified (100% sensitivity = correct identification of all actual positives) and specificity is the proportion of negatives that are correctly identified (100% specificity = not identifying anyone as positive if they are truly not).

Weighted mean difference scores refer to mean differences between treatment and comparison groups after treatment (or occasionally pre to post treatment) and in a randomised trial there is an assumption that both groups are comparable on this measure prior to treatment. Standardized mean differences are divided by the pooled standard deviation (or the standard deviation of one group when groups are homogenous) which allows results from different scales to be combined and compared. Each study's mean difference is then given a weighting depending on the size of the sample and the variability in the data. Less than 0.4 represents a small effect, around 0.5 a medium effect, and over 0.8 represents a large effect[21].

Odds ratio (OR) or relative risk (RR) refers to the probability of a reduction (< 1) or an increase (> 1) in a particular outcome in a treatment group, or a group exposed to a risk factor, relative to the comparison group. For example, a RR of 0.75 translates to a reduction in risk of an outcome of 25% relative to those not receiving the treatment or not exposed to the risk factor. Conversely, a RR of 1.25 translates to an increased risk of 25% relative to those not receiving treatment or not having been exposed to a risk factor. A RR or OR of 1.00 means there is no difference between groups. A medium effect is considered if RR > 2 or < 0.5 and a large effect if RR > 5 or < 0.2[22]. lnOR stands for logarithmic OR where a lnOR of 0 shows no difference between groups. Hazard ratios

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measure the effect of an explanatory variable on the hazard or risk of an event.

Correlation coefficients (eg, r) indicate the strength of association or relationship between variables. They can provide an indirect indication of prediction, but do not confirm causality due to possible and often unforseen confounding variables. An r of 0.10 represents a weak association, 0.25 a medium association and 0.40 and over represents a strong association. Unstandardised (*b*) regression coefficients indicate the average change in the dependent variable associated with a 1 unit change in the independent variable, statistically controlling for the other independent variables. Standardised regression coefficients represent the change being in units of standard deviations to allow comparison across different scales.

‡ Inconsistency refers to differing estimates of effect across studies (i.e. heterogeneity or variability in results) that is not explained by subgroup analyses and therefore reduces confidence in the effect estimate. I^2 is the percentage of the variability in effect estimates that is due to heterogeneity rather than sampling error (chance) - 0% to 40%: heterogeneity might not be important, 30% to 60%: may represent moderate heterogeneity, 50% to 90%: may represent considerable heterogeneity and over this is considerable heterogeneity. I^2 can be calculated from Q (chi-square) for the test of heterogeneity with the following formula[21];

$$I^2 = \left(\frac{Q - df}{Q}\right) \times 100\%$$

§ Imprecision refers to wide confidence intervals indicating a lack of confidence in the effect estimate. Based on GRADE recommendations, a result for continuous data (standardised mean differences, not weighted mean differences) is considered imprecise if the upper or lower confidence limit crosses an effect size of 0.5 in either direction, and for binary and correlation data, an effect size of 0.25. GRADE also recommends downgrading the evidence when sample size is smaller than 300 (for binary data) and 400 (for continuous data), although for some topics, these criteria should be relaxed[23].

‖ Indirectness of comparison occurs when a comparison of intervention A versus B is not available but A was compared with C and B was compared with C that allows indirect comparisons of the magnitude of effect of A versus B. Indirectness of population, comparator and/or outcome can also occur when the available evidence regarding a particular population, intervention, comparator, or outcome is not available and is therefore inferred from available evidence. These inferred treatment effect sizes are of lower quality than those gained from head-to-head comparisons of A and B.

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