

Rehabilitation in adults with complex psychosis and related severe mental health conditions

[L] Interventions to improve interpersonal functioning

NICE guideline NG181

Evidence review

August 2020

Final

This evidence review was developed by the National Guideline Alliance which is part of the Royal College of Obstetricians and Gynaecologists

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Contents

Contents	4
Interventions to improve interpersonal functioning	6
Review question 5.2: What interventions specific to rehabilitation are effective for people with complex psychosis and related severe mental health conditions to improve their inter-personal functioning?	6
Introduction	6
Summary of the protocol	6
Clinical evidence	7
Summary of clinical studies included in the evidence review	7
Quality assessment of clinical outcomes included in the evidence review	9
Economic evidence	9
Summary of studies included in the economic evidence review.....	9
Economic model.....	9
Evidence statements	10
The committee’s discussion of the evidence.....	12
References.....	15
Appendices	17
Appendix A – Review protocols	17
Review protocol for review question: What interventions specific to rehabilitation are effective for people with complex psychosis and related severe mental health conditions to improve their inter-personal functioning?	17
Appendix B – Literature search strategies	21
Databases: Medline/Embase/PsycINFO.....	21
Database: Cochrane Library.....	25
Database: CRD	27
Appendix C – Clinical evidence study selection	28
Clinical study selection for: What interventions specific to rehabilitation are effective for people with complex psychosis and related severe mental health conditions to improve their inter-personal functioning?	28
Appendix D – Clinical evidence tables.....	29
Clinical evidence tables for review question: What interventions specific to rehabilitation are effective for people with complex psychosis and related severe mental health conditions to improve their inter-personal functioning?	29
Appendix E – Forest plots	42
Forest plots for review question: What interventions specific to rehabilitation are effective for people with complex psychosis and related severe mental health conditions to improve their inter-personal functioning?.....	42
Appendix F – GRADE tables	44

GRADE tables for review question: What interventions specific to rehabilitation are effective for people with complex psychosis and related severe mental health conditions to improve their inter-personal functioning?.....	44
Appendix G – Economic evidence study selection.....	48
Economic evidence study selection for review question 5.2: What interventions specific to rehabilitation are effective for people with complex psychosis and related severe mental health conditions to improve their inter-personal functioning?	48
Appendix H – Economic evidence tables.....	49
Economic evidence tables for review question 5.2: What interventions specific to rehabilitation are effective for people with complex psychosis and related severe mental health conditions to improve their inter-personal functioning?	49
Appendix I – Economic evidence profiles	50
Appendix J – Economic analysis	51
Economic evidence analysis for review question 5.2: What interventions specific to rehabilitation are effective for people with complex psychosis and related severe mental health conditions to improve their inter-personal functioning?	51
Appendix K – Excluded studies	52
Excluded clinical and economic studies for review question: What interventions specific to rehabilitation are effective for people with complex psychosis and related severe mental health conditions to improve their inter-personal functioning?.....	52
Clinical studies	52
Economic studies	88
Appendix L – Research recommendations	93
Research recommendations for review question: What interventions specific to rehabilitation are effective for people with complex psychosis and related severe mental health conditions to improve their inter-personal functioning?	93

Interventions to improve interpersonal functioning

Review question: What interventions specific to rehabilitation are effective for people with complex psychosis and related severe mental health conditions to improve their inter-personal functioning?

Introduction

Many people with complex psychosis have difficulties with interpersonal functioning which affect areas of their everyday life. Social skills are an important part of recovery and successful progression through rehabilitation. This evidence review aimed to compare interventions to improve the interpersonal functioning of people currently receiving rehabilitation.

The title of the guideline changed to “Rehabilitation for adults with complex psychosis” during development. The previous title of the guideline has been retained in the evidence reviews for consistency with the wording used in the review protocols.

Summary of the protocol

Please see Table 1 for a summary of the Population, Intervention, Comparison and Outcome (PICO) characteristics of this review.

Table 1: Summary of the protocol (PICO table)

Population	Adults (aged 18 years and older) with complex psychosis and other severe mental health conditions (as defined in scope) Currently receiving rehabilitation in an inpatient rehabilitation unit, while living in supported accommodation or in the community.
Intervention	<ul style="list-style-type: none">• Occupational therapy• Social skills interventions• Horticultural and Eco therapy• Mindfulness• Morita therapy• Psychoeducational interventions<ul style="list-style-type: none">○ for example: family interventions or family therapy• Peer support interventions• Skills carried out in a group setting,<ul style="list-style-type: none">○ For example: dining clubs, club house models, team sports, board games, storytelling, creative writing, arts therapy (music, drama), animal therapy• Positive behavioural support
Comparison	<ul style="list-style-type: none">• No intervention• Other class of rehabilitation intervention• Standard care
Outcomes	Critical <ul style="list-style-type: none">• Interpersonal functioning (social skills)

- Readmission/Relapse
- Sustaining tenancy
- Challenging behaviour
- Important**
- Quality of life

For further details see the review protocol in appendix A.

Clinical evidence

Included studies

Nine randomised controlled trials (RCTs) were identified for this review (Bartels 2014, Bitter 2017, Bradshaw 2000, Cavallaro 2009, Crawford 2012, Gill Sanz 2009, Kurtz 2015, Volpe 2015 and Wykes 2007)

The included studies are summarised in Table 2.

One study (Bradshaw 2000) compared cognitive behavioural therapy (CBT) to treatment as usual (TAU). One study compared social skills training to TAU (Bartels 2014). Four studies compared cognitive remediation therapy (CRT) to TAU or an attention control (Cavallaro 2009, Gill Sanz 2009, Kurtz 2015 and Wykes 2007)). Two studies compared group activities to TAU (Crawford 2012 and Volpe 2015). One study compared staff training in CARE rehabilitation methodology to TAU (Bitter 2017)

See the literature search strategy in appendix B and study selection flow chart in appendix C.

Excluded studies

Studies not included in this review with reasons for their exclusions are provided in appendix K.

Summary of clinical studies included in the evidence review

A summary of the studies that were included in this review are presented in Table 2.

Table 2: Summary of included studies

Study	Population	Intervention	Comparison	Outcomes
Bartels 2014 RCT USA	N=183 Diagnosis: 28% schizophrenia, 28% schizoaffective disorder, 20% bipolar disorder, 24% major depression. Setting: community dwelling adults. Mean age: 60.2 years.	Psychosocial skills training	Treatment as usual	Follow-up 36 months • Interpersonal functioning: Social Behaviour Schedule (SBS) total • Readmission/relapse:
Bitter 2017 RCT Netherlands	N=263 Diagnosis: severe mental illness.	Staff training in CARE rehabilitation methods	Treatment as usual	Follow-up 20 months • Interpersonal functioning: Social

Study	Population	Intervention	Comparison	Outcomes
	Setting: sheltered / supportive housing organizations. Mean age 50 years; 65% male; 85% native born.			Functioning Scale (SFS) • Quality of life: Manchester Short Appraisal (MANSA)
Bradshaw 2000 RCT USA	N=24 Diagnosis: schizophrenia 100%. Setting: community outpatient rehabilitation unit.	Cognitive behavioural therapy + outpatient rehabilitation	Outpatient rehabilitation	Follow-up 36 months • Interpersonal functioning: Role functioning Scale (RFS)
Cavallaro 2009 RCT Italy	N=86 Diagnosis: schizophrenia 100%. Setting: outpatient long term rehabilitation unit.	Cognitive remediation + standard rehabilitation	Attention control + standard rehabilitation	Follow-up 3 months • Interpersonal functioning: Quality of Life Scale (QLS) interpersonal relations subscale
Crawford 2012 RCT UK	N=417 Diagnosis: schizophrenia 100%. Setting: inpatient units, day hospitals, community mental health teams, rehabilitation services, supported accommodation and day centres. Mean age 41 years. 67% male	• Group art therapy • Activity groups	Treatment as usual	Follow-up 24 months • Interpersonal functioning: social function questionnaire
Gill Sanz 2009 RCT Spain	N=14 Diagnosis: schizophrenia 100%. Setting: outpatient rehabilitation centre. Mean age 35 years; 50% male.	Cognitive remediation + standard rehabilitation	Standard rehabilitation	Follow-up 2.5 months • Interpersonal functioning: WHODAS-II capacity to relate to others
Kurtz 2015 RCT USA	N=64 Diagnosis: schizophrenia or schizoaffective disorder 100%. Setting: intensive outpatient rehabilitation program. Mean age 36 years; 73% male.	Cognitive remediation + social skills training	Attention control + social skills training	Follow-up 6 months • Interpersonal functioning: Quality of Life Scale - Brief (QLS-B) social interaction item

Study	Population	Intervention	Comparison	Outcomes
Volpe 2015 RCT Italy	N=41 Diagnosis: schizophrenia (46%), schizoaffective disorder (39%) and bipolar disorder (15%). Setting: inpatients with severe psychosis. Mean age 43 years; 46% male.	Reading group + Treatment as usual	Treatment as usual	Follow-up 6 months • Interpersonal functioning: Personal and Social Performance Scale (PSP) total score
Wykes 2007 RCT UK	N=85 Diagnosis: schizophrenia 100%. Setting: community mental health teams but participants severely impaired in overall functioning. Mean age 36 years,; 73% male.	Cognitive remediation	Treatment as usual	Follow-up 6 months • Interpersonal functioning: Social Behaviour Schedule (SBS) total

CARe: comprehensive approach to rehabilitation; RCT, randomised controlled trial; WHODAS-II: World Health Organization Disability Assessment Schedule 2.0

See the full evidence tables in appendix D and the forest plots in appendix E.

Quality assessment of clinical outcomes included in the evidence review

See the clinical evidence profiles in appendix F.

Economic evidence

Included studies

A systematic review of the economic literature was conducted but no economic studies were identified which were applicable to this review question.

Excluded studies

Studies not included in this review with reasons for their exclusions are provided in appendix K.

Summary of studies included in the economic evidence review

No economic evidence was identified for this review (and so there are no economic evidence tables).

Economic model

No economic modelling was undertaken for this review because the committee agreed that other topics were higher priorities for economic evaluation.

Evidence statements

Clinical evidence statements

Comparison 1. Cognitive behavioural therapy (CBT) versus treatment as usual (TAU)

Critical outcomes

Interpersonal functioning (social skills)

- Low quality evidence from 1 RCT (N=15) showed a clinically important benefit in terms of interpersonal function measured on the role functioning scale in participants who received cognitive behavioural therapy compared to those who received treatment as usual.

Readmission/Relapse

No evidence was identified to inform this outcome.

Sustaining tenancy

No evidence was identified to inform this outcome.

Challenging behaviour

No evidence was identified to inform this outcome.

Important outcomes

Quality of life

No evidence was identified to inform this outcome.

Comparison 2. Cognitive remediation versus TAU

Critical outcomes

Interpersonal functioning (social skills)

- Moderate quality evidence from 4 RCTs (N=224) showed no clinically important difference in the interpersonal function of participants who received cognitive remediation compared to those who received treatment as usual.

Readmission/Relapse

No evidence was identified to inform this outcome.

Sustaining tenancy

No evidence was identified to inform this outcome.

Challenging behaviour

No evidence was identified to inform this outcome.

Important outcomes

Quality of life

No evidence was identified to inform this outcome.

Comparison 3. Skills in a group setting versus TAU

Critical outcomes

Interpersonal functioning (social skills)

- Low quality evidence from 1 RCT (N=238) showed a clinically important benefit in terms of interpersonal function as measured by the social function questionnaire in participants who took part in structured group activities compared to those who received treatment as usual.
- Low quality evidence from 1 RCT (N=234) showed no clinically important difference in interpersonal function as measured by the social function questionnaire in participants who took part in group art therapy compared to those who received treatment as usual.
- Low quality evidence from 1 RCT (N=41) showed no clinically important difference in interpersonal function as measured by the social performance scale in participants who took part in a reading group compared to those who received treatment as usual.

Readmission/Relapse

No evidence was identified to inform this outcome.

Sustaining tenancy

No evidence was identified to inform this outcome.

Challenging behaviour

No evidence was identified to inform this outcome.

Important outcomes

Quality of life

No evidence was identified to inform this outcome.

Comparison 4. Staff training in CARE rehabilitation versus TAU

Critical outcomes

Interpersonal functioning (social skills)

- Low quality evidence from 1 RCT (N=200) showed a decrease in interpersonal function measured using the social function scale in participants who attended centres where staff had been trained in the CARE rehabilitation methods compared to those who received treatment as usual.

Readmission/Relapse

No evidence was identified to inform this outcome.

Sustaining tenancy

No evidence was identified to inform this outcome.

Challenging behaviour

No evidence was identified to inform this outcome.

Important outcomes

Quality of life

- Moderate quality evidence from 1 RCT (N=200) showed no difference in quality of life as measured by the Manchester Short Appraisal (MANSA) of participants who attended centres where staff had been trained in the CARE rehabilitation methods compared to those who received treatment as usual.

Comparison 5 Social skills training versus TAU

Critical outcomes

Interpersonal functioning (social skills)

- Moderate quality evidence from 1 RCT (N=183) showed an increase in the social skills (measured using the Social Behaviour Schedule) of participants who received social skills training compared to those who received treatment as usual.

Readmission/Relapse

- Very low quality evidence from 1 RCT (N=183) showed no clinically important difference in the rates of psychiatric readmission in participants receiving social skills training compared to those receiving treatment as usual.

Sustaining tenancy

No evidence was identified to inform this outcome.

Challenging behaviour

No evidence was identified to inform this outcome.

Important outcomes

Quality of life

No evidence was identified to inform this outcome.

Economic evidence statements

No economic evidence was identified which was applicable to this review question.

The committee's discussion of the evidence

Interpreting the evidence

The outcomes that matter most

The aim of this review was to compare the effectiveness of interventions to improve interpersonal functioning in people with complex psychosis and related severe mental health conditions. For this reason, the committee included interpersonal functioning as a critical outcome for this review. Relapse/readmission was included as a critical outcome, given its implications for people and resources. Sustaining tenancy was included as a critical outcome as it is likely to have an impact on the experience of people with complex psychosis and related severe mental health conditions and the committee thought that the status could differ depending on whether the people were receiving the intervention or not. Challenging behaviour was included as a critical outcome due to its link with social skills and its impact on

the management of people receiving rehabilitation for complex psychosis and related severe mental health conditions. Improvement in quality of life is one of the objectives of interventions to improve interpersonal functioning and hence it was included as an important outcome.

The quality of the evidence

The evidence for outcome interpersonal functioning ranged from low to moderate quality as assessed using GRADE. The evidence was mainly downgraded for risk of bias due to unclear randomisation, unclear allocation concealment or lack of blinding and also for imprecision. The evidence for readmission/relapse was very low quality, due to unclear randomisation, unclear allocation concealment and imprecision. The evidence for quality of life was of moderate quality due to risk of bias arising from unclear randomisation methods and high attrition rate. There was no evidence identified for the outcomes of sustaining tenancy and challenging behaviour.

Evidence was lacking for horticultural and eco therapy, mindfulness, Morita therapy and positive behavioural therapy.

Benefits and harms

There was evidence from 1 trial (Crawford 2012) that participation in structured group activities (including board games, watching and discussing DVDs and visiting local cafes) improves interpersonal function as measured by the social function questionnaire, in people receiving rehabilitation for complex psychosis. Although the evidence was of low quality, qualitative evidence from the review on what people value in rehabilitation (review J) also supported offering a range of activities. The committee discussed that the evidence was in line with their clinical experience, and agreed that such activities should be offered to people with complex psychosis and related severe mental health conditions in rehabilitation settings. For inpatient rehabilitation settings, the committee agreed that they could be offered structured group activities on a daily basis. Based on their experience and expertise, they agreed that participation in group activities daily was achievable in inpatient settings and to be effective, daily participation was essential. The committee discussed the types of activities which could be included in the inpatient settings, and thought that patient preference should be an important consideration, hence a choice of activities agreed by the group should be offered. The committee noted that although evidence on peer support or peer led interventions was not identified, based on their knowledge and expertise that peer led interventions are often effective, they agreed that group activities offered may be peer led or supported by peers.

The committee discussed that the evidence of effectiveness of structured group activities was from inpatient and community settings, and hence there was evidence to support offering such activities in community settings. The committee acknowledged that, in terms of provisions, the community settings differ from the inpatient settings, and hence the type of activities and mode of delivery could differ from the inpatient settings. The committee discussed that, depending on the resources available, social, leisure or occupational group activities, could be offered. The committee discussed that, in community settings, the frequency of offering such activities can be based on the needs of the individual and provisions of the setting, but they thought that they should occur at least weekly.

The committee noted that, in the Crawford 2012 trial, the structured group activities were cofacilitated by a member of staff or volunteer who received training in the intervention. Drawing from the evidence, the committee discussed that staff training was an important aspect of the intervention, and agreed that in order to be effective, structured group activities should get support and involvement by trained staff in the rehabilitation settings. Hence, the committee made the recommendation regarding staff training and support. The committee

acknowledged that in another evidence report (evidence report K) a cluster randomised study of a staff training intervention did not increase engagement in activities of daily living when measured in terms of time used or in terms of social skills (measured using a life skills profile). The committee discussed that this may be due to the follow-up time in this study, as by 12 months the staff training may have been forgotten. The committee agreed that the two staff training interventions were different in their content and that staff training is a requirement for staff to deliver effective rehabilitation interventions, including structured group activities.

Based on their experience, the committee discussed that, despite the availability of structured activities programme, people may sometimes still struggle to engage with it. The committee agreed that each person in the rehabilitation service should receive support from a named person who engages with them to help them plan and review their daily activities. They noted that the named person could differ depending on settings, and in some cases it could be the key worker and in some others, it could be a support worker. However, it was important that there is someone to support the people in their daily activities.

Although the structured group activities were recommended, the committee were of the view that more information about the activities that could be offered, and their effectiveness, would be useful given the limited evidence base specific to people in rehabilitation services. They therefore suggested a research recommendation to consider these issues.

There was increase in the social skills (measured using the Social Behaviour Schedule) of participants who received social skills training compared to those who received treatment as usual. There was some evidence to suggest the effectiveness of social skills training to improve interpersonal functioning, as assessed by social skills. The committee were aware of the recommendation 1.4.4.8 from the section psychological and psychosocial interventions in chapter [preventing psychosis](#) from NICE guideline on [psychosis and schizophrenia \[CG178\]](#) stating that “Do not routinely offer social skills training (as a specific intervention) to people with psychosis or schizophrenia”.

The committee discussed that there was some evidence that participation in a cognitive behavioural therapy intervention led to an improvement in interpersonal functioning, as measured by role functioning scale in participants. The committee noted that the evidence was from 1 small study with 15 subjects and was not strong enough to support a recommendation in this area.

The evidence indicated cognitive remediation did not have a beneficial effect on interpersonal functioning, evidence from another review (evidence report M) showed cognitive remediation as an adjunct to vocational rehabilitation could help to increase employment and so they recommended it in this context.

Cost effectiveness and resource use

The committee noted that no relevant published economic evaluations had been identified for this topic.

People with complex psychosis and severe mental illness are encouraged to participate in structured group activities and that this recommendation is in line with current practice. However, there may be some resource implications depending on the components of such activities and the setting in which they are offered. A range of structured group of activities such as art therapy or DVD screen viewings are common place in inpatient wards. The committee believed that there is greater variation in community living. Some activities, such as DVD screen viewings or accompanying visits to café's may already occur in most instances and so would not entail significant resource impact. However, the committee took

the view that the effectiveness of specific interventions like art therapy were driven by staff trained to deliver such a programme which could entail extra costs.

The committee noted that many people with complex psychosis and severe mental illness would need support to engage with such activities. The recommendation to offer a named person to support with engagement would not have a significant resource impact as this would already be a part of a care/support worker's role. In instances where this is not the case, then this recommendation would reinforce best recommended practice.

References

Bartels 2014

Bartels, S. J., Pratt, S. I., Mueser, K. T., Forester, B. P., Wolfe, R., Cather, C., Xie, H., McHugo, G. J., Bird, B., Aschbrenner, K. A., Naslund, J. A., Feldman, J., Long-term outcomes of a randomized trial of integrated skills training and preventive healthcare for older adults with serious mental illness, *American Journal of Geriatric Psychiatry*, 22, 1251-61, 2014

Bitter 2017

Bitter, N., Roeg, D., van Assen, M., van Nieuwenhuizen, C., van Weeghel, J., How effective is the comprehensive approach to rehabilitation (CARE) methodology? A cluster randomized controlled trial, *BMC Psychiatry*, 17, 396, 2017

Bradshaw 2000

Bradshaw, W., Integrating cognitive-behavioral psychotherapy for persons with schizophrenia into a psychiatric rehabilitation program: results of a three year trial, *Community mental health journal*, 36, 491-500, 2000

Cavallaro 2009

Cavallaro, R., Anselmetti, S., Poletti, S., Bechi, M., Ermoli, E., Cocchi, F., Stratta, P., Vita, A., Rossi, A., Smeraldi, E., Computer-aided neurocognitive remediation as an enhancing strategy for schizophrenia rehabilitation, *Psychiatry Research*, 169, 191-196, 2009

Crawford 2012

Crawford, M. J., Killaspy, H., Barnes, T. R., Barrett, B., Byford, S., Clayton, K., Dinsmore, J., Floyd, S., Hoadley, A., Johnson, T., Kalaitzaki, E., King, M., Leurent, B., Maratos, A., O'Neill, F. A., Osborn, D. P., Patterson, S., Soteriou, T., Tyrer, P., Waller, D., Matisse project team, Group art therapy as an adjunctive treatment for people with schizophrenia: multicentre pragmatic randomised trial, *BMJ*, 344, e846, 2012

Gil Sanz 2009

Gil Sanz, D., Diego Lorenzo, M., Bengochea Seco, R., Arrieta Rodríguez, M., Lastra Martínez, I., Sánchez Calleja, R., Alvarez Soltero, A., Efficacy of a social cognition training program for schizophrenic patients: a pilot study, *Spanish journal of psychology*, 12, 184-191, 2009

Kurtz 2015

Kurtz, M. M., Mueser, K. T., Thime, W. R., Corbera, S., Wexler, B. E., Social skills training and computer-assisted cognitive remediation in schizophrenia, *Schizophrenia Research*, 162, 35-41, 2015

Volpe 2015

Volpe, U., Torre, F., De Santis, V., Perris, F., Catapano, F., Reading group rehabilitation for patients with psychosis: a randomized controlled study, *Clinical psychology & psychotherapy*, 22, 15-21, 2015

Wykes 2007

Wykes, T., Reeder, C., Landau, S., Everitt, B., Knapp, M., Patel, A., Romeo, R., Cognitive remediation therapy in schizophrenia: randomised controlled trial, *British Journal of Psychiatry* Br J Psychiatry, 190, 421-7, 2007

Appendices

Appendix A – Review protocols

Review protocol for review question 5.2: What interventions specific to rehabilitation are effective for people with complex psychosis and related severe mental health conditions to improve their inter-personal functioning?

Table 3: Review protocol for interventions to improve interpersonal functioning

Field (based on <u>PRISMA-P</u>)	Content
Review question	What interventions specific to rehabilitation are effective for people with complex psychosis and related severe mental health conditions to improve their inter-personal functioning and social skills?
Type of review question	Intervention
Objective of the review	This review aims to compare the effectiveness of interventions specific to rehabilitation to improve inter-personal functioning in people with complex psychosis and severe mental illness.
Eligibility criteria – population	Adults (aged 18 years and older) with complex psychosis and other severe mental health conditions (as defined in scope) Currently receiving rehabilitation in an inpatient rehabilitation unit or while living in supported accommodation or in the community.
Eligibility criteria – intervention(s)	<ul style="list-style-type: none"> • Occupational therapy • Social skills interventions • Horticultural and Eco therapy • Mindfulness • Morita therapy • Psychoeducational interventions. For example: family interventions, family therapy • Peer support interventions • Skills carried out in a group setting, for example: dining clubs, club house models, team sports, board games, storytelling, creative writing, arts therapy (music, drama), animal therapy • Positive behavioural support

Field (based on PRISMA-P)	Content
Eligibility criteria – comparator(s)	No intervention Other class of rehabilitation intervention Standard care
Outcomes and prioritisation	Critical Outcomes <ul style="list-style-type: none"> • Interpersonal functioning (social skills) • Readmission/Relapse • Sustaining tenancy • Challenging behaviour Important outcomes <ul style="list-style-type: none"> • Quality of life
Eligibility criteria – study design	RCTs. If no RCTs are available for any of the interventions, comparative observational studies will be considered.
Other inclusion exclusion criteria	Date limit: 1990 The date limit for studies after 1990 was suggested by the GC considering the change in provision of mental health services from institutionalized care in the 1970s to deinstitutionalized and community based care from 1990s onwards. Country limit: UK, USA, Australasia, Europe, Canada. The GC limited to these countries because they have similar cultures to the UK, given the importance of the cultural setting in which mental health rehabilitation takes place.
Proposed sensitivity/sub-group analysis, or meta-regression	Confounders that will be used to explore heterogeneity: <ul style="list-style-type: none"> • Duration of long term follow-up • Value based culture / social engagement (including therapeutic relationships – family, carers; team sports/activities) • Family involvement • Group therapy vs individual therapy • Inpatient vs supported accommodation • Black and Asian ethnic minorities • Presence of co-morbidity affecting social function, for example autism spectrum disorder and personality disorders. Observational studies should adjust for the following: <ul style="list-style-type: none"> • Age • Measure of clinical severity based on symptom rating scale • Gender

Field (based on PRISMA-P)	Content
Selection process – duplicate screening/selection/analysis	A random sample of the references identified in the search will be sifted by a second reviewer. This sample size of this pilot round will be 10% of the total, (with a minimum of 100 studies). All disagreements in study inclusion will be discussed and resolved between the two reviewers. The senior systematic reviewer or guideline lead will be involved if discrepancies cannot be resolved between the two reviewers. Include thresholds for agreement, and mechanism to resolve disputes.
Data management (software)	NGA STAR software will be used for study sifting, data extraction, recording quality assessment using checklists and generating bibliographies/citations. RevMan will be used to generate plots and for any meta-analysis. 'GRADEpro' will be used to assess the quality of evidence for each outcome.
Information sources – databases and dates	Sources to be searched: Medline, Medline In-Process, CCTR, CDSR, DARE, HTA, Embase, PsycINFO Limits (e.g. date, study design): Apply standard animal/non-English language exclusion Limit to RCTs and systematic reviews in first instance, but download all results Dates: from 1990
Identify if an update	Not an update
Author contacts	For details please see the guideline in development web site.
Highlight if amendment to previous protocol	For details please see section 4.5 of Developing NICE guidelines: the manual 2014
Search strategy – for one database	For details please see appendix B.
Data collection process – forms/duplicate	A standardised evidence table format will be used, and published as appendix D (clinical evidence tables) or H (economic evidence tables).
Data items – define all variables to be collected	For details please see evidence tables in appendix D (clinical evidence tables) or H (economic evidence tables).
Methods for assessing bias at outcome/study level	Standard study checklists were used to critically appraise individual studies. For details please see section 6.2 of Developing NICE guidelines: the manual 2014 .

Field (based on PRISMA-P)	Content
	The risk of bias across all available evidence was evaluated for each outcome using an adaptation of the 'Grading of Recommendations Assessment, Development and Evaluation (GRADE) toolbox' developed by the international GRADE working group http://www.gradeworkinggroup.org/ .
Criteria for quantitative synthesis	For details please see section 6.4 of Developing NICE guidelines: the manual 2014
Methods for quantitative analysis – combining studies and exploring (in)consistency	For details please see the methods and process section of the main file
Meta-bias assessment – publication bias, selective reporting bias	For details please see section 6.2 of Developing NICE guidelines: the manual 2014 .
Confidence in cumulative evidence	For details please see sections 6.4 and 9.1 of Developing NICE guidelines: the manual 2014
Rationale/context – what is known	For details please see the introduction to the evidence review.
Describe contributions of authors and guarantor	A multidisciplinary committee developed the evidence review. The committee was convened by the National Guideline Alliance (NGA) and chaired by Prof Gillian Baird in line with section 3 of Developing NICE guidelines: the manual 2014 . Staff from the NGA undertook systematic literature searches, appraised the evidence, conducted meta-analysis and cost effectiveness analysis where appropriate, and drafted the guideline in collaboration with the committee. For details please see the methods see supplementary document C.
Sources of funding/support	The NGA is funded by NICE and hosted by the Royal College of Obstetricians and Gynaecologists.
Name of sponsor	The NGA is funded by NICE and hosted by the Royal College of Obstetricians and Gynaecologists.
Roles of sponsor	NICE funds NGA to develop guidelines for those working in the NHS, public health and social care in England
PROSPERO registration number	Not applicable

CDSR: Cochrane Database of Systematic Reviews; CENTRAL: Cochrane Central Register of Controlled Trials; DARE: Database of Abstracts of Reviews of Effects; GRADE: Grading of Recommendations Assessment, Development and Evaluation; MID: minimally important difference; NGA: National Guideline Alliance; NHS: National health service; NICE: National Institute for Health and Care Excellence; RCT: randomised controlled trial; RoB: risk of bias; SD: standard deviation

Appendix B – Literature search strategies

Literature search strategies for review question 5.2: What interventions specific to rehabilitation are effective for people with complex psychosis and related severe mental health conditions to improve their inter-personal functioning?

Databases: Medline/Embase/PsycINFO

Date searched: 09/01/2019

#	Searches
1	exp psychosis/ use emczd
2	Psychotic disorders/ use ppez
3	exp psychosis/ use psyh
4	(psychos?s or psychotic).tw.
5	exp schizophrenia/ use emczd
6	exp schizophrenia/ or exp "schizophrenia spectrum and other psychotic disorders"/ use ppez
7	(exp schizophrenia/ or "fragmentation (schizophrenia)") use psyh
8	schizoaffective psychosis/ use emczd
9	schizoaffective disorder/ use psyh
10	(schizophren* or schizoaffective*).tw.
11	exp bipolar disorder/ use emczd
12	exp "Bipolar and Related Disorders"/ use ppez
13	exp bipolar disorder/ use psyh
14	((bipolar or bipolar type) adj2 (disorder* or disease or spectrum)).tw.
15	Depressive psychosis/ use emczd
16	Delusional disorder/ use emczd
17	delusions/ use psyh
18	(delusion* adj3 (disorder* or disease)).tw.
19	mental disease/ use emczd
20	mental disorders/ use ppez
21	mental disorders/ use psyh
22	(psychiatric adj2 (illness* or disease* or disorder* or disabilit* or problem*)).tw.
23	((severe or serious) adj3 (mental adj2 (illness* or disease* or disorder* or disabilit* or problem*))).tw.
24	(complex adj2 (mental adj2 (illness* or disease* or disorder* or disabilit* or problem*))).tw.
25	or/1-24
26	(Rehabilitation/ or cognitive rehabilitation/ or community based rehabilitation/ or psychosocial rehabilitation/ or rehabilitation care/ or rehabilitation center/) use emczd
27	(exp rehabilitation/ or exp rehabilitation centers/) use ppez
28	(Rehabilitation/ or cognitive rehabilitation/ or neuropsychological rehabilitation/ or psychosocial rehabilitation/ or independent living programs/ or rehabilitation centers/ or rehabilitation counselling/) use psyh
29	residential care/ use emczd
30	(residential facilities/ or assisted living facilities/ or halfway houses/) use ppez
31	(residential care institutions/ or halfway houses/ or assisted living/) use psyh
32	(resident* adj (care or centre or center)).tw.
33	(halfway house* or assist* living).tw.
34	((inpatient or in-patient or long-stay) adj3 (psychiatric or mental health)).tw.
35	(Support* adj (hous* or accommodat* or living)).tw.
36	(rehabilitation or rehabilitative or rehabilitate).tw.
37	rehabilitation.fs.
38	or/26-37
39	cognitive behavioral therapy/ use emczd
40	cognitive behavior therapy/ use psyh
41	*cognitive therapy/ use ppez

#	Searches
42	cognitive behavio?r therap*.tw.
43	*cognitive remediation therapy/ use emczd
44	*cognitive remediation/ use ppez
45	cognitive remediation.tw.
46	*motivational interviewing/
47	motivation* interview*.tw.
48	behavio?r* activation.tw.
49	*psychosocial care/ use emczd
50	psychosocial rehabilitation/ use emczd
51	*psychosocial rehabilitation/ use psych
52	((psychosocial or psychological) adj2 (care or intervention* or therap* or treat* or rehabilitat*)).tw.
53	or/39-52
54	*occupational therapy/
55	(occupational adj2 therap*).tw.
56	54 or 55
57	*exercise/
58	exp *physical activity/ use emczd
59	physical activity/ use psych
60	active living/ use psych
61	(exercise or gym* or fitness*).tw.
62	((team* or group*) adj2 sport*).tw.
63	(physical adj2 (activit* or therap*)).tw.
64	or/57-63
65	Environment/
66	((alter or alterate or alteration* or modification* or modify or adjust* or adapt*) adj3 (equipment* or environment*)).tw.
67	or/65-66
68	Daily life activity/ use emczd
69	Leisure/ use emczd
70	exp *recreation/ use emczd
71	exp *leisure activities/ use ppez
72	Recreation therapy/ use ppez
73	Leisure time/ use psych
74	Recreation/ use psych
75	(structure* adj2 activit*).tw.
76	((recreation* or leisure* or domestic) adj2 Activit*).tw.
77	(meaningful adj2 occupation*).tw.
78	or/68-77
79	Social competence/ use emczd
80	Social skills/ use ppez
81	social skills/ use psych
82	((group or interperson* or inter person*) adj2 skill*).tw.
83	(Social adj3 (skill* or competen* or abilit*)).tw.
84	or/79-83
85	Horticultural therapy/
86	(ecotherapy or eco therapy or nature therapy or ecological therapy).tw.
87	(horticultur* adj3 therap*).tw.
88	morita therap*.tw.
89	Mindfulness/
90	Mindfulness.tw.
91	or/85-90
92	Psychoeducation/ use emczd
93	Psychoeducation/ use psych

#	Searches
94	Family therapy/ use emczd
95	Family therapy/ use ppez
96	exp Family therapy/ use psyh
97	Family intervention/ use psyh
98	psychoeducat*.tw.
99	(Family adj2 (therap* or intervention* or psychiatry or psychotherap* or treat*)).tw.
100	or/92-99
101	exp *social support/
102	(Peer adj2 support*).tw.
103	(peer-to-peer adj2 support*).tw.
104	or/101-103
105	Art therapy/
106	Team sport/ use emczd
107	Music therapy/ use ppez
108	Music therapy/ use emczd
109	Storytelling/ use psyh
110	Creative writing/ use psyh
111	Narrative therapy/ use psyh
112	Dance therapy/ use emczd
113	exp Animal assisted therapy/ use ppez
114	Pet therapy/ use emczd
115	Animal assisted therapy/ use psyh
116	(Clubhouse* or club house*).tw.
117	((pet* or animal*) adj2 therap*).tw.
118	((group or team) adj2 (activit* or game* or skill*)).tw.
119	(positive behavio?r* adj2 (intervention* or support*)).tw.
120	or/105-119
121	*Vocational education/
122	Vocational rehabilitation/ use psyh
123	*Vocational rehabilitation/ use emczd
124	*Rehabilitation, vocational/ use ppez
125	(vocation* adj2 (school* or train* or educat* or rehab* or resource* or support*)).tw.
126	or/121-125
127	Job finding/ use emczd
128	job interview/ use emczd
129	job application/ use ppez
130	job search/ use psyh
131	Job applicant interviews/ use psyh
132	(job adj3 (hunt* or find* or search* or seek*)).tw.
133	or/127-132
134	Computer literacy/ use ppez
135	Computer literacy/ use psyh
136	Computer training/ use psyh
137	(computer adj2 (skill* or literate or literacy)).tw.
138	(information technolog* adj2 skill*).tw.
139	IT skill*.tw.
140	or/134-139
141	Supported employment/ use emczd
142	Supported employment/ use psyh
143	Employment, supported/ use ppez
144	((supported or program* or placement*) adj2 (work or employment)).tw.
145	or/141-144

#	Searches
146	Sheltered workshop/ use emczd
147	Sheltered workshops/ use ppez
148	Sheltered workshops/ use psyh
149	((protected or sheltered) adj2 workshop*).tw.
150	(recover* adj2 college*).tw.
151	(transition* adj2 employment).tw.
152	or/146-151
153	*Community participation/ use emczd
154	Community participation/ use ppez
155	*Community involvement/ use psyh
156	((communit* or education* or employment or voluntary or volunteer or volunteering) adj2 opportunit*).tw.
157	social participation/ use emczd
158	social participation/ use ppez
159	*social interaction/ use emczd
160	*social interaction/ use psyh
161	(social adj2 (participat* or involve* or engage*)).tw.
162	(participatory adj2 (art or arts)).tw.
163	or/153-162
164	53 or 56 or 64 or 67 or 78 or 84 or 91 or 100 or 104 or 120 or 126 or 133 or 140 or 145 or 152 or 163
165	25 and 38 and 164
166	limit 165 to (yr="1990 - current" and english language)
167	Letter/ use ppez
168	letter.pt. or letter/ use emczd
169	note.pt.
170	editorial.pt.
171	Editorial/ use ppez
172	News/ use ppez
173	news media/ use psyh
174	exp Historical Article/ use ppez
175	Anecdotes as Topic/ use ppez
176	Comment/ use ppez
177	Case Report/ use ppez
178	case report/ or case study/ use emczd
179	Case report/ use psyh
180	(letter or comment*).ti.
181	or/167-180
182	randomized controlled trial/ use ppez
183	randomized controlled trial/ use emczd
184	random*.ti,ab.
185	cohort studies/ use ppez
186	cohort analysis/ use emczd
187	cohort analysis/ use psyh
188	case-control studies/ use ppez
189	case control study/ use emczd
190	or/182-189
191	181 not 190
192	animals/ not humans/ use ppez
193	animal/ not human/ use emczd
194	nonhuman/ use emczd
195	"primates (nonhuman)"/
196	exp Animals, Laboratory/ use ppez
197	exp Animal Experimentation/ use ppez

#	Searches
198	exp Animal Experiment/ use emczd
199	exp Experimental Animal/ use emczd
200	animal research/ use psyh
201	exp Models, Animal/ use ppez
202	animal model/ use emczd
203	animal models/ use psyh
204	exp Rodentia/ use ppez
205	exp Rodent/ use emczd
206	rodents/ use psyh
207	(rat or rats or mouse or mice).ti.
208	or/191-207
209	166 not 208
210	limit 209 to yr="1990 -1998"
211	limit 209 to yr="1999 -2006"
212	limit 209 to yr="2007 -2013"
213	limit 209 to yr="2014 -current"
214	remove duplicates from 210
215	remove duplicates from 211
216	remove duplicates from 212
217	remove duplicates from 213
218	214 or 215 or 216 or 217

Database: Cochrane Library

Date searched: 09/01/2019

#	Searches
1	MeSH descriptor: [Psychotic Disorders] explode all trees
2	(psychos?s or psychotic):ti,ab,kw
3	MeSH descriptor: [Schizophrenia] explode all trees
4	(schizophren* or schizoaffective*):ti,ab,kw
5	MeSH descriptor: [Bipolar Disorder] explode all trees
6	(((bipolar or bipolar type) near/2 (disorder* or disease or spectrum))):ti,ab,kw
7	MeSH descriptor: [Delusions] this term only
8	((delusion* near/3 (disorder* or disease))):ti,ab,kw
9	MeSH descriptor: [Mental Disorders] this term only
10	((psychiatric near/2 (illness* or disease* or disorder* or disabilit* or problem*))):ti,ab,kw
11	(((severe or serious) near/3 (mental adj2 (illness* or disease* or disorder* or disabilit* or problem*))):ti,ab,kw
12	((complex near/2 (mental adj2 (illness* or disease* or disorder* or disabilit* or problem*))):ti,ab,kw
13	(#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12)
14	MeSH descriptor: [Rehabilitation] this term only
15	MeSH descriptor: [Rehabilitation, Vocational] this term only
16	MeSH descriptor: [Residential Facilities] this term only
17	MeSH descriptor: [Assisted Living Facilities] this term only
18	MeSH descriptor: [Halfway Houses] this term only
19	((resident* near (care or centre or center))):ti,ab,kw
20	(((inpatient or in-patient or long-stay) near/3 (psychiatric or mental health))):ti,ab,kw
21	(((Support*) near (hous* or accommodat* or living))):ti,ab,kw
22	((halfway house* or assist* living)):ti,ab,kw
23	(rehabilitation or rehabilitative or rehabilitate):ti,ab,kw

#	Searches
24	(#14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22 OR #23)
25	MeSH descriptor: [Cognitive Therapy] this term only
26	(cognitive behavio?r therap*):ti,ab,kw
27	MeSH descriptor: [Cognitive Remediation] this term only
28	(cognitive remediation):ti,ab,kw
29	MeSH descriptor: [Motivational Interviewing] this term only
30	(motivation* interview*):ti,ab,kw
31	(behavio?r* activation):ti,ab,kw
32	((psychosocial or psychological) near/2 (care or intervention* or therap* or treat* or rehabilitat*)):ti,ab,kw
33	MeSH descriptor: [Occupational Therapy] this term only
34	(Occupational near/2 therap*):ti,ab,kw
35	MeSH descriptor: [Exercise] this term only
36	(exercise or gym* or fitness*):ti,ab,kw
37	((team* or group*) near/2 sport):ti,ab,kw
38	(physical near/2 (activit* or therap*)):ti,ab,kw
39	MeSH descriptor: [Environment] this term only
40	((alter or alterate or alteration* or modification* or modify or adjust* or adapt*) near/3 (equipment* or environment*)):ti,ab,kw
41	MeSH descriptor: [Leisure Activities] explode all trees
42	MeSH descriptor: [Recreation Therapy] this term only
43	(structure* near/2 activit*):ti,ab,kw
44	((recreation* or leisure* or domestic) near/2 Activit*):ti,ab,kw
45	(meaningful near/2 occupation):ti,ab,kw
46	MeSH descriptor: [Social Skills] this term only
47	((group or interperson* or inter person*) near/2 skill*):ti,ab,kw
48	(Social near/3 (skill* or competen* or abilit*)):ti,ab,kw
49	MeSH descriptor: [Horticultural Therapy] this term only
50	(ecotherapy or eco therapy or nature therapy or ecological therapy):ti,ab,kw
51	(horticultur* near/3 therap*):ti,ab,kw
52	(morita therap*):ti,ab,kw
53	MeSH descriptor: [Mindfulness] this term only
54	(Mindfulness):ti,ab,kw
55	MeSH descriptor: [Family Therapy] this term only
56	(psychoeducat*):ti,ab,kw
57	(Family near/2 (therap* or intervention* or psychiatry or psychotherap* or treat*)):ti,ab,kw
58	MeSH descriptor: [Social Support] explode all trees
59	(Peer near/2 support*):ti,ab,kw
60	(peer-to-peer near/2 support*):ti,ab,kw
61	MeSH descriptor: [Art Therapy] this term only
62	MeSH descriptor: [Music Therapy] this term only
63	MeSH descriptor: [Animal Assisted Therapy] explode all trees
64	(Clubhouse* or club house*):ti,ab,kw
65	((pet* or animal*) near/2 therap*):ti,ab,kw
66	((group or team) near/2 (activit* or game* or skill*)):ti,ab,kw
67	((positive behavio?r*) near/2 (intervention* or support*)):ti,ab,kw
68	MeSH descriptor: [Vocational Education] this term only
69	MeSH descriptor: [Rehabilitation, Vocational] this term only
70	MeSH descriptor: [Job Application] this term only
71	(job near/3 (hunt* or find* or search* or seek*)):ti,ab,kw
72	MeSH descriptor: [Computer Literacy] this term only
73	(computer near/2 (skill* or literate or literacy)):ti,ab,kw
74	(information technolog* near/2 skill*):ti,ab,kw
75	(IT skill*):ti,ab,kw

#	Searches
76	MeSH descriptor: [Employment, Supported] this term only
77	MeSH descriptor: [Sheltered Workshops] this term only
78	(recover* near/2 college*):ti,ab,kw
79	(vocation* near/2 (school* or train* or educat* or rehab* or resource* or support*)):ti,ab,kw
80	((supported or program* or placement*) near/2 (work or employment)):ti,ab,kw
81	((protected or sheltered) near/2 workshop):ti,ab,kw
82	(transition* near/2 employment):ti,ab,kw
83	MeSH descriptor: [Community Participation] this term only
84	((communit* or education* or employment or voluntary or volunteer or volunteering) near/2 opportunit*):ti,ab,kw
85	MeSH descriptor: [Social Participation] this term only
86	(social near/2 (participat* or involve* or engage*)):ti,ab,kw
87	(participatory near/2 (art or arts)):ti,ab,kw
88	(#24 OR #25 OR #26 OR #27 OR #28 OR #29 OR #30 OR #31 OR #32 OR #33 OR #34 OR #35 OR #36 OR #37 OR #38 OR #39 OR #40 OR #41 OR #42 OR #43 OR #44 OR #45 OR #46 OR #47 OR #48 OR #49 OR #50 OR #51 OR #52 OR #53 OR #54 OR #55 OR #56 OR #57 #58 OR #59 OR #60 OR #61 OR #62 OR #63 OR #64 OR #65 OR #66 OR #67 OR #68 OR #69 OR #70 OR #71 OR #72 OR #73 OR #74 OR #75 OR #76 #77 OR #78 OR #79 OR #80 OR #81 OR #82 #83 OR #84 OR #85 OR #86 OR #87)
89	#13 and #24 and #88 with Cochrane Library publication date Between Jan 1990 and Jan 2019

Database: CRD

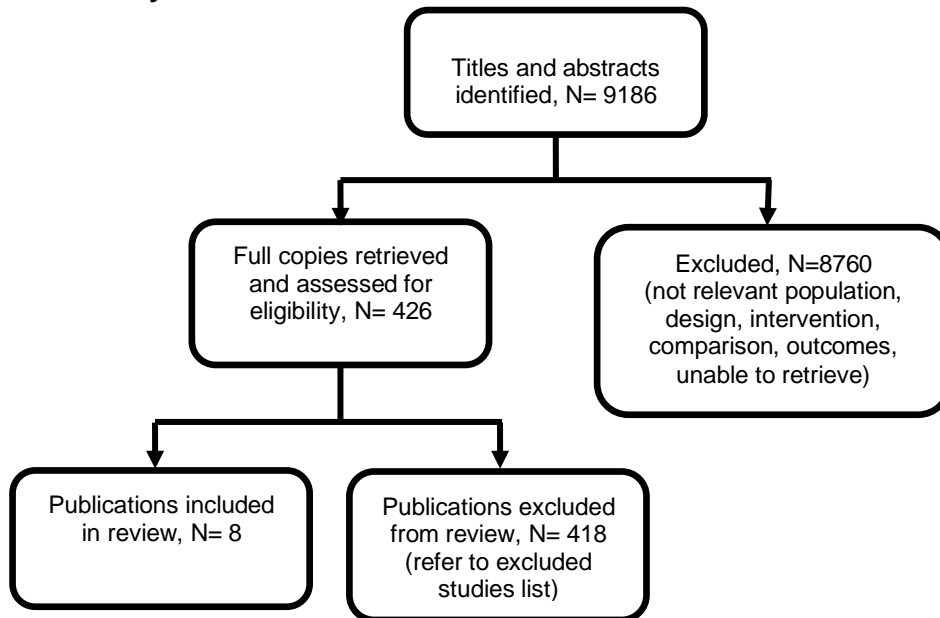
Date searched: 09/01/2019

#	Searches
1	MeSH DESCRIPTOR Psychotic Disorders EXPLODE ALL TREES IN DARE,HTA
2	(psychos*s or psychotic) IN DARE, HTA
3	MeSH DESCRIPTOR Schizophrenia EXPLODE ALL TREES IN DARE,HTA
4	(schizophren* or schizoaffective*) IN DARE, HTA
5	MeSH DESCRIPTOR Bipolar Disorder EXPLODE ALL TREES IN DARE,HTA
6	((bipolar or bipolar type) NEAR2 (disorder* or disease or spectrum))) IN DARE, HTA
7	MeSH DESCRIPTOR Delusions IN DARE,HTA
8	(delusion* NEAR3 (disorder* or disease)) IN DARE, HTA
9	MeSH DESCRIPTOR Mental Disorders IN DARE,HTA
10	(psychiatric NEAR2 (illness* or disease* or disorder* or disabilit* or problem*)) IN DARE, HTA
11	((severe or serious) NEAR3 (mental NEAR2 (illness* or disease* or disorder* or disabilit* or problem*))) IN DARE, HTA
12	(complex NEAR2 (mental NEAR2 (illness* or disease* or disorder* or disabilit* or problem*))) IN DARE, HTA
13	#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12
14	MeSH DESCRIPTOR Rehabilitation IN DARE,HTA
15	MeSH DESCRIPTOR Rehabilitation, Vocational IN DARE,HTA
16	MeSH DESCRIPTOR Residential Facilities IN DARE,HTA
17	MeSH DESCRIPTOR Assisted Living Facilities IN DARE,HTA
18	MeSH DESCRIPTOR Halfway Houses IN DARE,HTA
19	(resident* NEAR (care or centre or center)) IN DARE, HTA
20	((inpatient or in-patient or long-stay) NEAR3 (psychiatric or mental health)) IN DARE, HTA
21	((Support*) NEAR (hous* or accommodat* or living)) IN DARE, HTA
22	(halfway house* or assist* living) IN DARE, HTA
23	(rehabilitation or rehabilitative or rehabilitate) IN DARE, HTA
24	#14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22 OR #23
25	#13 AND #24

Appendix C – Clinical evidence study selection

Clinical study selection for: What interventions specific to rehabilitation are effective for people with complex psychosis and related severe mental health conditions to improve their inter-personal functioning?

Figure 1: Study selection flow chart



Appendix D – Clinical evidence tables

Clinical evidence tables for review question 5.2: What interventions specific to rehabilitation are effective for people with complex psychosis and related severe mental health conditions to improve their inter-personal functioning?

Table 4: Clinical evidence tables for interventions to improve inter-personal functioning

Study details	Participants	Interventions	Outcomes and Results	Comments
<p>Full citation</p> <p>Bartels, S. J., Pratt, S. I., Mueser, K. T., Forester, B. P., Wolfe, R., Cather, C., Xie, H., McHugo, G. J., Bird, B., Aschbrenner, K. A., et al., Long-term outcomes of a randomized trial of integrated skills training and preventive healthcare for older adults with serious mental illness, American Journal of Geriatric Psychiatry, 22, 1251-1261, 2014</p> <p>Ref Id</p> <p>893619</p> <p>Country/ies where the study was carried out</p> <p>USA</p>	<p>Sample size</p> <p>183</p> <p>Characteristics</p> <p>Diagnosis: 28% schizophrenia, 28% schizoaffective disorder, 20% bipolar disorder, 24% major depression. Setting: community dwelling adults. Mean age: 60.2 years.</p> <p>Inclusion criteria</p> <p>Community-dwelling adults with serious mental illness age 50 or older recruited from two community mental health agencies in Boston, Massachusetts, and one in Nashua, New Hampshire.</p> <p>Exclusion criteria</p> <p>Exclusion criteria were residence in a nursing home or other institutional setting, primary diagnosis of</p>	<p>Interventions</p> <p>Intervention: Psychosocial skills training. The HOPES intervention: a psychosocial intervention comprised of 12 months of weekly skills training classes, twice-monthly community practice trips, and monthly nurse preventive healthcare visits, followed by a 1-year maintenance phase of monthly sessions. HOPES social rehabilitation curriculum, based on social skills training, is manualized and organized into seven modules: Communicating Effectively, Making and Keeping Friends, Making the Most of Leisure Time, Healthy Living, Using Medications Effectively, Living Independently in the</p>	<p>Results</p> <p>Follow-up 36 months</p> <p>Activities of daily living: Independent Living Skills Scale (ILSS) - Global Engagement in community: Multnomah Community Ability Scale (MCAS) total Social skills: Social Behavior Schedule (SBS) total Quality of life: SF-36 Physical Component total Readmission/relapse: acute psychiatric hospitalization</p>	<p>Limitations</p> <p>Random sequence generation: unclear risk; stratified block randomization performed with details of random sequence generation within the blocks not described in detail</p> <p>Allocation concealment: unclear risk, allocation concealment not described</p> <p>Blinding of participants and personnel: unclear risk; participants were suggested not to reveal their intervention status to the assessors but blinding of participants not described</p> <p>Blinding of outcome assessment: low risk; blinding for baseline and follow up assessments</p>

Study details	Participants	Interventions	Outcomes and Results	Comments
<p>Study type</p> <p>RCT</p> <p>Aim of the study</p> <p>To report 1-, 2-, and 3-year outcomes of a combined psychosocial skills training and preventive health care intervention (Helping Older People Experience Success [HOPES]) for older persons with serious mental illness, compared with treatment as usual (TAU)</p> <p>Study dates</p> <p>Not reported (grant funding ran from 2001 to 2007)</p> <p>Source of funding</p> <p>Grant from the National Institute of Mental Health (R01 MH62324).</p>	<p>dementia or significant cognitive impairment as indicated by a Mini Mental Status Exam score less than 20, 21 physical illness expected to cause death within 1 year, or current substance dependence.</p>	<p>Community, and Making the Most of a Health Care Visit.</p> <p>Comparison: Treatment as usual (TAU). Participants in both groups continued to receive the same services they had been receiving before the study. Routine mental health services at all sites included pharmacotherapy, case management, or outreach by non-nurse clinicians; individual therapy; and access to rehabilitation services, such as groups and psychoeducation.</p>		<p>Attrition bias: low risk for all outcomes; comparable retention rates (87/93, 73/93 and 64/93 for intervention and 82/90, 76/90, 65/90 for treatment as usual at 1,2,3 year follow up) with reasons for drop out described</p> <p>Selective reporting: low risk; all outcomes reported in sufficient detail for analysis</p> <p>Other bias: low risk</p>
<p>Full citation</p> <p>Bitter, N., Roeg, D., van Assen, M., van Nieuwenhuizen, C., van Weeghel, J., How</p>	<p>Sample size</p> <p>263</p> <p>Characteristics</p>	<p>Interventions</p> <p>Intervention: staff training in CARE methodology. The CARE methodology consists of six steps: Building a</p>	<p>Results</p> <p>Follow-up 20 months</p> <p>Interpersonal functioning: Social</p>	<p>Limitations</p> <p>Random sequence generation (selection bias) Unclear risk Allocation concealment (selection bias) Unclear risk</p>

Study details	Participants	Interventions	Outcomes and Results	Comments
<p>effective is the comprehensive approach to rehabilitation (CARE) methodology? A cluster randomized controlled trial, BMC Psychiatry, 17, 396, 2017</p> <p>Ref Id</p> <p>934266</p> <p>Country/ies where the study was carried out</p> <p>Netherlands</p> <p>Study type</p> <p>RCT (cluster)</p> <p>Aim of the study</p> <p>To investigate the effectiveness of the CARE methodology for people with severe mental illness on their quality of life, personal recovery, participation, hope, empowerment, self-efficacy beliefs and unmet needs.</p> <p>Study dates</p> <p>2012-2013 recruitment. Follow-up was an additional 20 months</p>	<p>Diagnosis: severe mental illness. Setting: sheltered/supportive housing organizations. Mean age 50 years; 65% male; 85% native born.</p> <p>Inclusion criteria</p> <p>Each participating organization was asked to make a selection of possible teams suitable for this study, teams in which (most of) the workers did not receive training in a rehabilitation method before or in which the use of rehabilitation principles were downgraded due to, for example, turnover of staff or poor implementation. Participants had to be at least 18 years of age and with severe mental illness.</p> <p>Exclusion criteria</p> <p>Teams that were trained completely in the CARE methodology were excluded from this study. Participants with insufficient knowledge of the Dutch language to fill in the questionnaire or who were unable to give informed consent or to participate in the study due to cognitive impairment or clinical symptoms were excluded</p>	<p>relationship with the client, Drawing up a 'strengths assessment', Helping the client to formulate his/her wishes and goals, Helping the client to make a 'recovery worksheet', Helping the client to execute the recovery worksheet and Adjusting the recovery worksheet</p> <p>Comparison: treatment as usual.</p>	<p>Functioning Scale (SFS) Quality of life: Manchester Short Appraisal (MANSA)</p>	<p>Blinding of participants and personnel (performance bias) High risk Blinding of outcome assessment (detection bias) High risk Incomplete outcome data (attrition bias) High risk (attrition rate - 32%) Selective reporting (reporting bias) Low risk Other bias Low risk</p>

Study details	Participants	Interventions	Outcomes and Results	Comments
<p>Source of funding</p> <p>Funded by five organizations (Kwintes, RIBW Arnhem and Veluwevallei, RIBW Fonteyenburg, RIBW K/AM and RIBW Gooi- and Vechtstreek (organisations for sheltered living) and Fonds Storm Rehabilitatie) for sheltered and supportive housing and Storm Rehabilitation.</p>				
<p>Full citation</p> <p>Bradshaw, W., Integrating cognitive-behavioral psychotherapy for persons with schizophrenia into a psychiatric rehabilitation program: results of a three year trial, Community mental health journal, 36, 491-500, 2000</p> <p>Ref Id</p> <p>950391</p> <p>Country/ies where the study was carried out</p>	<p>Sample size</p> <p>24</p> <p>Characteristics</p> <p>Diagnosis: schizophrenia 100%. Setting: community outpatient rehabilitation unit.</p> <p>Inclusion criteria</p> <p>Diagnosis: schizophrenia (DSM-IV criteria), age 18 to 60 years</p> <p>Exclusion criteria</p> <p>Learning disability, organic brain syndrome or primary diagnosis of substance abuse.</p>	<p>Interventions</p> <p>Intervention: CBT + outpatient rehabilitation. Rehab included social skills training, independent living skills training, goal groups, OT and recreational therapy.</p> <p>Comparison: outpatient rehabilitation</p>	<p>Results</p> <p>Follow-up 36 months</p> <p>Interpersonal functioning: Role functioning Scale (RFS)</p>	<p>Limitations</p> <p>Random sequence generation (selection bias) Unclear risk Allocation concealment (selection bias) Unclear risk Blinding of participants and personnel (performance bias) Unclear risk Blinding of outcome assessment (detection bias) Unclear risk Incomplete outcome data (attrition bias) High risk (38% lost to follow-up) Selective reporting (reporting bias) Unclear risk Other bias Low risk</p>

Study details	Participants	Interventions	Outcomes and Results	Comments
<p>USA</p> <p>Study type</p> <p>RCT</p> <p>Aim of the study</p> <p>To comp</p> <p>Study dates</p> <p>Not reported</p> <p>Source of funding</p> <p>Not reported</p>				
<p>Full citation</p> <p>Cavallaro, R., Anselmetti, S., Poletti, S., Bechi, M., Ermoli, E., Cocchi, F., Stratta, P., Vita, A., Rossi, A., Smeraldi, E., Computer-aided neurocognitive remediation as an enhancing strategy for schizophrenia rehabilitation, <i>Psychiatry Research</i>, 169, 191-196, 2009</p> <p>Ref Id</p> <p>893895</p>	<p>Sample size</p> <p>N=86</p> <p>Characteristics</p> <p>Diagnosis: schizophrenia 100%. Setting: outpatient long term rehabilitation unit.</p> <p>Computer aided neurocognitive remediation +Standard rehabilitation treatment (n=50): Age, Mean(SD): 33.2(9.5) years; Duration of illness, Mean(SD): 8.28(6.7) years</p> <p>Placebo + Standard rehabilitation treatment (n=36): Age, Mean(SD): 34.2(6.8) years; Duration of illness, Mean(SD): 8.08(5.1) years</p>	<p>Interventions</p> <p>Intervention: Cognitive remediation +Standard rehabilitation: 3 sessions of 1 hour each per week of domain-specific computer aided exercises for 12 weeks (Total 36 hours) . "Sets of exercises were individually created for each patient on the basis of the quality of baseline performances at neuropsychological assessment". p.93</p> <p>Comparison: Attention control + Standard rehabilitation treatment : 2 extra sessions of standard rehabilitation therapy and 1</p>	<p>Results</p> <p>Follow-up 3 months</p> <p>Interpersonal functioning: Quality of Life Scale (QLS) interpersonal relations subscale</p>	<p>Limitations</p> <p>Random sequence generation (selection bias) Low risk Allocation concealment (selection bias) Low risk Blinding of participants and personnel (performance bias) High risk Blinding of outcome assessment (detection bias) Low risk Incomplete outcome data (attrition bias) Low risk Selective reporting (reporting bias) Low risk</p> <p>Other bias Low risk</p>

Study details	Participants	Interventions	Outcomes and Results	Comments
<p>Country/ies where the study was carried out</p> <p>Italy</p> <p>Study type</p> <p>Randomised controlled trial</p> <p>Aim of the study</p> <p>To study whether cognitive remediation therapy enhances the effectiveness of a standard rehabilitation programme for people with schizophrenia</p> <p>Study dates</p> <p>Not reported</p> <p>Source of funding</p> <p>The study was funded by the by the Italian Ministry of University and Scientific Research grant.</p>	<p>Inclusion criteria</p> <p>1) DSM IV criteria for Schizophrenia</p> <p>2) Receiving and responsive to the same antipsychotic regimen for at least last 6 months</p> <p>3) Participation in a rehabilitation programme with cognitive behavioural and psychosocial programmes for 3 hours/day, 3 times/week for 3 months</p> <p>Exclusion criteria</p> <p>1) Substance dependence/abuse</p> <p>2) Comorbid diagnosis on Axis I or II</p> <p>3) Epilepsy or other major neurological illness</p> <p>4) Mental retardation</p>	<p>hour of computer aided non domain specific activity per week for 12 weeks (Total 36 hours).</p>		
<p>Full citation</p> <p>Crawford, M. J., Killaspy, H., Barnes, T. R., Barrett, B., Byford, S., Clayton, K., Dinsmore, J., Floyd, S., Hoadley,</p>	<p>Sample size</p> <p>N=417</p> <p>Characteristics</p>	<p>Interventions</p> <p>Intervention: Group art therapy</p> <p>Intervention: Activity groups - participants were</p>	<p>Results</p> <p>Follow-up 24 months</p> <p>Interpersonal functioning: social function questionnaire</p>	<p>Limitations</p> <p>Random sequence generation (selection bias) Low risk</p> <p>Allocation concealment (selection bias) Low risk</p> <p>Blinding of participants and</p>

Study details	Participants	Interventions	Outcomes and Results	Comments
<p>A., Johnson, T., Kalaitzaki, E., King, M., Leurent, B., Maratos, A., O'Neill, F. A., Osborn, D. P., Patterson, S., Soteriou, T., Tyrer, P., Waller, D., Matisse project team, Group art therapy as an adjunctive treatment for people with schizophrenia: multicentre pragmatic randomised trial, <i>BMJ</i>, 344, e846, 2012</p> <p>Ref Id</p> <p>906528</p> <p>Country/ies where the study was carried out</p> <p>UK</p> <p>Study type</p> <p>RCT</p> <p>Aim of the study</p> <p>To evaluate the clinical effectiveness of group art therapy for people with schizophrenia and to test whether any benefits exceed those of an active control treatment.</p>	<p>Diagnosis: schizophrenia 100%. Setting: inpatient units, day hospitals, community mental health teams, rehabilitation services, supported accommodation and day centres. Mean age 41 years. 67% male.</p> <p>Inclusion criteria</p> <p>Age 18 years or over and a clinical diagnosis of schizophrenia, confirmed by an examination of case notes using operationalised criteria. Participants were recruited from secondary care settings including inpatient units, day hospitals, community mental health teams, rehabilitation services, supported accommodation and day centres.</p> <p>Exclusion criteria</p> <p>Already receiving Art Therapy or another arts therapy (Music Therapy, Drama Therapy, or Dance/Movement Therapy), severe cognitive impairment, inability to speak sufficient English to complete the assessments.</p>	<p>encouraged to agree activities collectively; these included playing board games, watching and discussing DVDs, and visiting local cafes</p> <p>Comparison: Treatment as usual</p>		<p>personnel (performance bias) High risk Blinding of outcome assessment (detection bias) Low risk Incomplete outcome data (attrition bias) Low risk (<15% lost to follow-up or dropped out) Selective reporting (reporting bias) Low risk Other bias Low risk</p>

Study details	Participants	Interventions	Outcomes and Results	Comments
<p>Study dates</p> <p>2007 -2008 (recruitment) then 24 months follow-up.</p> <p>Source of funding</p> <p>Funded by the National Institute for Health Research Health Technology Assessment programme (project No 04/39/04) and received financial support from Avon and Wiltshire Mental Health Partnership NHS Trust, Belfast Health and Social Care Trust, Camden and Islington NHS Foundation Trust, and Central and North West London NHS Foundation Trust.</p>				
<p>Full citation</p> <p>Gil Sanz, D., Diego Lorenzo, M., Bengochea Seco, R., Arrieta Rodríguez, M., Lastra Martínez, I., Sánchez Calleja, R., Alvarez Soltero, A., Efficacy of a social cognition training program for</p>	<p>Sample size</p> <p>14</p> <p>Characteristics</p> <p>Diagnosis: schizophrenia 100%. Setting: outpatient rehabilitation centre. mean age 35 years; 50% male.</p> <p>Inclusion criteria</p>	<p>Interventions</p> <p>Intervention: cognitive remediation (computerised social cognition training) plus standard rehabilitation program. Standard rehab was individualized and included diverse training depending on specific needs.</p>	<p>Results</p> <p>Follow-up 2.5 months Interpersonal functioning: WHODAS-II capacity to relate to others</p>	<p>Limitations</p> <p>Random sequence generation (selection bias) Unclear risk Allocation concealment (selection bias) Unclear risk Blinding of participants and personnel (performance bias) Unclear risk Blinding of outcome assessment (detection bias)</p>

Study details	Participants	Interventions	Outcomes and Results	Comments
<p>schizophrenic patients: a pilot study, Spanish journal of psychology, 12, 184-191, 2009</p> <p>Ref Id</p> <p>951947</p> <p>Country/ies where the study was carried out</p> <p>Spain</p> <p>Study type</p> <p>RCT</p> <p>Aim of the study</p> <p>To assess the efficacy of the Social Cognition Training Program, a program that includes emotion recognition training and social perception training.</p> <p>Study dates</p> <p>Not reported</p> <p>Source of funding</p> <p>Not reported</p>	<p>Diagnosis: schizophrenia according to the CIE-10 criteria, referred to an outpatient rehabilitation centre, on pharmacological treatment with antipsychotics at the time of the study.</p> <p>Exclusion criteria</p> <p>Not reported</p>	<p>Comparison: standard rehabilitation program.</p>		<p>Unclear risk</p> <p>Incomplete outcome data (attrition bias) Low risk</p> <p>Selective reporting (reporting bias) Low risk</p> <p>Other bias Low risk</p>
<p>Full citation</p> <p>Kurtz, M. M., Mueser, K. T., Thime, W. R.,</p>	<p>Sample size</p> <p>64</p>	<p>Interventions</p>	<p>Results</p> <p>Follow-up 6 months</p>	<p>Limitations</p> <p>Random sequence generation (selection bias) unclear risk</p>

Study details	Participants	Interventions	Outcomes and Results	Comments
<p>Corbera, S., Wexler, B. E., Social skills training and computer-assisted cognitive remediation in schizophrenia, Schizophrenia Research, 162, 35-41, 2015</p> <p>Ref Id</p> <p>907959</p> <p>Country/ies where the study was carried out</p> <p>USA</p> <p>Study type</p> <p>RCT</p> <p>Aim of the study</p> <p>To evaluate the effects of computer-assisted COG REM targeting specific domains of cognitive functioning compared to an active control condition of instruction in computer skills (Computer Skills), with participants in both programs also receiving standardized social skills training (SST).</p> <p>Study dates</p> <p>2007 - 2013</p>	<p>Characteristics</p> <p>Diagnosis: schizophrenia or schizoaffective disorder 100%. Setting: intensive outpatient rehabilitation program. Mean age 36 years; 73% male.</p> <p>Inclusion criteria</p> <p>Diagnosis: schizophrenia or schizoaffective disorder, as confirmed by the Structured Clinical Interview for DSM-IV, and expressed desire to improve work or social functioning.</p> <p>Exclusion criteria</p> <p>Uncorrected auditory or visual impairment, intellectual disability as evidenced by a documented history of services, traumatic brain injury with a sustained loss of consciousness, presence or history of any neurologic illness, lack of proficiency in English, or current substance abuse or dependence.</p>	<p>Intervention: Cognitive remediation + social skills training</p> <p>Comparison: Attention control + social skills training</p>	<p>Interpersonal functioning: Quality of Life Scale - Brief (QLS-B) social interaction item</p>	<p>Allocation concealment (selection bias) unclear risk Blinding of participants and personnel (performance bias) Unclear risk Blinding of outcome assessment (detection bias) Low risk Incomplete outcome data (attrition bias) Unclear risk (13% lost to follow-up) Selective reporting (reporting bias) Low risk Other bias Low risk</p>

Study details	Participants	Interventions	Outcomes and Results	Comments
<p>Source of funding</p> <p>Supported by grant K08 MH-69888 from the National Institute of Mental Health (NIMH), a Young Investigator Award from the National Alliance for Research on Schizophrenia and Depression (NARSAD) and gifts from the Spencer T. and Anne W. Olin Foundation to the Institute of Living, Hartford Hospital's Mental Health Network.</p>				
<p>Full citation</p> <p>Volpe, U., Torre, F., De Santis, V., Perris, F., Catapano, F., Reading group rehabilitation for patients with psychosis: a randomized controlled study, <i>Clinical psychology & psychotherapy</i>, 22, 15-21, 2015</p> <p>Ref Id</p> <p>951199</p> <p>Country/ies where the study was carried out</p>	<p>Sample size</p> <p>41</p> <p>Characteristics</p> <p>Diagnosis: schizophrenia (46%), schizoaffective disorder (39%) and bipolar disorder (15%). Setting: inpatients with severe psychosis. Mean age 43 years; 46% male.</p> <p>Inclusion criteria</p> <p>Severe and persistent mental illness which included (1.a) diagnosis of any non-organic (either affective or non-affective) psychosis, (1.b) duration of treatment longer than 2 years and (1.c) a global assessment of</p>	<p>Interventions</p> <p>Intervention: group reading program + treatment as usual. TAU included behavioural programme to increase adherence to pharmacological treatment and an expressive art laboratory, biweekly.</p> <p>Comparison: treatment as usual</p>	<p>Results</p> <p>Follow-up 6 months</p> <p>Interpersonal functioning: Personal and Social Performance Scale (PSP) total score</p>	<p>Limitations</p> <p>Random sequence generation (selection bias) Unclear risk Allocation concealment (selection bias) Low risk Blinding of participants and personnel (performance bias) Unclear risk Blinding of outcome assessment (detection bias) Unclear risk Incomplete outcome data (attrition bias) Low risk Selective reporting (reporting bias) Low risk Other bias Low risk</p>

Study details	Participants	Interventions	Outcomes and Results	Comments
<p>Italy</p> <p>Study type</p> <p>RCT</p> <p>Aim of the study</p> <p>To investigate the effects on clinical status, disability, psychosocial functioning and cognitive functioning of a structured group reading activity, in a sample of hospitalized patients with psychosis.</p> <p>Study dates</p> <p>2012</p> <p>Source of funding</p> <p>Not reported</p>	<p>functioning (APA, 2000) score of 70 or less; (2) right-handedness, (3) age range of 18–65 years; (4) a Mini-Mental State Examination total score of ≥ 16</p> <p>Exclusion criteria</p> <p>History of head trauma with loss of consciousness, epilepsy, substance abuse or dependence in the year preceding the recruitment; educational level below 5 years</p>			
<p>Full citation</p> <p>Wykes, T., Reeder, C., Landau, S., Everitt, B., Knapp, M., Patel, A., Romeo, R., Cognitive remediation therapy in schizophrenia: randomised controlled trial, <i>British Journal of Psychiatry</i> Br J</p>	<p>Sample size</p> <p>N=85</p> <p>Characteristics</p> <p>Diagnosis: schizophrenia 100%. Setting: community mental health teams but participants severely impaired in overall functioning. Mean age 36 years; 73% male.</p> <p>Inclusion criteria</p>	<p>Interventions</p> <p>Intervention: Cognitive remediation Comparison: Treatment as usual</p>	<p>Results</p> <p>Follow-up 6 months Social skills: Social Behaviour Survey (SBS) total</p>	<p>Limitations</p> <p>Random sequence generation (selection bias) Low risk Allocation concealment (selection bias) Low risk Blinding of participants and personnel (performance bias) High risk Blinding of outcome assessment (detection bias) Low risk</p>

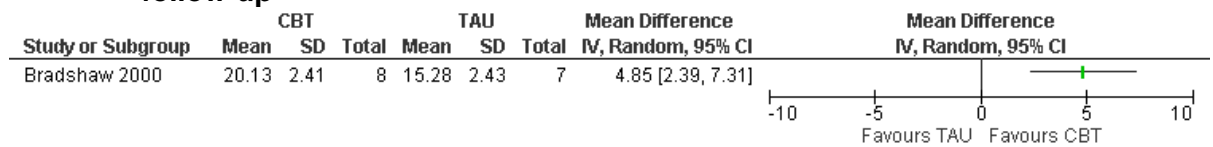
Study details	Participants	Interventions	Outcomes and Results	Comments
<p>Psychiatry, 190, 421-7, 2007</p> <p>Ref Id</p> <p>767010</p> <p>Country/ies where the study was carried out</p> <p>UK</p> <p>Study type</p> <p>RCT</p> <p>Aim of the study</p> <p>To evaluate the effectiveness of cognitive remediation therapy on cognitive difficulties experienced by people with schizophrenia</p> <p>Study dates</p> <p>Not reported</p> <p>Source of funding</p> <p>Supported by a grant from the Department of Health (RFG 757)</p>	<p>In contact with psychiatric services for at least 1 year, were at least 17 years old, had a diagnosis of schizophrenia based on DSM-IV and evidence of both social functioning and thinking difficulties.</p> <p>Exclusion criteria</p> <p>Not reported</p>			<p>Incomplete outcome data (attrition bias) Low risk</p> <p>Selective reporting (reporting bias) Low risk</p> <p>Other bias Low risk</p>

CBT: cognitive behavioural therapy; OT: occupational therapy; SD: standard deviation; WHODAS-II: World Health Organisation Disability Assessment Schedule 2.0

Appendix E – Forest plots

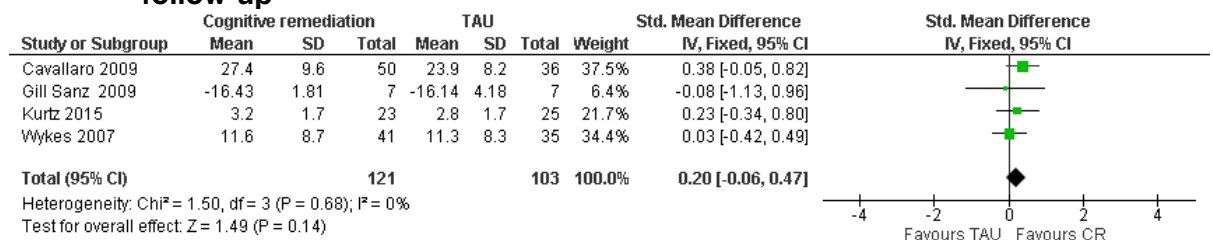
Forest plots for review question 5.2: What interventions specific to rehabilitation are effective for people with complex psychosis and related severe mental health conditions to improve their inter-personal functioning?

Figure 2: Comparison 1. CBT versus TAU. Interpersonal functioning: Role Functioning Scale (range 4 to 28; higher better) measured at 36 months follow-up



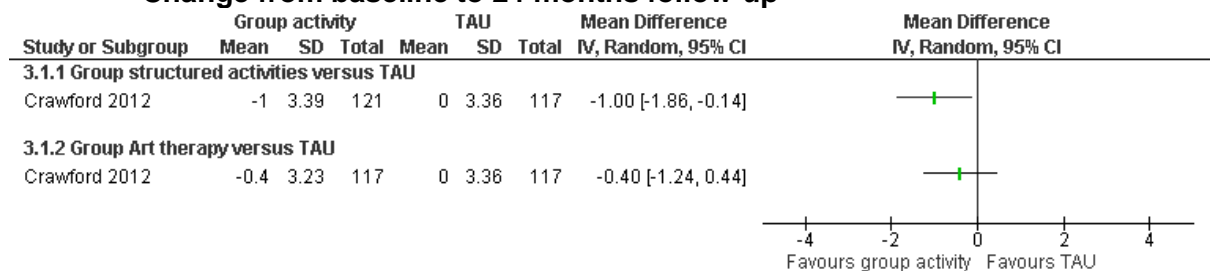
CBT, cognitive behavioural therapy; CI, confidence interval; SD, standard deviation; TAU, treatment as usual

Figure 3: Comparison 2. Cognitive remediation versus TAU. Interpersonal functioning: standardised mean difference measured at 2.5 to 6 months follow-up



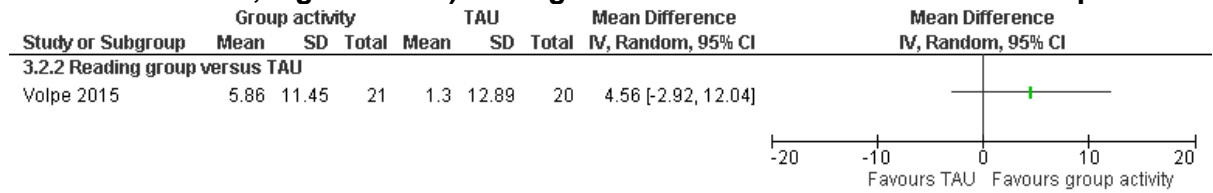
CI, confidence interval; CR, cognitive remediation; SD, standard deviation; TAU, treatment as usual

Figure 4: Comparison 3. Skills in a group setting versus TAU. Interpersonal functioning: social function questionnaire (range 0 to 24; lower better). Change from baseline to 24 months follow-up



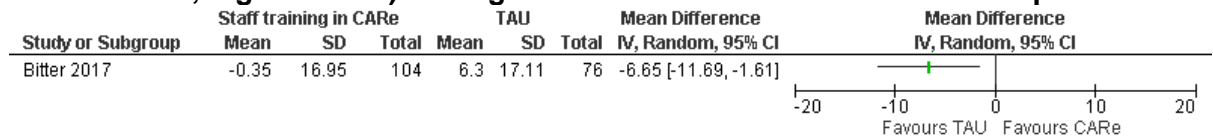
CI, confidence interval; SD, standard deviation; TAU, treatment as usual

Figure 5: Comparison 3. Skills in a group setting versus TAU. Interpersonal functioning: Personal and Social Performance Scale (PSP) total score (range 0 to 100; higher better). Change from baseline to 6 months follow-up



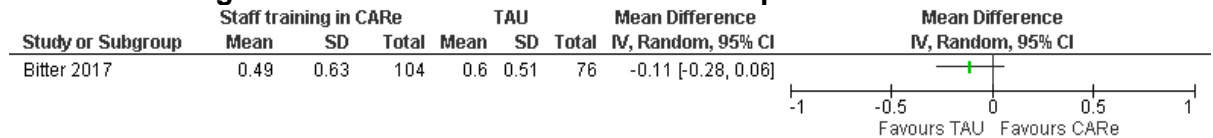
CI, confidence interval; SD, standard deviation; TAU, treatment as usual

Figure 6: Comparison 4. Staff training in CARE rehabilitation versus TAU. Interpersonal functioning: Social Functioning Scale total score (range 60 to 135; higher better). Change from baseline to 20 months follow-up



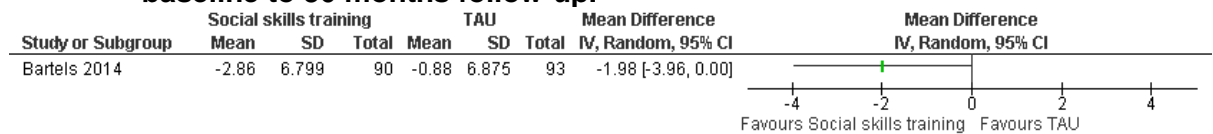
CI, confidence interval; SD, standard deviation; TAU, treatment as usual

Figure 7: Comparison 4. Staff training in CARE rehabilitation versus TAU. Quality of life: Manchester Short Appraisal (MANSA; range 1 to 7; higher better). Change from baseline to 20 months follow-up



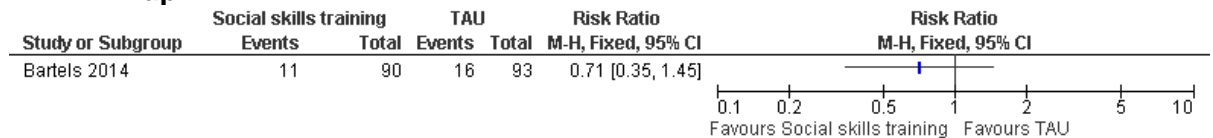
CI, confidence interval; SD, standard deviation; TAU, treatment as usual

Figure 8: Comparison 5. Social skills training versus TAU. Interpersonal functioning: Social behaviour Schedule (SBS; range 0 to 84; lower better) – change from baseline to 36 months follow-up.



CI, confidence interval; SD, standard deviation; TAU, treatment as usual

Figure 9: Comparison 5. Social skills training versus TAU. Interpersonal functioning: Relapse/readmission: acute psychiatric hospitalization at 36 months follow-up



CI, confidence interval; SD, standard deviation; TAU, treatment as usual

Appendix F – GRADE tables

GRADE tables for review question 5.2: What interventions specific to rehabilitation are effective for people with complex psychosis and related severe mental health conditions to improve their inter-personal functioning?

Table 5: Clinical evidence profile for comparison 1. Cognitive behavioural therapy (CBT) versus treatment as usual (TAU)

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	CBT	TAU	Relative (95% CI)	Absolute		
Interpersonal functioning (follow-up 36 months; measured with: Role Functioning Scale (RFS); range of scores: 4-28; Better indicated by higher values)												
1	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	8	7	-	MD 4.85 higher (2.39 to 7.31 higher)	LOW	CRITICAL

CBT: cognitive behavioural therapy; CI: confidence interval; MD: mean difference; RFS Role Functioning Scale; TAU: treatment as usual
1 Unclear risk of bias due to randomisation, allocation concealment & blinding. High risk of attrition bias.

Table 6: Clinical evidence profile for comparison 2. Cognitive remediation versus TAU

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Cognitive remediation therapy	TAU	Relative (95% CI)	Absolute		
Interpersonal functioning (social skills) (follow-up 2.5 to 6 months; measured with: Standardised scale; Better indicated by higher values)												
4	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	121	103	-	SMD 0.2 higher (0.06 lower to 0.47 higher)	MODERATE	CRITICAL

CI: confidence interval; SMD: standardised mean difference; TAU: treatment as usual
1 High or unclear risk of bias due to lack of blinding.

Table 7: Clinical evidence profile for comparison 3. Skills in a group setting versus TAU

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Skills in a group setting	TAU	Relative (95% CI)	Absolute		
Interpersonal functioning: Group structured activities versus TAU (follow-up 24 months; measured with: Social Function Questionnaire - change from baseline ; range of scores: 0-24; Better indicated by lower values)												
1	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	121	117	-	MD 1 lower (1.86 to 0.14 lower)	LOW	CRITICAL
Interpersonal functioning: Group Art therapy versus TAU (follow-up 24 months; measured with: Social Function Questionnaire - change from baseline ; range of scores: 0-24; Better indicated by lower values)												
1	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	117	117	-	MD 0.4 lower (1.24 lower to 0.44 higher)	LOW	CRITICAL
Interpersonal functioning: Reading group versus TAU (follow-up 6 months; measured with: Personal and Social Performance Scale (total score) - change from baseline ; range of scores: 0-100; Better indicated by higher values)												
1	randomised trials	serious ³	no serious inconsistency	no serious indirectness	serious ²	none	21	20	-	MD 4.56 higher (2.92 lower to 12.04 higher)	LOW	CRITICAL

CI: confidence interval; MD: mean difference; TAU: treatment as usual

1 No blinding of participants and personnel

2 95% CI includes one MID threshold

3 Unclear risk of bias due to randomisation and blinding

Table 8: Clinical evidence profile for comparison 4. Staff training in CARE rehabilitation versus TAU

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Staff training in CARE methodology	TAU	Relative (95% CI)	Absolute		
Interpersonal functioning: (follow-up 20 months; measured with: Social Functioning Scale (SFS): change from baseline; range of scores: 60-135; Better indicated by higher values)												
1	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	104	76	-	MD 6.65 lower	LOW	

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Staff training in CARE methodology	TAU	Relative (95% CI)	Absolute		
										(11.69 to 1.61 lower)		
Quality of life (follow-up 20 months; measured with: Manchester Short Appraisal (MANSA) - change from baseline; range of scores: 1-7; Better indicated by higher values)												
1	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	104	76	-	MD 0.11 lower (0.28 lower to 0.06 higher)	MODERATE	IMPORTANT

CARE: comprehensive approach to rehabilitation; CI: confidence interval; MANSA: Manchester Short Appraisal; MD: mean difference; TAU: treatment as usual; SFS: Social Functioning Scale

1 High risk of bias due to lack of blinding and high attrition rate. Unclear randomisation and allocation concealment.

2 95% CI of effect includes one MID threshold

Table 9: Clinical evidence profile comparison 5. Psychosocial skills training versus TAU

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Psycho social skills training	TAU	Relative (95% CI)	Absolute		
Interpersonal functioning (follow-up 36 months; measured with: Social Behaviour Survey (SBS): change from baseline; range of scores: 0-84; Better indicated by lower values)												
1	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	90	93	-	MD 1.98 lower (3.96 lower to 0 higher)	MODERATE	CRITICAL
Readmission/Relapse (follow-up 36 months)												
1	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	very serious ²	none	11/90 (12.2%)	16/93 (17.2%)	RR 0.71 (0.35 to 1.45)	50 fewer per 1000 (from 112 fewer to 77 more)	VERY LOW	CRITICAL

CI: confidence interval; MD: mean difference; TAU: treatment as usual; RR: relative risk; SBS: Social Behaviour Survey

1 Unclear risk of bias due to randomisation & allocation concealment & blinding of participants and personnel.

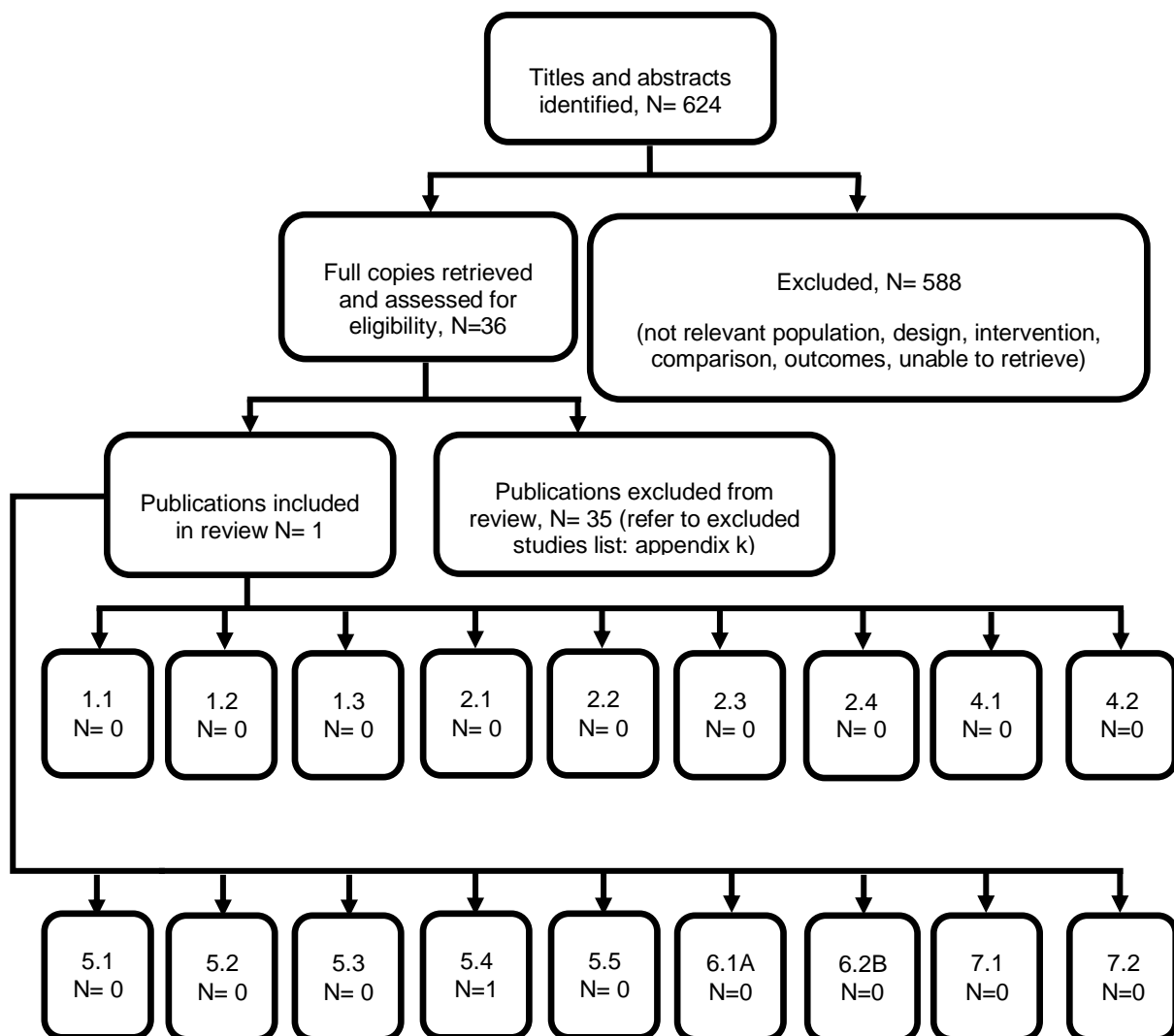
2 95% CI of effect includes 2 default MID thresholds

Appendix G – Economic evidence study selection

Economic evidence study selection for review question 5.2: What interventions specific to rehabilitation are effective for people with complex psychosis and related severe mental health conditions to improve their inter-personal functioning?

A global health economic literature search was undertaken, covering all review questions in this guideline. However, as shown in Figure 10, no evidence was identified which was applicable to review question 5.2

Figure 10: Health economic study selection flow chart



Appendix H – Economic evidence tables

Economic evidence tables for review question 5.2: What interventions specific to rehabilitation are effective for people with complex psychosis and related severe mental health conditions to improve their inter-personal functioning?

No evidence was identified which was applicable to this review question.

Appendix I – Economic evidence profiles

Economic evidence profiles for review question 5.2: What interventions specific to rehabilitation are effective for people with complex psychosis and related severe mental health conditions to improve their inter-personal functioning?

No evidence was identified which was applicable to this review question.

Appendix J – Economic analysis

Economic evidence analysis for review question 5.2: What interventions specific to rehabilitation are effective for people with complex psychosis and related severe mental health conditions to improve their inter-personal functioning?

No economic analysis was conducted for this review question.

Appendix K – Excluded studies

Excluded clinical and economic studies for review question 5.2: What interventions specific to rehabilitation are effective for people with complex psychosis and related severe mental health conditions to improve their inter-personal functioning?

Clinical studies

Table 10: Excluded studies and reasons for their exclusion

Study	Reason for Exclusion
Aasdahl, Lene, Pape, Kristine, Vasseljen, Ottar, Johnsen, Roar, Gismervik, Sigmund, Halsteinli, Vidar, Fleten, Nils, Nielsen, Claus Vinther, Fimland, Marius Steiro, Effect of inpatient multicomponent occupational rehabilitation versus less comprehensive outpatient rehabilitation on sickness absence in persons with musculoskeletal- or mental health disorders: A randomized clinical trial, <i>Journal of occupational rehabilitation</i> , 28, 170-179, 2018	Population is unclear.
Aberg-Wistedt, A., Cressell, T., Lidberg, Y., Liljeborg, B., Osby, U., Two-year outcome of team-based intensive case management for patients with schizophrenia, <i>Psychiatric Services</i> Psychiatr Serv, 46, 1263-6, 1995	Intervention not of interest for the review questions
Acil, A. A., Dogan, S., Dogan, O., The effects of physical exercises to mental state and quality of life in patients with schizophrenia, <i>Journal of Psychiatric & Mental Health Nursing</i> J Psychiatr Ment Health Nurs, 15, 808-15, 2008	It is unclear if the participants were receiving rehabilitation
Adair, C. E., Streiner, D. L., Barnhart, R., Kopp, B., Veldhuizen, S., Patterson, M., Aubry, T., Lavoie, J., Sareen, J., LeBlanc, S. R., et al., Outcome Trajectories among Homeless Individuals with Mental Disorders in a Multisite Randomised Controlled Trial of Housing First, <i>Canadian journal of psychiatry. Revue canadienne de psychiatrie</i> , 62, 30-39, 2017	Only 34% subjects had complex psychosis or related severe mental illness
Ahmed, A. O., A randomized effectiveness study of cognitive remediation for mental health and forensic patients, <i>Schizophrenia bulletin.</i> , 39, S320, 2013	Majority of the subjects are from forensic background (>50%).
Ahmed, A. O., Hunter, K. M., Goodrum, N. M., Batten, N. J., Birgenheir, D., Hardison, E., Dixon, T., Buckley, P. F., A randomized study of cognitive remediation for forensic and mental health patients with schizophrenia, <i>Journal of psychiatric research</i> , 68, 8-18, 2015	Majority subjects with forensic history.
Almerie, M. Q., Okba Al Marhi, M., Jawoosh, M., Alsabbagh, M., Matar, H. E., Maayan, N., Bergman, H., Social skills programmes for schizophrenia, <i>Cochrane Database of Systematic Reviews</i> , 2015	Systematic review, inclusion criteria does not match our protocol but checked for relevant studies.
Aloi, M., de Filippis, R., Grosso Lavallo, F., Chiappetta, E., Vigano, C., Segura-Garcia, C., De Fazio, P., Effectiveness of integrated psychological therapy on clinical, neuropsychological, emotional and functional outcome in schizophrenia: a RCT study, <i>Journal of mental health (abingdon, england)</i> , (no pagination), 2018	Outcomes not relevant. Unclear if in rehab setting
Armijo, J., Mendez, E., Morales, R., Schilling, S., Castro, A., Alvarado, R., Rojas, G., Efficacy of community treatments for	Not a systematic review

Study	Reason for Exclusion
schizophrenia and other psychotic disorders: A literature review, <i>Frontiers in Psychiatry</i> , 4 (OCT) (no pagination), 2013	
Atkinson, J. M., Coia, D. A., Gilmour, W. H., Harper, J. P., The impact of education groups for people with schizophrenia on social functioning and quality of life, <i>British journal of psychiatry</i> , 168, 199-204, 1996	Unclear whether in rehab. setting
Audini, B., Marks, I. M., Lawrence, R. E., Connolly, J., Watts, V., Home-based versus out-patient/in-patient care for people with serious mental illness. Phase II of a controlled study, <i>British Journal of Psychiatry</i> , 165, 204-10, 1994	Intervention of interest not reported
Barbic, S., Krupa, T., Armstrong, I., A randomized controlled trial of the effectiveness of a modified recovery workbook program: preliminary findings, <i>Psychiatric Services</i> , 60, 491-7, 2009	Outcomes not relevant
Battin, C., Bouvet, C., Hatala, C., A systematic review of the effectiveness of the clubhouse model, <i>Psychiatric rehabilitation journal</i> , 39, 305-312, 2016	No relevant studies in this systematic review
Bauer, M. S., McBride, L., Williford, W. O., Glick, H., Kinosian, B., Altshuler, L., Beresford, T., Kilbourne, A. M., Sajatovic, M., Cooperative Studies Program 430 Study, Team, Collaborative care for bipolar disorder: Part II. Impact on clinical outcome, function, and costs, <i>Psychiatric Services</i> , 57, 937-45, 2006	Chronic care model (including psychoeducation) versus standard care
Baumgartner, J. N., Herman, D. B., Community integration of formerly homeless men and women with severe mental illness after hospital discharge, <i>Psychiatric Services</i> , 63, 435-7, 2012	It is unclear if the subjects were receiving rehabilitation services
Bayer, W., Köster, M., Salize, H. J., Höhl, W., Machleidt, W., Wiedl, K. H., Buchkremer, G., Längle, G., Longer-term effects of inpatient vocational and ergotherapeutic measures on the vocational integration of patients with schizophrenia, <i>Psychiatrische praxis</i> , 35, 170-3; discussion 173-4, 2008	Article in German
Bechdorf, A., Knost, B., Nelson, B., Schneider, N., Veith, V., Yung, A. R., Pukrop, R., Randomized comparison of group cognitive behaviour therapy and group psychoeducation in acute patients with schizophrenia: effects on subjective quality of life, <i>Australian & New Zealand Journal of Psychiatry</i> , 44, 144-50, 2010	Only subjects from acute setting are included
Bechi, M., Bosia, M., Spangaro, M., Buonocore, M., Cocchi, F., Pignoni, A., Piantanida, M., Guglielmino, C., Bianchi, L., Smeraldi, E., et al., Combined social cognitive and neurocognitive rehabilitation strategies in schizophrenia: neuropsychological and psychopathological influences on Theory of Mind improvement, <i>Psychological Medicine</i> , 45, 3147-3157, 2015	Does not report outcomes of interest
Bechi, M., Riccaboni, R., Ali, S., Fresi, F., Buonocore, M., Bosia, M., Cocchi, F., Smeraldi, E., Cavallaro, R., Theory of mind and emotion processing training for patients with schizophrenia: Preliminary findings, <i>Psychiatry Research</i> , 198, 371-377, 2012	Does not report outcomes of interest
Bechi, M., Spangaro, M., Bosia, M., Zanoletti, A., Fresi, F., Buonocore, M., Cocchi, F., Guglielmino, C., Smeraldi, E., Cavallaro, R., Theory of Mind intervention for outpatients with schizophrenia, <i>Neuropsychological Rehabilitation</i> , 23, 383-400, 2013	Does not report outcomes of interest

Study	Reason for Exclusion
Bejerholm, U., Areberg, C., Hofgren, C., Sandlund, M., Rinaldi, M., Individual placement and support in Sweden - a randomized controlled trial, <i>Nordic journal of psychiatry</i> , 69, 57â€• 66, 2015	Follow-up of Areberg 2013 checked for relevant data
Bell, M. D., Choi, K. H., Dyer, C., Wexler, B. E., Benefits of cognitive remediation and supported employment for schizophrenia patients with poor community functioning, <i>Psychiatric services (Washington, D.C.)</i> , 65, 469â€• 475, 2014	Secondary analysis of Bell 2008. Population not complex psychosis
Bell, M. D., Laws, H., Pittman, B., Johannesen, J. K., Comparison of focused cognitive training and portable "brain-games" on functional outcomes for vocational rehabilitation participants, <i>Scientific reports</i> , 8, 1779, 2018	Population included 61 % with schizophrenia. 39% (other psychoses,not specified)
Bell, M. D., Zito, W., Greig, T., Wexler, B. E., Neurocognitive enhancement therapy with vocational services: work outcomes at two-year follow-up, <i>Schizophrenia research</i> , 105, 18â€• 29, 2008	Unclear whether in rehab setting. Unclear whether complex psychosis / severe mental health condition
Bell, M., Lysaker, P., Bryson, G., A behavioral intervention to improve work performance in schizophrenia: work behavior inventory feedback, <i>Journal of vocational rehabilitation</i> , 18, 43â€• 50, 2003	Unclear whether in rehab. settings
Beynon, Suzanne, Soares-Weiser, Karla, Woolacott, Nerys, Duffy, Steven, Geddes, John R., Psychosocial interventions for the prevention of relapse in bipolar disorder: Systematic review of controlled trials, <i>The British journal of psychiatry</i> , 192, 5-11, 2008	Systematic review, inclusion criteria does not match our protocol but checked for relevant studies.
Bio, D. S., Gattaz, W. F., Vocational rehabilitation improves cognition and negative symptoms in schizophrenia, <i>Schizophrenia Research</i> , 126, 265-269, 2011	Study conducted in Brazil
Blankertz, L., Robinson, S., Adding a vocational focus to mental health rehabilitation, <i>Psychiatric services (Washington, D.C.)</i> , 47, 1216â€• 1222, 1996	Population not relevant (not complex psychosis or related severe mental illness.)
Bond, G. R., Drake, R. E., Becker, D. R., An update on randomized controlled trials of evidence-based supported employment, <i>Psychiatric rehabilitation journal</i> , 31, 280-290, 2008	Systematic review, outdated but checked for relevant studies.
Bowie, C. R., McGurk, S. R., Mausbach, B., Patterson, T. L., Harvey, P. D., Combined cognitive remediation and functional skills training for schizophrenia: effects on cognition, functional competence, and real-world behavior, <i>American Journal of Psychiatry</i> , 169, 710â€• 718, 2012	Participants were outpatients, not in a rehabilitation setting
Bradley, G. M., Couchman, G. M., Perlesz, A., Nguyen, A. T., Singh, B., Riess, C., Multiple-family group treatment for English- and Vietnamese-speaking families living with schizophrenia, <i>Psychiatric services (Washington, D.C.)</i> , 57, 521â€• 530, 2006	Unclear whether in rehab. setting
Broderick, J., Crumlish, N., Waugh, A., Vancampfort, D., Yoga versus non-standard care for schizophrenia, <i>Cochrane Database of Systematic Reviews</i> , 9, CD012052, 2017	Systematic review, inclusion criteria does not match our protocol but checked for relevant studies.
Broderick, J., Knowles, A., Chadwick, J., Vancampfort, D., Yoga versus standard care for schizophrenia, <i>Cochrane Database of Systematic Reviews</i> , CD010554, 2015	Yoga versus standard care for schizophrenia

Study	Reason for Exclusion
Bryce, S. D., Rossell, S. L., Lee, S. J., Lawrence, R. J., Tan, E. J., Carruthers, S. P., Ponsford, J. L., Neurocognitive and Self-efficacy Benefits of Cognitive Remediation in Schizophrenia: a Randomized Controlled Trial, <i>Journal of the international neuropsychological society : JINS</i> , 14, 2018	It is unclear how many of the subjects are from rehab. settings
Bucci, P., Piegari, G., Mucci, A., Merlotti, E., Chieffi, M., De Riso, F., De Angelis, M., Di Munzio, W., Galderisi, S., Neurocognitive individualized training versus social skills individualized training: a randomized trial in patients with schizophrenia, <i>Schizophrenia research</i> , 150, 69-75, 2013	Unclear whether in rehab. setting
Buchain, P. C., Vizzotto, A. D., Henna Neto, J., Elkis, H., Randomized controlled trial of occupational therapy in patients with treatment-resistant schizophrenia, <i>Revista brasileira de psiquiatria (sao paulo, brazil : 1999)</i> , 25, 26-30, 2003	Study conducted in Brazil
Buchkremer, G., Klingberg, S., Holle, R., Schulze Mönking, H., Hornung, W. P., Psychoeducational psychotherapy for schizophrenic patients and their key relatives or care-givers: results of a 2-year follow-up, <i>Acta psychiatrica scandinavica</i> , 96, 483-491, 1997	Unclear whether in rehab. settings
Buckley, L. A., Maayan, N., Soares-Weiser, K., Adams, C. E., Supportive therapy for schizophrenia, <i>Cochrane Database of Systematic Reviews</i> , 2015	Systematic review, inclusion criteria does not match our protocol but checked for relevant studies.
Burnam, M. A., Morton, S. C., McGlynn, E. A., Petersen, L. P., Stecher, B. M., Hayes, C., Vaccaro, J. V., An experimental evaluation of residential and nonresidential treatment for dually diagnosed homeless adults, <i>Journal of Addictive Diseases</i> , 14, 111-134, 1995	The diagnosis of population is unclear (major affective disorder)
Burns, T., Catty, J., IPS in Europe: the EQOLISE trial, <i>Psychiatric rehabilitation journal</i> , 31, 313-317, 2008	Follow-up of Burns 2007 trial - checked for relevant data.
Burns, T., Catty, J., White, S., Becker, T., Koletsi, M., Fioritti, A., Rössler, W., Tomov, T., van Busschbach, J., Wiersma, D., et al., The impact of supported employment and working on clinical and social functioning: results of an international study of individual placement and support, <i>Schizophrenia bulletin</i> , 35, 949-958, 2009	Follow-up of Burns 2007 trial - checked for relevant data.
Burns, T., White, S. J., Catty, J., Individual placement and support in Europe: the EQOLISE trial, <i>International review of psychiatry</i> , 20, 498-502, 2008	Follow-up of Burns 2007 trial - checked for relevant data.
Burns, T., Yeeles, K., Langford, O., Montes, M. V., Burgess, J., Anderson, C., A randomised controlled trial of time-limited individual placement and support: iPS-LITE trial, <i>British journal of psychiatry</i> , 207, 351-356, 2015	Not complex psychosis / severe mental health conditions.
Bustillo, J. R., Lauriello, J., Horan, W. P., Keith, S. J., The psychosocial treatment of schizophrenia: An update, <i>American journal of psychiatry</i> , 158, 163-175, 2001	Systematic review, inclusion criteria does not match our protocol but checked for relevant studies.
Campbell, K., Bond, G. R., Drake, R. E., Who benefits from supported employment: a meta-analytic study, <i>Schizophrenia Bulletin</i> , 37, 370-80, 2011	Systematic review, inclusion criteria does not match our protocol but checked for relevant studies.
Carmona, V. R., Gomez-Benito, J., Huedo-Medina, T. B., Rojo, J. E., Employment outcomes for people with schizophrenia spectrum disorder: A meta-analysis of randomized controlled trials, <i>International Journal of</i>	Systematic review, inclusion criteria does not match our protocol but checked for relevant studies.

Study	Reason for Exclusion
Occupational Medicine & Environmental Health Int J Occup Med Environ Health, 30, 345-366, 2017	
Carta Mauro, G., Maggiani, Federica, Pilutzu, Laura, Moro Maria, F., Mura, Gioia, Cadoni, Federica, Sailing for rehabilitation of patients with severe mental disorders: results of a cross over randomized controlled trial, Clinical practice and epidemiology in mental health, 10, 73â€• 79, 2014	Unclear whether in rehab. setting
Carta, M. G., Maggiani, F., Pilutzu, L., Moro, M. F., Mura, G., Cadoni, F., Sancassiani, F., Vellante, M., Machado, S., Preti, A., Sailing for rehabilitation of patients with severe mental disorders: results of a cross over randomized controlled trial, Clinical Practice and Epidemiology in Mental Health, 10, 73â€• 79, 2015	Unclear whether in rehab. setting
Carta, M. G., Maggiani, F., Pilutzu, L., Moro, M. F., Mura, G., Sancassiani, F., Vellante, M., Migliaccio, G. M., Machado, S., Nardi, A. E., et al., Sailing can improve quality of life of people with severe mental disorders: results of a cross over randomized controlled trial, Clinical practice and epidemiology in mental health, 10, 80â€• 86, 2015	Unclear whether in rehab. setting
Chandler, D., Meisel, J., Hu, T. W., McGowen, M., Madison, K., Client outcomes in a three-year controlled study of an integrated service agency model, Psychiatric Services Psychiatr Serv, 47, 1337-43, 1996	Population not clear
Chandler, D., Meisel, J., McGowen, M., Mintz, J., Madison, K., Client outcomes in two model capitated integrated service agencies, Psychiatric Services Psychiatr Serv, 47, 175-80, 1996	Diagnosis of the study subjects, apart from those with Schizophrenia (<67%) is unclear
Charry-Sanchez, J. D., Pradilla, I., Talero-Gutierrez, C., Animal-assisted therapy in adults: A systematic review, Complementary Therapies in Clinical Practice, 32, 169-180, 2018	This review includes only one study for schizophrenia diagnosis which was conducted in Israel .
Charzynska, K., Kucharska, K., Mortimer, A., Does employment promote the process of recovery from schizophrenia? A review of the existing evidence, International Journal of Occupational Medicine & Environmental Health Int J Occup Med Environ Health, 28, 407-18, 2015	Systematic review, inclusion criteria does not match our protocol but checked for relevant studies.
Chinman, M., Oberman, R. S., Hanusa, B. H., Cohen, A. N., Salyers, M. P., Twamley, E. W., Young, A. S., A cluster randomized trial of adding peer specialists to intensive case management teams in the Veterans Health Administration, Journal of Behavioral Health Services & Research, 42, 109â€• 121, 2015	Not relevant population
Choi, K. H., Kwon, J. H., Social cognition enhancement training for schizophrenia: a preliminary randomized controlled trial, Community mental health journal, 42, 177â€• 187, 2006	Study conducted in South Korea
Chung, T. E., Gozdzik, A., Palma Lazgare, L. I., To, M. J., Aubry, T., Frankish, J., Hwang, S. W., Stergiopoulos, V., Housing First for older homeless adults with mental illness: a subgroup analysis of the At Home/Chez Soi randomized controlled trial, International Journal of Geriatric Psychiatry, 33, 85-95, 2018	Diagnosis of study subjects is unclear
Clark, R. E., Teague, G. B., Ricketts, S. K., Bush, P. W., Xie, H., McGuire, T. G., Drake, R. E., McHugo, G. J., Keller, A. M., Zubkoff, M., Cost-effectiveness of assertive community treatment versus standard case management for persons with	Intervention not relevant

Study	Reason for Exclusion
co-occurring severe mental illness and substance use disorders, Health Services Research Health Serv Res, 33, 1285-308, 1998	
Cleary, M., Hunt, G., Matheson, S., Siegfried, N., Walter, G., Psychosocial treatment programs for people with both severe mental illness and substance misuse, Schizophrenia bulletin, 34, 226-228, 2008	Systematic review, inclusion criteria does not match our protocol.
Contreras, N. A., Tan, E. J., Lee, S. J., Castle, D. J., Rossell, S. L., Using visual processing training to enhance standard cognitive remediation outcomes in schizophrenia: A pilot study, Psychiatry research, 262, 494-499, 2018	Comparison is not relevant
Cook, J. A., Blyler, C. R., Burke-Miller, J. K., McFarlane, W. R., Leff, H. S., Mueser, K. T., Gold, P. B., Goldberg, R. W., Shafer, M. S., Onken, S. J., et al., Effectiveness of supported employment for individuals with schizophrenia: results of a multi-site, randomized trial, Clinical schizophrenia & related psychoses, 2, 37-46, 2008	<67% population had complex psychosis or related severe mental illness
Cook, J. A., Copeland, M. E., Jonikas, J. A., Hamilton, M. M., Razzano, L. A., Grey, D. D., Floyd, C. B., Hudson, W. B., Macfarlane, R. T., Carter, T. M., et al., Results of a randomized controlled trial of mental illness self-management using Wellness Recovery Action Planning, Schizophrenia bulletin, 38, 881-891, 2012	40% population not with complex psychosis or related severe mental illness
Cook, J. A., Jonikas, J. A., Hamilton, M. M., Goldrick, V., Steigman, P. J., Grey, D. D., Burke, L., Carter, T. M., Razzano, L. A., Copeland, M. E., Impact of Wellness Recovery Action Planning on service utilization and need in a randomized controlled trial, Psychiatric Rehabilitation Journal, 36, 250-257, 2013	<60% population had a diagnosis of complex psychosis or related severe mental illness
Cook, J. A., Leff, H. S., Blyler, C. R., Gold, P. B., Goldberg, R. W., Mueser, K. T., Toprac, M. G., McFarlane, W. R., Shafer, M. S., Blankertz, L. E., et al., Results of a multisite randomized trial of supported employment interventions for individuals with severe mental illness, Archives of General Psychiatry, 62, 505-512, 2005	Not relevant population
Cook, J. A., Lehman, A. F., Drake, R., McFarlane, W. R., Gold, P. B., Leff, H. S., Blyler, C., Toprac, M. G., Razzano, L. A., Burke-Miller, J. K., et al., Integration of psychiatric and vocational services: a multisite randomized, controlled trial of supported employment, American Journal of Psychiatry, 162, 1948-1956, 2005	Not relevant population
Cook, J. A., Razzano, L. A., Burke-Miller, J. K., Blyler, C. R., Leff, H. S., Mueser, K. T., Gold, P. B., Goldberg, R. W., Shafer, M. S., Onken, S. J., et al., Effects of co-occurring disorders on employment outcomes in a multisite randomized study of supported employment for people with severe mental illness, Journal of Rehabilitation Research and Development, 44, 837-849, 2007	<67% population had complex psychosis or related severe mental illness
Cook, S., Chambers, E., Coleman, J. H., Occupational therapy for people with psychotic conditions in community settings: A pilot randomized controlled trial, Clinical rehabilitation, 23, 40-52, 2009	Unclear whether in rehab. settings
Corrigan, P. W., Social skills training in adult psychiatric populations: a meta-analysis, Journal of Behavior Therapy & Experimental Psychiatry, 22, 203-10, 1991	The outcomes are not relevant. Population is unclear for the group with a diagnosis of

Study	Reason for Exclusion
	complex psychosis or related severe mental illness.
Coulter, A., Entwistle, V. A., Eccles, A., Ryan, S., Shepperd, S., Perera, R., Personalised care planning for adults with chronic or long-term health conditions, Cochrane Database of Systematic Reviews, CD010523, 2015	3 studies reporting mental health outcomes, out of which one included people with serious mental illnesses with 66% population with schizophrenia or bipolar disorder
Craig, T., Shepherd, G., Rinaldi, M., Smith, J., Carr, S., Preston, F., Singh, S., Vocational rehabilitation in early psychosis: cluster randomised trial, British Journal of Psychiatry, 205, 145-150, 2014	Only cases of early/first episode psychosis included
Cramer, H., Lauche, R., Klose, P., Langhorst, J., Dobos, G., Yoga for schizophrenia: a systematic review and meta-analysis, BMC Psychiatry, 13, 32, 2013	Systematic review, inclusion criteria does not match our protocol but checked for relevant studies.
Crawford, M. J., Killaspy, H., Kalaitzaki, E., Barrett, B., Byford, S., Patterson, S., Soteriou, T., O'Neill, F. A., Clayton, K., Maratos, A., Barnes, T. R., Osborn, D., Johnson, T., King, M., Tyrer, P., Waller, D., The MATISSE study: a randomised trial of group art therapy for people with schizophrenia, BMC Psychiatry, 10, 65, 2010	Protocol for Crawford 2012 (MATISSE) - checked for relevant data.
Crowther, R. E., Marshall, M., Bond, G. R., Huxley, P., Helping people with severe mental illness to obtain work: systematic review, BMJ, 322, 204-8, 2001	No relevant studies identified in this systematic review
Crowther, R., Marshall, M., Bond, G. R., Huxley, P., Vocational rehabilitation for people with severe mental illness, Cochrane Database of Systematic Reviews, 2001	Systematic review, inclusion criteria does not match our protocol but checked for relevant studies.
d'Amato, Thierry, Bation, Remy, Cochet, Alain, Jalenques, Isabelle, Galland, Fabienne, Giraud-Baro, Elisabeth, Pacaud-Troncin, Michele, Augier-Astolfi, Françoise, Llorca, Pierre-Michel, Saoud, Mohamed, Brunelin, Jerome, A randomized, controlled trial of computer-assisted cognitive remediation for schizophrenia, Schizophrenia Research, 125, 284-290, 2011	Unclear if in rehab setting or complex psychosis
Dauwan, M., Begemann, M. J., Heringa, S. M., Sommer, I. E., Exercise Improves Clinical Symptoms, Quality of Life, Global Functioning, and Depression in Schizophrenia: A Systematic Review and Meta-analysis, Schizophrenia Bulletin, 42, 588-99, 2016	Systematic review, inclusion criteria does not match our protocol but checked for relevant studies.
Davis, L. W., Lysaker, P. H., Kristeller, J. L., Salyers, M. P., Kovach, A. C., Woller, S., Effect of mindfulness on vocational rehabilitation outcomes in stable phase schizophrenia, Psychological services, 12, 303-312, 2015	Unclear whether in rehab setting. Unclear whether complex psychosis
Dean, M., Weston, A. R., Osborn, D. P., Willis, S., Patterson, S., Killaspy, H., Leurent, B., Crawford, M. J., Activity groups for people with schizophrenia: a randomized controlled trial, Journal of Mental Health, 23, 171-5, 2014	Follow up publication of Crawford 2010 (MATISSE) - checked for relevant data.
Demant, Kirsa M., Vinberg, Maj, Kessing, Lars V., Miskowiak, Kamilla W., Effects of short-term cognitive remediation on cognitive dysfunction in partially or fully remitted individuals with bipolar disorder: Results of a randomised controlled trial, PLoS ONE Vol 10(6), 2015, ArtID e0127955, 10, 2015	Unclear whether in rehab. settings
Dias Barbosa Vizzotto, A., Celestino, D. L., Buchain, P. C., De Oliveira, A. M., De Oliveira, G. M. R., Di Sarno, E. S.,	Conference abstract

Study	Reason for Exclusion
Napolitano, I. C., Elkis, H., The efficacy of occupational therapy in the rehabilitation of executive functions in patients with treatment-resistant schizophrenia: a pilot randomized controlled trial, <i>Schizophrenia research.</i> , 153, S259, 2014	
Díaz Zuluaga, A. M., Duica, K., Ruiz Galeano, C., Vargas, C., Agudelo Berruecos, Y., Ospina, S., López-Jaramillo, C., Evaluation and Socio-occupational Intervention in Bipolar and Schizophrenic Patients within a Multimodal Intervention Program- PRISMA, <i>Revista colombiana de psiquiatria</i> , 47, 4â€• 12, 2018	Study conducted in Colombia
Dickinson, D., Tenhula, W., Morris, S., Brown, C., Peer, J., Spencer, K., Li, L., Gold, J. M., Bellack, A. S., A randomized, controlled trial of computer-assisted cognitive remediation for schizophrenia, <i>American journal of psychiatry</i> , 167, 170â€• 180, 2010	Unclear whether in rehab. settings
Dixon, L., Hoch, J. S., Clark, R., Bebout, R., Drake, R., McHugo, G., Becker, D., Cost-effectiveness of two vocational rehabilitation programs for persons with severe mental illness, <i>Psychiatric services (washington, D.C.)</i> , 53, 1118â€• 1124, 2002	Cost effectiveness analysis of the Drake IPS trials
Dobson, D. J., McDougall, G., Busheikin, J., Aldous, J., Effects of social skills training and social milieu treatment on symptoms of schizophrenia, <i>Psychiatric services (washington, D.C.)</i> , 46, 376â€• 380, 1995	Unclear whether in rehab. settings
Drake, R. E., Frey, W., Bond, G. R., Goldman, H. H., Salkever, D., Miller, A., Moore, T. A., Riley, J., Karakus, M., Milfort, R., Assisting Social Security Disability Insurance beneficiaries with schizophrenia, bipolar disorder, or major depression in returning to work, <i>American Journal of Psychiatry</i> Am J Psychiatry, 170, 1433-41, 2013	The population is unclear
Drebing, C. E., Van Ormer, E. A., Krebs, C., Rosenheck, R., Rounsaville, B., Herz, L., Penk, W., The impact of enhanced incentives on vocational rehabilitation outcomes for dually diagnosed veterans, <i>Journal of Applied Behavior Analysis</i> , 38, 359-72, 2005	Comparison not relevant
Drebing, C. E., Van Ormer, E. A., Mueller, L., Hebert, M., Penk, W. E., Petry, N. M., Rosenheck, R., Rounsaville, B., Adding contingency management intervention to vocational rehabilitation: Outcomes for dually diagnosed veterans, <i>Journal of Rehabilitation Research and Development</i> , 44, 851-866, 2007	Comparison not relevant
Druss, B. G., Zhao, L., von Esenwein, S. A., Bona, J. R., Fricks, L., Jenkins-Tucker, S., Sterling, E., Diclemente, R., Lorig, K., The Health and Recovery Peer (HARP) Program: a peer-led intervention to improve medical self-management for persons with serious mental illness, <i>Schizophrenia Research</i> , 118, 264-70, 2010	The population with complex psychosis was <67%
Dyck, D. G., Hendryx, M. S., Short, R. A., Voss, W. D., McFarlane, W. R., Service use among patients with schizophrenia in psychoeducational multiple-family group treatment, <i>Psychiatric services (Washington, D.C.)</i> , 53, 749â€• 754, 2002	Unclear if rehab. settings
Eack, S. M., Greenwald, D. P., Hogarty, S. S., Cooley, S. J., DiBarry, A. L., Montrose, D. M., Keshavan, M. S., Cognitive enhancement therapy for early-course schizophrenia: effects	Not relevant outcomes

Study	Reason for Exclusion
of a two-year randomized controlled trial, <i>Psychiatric services (Washington, D.C.)</i> , 60, 1468-1476, 2009	
Eack, S. M., Mesholam-Gately, R. I., Greenwald, D. P., Hogarty, S. S., Keshavan, M. S., Negative symptom improvement during cognitive rehabilitation: results from a 2-year trial of Cognitive Enhancement Therapy, <i>Psychiatry research</i> , 209, 21-26, 2013	No relevant outcomes reported.
Eack, Shaun M., Hogarty, Gerard E., Greenwald, Deborah P., Hogarty, Susan S., Keshavan, Matcheri S., Effects of cognitive enhancement therapy on employment outcomes in early schizophrenia: Results from a 2-year randomized trial, <i>Research on Social Work Practice</i> , 21, 32-42, 2011	Population not relevant
Eack, Shaun M., Hogarty, Susan S., Greenwald, Deborah P., Litschge, Maralee Y., McKnight, Summer A., Bangalore, Srihari S., Pogue-Geile, Michael F., Keshavan, Matcheri S., Cornelius, Jack R., Cognitive Enhancement Therapy in substance misusing schizophrenia: Results of an 18-month feasibility trial, <i>Schizophrenia research</i> , 161, 478-483, 2015	Unclear whether in rehab. settings
Ebert, D. D., Hannig, W., Tarnowski, T., Sieland, B., Götzky, B., Berking, M., Web-based rehabilitation aftercare following inpatient psychosomatic treatment, <i>Die rehabilitation</i> , 52, 164-172, 2013	Full text not in English
Elbogen, E. B., Hamer, R. M., Swanson, J. W., Swartz, M. S., A Randomized Clinical Trial of a Money Management Intervention for Veterans With Psychiatric Disabilities, <i>Psychiatric services (Washington, D.C.)</i> , 67, 1142-1145, 2016	<50% population with complex psychosis or related severe mental illness
Emmerson, L. C., Granholm, E., Link, P. C., McQuaid, J. R., Jeste, D. V., Insight and treatment outcome with cognitive-behavioral social skills training for older people with schizophrenia, <i>Journal of Rehabilitation Research and Development</i> , 46, 1053-1058, 2009	Unclear whether in rehab settings.
Falkum, E., Klungsoyr, O., Lystad, J. U., Bull, H. C., Evensen, S., Martinsen, E. W., Friis, S., Ueland, T., Vocational rehabilitation for adults with psychotic disorders in a Scandinavian welfare society, <i>BMC Psychiatry</i> , 17, 2017	Not in rehab setting. Not complex psychosis
Farrand, P., Woodford, J., Impact of support on the effectiveness of written cognitive behavioural self-help: a systematic review and meta-analysis of randomised controlled trials, <i>Clinical Psychology Review</i> , 33, 182-95, 2013	Not relevant population
Farreny, A., Aguado, J., Ochoa, S., Huerta-Ramos, E., Marsà, F., López-Carrilero, R., Carral, V., Haro, J. M., Usall, J., REPYFLEC cognitive remediation group training in schizophrenia: looking for an integrative approach, <i>Schizophrenia research</i> , 142, 137-144, 2012	Unclear whether in rehab. settings
Fernandez-Jorge, MaT, Roldan-Gacimartin, Mal, De Gomez-Alfageme, M. G., Vargas, M. L., Lahera-Corteza, G., Feasibility and effectiveness of an animal-assisted therapy for patients with severe and enduring mental disorder: a pilot randomized trial, <i>Rehabilitacion psicosocial</i> , 10, 18-24, 2013	Full text in Spanish
Firth, J., Cotter, J., Elliott, R., French, P., Yung, A. R., A systematic review and meta-analysis of exercise interventions in schizophrenia patients, <i>Psychological Medicine</i> , 45, 1343-61, 2015	Systematic review, outcomes not relevant.

Study	Reason for Exclusion
Firth, J., Stubbs, B., Rosenbaum, S., Vancampfort, D., Malchow, B., Schuch, F., Elliott, R., Nuechterlein, K. H., Yung, A. R., Aerobic Exercise Improves Cognitive Functioning in People With Schizophrenia: A Systematic Review and Meta-Analysis, <i>Schizophrenia Bulletin</i> <i>Schizophr Bull</i> , 43, 546-556, 2017	Systematic review, outcomes not relevant.
Fisher, M., Holland, C., Subramaniam, K., Vinogradov, S., Neuroplasticity-based cognitive training in schizophrenia: an interim report on the effects 6 months later, <i>Schizophrenia bulletin</i> , 36, 869-879, 2010	Not based in rehab.settings.
Fisher, M., Nahum, M., Howard, E., Rowlands, A., Brandrett, B., Kermott, A., Woolley, J., Vinogradov, S., Supplementing intensive targeted computerized cognitive training with social cognitive exercises for people with schizophrenia: An interim report, <i>Psychiatric Rehabilitation Journal</i> , 40, 21-32, 2017	Unclear whether in rehab. settings
Fiszdon, J. M., Choi, K. H., Bell, M. D., Choi, J., Silverstein, S. M., Cognitive remediation for individuals with psychosis: efficacy and mechanisms of treatment effects, <i>Psychological medicine</i> , 46, 3275-3289, 2016	Unclear whether in rehab. setting
Fiszdon, J. M., Kurtz, M. M., Choi, J., Bell, M. D., Martino, S., Motivational Interviewing to Increase Cognitive Rehabilitation Adherence in Schizophrenia, <i>Schizophrenia Bulletin</i> , 42, 327-334, 2016	Unclear whether in rehab. settings
Forsberg, K. A., Björkman, T., Sandman, P. O., Sandlund, M., Influence of a lifestyle intervention among persons with a psychiatric disability: a cluster randomised controlled trial on symptoms, quality of life and sense of coherence, <i>Journal of Clinical Nursing</i> , 19, 1519-1528, 2010	Only 26/41 (<67%) subjects had a diagnosis of complex psychosis or related severe mental illness
Fowler, D., Hodgekins, J., Painter, M., Reilly, T., Crane, C., Macmillan, I., Mugford, M., Croudace, T., Jones, P. B., Cognitive behaviour therapy for improving social recovery in psychosis: a report from the ISREP MRC Trial Platform Study (Improving Social Recovery in Early Psychosis), <i>Psychological medicine</i> , 39, 1627-1636, 2009	Unclear if rehab. settings
Franck, N., Duboc, C., Sundby, C., Amado, I., Wykes, T., Demily, C., Launay, C., Le Roy, V., Bloch, P., Willard, D., et al., Specific vs general cognitive remediation for executive functioning in schizophrenia: a multicenter randomized trial, <i>Schizophrenia research</i> , 147, 68-74, 2013	Not relevant outcomes
Frank, Ellen, Kupfer, David J., Thase, Michael E., Mallinger, Alan G., Swartz, Holly A., Egiolini, Andrea M., Grochocinski, Victoria, Houck, Patricia, Scott, John, Thompson, Wesley, Monk, Timothy, Two-Year Outcomes for Interpersonal and Social Rhythm Therapy in Individuals With Bipolar I Disorder, <i>Archives of general psychiatry</i> , 62, 996-1004, 2005	Study population from acute settings
Fredrick, Megan M., Mintz, Jim, Roberts, David L., Maples, Natalie J., Sarkar, Sonali, Li, Xueying, Velligan, Dawn I., Is cognitive adaptation training (CAT) compensatory, restorative, or both?, <i>Schizophrenia research</i> , 166, 290-296, 2015	Unclear whether in rehab. settings
Galderisi, S., Piegari, G., Mucci, A., Acerra, A., Luciano, L., Rabasca, A. F., Santucci, F., Valente, A., Volpe, M., Mastantuono, P., et al., Social skills and neurocognitive individualized training in schizophrenia: comparison with structured leisure activities, <i>European archives of psychiatry and clinical neuroscience</i> , 260, 305-315, 2010	Outcomes not relevant. Unclear whether in rehab setting

Study	Reason for Exclusion
Garrido, G., Barrios, M., Penadés, R., Enríquez, M., Garolera, M., Aragay, N., Pajares, M., Vallès, V., Delgado, L., Alberni, J., et al., Computer-assisted cognitive remediation therapy: cognition, self-esteem and quality of life in schizophrenia, <i>Schizophrenia Research</i> , 150, 563â€• 569, 2013	Unclear if in rehab setting. Not complex psychosis or related severe mental illness.
Gaudelus, Baptiste, Virgile, Jefferson, Geliot, Sabrina, Franck, Nicolas, Improving facial emotion recognition in schizophrenia: A controlled study comparing specific and attentional focused cognitive remediation, <i>Frontiers in Psychiatry Vol 7</i> 2016, ArtID 105, 7, 2016	Population not relevant (not complex psychosis or related severe mental illness)
Geretsegger, M., Mossler, K. A., Bieleninik, L., Chen, X. J., Heldal, T. O., Gold, C., Music therapy for people with schizophrenia and schizophrenia-like disorders, <i>Cochrane Database of Systematic Reviews</i> , 5, CD004025, 2017	Systematic review, inclusion criteria does not match our protocol but checked for relevant studies.
Gigantesco, A., Vittorielli, M., Pioli, R., Falloon, I. R., Rossi, G., Morosini, P., The VADO approach in psychiatric rehabilitation: a randomized controlled trial, <i>Psychiatric services (Washington, D.C.)</i> , 57, 1778â€• 1783, 2006	Rehab planning intervention - check for 7.1-7.2.
Glick, I. D., Clarkin, J. F., Haas, G. L., Spencer, J. H., Clinical significance of inpatient family intervention: conclusions from a clinical trial, <i>Hospital & Community Psychiatry</i> , 44, 869â€• 873, 1993	No relevant outcomes reported
Glick, I. D., Spencer, J. H., Clarkin, J. F., Haas, G. L., Lewis, A. B., Peyser, J., DeMane, N., Good-Ellis, M., Harris, E., Lestelle, V., A randomized clinical trial of inpatient family intervention. IV. Followup results for subjects with schizophrenia, <i>Schizophrenia research</i> , 3, 187â€• 200, 1990	No relevant outcomes reported
Glynn, S. M., Marder, S. R., Liberman, R. P., Blair, K., Wirshing, W. C., Wirshing, D. A., Ross, D., Mintz, J., Supplementing clinic-based skills training with manual-based community support sessions: effects on social adjustment of patients with schizophrenia, <i>American Journal of Psychiatry</i> , 159, 829-37, 2002	Not a relevant comparison
Gold, C., Heldal, T. O., Dahle, T., Wigram, T., Music therapy for schizophrenia or schizophrenia-like illnesses, <i>Cochrane Database of Systematic Reviews</i> , CD004025, 2005	Systematic review, inclusion criteria does not match our protocol but checked for relevant studies.
Gold, P. B., Macias, C., Rodican, C. F., Does Competitive Work Improve Quality of Life for Adults with Severe Mental Illness? Evidence from a Randomized Trial of Supported Employment, <i>Journal of behavioral health services & research</i> , 43, 155-71, 2016	Unclear whether the population is relevant, <50% had complex psychosis or related severe mental illness.
Gomar, J. J., Valls, E., Radua, J., Mareca, C., Tristany, J., del Olmo, F., Rebolleda-Gil, C., Jañez-Álvarez, M., de Álvaro, F. J., Ovejero, M. R., et al., A Multisite, Randomized Controlled Clinical Trial of Computerized Cognitive Remediation Therapy for Schizophrenia, <i>Schizophrenia bulletin</i> , 41, 1387â€• 1396, 2015	No relevant outcomes reported
Granholm, E., McQuaid, J. R., McClure, F. S., Auslander, L. A., Perivoliotis, D., Pedrelli, P., Patterson, T., Jeste, D. V., A randomized, controlled trial of cognitive behavioral social skills training for middle-aged and older outpatients with chronic schizophrenia, <i>American journal of psychiatry</i> , 162, 520â€• 529, 2005	Unclear whether in rehab. settings

Study	Reason for Exclusion
Groccke, D., Bloch, S., Castle, D., Thompson, G., Newton, R., Stewart, S., Gold, C., Group music therapy for severe mental illness: a randomized embedded-experimental mixed methods study, <i>Acta Psychiatrica Scandinavica</i> , 130, 144-53, 2014	<67% population had a diagnosis of complex psychosis
Gutman, S. A., Kerner, R., Zombek, I., Dulek, J., Ramsey, C. A., Supported education for adults with psychiatric disabilities: effectiveness of an occupational therapy program, <i>The american journal of occupational therapy : official publication of the american occupational therapy association</i> , 63, 245â€• 254, 2009	Unclear whether in rehab setting. Unclear whether complex psychosis / severe mental health condition
Hadas-Lidor, N., Katz, N., Tyano, S., Weizman, A., Effectiveness of dynamic cognitive intervention in rehabilitation of clients with schizophrenia, <i>Clinical rehabilitation</i> , 15, 349â€• 359, 2001	Study conducted in Israel
Hamann, J., Parchmann, A., Sassenberg, N., Bronner, K., Albus, M., Richter, A., Hoppstock, S., Kissling, W., Training patients with schizophrenia to share decisions with their psychiatrists: a randomized-controlled trial, <i>Social psychiatry and psychiatric epidemiology</i> , 52, 175â€• 182, 2017	Not a relevant intervention
Hansen, J. P., Ostergaard, B., Nordentoft, M., Hounsgaard, L., The feasibility of cognitive adaptation training for outpatients with schizophrenia in integrated treatment, <i>Community mental health journal</i> , 49, 630-5, 2013	First episode psychosis
Hansen, J. P., Østergaard, B., Nordentoft, M., Hounsgaard, L., Cognitive adaptation training combined with assertive community treatment: a randomised longitudinal trial, <i>Schizophrenia research</i> , 135, 105â€• 111, 2012	Population includes only people with first episode of schizophrenia
Hansson, L., Lexén, A., Holmén, J., The effectiveness of narrative enhancement and cognitive therapy: a randomized controlled study of a self-stigma intervention, <i>Social psychiatry and psychiatric epidemiology</i> , 52, 1415â€• 1423, 2017	Diagnosis of the population is unclear
Hansson, L., Svensson, B., Björkman, T., Bullenkamp, J., Lauber, C., Martinez-Leal, R., McCabe, R., Rössler, W., Salize, H., Torres-Gonzales, F., et al., What works for whom in a computer-mediated communication intervention in community psychiatry? Moderators of outcome in a cluster randomized trial, <i>Acta Psychiatrica Scandinavica</i> , 118, 404â€• 409, 2008	Unclear whether in rehab.setting
Harter, M., Dirmaier, J., Dwinger, S., Kriston, L., Herbarth, L., Siegmund-Schultze, E., Bermejo, I., Matschinger, H., Heider, D., König, H. H., Effectiveness of Telephone-Based Health Coaching for Patients with Chronic Conditions: A Randomised Controlled Trial, <i>PLoS ONE [Electronic Resource]</i> , 11, e0161269, 2016	This study includes participants with physical and mental illnesses. Segregated data is not available for participants with complex psychosis.
Haslett, W. R., McHugo, G. J., Bond, G. R., Drake, R. E., Use of Software for Tablet Computers to Promote Engagement With Supported Employment: results From an RCT, <i>Psychiatric services (washington, D.C.)</i> , 65, 954â€• 956, 2014	The population diagnosis is unclear (thought/mood disorder)
He, Y., Li, C., Morita therapy for schizophrenia, <i>Cochrane Database of Systematic Reviews</i> , 2007	All included studies in this review were conducted in China
Hengartner, M. P., Passalacqua, S., Andrae, A., Rössler, W., von Wyl, A., The role of perceived social support after psychiatric hospitalisation: post hoc analysis of a randomised controlled trial testing the effectiveness of a transitional	Population is mixed, with a subgroup of participants with psychosis; however their diagnoses is unclear.

Study	Reason for Exclusion
intervention, <i>International Journal of Social Psychiatry</i> , 63, 297â€• 306, 2017	
Hengartner, M. P., Passalacqua, S., Heim, G., Andreae, A., Rössler, W., von Wyl, A., Factors influencing patients' recovery and the efficacy of a psychosocial post-discharge intervention: post hoc analysis of a randomized controlled trial, <i>Social psychiatry and psychiatric epidemiology</i> , 51, 1667â€• 1677, 2016	Population is mixed, with a subgroup of participants with psychosis; however their diagnoses is unclear.
Heslin, M., Howard, L., Leese, M., McCrone, P., Rice, C., Jarrett, M., Spokes, T., Huxley, P., Thornicroft, G., Randomized controlled trial of supported employment in England: 2 Year follow-up of the Supported Work and Needs (SWAN) study, <i>World psychiatry</i> , 10, 132â€• 137, 2011	Unclear whether in rehab setting. SWAN trial
Hjorthøj, C. R., Orlovská, S., Fohlmann, A., Nordentoft, M., Psychiatric treatment following participation in the CapOpus randomized trial for patients with comorbid cannabis use disorder and psychosis, <i>Schizophrenia Research</i> , 151, 191â€• 196, 2013	Unclear whether in rehab. settings
Ho, R. T., Fong, T. C., Wan, A. H., Au-Yeung, F. S., Wong, C. P., Ng, W. Y., Cheung, I. K., Lo, P. H., Ng, S. M., Chan, C. L., et al., A randomized controlled trial on the psychophysiological effects of physical exercise and Tai-chi in patients with chronic schizophrenia, <i>Schizophrenia Research</i> , 171, 42â€• 49, 2016	Study conducted in Hong Kong
Hodgekins, J., Fowler, D., CBT and recovery from psychosis in the ISREP trial: mediating effects of hope and positive beliefs on activity, <i>Psychiatric services (Washington, D.C.)</i> , 61, 321â€• 324, 2010	Unclear whether from rehab. settings
Hoffmann, H., Jäckel, D., Glauser, S., Kupper, Z., A randomised controlled trial of the efficacy of supported employment, <i>Acta Psychiatrica Scandinavica</i> , 125, 157â€• 167, 2012	Population is unclear
Hoffmann, H., Jäckel, D., Glauser, S., Mueser, K. T., Kupper, Z., Long-term effectiveness of supported employment: 5-year follow-up of a randomized controlled trial, <i>American Journal of Psychiatry</i> , 171, 1183â€• 1190, 2014	Population is unclear
Hogarty, G. E., Flesher, S., Ulrich, R., Carter, M., Greenwald, D., Pogue-Geile, M., Kechavan, M., Cooley, S., DiBarry, A. L., Garrett, A., et al., Cognitive enhancement therapy for schizophrenia: effects of a 2-year randomized trial on cognition and behavior, <i>Archives of General Psychiatry</i> , 61, 866â€• 876, 2004	Cannot extract useful data
Hogarty, G. E., Greenwald, D., Ulrich, R. F., Kornblith, S. J., DiBarry, A. L., Cooley, S., Carter, M., Flesher, S., Three-year trials of personal therapy among schizophrenic patients living with or independent of family, II: effects on adjustment of patients, <i>American Journal of Psychiatry</i> , 154, 1514â€• 1524, 1997	Intervention not based in rehabilitation settings
Hohl, W., Moll, S., Pfeiffer, A., Occupational therapy interventions in the treatment of people with severe mental illness, <i>Current Opinion in Psychiatry</i> , 30, 300-305, 2017	Expert review
Horan, W. P., Kern, R. S., Tripp, C., Helleman, G., Wynn, J. K., Bell, M., Marder, S. R., Green, M. F., Efficacy and specificity of social cognitive skills training for outpatients with	Unclear whether in rehab. settings

Study	Reason for Exclusion
psychotic disorders, Journal of psychiatric research, 45, 1113â€• 1122, 2011	
Hornung, W. P., Feldmann, R., Klingberg, S., Buchkremer, G., Reker, T., Long-term effects of a psychoeducational psychotherapeutic intervention for schizophrenic outpatients and their key-persons - Results of a five-year follow-up, European Archives of Psychiatry and Clinical Neuroscience, 249, 162-167, 1999	Not rehabilitation settings
Hornung, W. P., Holle, R., Schulze Mönking, H., Klingberg, S., Buchkremer, G., Psychoeducational-psychotherapeutic treatment of schizophrenic patients and their caregivers. Results of a 1-year catamnestic study, Der nervenarzt, 66, 828â€• 834, 1995	Intervention not based in rehabilitation settings
Horsfall, Jan, Cleary, Michelle, Hunt, Glenn E., Walter, Garry, Psychosocial treatments for people with co-occurring severe mental illnesses and substance use disorders (dual diagnosis): A review of empirical evidence, Harvard Review of Psychiatry, 17, 24-34, 2009	Not a systematic review
Howard, L. M., Heslin, M., Leese, M., McCrone, P., Rice, C., Jarrett, M., Spokes, T., Huxley, P., Thornicroft, G., Supported employment: randomised controlled trial, British journal of psychiatry, 196, 404â€• 411, 2010	Unclear whether in rehab setting. SWAN trial
Humm, L. B., Olsen, D., Be, M., Fleming, M., Smith, M., Simulated job interview improves skills for adults with serious mental illnesses, Annual Review of CyberTherapy and Telemedicine, 12, 50-54, 2014	Population not in scope.
Ikebuchi, E., Sato, S., Yamaguchi, S., Shimodaira, M., Taneda, A., Hatsuse, N., Watanabe, Y., Sakata, M., Satake, N., Nishio, M., Ito, J. I., Does improvement of cognitive functioning by cognitive remediation therapy effect work outcomes in severe mental illness? A secondary analysis of a randomized controlled trial, Psychiatry & Clinical Neurosciences, 71, 301-308, 2017	Country not in protocol - Japan
Isasi, A. G., Echeburua, E., Liminana, J. M., Gonzalez-Pinto, A., How effective is a psychological intervention program for patients with refractory bipolar disorder? A randomized controlled trial, Journal of affective disorders, 126, 80-7, 2010	Unclear whether in rehab setting
Jäckel, D., Kupper, Z., Glauser, S., Mueser, K. T., Hoffmann, H., Effects of Sustained Competitive Employment on Psychiatric Hospitalizations and Quality of Life, Psychiatric services (Washington, D.C.), 68, 603â€• 609, 2017	Population not relevant
Jacobsen, P., Hodkinson, K., Peters, E., Chadwick, P., A systematic scoping review of psychological therapies for psychosis within acute psychiatric in-patient settings, British journal of psychiatry, 213, 490-497, 2018	Acute setting
Jäger, M., Paras, S., Nordt, C., Warnke, I., Bärtsch, B., Rössler, W., Kawohl, W., How sustainable is supported employment? A follow-up investigation, Neuropsychiatrie : Klinik, Diagnostik, Therapie und Rehabilitation, 27, 196â€• 201, 2013	German language
Javadpour, A., Hedayati, A., Dehbozorgi, G. R., Azizi, A., The impact of a simple individual psycho-education program on quality of life, rate of relapse and medication adherence in bipolar disorder patients, Asian journal of psychiatry, 6, 208â€• 213, 2013	Study conducted in Iran

Study	Reason for Exclusion
Johnson, S., Lamb, D., Marston, L., Osborn, D., Mason, O., Henderson, C., Ambler, G., Milton, A., Davidson, M., Christoforou, M., Sullivan, S., Hunter, R., Hindle, D., Paterson, B., Leverton, M., Piotrowski, J., Forsyth, R., Mosse, L., Goater, N., Kelly, K., Lean, M., Pilling, S., Morant, N., Lloyd-Evans, B., Peer-supported self-management for people discharged from a mental health crisis team: a randomised controlled trial, <i>Lancet</i> , 392, 409-418, 2018	Population not relevant.
Jones, R. B., Atkinson, J. M., Coia, D. A., Paterson, L., Morton, A. R., McKenna, K., Craig, N., Morrison, J., Gilmour, W. H., Randomised trial of personalised computer based information for patients with schizophrenia, <i>BMJ (clinical research ed.)</i> , 322, 835-840, 2001	Outcomes not relevant to review question
Jonikas, J. A., Grey, D. D., Copeland, M. E., Razzano, L. A., Hamilton, M. M., Floyd, C. B., Hudson, W. B., Cook, J. A., Improving propensity for patient self-advocacy through wellness recovery action planning: results of a randomized controlled trial, <i>Community mental health journal</i> , 49, 260-269, 2013	Population not relevant (<66% had relevant diagnosis)
Jorgensen, R., Licht, R. W., Lysaker, P. H., Munk-Jorgensen, P., Buck, K. D., Jensen, S. O., Hansson, L., Zoffmann, V., Effects on cognitive and clinical insight with the use of Guided Self-Determination in outpatients with schizophrenia: A randomized open trial, <i>European Psychiatry: the Journal of the Association of European Psychiatrists</i> , 30, 655-663, 2015	Unclear whether in rehab setting
Kaltsatou, A., Kouidi, E., Fountoulakis, K., Sipka, C., Theochari, V., Kandylis, D., Deligiannis, A., Effects of exercise training with traditional dancing on functional capacity and quality of life in patients with schizophrenia: a randomized controlled study, <i>Clinical Rehabilitation</i> , 29, 882-891, 2015	Outcomes not relevant
Kang, R., Wu, Y., Li, Z., Jiang, J., Gao, Q., Yu, Y., Gao, K., Yan, Y., He, Y., Effect of Community-Based Social Skills Training and Tai-Chi Exercise on Outcomes in Patients with Chronic Schizophrenia: A Randomized, One-Year Study, <i>Psychopathology</i> , 49, 345-355, 2016	Study conducted in China
Kaplan, K., Salzer, M. S., Solomon, P., Brusilovskiy, E., Cousounis, P., Internet peer support for individuals with psychiatric disabilities: a randomized controlled trial, <i>Social science & medicine (1982)</i> , 72, 54-62, 2011	Population not relevant
Katsumi, A., Hoshino, H., Fujimoto, S., Yabe, H., Ikebuchi, E., Nakagome, K., Niwa, S. I., Effects of cognitive remediation on cognitive and social functions in individuals with schizophrenia, <i>Neuropsychological rehabilitation</i> , 1-13, 2017	Study conducted in Japan
Katz, N., Keren, N., Effectiveness of occupational goal intervention for clients with schizophrenia, <i>The American journal of occupational therapy : official publication of the American Occupational Therapy Association</i> , 65, 287-296, 2011	Study conducted in Israel
Keefe, Richard S., Vinogradov, Sophia, Medalia, Alice, Buckley, Peter F., Caroff, Stanley N., d'Souza, Deepak C., Harvey, Phillip D., Graham, Karen A., Hamer, Robert M., Marder, Stephen M., Miller, Del D., Olson, Stephen J., Patel, Jayendra K., Velligan, Dawn, Walker, Trina M., Haim, Adam J., Stroup, T., Feasibility and pilot efficacy results from the multisite Cognitive Remediation in the Schizophrenia Trials	Unclear whether in rehab. setting

Study	Reason for Exclusion
Network (CRSTN) randomized controlled trial, The Journal of Clinical Psychiatry, 73, 1016-1022, 2012	
Kelly, E., Duan, L., Cohen, H., Kiger, H., Pancake, L., Brekke, J., Integrating behavioral healthcare for individuals with serious mental illness: a randomized controlled trial of a peer health navigator intervention, Schizophrenia Research, 182, 135â•• 141, 2017	Population not relevant
Kern, R. S., Liberman, R. P., Becker, D. R., Drake, R. E., Sugar, C. A., Green, M. F., Errorless learning for training individuals with schizophrenia at a community mental health setting providing work experience, Schizophrenia Bulletin, 35, 807-15, 2009	Unclear whether rehab setting or complex psychosis. Outcomes not relevant.
Kern, R., Green, M. F., Kopelowicz, A., Mitchell, S. S., Herrera, A. L., Kogler, K., Doran, D., Liberman, R. P., An innovative compensatory intervention for rehabilitation in schizophrenia: the effects of errorless learning on work training outcome, Schizophrenia Research, 60, 172, 2003	Not a relevant intervention
Kidd, S. A., Herman, Y., Barbic, S., Ganguli, R., George, T. P., Hassan, S., McKenzie, K., Maples, N., Velligan, D., Testing a modification of cognitive adaptation training: streamlining the model for broader implementation, Schizophrenia research, 156, 46â•• 50, 2014	Not a RCT
Kidd, Sean A., Kaur, Jaswant, Virdee, Gursharan, George, Tony P., McKenzie, Kwame, Herman, Yariisa, Cognitive remediation for individuals with psychosis in a supported education setting: A randomized controlled trial, Schizophrenia research, 157, 90-98, 2014	Unclear whether in rehab setting (not complex psychosis)
Kilbourne, A. M., Almirall, D., Goodrich, D. E., Lai, Z., Abraham, K. M., Nord, K. M., Bowersox, N. W., Enhancing outreach for persons with serious mental illness: 12-month results from a cluster randomized trial of an adaptive implementation strategy, Implementation Science, 9, 163, 2014	Intervention not relevant
Kilbourne, A. M., Goodrich, D. E., Lai, Z., Almirall, D., Nord, K. M., Bowersox, N. W., Abraham, K. M., Reengaging veterans with serious mental illness into care: preliminary results from a national randomized trial, Psychiatric services (washington, D.C.), 66, 90â•• 93, 2015	Intervention not relevant
Kilian, R., Lauber, C., Kalkan, R., Dorn, W., Rössler, W., Wiersma, D., van Buschbach, J. T., Fioritti, A., Tomov, T., Catty, J., et al., The relationships between employment, clinical status, and psychiatric hospitalisation in patients with schizophrenia receiving either IPS or a conventional vocational rehabilitation programme, Social psychiatry and psychiatric epidemiology, 47, 1381â•• 1389, 2012	Unclear whether in rehab setting
Killackey, E., Individual placement and support in early psychosis: evidence of benefit and future directions, Early intervention in psychiatry., 4, 6, 2010	Population not relevant
Killaspy, H., King, M., Holloway, F., Craig, T. J., Cook, S., Mundy, T., Leavey, G., McCrone, P., Koeser, L., Omar, R., Marston, L., Arbuthnott, M., Green, N., Harrison, I., Lean, M., Gee, M., Bhanbhro, S., NIHR Journals Library. Programme Grants for Applied Research, 03, 03, 2017	Follow-up of Killaspy 2015 study, checked for relevant data.
Kinoshita, Y., Furukawa, T. A., Kinoshita, K., Honyashiki, M., Omori, I. M., Marshall, M., Bond, G. R., Huxley, P., Amano, N.,	Systematic review, inclusion criteria does not match our

Study	Reason for Exclusion
Kingdon, D., Supported employment for adults with severe mental illness, <i>Cochrane Database of Systematic Reviews</i> <i>Cochrane Database Syst Rev</i> , CD008297, 2013	protocol but checked for relevant studies.
Kirk, I., Leiknes, K. A., Laru, L., Hammerstrom, K. T., Bramness, J. G., Grawe, R. W., Haugerud, H., Helseth, V., Landheim, A., Lossius, K., Waal, H., Knowledge Centre for the Health Services at The Norwegian Institute of Public Health (NIPH), NIPH Systematic Reviews, Executive Summaries, 2008	Population: Severe Mental Illness and Substance Use Disorder.
Klingberg, S., Wittorf, A., Fischer, A., Jakob-Deters, K., Buchkremer, G., Wiedemann, G., Evaluation of a cognitive behaviourally oriented service for relapse prevention in schizophrenia, <i>Acta psychiatrica scandinavica</i> , 121, 340â€• 350, 2010	Not complex psychosis or related severe mental illness
Klingberg, S., Wolwer, W., Engel, C., Wittorf, A., Herrlich, J., Meisner, C., Buchkremer, G., Wiedemann, G., Negative symptoms of schizophrenia as primary target of cognitive behavioral therapy: Results of the randomized clinical TONES study, <i>Schizophrenia bulletin</i> , 37, S98-S110, 2011	Not rehab setting
Knapp, M., Beecham, J., Koutsogeorgopoulou, V., Hallam, A., Fenyo, A., Marks, I. M., Connolly, J., Audini, B., Muijen, M., Service use and costs of home-based versus hospital-based care for people with serious mental illness, <i>British Journal of Psychiatry</i> , 165, 195â€• 203, 1994	Population not relevant
Kopelowicz, A., Wallace, C. J., Zarate, R., Teaching psychiatric inpatients to re-enter the community: a brief method of improving the continuity of care, <i>Psychiatric services (washington, D.C.)</i> , 49, 1313â€• 1316, 1998	Not relevant outcomes
Kotynia-English, R., McGowan, H., Almeida, O. P., A randomized trial of early psychiatric intervention in residential care: Impact on health outcomes, <i>International Psychogeriatrics</i> , 17, 475-485, 2005	population not relevant (screening)
Kroon, H., Boevink, W., Van Vugt, M., Delespaul, P., Van Os, J., TREE: a Dutch multi-centre (cluster) randomized trial of a recovery program of/for persons with severe mental illness, <i>Psychiatrische praxis</i> , 38, 2011	Conference abstract
Kuipers, E., Holloway, F., Rabe-Hesketh, S., Tennakoon, L., An RCT of early intervention in psychosis: croydon Outreach and Assertive Support Team (COAST), <i>Social psychiatry and psychiatric epidemiology</i> , 39, 358â€• 363, 2004	Service level intervention - more relevant for RQ 2.1, 2.2
Kukla, M., Bond, G. R., The Working Alliance and Employment Outcomes for People With Severe Mental Illness Enrolled in Vocational Programs, <i>Rehabilitation Psychology</i> , 54, 157-163, 2009	Unclear whether in rehab setting.
Kukla, M., Bond, G. R., Xie, H., A prospective investigation of work and nonvocational outcomes in adults with severe mental illness, <i>Journal of nervous and mental disease</i> , 200, 214â€• 222, 2012	Unclear whether in rehab setting
Kukla, M., Davis, L. W., Lysaker, P. H., Cognitive behavioral therapy and work outcomes: correlates of treatment engagement and full and partial success in schizophrenia, <i>Behavioural and cognitive psychotherapy</i> , 42, 577â€• 592, 2014	Not complex psychosis
Kurtz, M. M., Neurocognitive rehabilitation for schizophrenia, <i>Current Psychiatry Reports</i> , 5, 303-310, 2003	Expert review

Study	Reason for Exclusion
Kurtz, M. M., Mueser, K. T., A Meta-Analysis of Controlled Research on Social Skills Training for Schizophrenia, <i>Journal of consulting and clinical psychology</i> , 76, 491-504, 2008	Earlier version of Kurtz 2015 systematic review
Kurtz, M. M., Nichols, M. C., Cognitive rehabilitation for schizophrenia: A review of recent advances, <i>Current Psychiatry Reviews</i> , 3, 213-221, 2007	Expert review
Lafave, H. G., De Souza, H. R., Gerber, G. J., Assertive community treatment of severe mental illness: A Canadian experience, <i>Psychiatric Services</i> , 47, 757-759, 1996	Intervention not relevant to protocol
Landi, S., Palumbo, D., Margolies, P., Salerno, A. J., Cleek, A., Castaldo, E., Mucci, A., Implementation trial of a wellness self-management program for individuals with severe mental illness in an Italian Day Hospital setting: a pilot study, <i>Journal of psychopathology</i> , 24, 3â€• 9, 2018	Not rehab setting
Landolt, K., Brantschen, E., Nordt, C., Bärtsch, B., Kawohl, W., Rössler, W., Association of Supported Employment With Cognitive Functioning and Employment Outcomes, <i>Psychiatric services (Washington, D.C.)</i> , 67, 1257â€• 1261, 2016	Unclear whether population is relevant
Längle, G., Bayer, W., Köster, M., Salize, H. J., Höhl, W., Machleidt, W., Wiedl, K. H., Buchkremer, G., Do the effects of inpatient vocational therapy and ergotherapy approaches differ in schizophrenic patients? Results of a controlled multicenter study of the german research network on schizophrenia, <i>Psychiatrische praxis</i> , 33, 34â€• 41, 2006	German language
Lauder, S., Chester, A., Castle, D., Dodd, S., Gliddon, E., Berk, L., Chamberlain, J., Klein, B., Gilbert, M., Austin, D. W., Berk, M., A randomized head to head trial of MoodSwings.net.au: an Internet based self-help program for bipolar disorder, <i>Journal of Affective Disorders</i> , 171, 13-21, 2015	Not in rehab setting (online intervention)
Lay, B., Blank, C., Lengler, S., Drack, T., Bleiker, M., Rössler, W., Preventing compulsory admission to psychiatric inpatient care using psycho-education and monitoring: feasibility and outcomes after 12 months, <i>European archives of psychiatry and clinical neuroscience</i> , 265, 209â€• 217, 2015	Not rehab setting
Lay, B., Kawohl, W., Rossler, W., Outcomes of a psycho-education and monitoring programme to prevent compulsory admission to psychiatric inpatient care: a randomised controlled trial, <i>Psychological medicine</i> , 48, 849-860, 2018	Not relevant population
Lecomte, T., Cyr, M., Lesage, A. D., Wilde, J., Leclerc, C., Ricard, N., Efficacy of a self-esteem module in the empowerment of individuals with schizophrenia, <i>Journal of nervous and mental disease</i> , 187, 406â€• 413, 1999	Outcomes not relevant
Lee, W. K., Effectiveness of computerized cognitive rehabilitation training on symptomatological, neuropsychological and work function in patients with schizophrenia, <i>Asia-pacific psychiatry : official journal of the pacific rim college of psychiatrists</i> , 5, 90â€• 100, 2013	Study conducted in Korea
Lehman, A. F., Goldberg, R., Dixon, L. B., McNary, S., Postrado, L., Hackman, A., McDonnell, K., Improving employment outcomes for persons with severe mental illnesses, <i>Archives of general psychiatry</i> , 59, 165â€• 172, 2002	Unclear whether in rehab setting (outpatients)
Lehman, A. F., Herron, J. D., Schwartz, R. P., Myers, C. P., Rehabilitation for adults with severe mental illness and	Intervention not relevant

Study	Reason for Exclusion
substance use disorders. A clinical trial, <i>Journal of Nervous and Mental Disease</i> , 181, 86-90, 1993	
Lenior, M. E., Dingemans, P. M., Linszen, D. H., de Haan, L., Schene, A. H., Social functioning and the course of early-onset schizophrenia: five-year follow-up of a psychosocial intervention, <i>British journal of psychiatry</i> , 179, 53â€• 58, 2001	Unclear whether in rehab setting
Leurent, B., Killaspy, H., Osborn, D. P., Crawford, M. J., Hoadley, A., Waller, D., King, M., Moderating factors for the effectiveness of group art therapy for schizophrenia: secondary analysis of data from the MATISSE randomised controlled trial, <i>Social Psychiatry & Psychiatric Epidemiology</i> , 49, 1703-10, 2014	Outcomes not relevant
Levitt, A. J., Mueser, K. T., Degenova, J., Lorenzo, J., Bradford-Watt, D., Barbosa, A., Karlin, M., Chernick, M., Randomized controlled trial of illness management and recovery in multiple-unit supportive housing, <i>Psychiatric Services</i> , 60, 1629-36, 2009	Population not relevant (mostly depression)
Li, Z. Q., Chan, S. W. C., Klainin-Yobas, P., Eu, P. W., Ting, S., Examining the effectiveness of a peer-led self-management programme for people with schizophrenia: a randomised controlled trial, <i>Annals of the academy of medicine singapore.</i> , 43, S16, 2014	Study conducted in Singapore
Lindenmayer, J. P., McGurk, S. R., Khan, A., Kaushik, S., Thanju, A., Hoffman, L., Valdez, G., Wance, D., Herrmann, E., Improving social cognition in schizophrenia: a pilot intervention combining computerized social cognition training with cognitive remediation, <i>Schizophrenia bulletin</i> , 39, 507â€• 517, 2013	Unclear whether in rehab setting
Linszen, D., Dingemans, P., Van der Does, J. W., Nugter, A., Scholte, P., Lenior, R., Goldstein, M. J., Treatment, expressed emotion and relapse in recent onset schizophrenic disorders, <i>Psychological medicine</i> , 26, 333â€• 342, 1996	Population not relevant
Liu, Y., Bo, L., Sampson, S., Roberts, S., Zhang, G., Wu, W., Horticultural therapy for schizophrenia, <i>Cochrane Database of Systematic Reviews</i> , 2014	The only included study from this systematic review is conducted in Hong Kong.
Lucksted, A., Drapalski, A. L., Brown, C. H., Wilson, C., Charlotte, M., Mullane, A., Fang, L. J., Outcomes of a psychoeducational intervention to reduce Internalized Stigma among psychosocial rehabilitation clients, <i>Psychiatric Services</i> , 68, 360-367, 2017	Unclear whether in rehab setting
Lutgens, D., Garipey, G., Malla, A., Psychological and psychosocial interventions for negative symptoms in psychosis: Systematic review and meta-analysis, <i>British Journal of Psychiatry</i> , 210, 324-332, 2017	Outcome not relevant
Lyman, D. R., Kurtz, M. M., Farkas, M., George, P., Dougherty, R. H., Daniels, A. S., Ghose, S. S., Delphin-Rittmon, M. E., Skill building: assessing the evidence, <i>Psychiatric Services</i> <i>Psychiatr Serv</i> , 65, 727-38, 2014	Expert review
Lysaker, P. H., Bond, G., Davis, L. W., Bryson, G. J., Bell, M. D., Enhanced cognitive-behavioral therapy for vocational rehabilitation in schizophrenia: effects on hope and work, <i>Journal of rehabilitation research and development</i> , 42, 673â€• 682, 2005	Not in rehab setting
Lysaker, P. H., Davis, L. W., Beattie, N., Effects of cognitive behavioral therapy and vocational rehabilitation on	Not in rehab setting

Study	Reason for Exclusion
metacognition and coping in schizophrenia, Journal of contemporary psychotherapy, 36, 25â€• 30, 2006	
Lysaker, P. H., Davis, L. W., Bryson, G. J., Bell, M. D., Effects of cognitive behavioral therapy on work outcomes in vocational rehabilitation for participants with schizophrenia spectrum disorders, Schizophrenia Research, 107, 186â€• 191, 2009	Not in rehab setting
Lysaker, Paul H., Davis, Louanne W., Beattie, Nicole, "Effects of cognitive behavioral therapy and vocational rehabilitation on metacognition and coping in schizophrenia": Erratum, Journal of Contemporary Psychotherapy: On the Cutting Edge of Modern Developments in Psychotherapy, 37, 115, 2007	Correction for excluded article
Lystad, J. U., Falkum, E., Haaland, V. T., Bull, H., Evensen, S., McGurk, S. R., Ueland, T., Cognitive remediation and occupational outcome in schizophrenia spectrum disorders: a 2year follow-up study, Schizophrenia research. (no pagination), 2016, Date of Publication: July 26, 2016	Unclear whether in rehab setting
Lytsy, P., Carlsson, L., Anderzén, I., Effectiveness of two vocational rehabilitation programmes in women with long-term sick leave due to pain syndrome or mental illness: 1-year follow-up of a randomized controlled trial, Journal of rehabilitation medicine, 49, 170â€• 177, 2017	Population not relevant
Macias, C., Rodican, C. F., Hargreaves, W. A., Jones, D. R., Barreira, P. J., Wang, Q., Supported employment outcomes of a randomized controlled trial of ACT and clubhouse models, Psychiatric services (washington, D.C.), 57, 1406â€• 1415, 2006	Unclear whether population relevant (60% had schizophrenia)
Macpherson, R., Edwards, T. R., Chilvers, R., David, C., Elliott, H. J., Twentyâ€• four hour care for schizophrenia, Cochrane Database of Systematic Reviews, 2009	Intervention not relevant
Madigan, K., Brennan, D., Lawlor, E., Turner, N., Kinsella, A., O'Connor, J. J., Russell, V., Waddington, J. L., O'Callaghan, E., A multi-center, randomized controlled trial of a group psychological intervention for psychosis with comorbid cannabis dependence over the early course of illness, Schizophrenia Research, 143, 138-42, 2013	Intervention not relevant
Malm, U. I., Ivarsson, BÅ, Allebeck, P., Durability of the efficacy of integrated care in schizophrenia: a five-year randomized controlled study, Psychiatric services (Washington, D.C.), 65, 1054â€• 1057, 2014	Intervention not relevant
Mari, J. J., Streiner, D. L., An overview of family interventions and relapse on schizophrenia: meta-analysis of research findings, Psychological MedicinePsychol Med, 24, 565-78, 1994	Included trials were published pre-1990
Marks, I. M., Connolly, J., Muijen, M., Audini, B., McNamee, G., Lawrence, R. E., Home-based versus hospital-based care for people with serious mental illness, British Journal of Psychiatry, 165, 179â€• 194, 1994	Intervention not relevant
Marono Souto, Y., Vazquez Campo, M., Diaz Llenderozas, F., Rodriguez Alvarez, M., Mateos, R., Garcia Caballero, A., Randomized Clinical Trial with e-MotionalTraining((R)) 1.0 for Social Cognition Rehabilitation in Schizophrenia, Frontiers in psychiatry, 9, 40, 2018	Unclear whether in rehab. setting
Matsuda, Y., Sato, S., Iwata, K., Furukawa, S., Hatsuse, N., Watanabe, Y., Anzai, N., Kishimoto, T., Ikebuchi, E., Effects of risperidone and aripiprazole on neurocognitive rehabilitation	Intervention not in protocol

Study	Reason for Exclusion
for schizophrenia, <i>Psychiatry and clinical neurosciences</i> , 68, 425â€• 431, 2014	
Mavreas, V. G., Tomaras, V., Karydi, V., Economou, M., Stefanis, C. N., Expressed Emotion in families of chronic schizophrenics and its association with clinical measures, <i>Social psychiatry and psychiatric epidemiology</i> , 27, 4â€• 9, 1992	Not an RCT
McDonnell, M. G., Short, R. A., Hazel, N. A., Berry, C. M., Dyck, D. G., Multiple-family group treatment of outpatients with schizophrenia: Impact on service utilization, <i>Family Process</i> , 45, 359-373, 2006	Unclear whether in rehab. setting
McFarlane, W. R., Dushay, R. A., Stastny, P., Deakins, S. M., Link, B., A comparison of two levels of family-aided assertive community treatment, <i>Psychiatric services (Washington, D.C.)</i> , 47, 744â€• 750, 1996	Not in rehab setting
McFarlane, W. R., Lukens, E., Link, B., Dushay, R., Deakins, S. A., Newmark, M., Dunne, E. J., Horen, B., Toran, J., Multiple-family groups and psychoeducation in the treatment of schizophrenia, <i>Archives of General PsychiatryArch Gen Psychiatry</i> , 52, 679-87, 1995	Not in rehab setting
McGrath, J., Hayes, R. L., Cognitive rehabilitation for people with schizophrenia and related conditions, <i>Cochrane Database of Systematic Reviews</i> , 2000	Systematic review, inclusion criteria does not match our protocol but checked for relevant studies.
McGurk, S. R., Mueser, K. T., DeRosa, T. J., Wolfe, R., Work, recovery, and comorbidity in schizophrenia: a randomized controlled trial of cognitive remediation, <i>Schizophrenia Bulletin</i> , 35, 319â€• 335, 2009	Follow-up of McGurk 2005 - checked for relevant data.
McGurk, S. R., Mueser, K. T., Feldman, K., Wolfe, R., Pascaris, A., Cognitive training for supported employment: 2-3 year outcomes of a randomized controlled trial, <i>American journal of psychiatry</i> , 164, 437â€• 441, 2007	Unclear whether in rehab setting
McGurk, S. R., Mueser, K. T., Xie, H., Feldman, K., Shaya, Y., Klein, L., Wolfe, R., Cognitive remediation for vocational rehabilitation nonresponders, <i>Schizophrenia research</i> , 175, 48â€• 56, 2016	Follow-up of McGurk 2005 - checked for relevant data.
McGurk, S. R., Twamley, E. W., Sitzer, D. I., McHugo, G. J., Mueser, K. T., A meta-analysis of cognitive remediation in schizophrenia, <i>American journal of psychiatry</i> , 164, 1791-1802, 2007	Systematic review, inclusion criteria does not match our protocol but checked for relevant studies.
McGurk, Susan R., Twamley, Elizabeth W., Sitzer, David I., McHugo, Gregory J., Mueser, Kim T., "A meta-analysis of cognitive remediation in schizophrenia": Correction, <i>The American journal of psychiatry</i> , 165, 540, 2008	Correction for another study
McMain, S. F., Guimond, T., Streiner, D. L., Cardish, R. J., Links, P. S., Dialectical behavior therapy compared with general psychiatric management for borderline personality disorder: clinical outcomes and functioning over a 2-year follow-up, <i>American journal of psychiatry</i> , 169, 650â€• 661, 2012	Population not in protocol
Medalia, A., Revheim, N., Casey, M., The remediation of problem-solving skills in schizophrenia, <i>Schizophrenia bulletin</i> , 27, 259â€• 267, 2001	Outcomes not relevant

Study	Reason for Exclusion
Merinder, L. B., Viuff, A. G., Laugesen, H. D., Clemmensen, K., Misfelt, S., Espensen, B., Patient and relative education in community psychiatry: a randomized controlled trial regarding its effectiveness, <i>Social psychiatry and psychiatric epidemiology</i> , 34, 287-294, 1999	Not in rehab setting
Mervis, J. E., Fiszdon, J. M., Lysaker, P. H., Nienow, T. M., Mathews, L., Wardwell, P., Petrik, T., Thime, W., Choi, J., Effects of the Indianapolis Vocational Intervention Program (IVIP) on defeatist beliefs, work motivation, and work outcomes in serious mental illness, <i>Schizophrenia research</i> , 182, 129-134, 2017	Unclear whether in rehab setting.
Metcalfe, C., White, I. R., Weaver, T., Ukoumunne, O. C., Harvey, K., Tattan, T., Thompson, S. G., Intensive case management for severe psychotic illness: is there a general benefit for patients with complex needs? A secondary analysis of the UK700 trial data, <i>Social Psychiatry and Psychiatric Epidemiology</i> , 40, 718-724, 2005	Intervention not relevant
Metcalfe, J. D., Drake, R. E., Bond, G. R., Economic, Labor, and Regulatory Moderators of the Effect of Individual Placement and Support among People with Severe Mental Illness: A Systematic Review and Meta-analysis, <i>Schizophrenia bulletin</i> , 44, 22-31, 2018	Systematic review, inclusion criteria does not match our protocol but checked for relevant studies.
Michon, H., van Busschbach, J. T., Stant, A. D., van Vugt, M. D., van Weeghel, J., Kroon, H., Effectiveness of individual placement and support for people with severe mental illness in The Netherlands: a 30-month randomized controlled trial, <i>Psychiatric rehabilitation journal</i> , 37, 129-136, 2014	Unclear whether population is relevant (diagnoses not reported)
Michon, H., Van Busschbach, J., Van Vugt, M., Stant, A., Kroon, H., Wiersma, D., Van Weeghel, J., Effectiveness of the individual placement and support (IPS) model of vocational rehabilitation for people with severe mental illnesses in the Netherlands, <i>Psychiatrische Praxis</i> , 38, 2011	German language
Miklowitz, David J., Otto, Michael W., Frank, Ellen, Reilly-Harrington, Noreen A., Kogan, Jane N., Sachs, Gary S., Thase, Michael E., Calabrese, Joseph R., Marangell, Lauren B., Ostacher, Michael J., Patel, Jayendra, Thomas, Marshall R., Araga, Mako, Gonzalez, Jodi M., Wisniewski, Stephen R., Intensive psychosocial intervention enhances functioning in patients with bipolar depression: Results from a 9-month randomized controlled trial, <i>The American Journal of Psychiatry</i> , 164, 1340-1347, 2007	Unclear whether in rehab setting.
Modini, M., Tan, L., Brinchmann, B., Wang, M. J., Killackey, E., Glozier, N., Mykletun, A., Harvey, S. B., Supported employment for people with severe mental illness: Systematic review and meta-analysis of the international evidence, <i>British journal of psychiatry</i> , 209, 14-22, 2016	Systematic review, inclusion criteria does not match our protocol but checked for relevant studies.
Mohamed, Somaia, Kasckow, John W., Granholm, Eric, Jeste, Dilip V., Community-based treatment of schizophrenia and other severe mental illnesses, 205-222, 2003	Book chapter - expert review
Morin, L., Franck, N., Rehabilitation interventions to promote recovery from schizophrenia: A systematic review, <i>Frontiers in psychiatry</i> , 8 (JUN) (no pagination), 2017	Systematic review, inclusion criteria does not match our protocol but checked for relevant studies.
Morken, G., Grawe, R. W., Widen, J. H., Effects of integrated treatment on antipsychotic medication adherence in a	Population not relevant

Study	Reason for Exclusion
randomized trial in recent-onset schizophrenia, <i>Journal of clinical psychiatry</i> , 68, 566-571, 2007	
Morrison, A. P., Pyle, M., Gumley, A., Schwannauer, M., Turkington, D., MacLennan, G., Norrie, J., Hudson, J., Bowe, S. E., French, P., Byrne, R., Syrett, S., Dudley, R., McLeod, H. J., Griffiths, H., Barnes, T. R. E., Davies, L., Kingdon, D., Aydinlar, S., Courtley, J., Douglas-Bailey, M., Graves, E., Holden, N., Hutton, J., Hutton, P., Irving, S., Jackson, C., Lebert, T., Mander, H., McCartney, L., Munro-Clark, T., Murphy, E. K., Spanswick, M., Steele, A., Tip, L., Tully, S., Cognitive behavioural therapy in clozapine-resistant schizophrenia (FOCUS): an assessor-blinded, randomised controlled trial, <i>The lancet psychiatry</i> , 5, 633-643, 2018	More relevant for RQ 3.1 - primary outcomes are related to symptoms
Mossler, K., Chen, X., Heldal, T. O., Gold, C., Music therapy for people with schizophrenia and schizophrenia-like disorders, <i>Cochrane Database of Systematic Reviews</i> , CD004025, 2011	Early version of Geretsegger 2017 Cochrane review
Mucci, A., Piegari, G., Galderisi, S., Individualization of cognitive training and psychosocial rehabilitation, <i>European psychiatry</i> , 27, 2012	Conference abstract
Mueser, K. T., Aalto, S., Becker, D. R., Ogden, J. S., Wolfe, R. S., Schiavo, D., Wallace, C. J., Xie, H., The effectiveness of skills training for improving outcomes in supported employment, <i>Psychiatric Services</i> , 56, 1254-60, 2005	Unclear whether in rehab setting
Mueser, K. T., Becker, D. R., Wolfe, R., Supported employment, job preferences, job tenure and satisfaction, <i>Journal of mental health (abingdon, england)</i> , 10, 411-417, 2001	Unclear whether in rehab setting
Mueser, K. T., Bond, G. R., Essock, S. M., Clark, R. E., Carpenter-Song, E., Drake, R. E., Wolfe, R., The effects of supported employment in Latino consumers with severe mental illness, <i>Psychiatric rehabilitation journal</i> , 37, 113-122, 2014	Post-hoc analysis of Mueser et al., 2004
Mueser, K. T., Clark, R. E., Haines, M., Drake, R. E., McHugo, G. J., Bond, G. R., Essock, S. M., Becker, D. R., Wolfe, R., Swain, K., The Hartford study of supported employment for persons with severe mental illness, <i>Journal of consulting and clinical psychology</i> , 72, 479-490, 2004	Unclear whether in rehab setting
Mueser, K. T., Penn, D. L., Meta-analysis examining the effects of social skills training on schizophrenia, <i>Psychological Medicine</i> , 34, 1365-7, 2004	Comment on another article
Mueser, K. T., Pratt, S. I., Bartels, S. J., Swain, K., Forester, B., Cather, C., Feldman, J., Randomized trial of social rehabilitation and integrated health care for older people with severe mental illness, <i>Journal of Consulting & Clinical Psychology</i> , 78, 561-73, 2010	Population not in scope
Muijen, M., Cooney, M., Strathdee, G., Bell, R., Hudson, A., Community psychiatric nurse teams: intensive support versus generic care, <i>British Journal of Psychiatry</i> , 165, 211-7, 1994	Not a relevant intervention
Muijen, M., Marks, I., Connolly, J., Audini, B., Home based care and standard hospital care for patients with severe mental illness: a randomised controlled trial, <i>BMJ (clinical research ed.)</i> , 304, 749-754, 1992	Not a relevant intervention
Mullen, M. G., Thompson, J. L., Murphy, A. A., Malenczak, D., Giacobbe, G., Karyczak, S., Holloway, K. E., Twamley, E. W.,	Population not relevant

Study	Reason for Exclusion
Silverstein, S. M., Gill, K. J., Evaluation of a cognitive remediation intervention for college students with psychiatric conditions, <i>Psychiatric rehabilitation journal</i> , 40, 103â€• 107, 2017	
Naeem, F., Johal, R., McKenna, C., Rathod, S., Ayub, M., Lecomte, T., Husain, N., Kingdon, D., Farooq, S., Cognitive Behavior Therapy for psychosis based Guided Self-help (CBTp-GSH) delivered by frontline mental health professionals: results of a feasibility study, <i>Schizophrenia Research</i> , 173, 69â€• 74, 2016	Outcomes not relevant
Nicol, M. M., Robertson, L., Connaughton, J. A., Life skills programmes for chronic mental illnesses, <i>Cochrane Database of Systematic Reviews</i> <i>Cochrane Database Syst Rev</i> , CD000381, 2000	Early version of Tungounkonw 2012 Cochrane review
Norman, R. M., Malla, A. K., McLean, T. S., McIntosh, E. M., Neufeld, R. W., Voruganti, L. P., Cortese, L., An evaluation of a stress management program for individuals with schizophrenia, <i>Schizophrenia research</i> , 58, 293â€• 303, 2002	Unclear whether in rehab. setting
Noyes, S., Sokolow, H., Arbesman, M., Evidence for Occupational Therapy Intervention With Employment and Education for Adults With Serious Mental Illness: A Systematic Review, <i>American Journal of Occupational Therapy</i> , 72, 7205190010p1-7205190010p10, 2018	Systematic review, inclusion criteria does not match our protocol but checked for relevant studies.
Nuechterlein, K. H., Subotnik, K. L., Turner, L. R., Ventura, J., Becker, D. R., Drake, R. E., Individual placement and support for individuals with recent-onset schizophrenia: integrating supported education and supported employment, <i>Psychiatric rehabilitation journal</i> , 31, 340â€• 349, 2008	Population not relevant
O'Brien, S., McFarland, J., Kealy, B., Püllela, A., Saunders, J., Cullen, W., Meagher, D., A randomized-controlled trial of intensive case management emphasizing the recovery model among patients with severe and enduring mental illness, <i>Irish journal of medical science</i> , 181, 301â€• 308, 2012	Intervention not relevant
O'Campo, P., Stergiopoulos, V., Nir, P., Levy, M., Misir, V., Chum, A., Arbach, B., Nisenbaum, R., To, M. J., Hwang, S. W., How did a Housing First intervention improve health and social outcomes among homeless adults with mental illness in Toronto? Two-year outcomes from a randomised trial, <i>BMJ Open</i> , 6, e010581, 2016	Intervention not in scope
O'Connor, M. K., Mueller, L., Kwon, E., Drebing, C. E., O'Connor, A. A., Semiatin, A., Wang, S., Daley, R., Enhanced vocational rehabilitation for Veterans with mild traumatic brain injury and mental illness: pilot study, <i>Journal of rehabilitation research and development</i> , 53, 307â€• 320, 2016	AP: People with complex psychosis (n=1) are a small subgroup
Ohlenschlaeger, J., Thorup, A., Petersen, L., Jeppesen, P., Køster, A., Munkner, R., Nordentoft, M., Intensive treatment models and coercion, <i>Nordic Journal of Psychiatry</i> , 61, 369â€• 378, 2007	Population not in scope
Ojeda, N., Pena, J., Bengoetxea, E., Segarra, R., Sanchez, P. M., Elizagarate, E., Garcia, J., Eguiluz, J. I., Garcia, A., Clinical and cognitive outcomes in schizophrenia/psychosis after cognitive remediation with REHACOP, <i>European archives of psychiatry and clinical neuroscience.</i> , 261, S97, 2011	Outcomes not relevant
Ojeda, N., Peña, J., Sánchez, P., Bengoetxea, E., Elizagárate, E., Ezcurra, J., Gutiérrez Fraile, M., Efficiency of cognitive	Outcomes not relevant

Study	Reason for Exclusion
rehabilitation with REHACOP in chronic treatment resistant Hispanic patients, <i>Neurorehabilitation</i> , 30, 65â€• 74, 2012	
Ojeda, N., Sanchez, P., Pena, J., Elizagarate, E., Bengoetxea, E., Ezcurra, J., Gutierrez, M., Improvement in negative symptoms and functional outcome after group cognitive remediation treatment (rehacop program): a randomized controlled trial, <i>Schizophrenia research.</i> , 136, S254â€• S255, 2012	Outcomes not relevant
O'Keeffe, J., Conway, R., McGuire, B., A systematic review examining factors predicting favourable outcome in cognitive behavioural interventions for psychosis, <i>Schizophrenia Research</i> , 183, 22-30, 2017	Outcomes not relevant
Okpokoro, Uzuazomaro, Sampson, Stephanie, Brief family intervention for schizophrenia, <i>Schizophrenia Bulletin</i> , 40, 497-498, 2014	No relevant studies in this systematic review
Omiya, Hidetoshi, Yamashita, Kiyoko, Miyata, Tomoki, Hatakeyama, Yukie, Miyajima, Maki, Yambe, Kenji, Matsumoto, Izuru, Matsui, Mie, Toyomaki, Atsuhito, Denda, Kenzo, Pilot study of the effects of cognitive remediation therapy using the frontal/executive program for treating chronic schizophrenia, <i>The Open Psychology Journal Vol 9</i> 2016, ArtID 121-128, 9, 2016	Country not in protocol - Japan.
Palumbo, D., Mucci, A., Piegari, G., D'Alise, V., Mazza, A., Galderisi, S., SoCIAL - training cognition in schizophrenia: A pilot study, <i>Neuropsychiatric Disease and Treatment</i> , 13, 1947-1956, 2017	Outcomes not relevant
Park, H., Lee, D. H., Ko, S. M., Choi, Y. S., Kim, K. J., W. Choi J, A randomized controlled pilot study of CBSST (cognitive behavioral social skills training) for middle-or older-aged patients with schizophrenia: a pilot study, revisited cognitively, <i>International psychogeriatrics.</i> , 25, S159, 2013	Country not in protocol (Korea)
Park, K. M., Ku, J., Choi, S. H., Jang, H. J., Park, J. Y., Kim, S. I., Kim, J. J., A virtual reality application in role-plays of social skills training for schizophrenia: a randomized, controlled trial, <i>Psychiatry research</i> , 189, 166â€• 172, 2011	Country not in protocol (Korea)
Parker, A. G., Hetrick, S. E., Jorm, A. F., Yung, A. R., McGorry, P. D., Mackinnon, A., Moller, B., Purcell, R., The effectiveness of simple psychological and exercise interventions for high prevalence mental health problems in young people: a factorial randomised controlled trial, <i>Trials [Electronic Resource]</i> , 12, 76, 2011	Study protocol
Patterson, M., Moniruzzaman, A., Palepu, A., Zabkiewicz, D., Frankish, C. J., Krausz, M., Somers, J. M., Housing First improves subjective quality of life among homeless adults with mental illness: 12-month findings from a randomized controlled trial in Vancouver, British Columbia, <i>Social psychiatry and psychiatric epidemiology</i> , 48, 1245-1259, 2013	Intervention not in scope
Patterson, Thomas L., Bucardo, Jesus, McKibbin, Christine L., Mausbach, Brent T., Moore, David, Barrio, Concepcion, Goldman, Sherrill R., Jeste, Dilip V., Development and pilot testing of a new psychosocial intervention for older Latinos with chronic psychosis, <i>Schizophrenia bulletin</i> , 31, 922-930, 2005	Unclear whether in rehab. setting

Study	Reason for Exclusion
Pearsall, R., Smith, D. J., Pelosi, A., Geddes, J., Exercise therapy in adults with serious mental illness: a systematic review and meta-analysis, <i>BMC Psychiatry</i> , 14, 117, 2014	Outcomes not in protocol
Pekkala, E., Merinder, L., Psychoeducation for schizophrenia, <i>Cochrane database of systematic reviews (online)</i> , CD002831, 2000	Early version of Xia 2013 Cochrane review
Pena, J., Sanchez, P., Elizagarate, E., Ibarretxe-Bilbao, N., Ezcurra, J., Caballero, L., Magarinos, M., Garcia Del Castillo, I., Gutierrez, M., Ojeda, N., Clinical (but not cognitive) recovery in schizophrenia through the experience of fictional cinema, <i>Schizophrenia research: cognition</i> , 2, 189-194, 2015	Outcomes not relevant
Penadés, R., Catalán, R., Salamero, M., Boget, T., Puig, O., Guarch, J., Gastó, C., Cognitive remediation therapy for outpatients with chronic schizophrenia: a controlled and randomized study, <i>Schizophrenia research</i> , 87, 323-331, 2006	Unclear whether in rehab setting (outpatients)
Phillips, L. J., McGorry, P. D., Yuen, H. P., Ward, J., Donovan, K., Kelly, D., Francey, S. M., Yung, A. R., Medium term follow-up of a randomized controlled trial of interventions for young people at ultra high risk of psychosis, <i>Schizophrenia Research</i> , 96, 25-33, 2007	Population not relevant
Pilling, Steven, Bebbington, P., Kuipers, E., Garety, P., Geddes, J., Martindale, B., Orbach, G., Morgan, C., Psychological treatments in schizophrenia: II. Meta-analyses of randomized controlled trials of social skills training and cognitive remediation, <i>Psychological Medicine</i> , 32, 783-791, 2002	Systematic review, inclusion criteria does not match our protocol but checked for relevant studies.
Pioli, R., Vittorielli, M., Gigantesco, A., Rossi, G., Basso, L., Caprioli, C., Buizza, C., Corradi, A., Mirabella, F., Morosini, P., Falloon, I. R. H., Outcome assessment of the VADO approach in psychiatric rehabilitation: A partially randomised multicentric trial, <i>Clinical practice and epidemiology in mental health</i> , 2 (no pagination), 2006	Not randomised trial
Pitkänen, A., Välimäki, M., Kuosmanen, L., Katajisto, J., Koivunen, M., Hätönen, H., Patel, A., Knapp, M., Patient education methods to support quality of life and functional ability among patients with schizophrenia: a randomised clinical trial, <i>Quality of life research</i> , 21, 247-256, 2012	Unclear whether in rehab setting
Poremski, D., Rabouin, D., Latimer, E., A Randomised Controlled Trial of Evidence Based Supported Employment for People Who have Recently been Homeless and have a Mental Illness, <i>Administration and policy in mental health</i> , 44, 217-224, 2017	Population not relevant
Poremski, D., Stergiopoulos, V., Braithwaite, E., Distasio, J., Nisenbaum, R., Latimer, E., Effects of Housing First on Employment and Income of Homeless Individuals: Results of a Randomized Trial, <i>Psychiatric Services</i> , 67, 603-9, 2016	Intervention not relevant
Quinlivan, R., Hough, R., Crowell, A., Beach, C., Hofstetter, R., Kenworthy, K., Service utilization and costs of care for severely mentally ill clients in an intensive case management program, <i>Psychiatric Services</i> , 46, 365-71, 1995	Intervention not relevant
Rabins, P. V., Black, B. S., Roca, R., German, P., McGuire, M., Robbins, B., Rye, R., Brant, L., Effectiveness of a nurse-based outreach program for identifying and treating psychiatric illness in the elderly, <i>JAMA</i> , 283, 2802-2809, 2000	Intervention not relevant

Study	Reason for Exclusion
Rabovsky, K., Trombini, M., Allemann, D., Stoppe, G., Efficacy of bifocal diagnosis-independent group psychoeducation in severe psychiatric disorders: results from a randomized controlled trial, <i>European archives of psychiatry and clinical neuroscience</i> , 262, 431-440, 2012	Outcomes not relevant
Rakitzi, Stavroula, Georgila, Polyxeni, Efthimiou, Konstantinos, Mueller, Daniel R., Efficacy and feasibility of the Integrated Psychological Therapy for outpatients with schizophrenia in Greece: Final results of a RCT, <i>Psychiatry research</i> , 242, 137-143, 2016	Unclear whether in rehab. settings
Rampling, J., Furtado, V., Winsper, C., Marwaha, S., Lucca, G., Livanou, M., Singh, S. P., Non-pharmacological interventions for reducing aggression and violence in serious mental illness: A systematic review and narrative synthesis, <i>European Psychiatry</i> , 34, 17-28, 2016	Outcomes not relevant
Razzano, L. A., Cook, J. A., Burke-Miller, J. K., Mueser, K. T., Pickett-Schenk, S. A., Grey, D. D., Goldberg, R. W., Blyler, C. R., Gold, P. B., Leff, H. S., Lehman, A. F., Shafer, M. S., Blankertz, L. E., McFarlane, W. R., Toprac, M. G., Ann Carey, M., Clinical factors associated with employment among people with severe mental illness: findings from the employment intervention demonstration program, <i>Journal of Nervous & Mental Disease</i> , 193, 705-13, 2005	Not a randomised trial
Rea, M. M., Tompson, M. C., Miklowitz, D. J., Goldstein, M. J., Hwang, S., Mintz, J., Family-focused treatment versus individual treatment for bipolar disorder: results of a randomized clinical trial, <i>Journal of consulting and clinical psychology</i> , 71, 482-492, 2003	Population not relevant (recently hospitalized)
Reeder, C., Newton, E., Frangou, S., Wykes, T., Which executive skills should we target to affect social functioning and symptom change? A study of a cognitive remediation therapy program, <i>Schizophrenia bulletin</i> , 30, 87-100, 2004	Post-hoc analysis of Delahunty and Morice 1993
Ren, J., Xia, J., Dance therapy for schizophrenia, <i>Cochrane Database of Systematic Reviews</i> , CD006868, 2013	Systematic review (k=1, no relevant outcomes)
Ren, X. F., Yan, S. H., Zhang, X. X., Fu, X. J., Amelioration effect of comprehensive rehabilitation therapy on social function defect in schizophrenic patients, <i>Chinese journal of clinical rehabilitation</i> , 8, 5746-5747, 2004	Study from China
Revell, E. R., Neill, J. C., Harte, M., Khan, Z., Drake, R. J., A systematic review and meta-analysis of cognitive remediation in early schizophrenia, <i>Schizophrenia research</i> , 168, 213-222, 2015	Systematic review, inclusion criteria does not match our protocol but checked for relevant studies.
Reynolds, W., Lauder, W., Sharkey, S., Maciver, S., Veitch, T., Cameron, D., The effects of a transitional discharge model for psychiatric patients, <i>Journal of psychiatric and mental health nursing</i> , 11, 82-88, 2004	Population unclear
Rezansoff, S. N., Moniruzzaman, A., Fazel, S., McCandless, L., Procyshyn, R., Somers, J. M., Housing First Improves Adherence to Antipsychotic Medication Among Formerly Homeless Adults With Schizophrenia: results of a Randomized Controlled Trial, <i>Schizophrenia Bulletin</i> , 43, 852-861, 2017	Intervention not in protocol
Roberts, David L., Combs, Dennis R., Willoughby, Michael, Mintz, Jim, Gibson, Clare, Rupp, Betty, Penn, David L., A randomized, controlled trial of social cognition and interaction training (SCIT) for outpatients with schizophrenia spectrum	Unclear whether in rehab. settings

Study	Reason for Exclusion
disorders, British Journal of Clinical Psychology, 53, 281-298, 2014	
Roder, V., Muller, D. R., Zorn, P., Social skills training in vocational rehabilitation of schizophrenia patients. Advantages of work-related social skills training in comparison to unspecific social skills training, Zeitschrift fur klinische psychologie und psychotherapie, 35, 256-266, 2006	German language
Rogers, E. S., Maru, M., Kash-MacDonald, M., Archer-Williams, M., Hashemi, L., Boardman, J., A Randomized Clinical Trial Investigating the Effect of a Healthcare Access Model for Individuals with Severe Psychiatric Disabilities, Community Mental Health Journal, 52, 667-674, 2016	Population not relevant
Rogers, E., Anthony, William A., Lyass, Asya, Penk, Walter E., A Randomized Clinical Trial of Vocational Rehabilitation for People With Psychiatric Disabilities, Rehabilitation Counseling Bulletin, 49, 143-156, 2006	Unclear whether in rehab setting (most lived independently)
Roncone, R., Mazza, M., Frangou, I., De Risio, A., Ussorio, D., Tozzini, C., Casacchia, M., Rehabilitation of theory of mind deficit in schizophrenia: A pilot study of metacognitive strategies in group treatment, Neuropsychological rehabilitation, 14, 421-435, 2004	Unable to extract useful outcome data
Rosen, M. I., Ablondi, K., Black, A. C., Mueller, L., Serowik, K. L., Martino, S., Mobo, B. H., Rosenheck, R. A., Work outcomes after benefits counseling among veterans applying for service connection for a psychiatric condition, Psychiatric services (Washington, D.C.), 65, 1426-1432, 2014	Population not relevant
Rosenbaum, S., Tiedemann, A., Sherrington, C., Curtis, J., Ward, P. B., Physical activity interventions for people with mental illness: a systematic review and meta-analysis, Journal of Clinical Psychiatry, 75, 964-74, 2014	Outcomes not relevant
Rossler, W., Kawohl, W., Nordt, C., Haker, H., Rusch, N., Hengartner, M. P., "Placement Budgets" for Supported Employment-Impact on Quality of Life in a Multicenter Randomized Controlled Trial, Frontiers in psychiatry, 9, 462, 2018	Population not relevant
Rotondi, A. J., Haas, G., Anderson, C., Mueser, K., Effectiveness of web-based multi-family treatment delivered to the homes of persons with schizophrenia and their supporters, Schizophrenia bulletin., 39, S350, 2013	Outcomes not relevant
Royer, A., Grosselin, A., Bellot, C., Pellet, J., Billard, S., Lang, F., Brouillet, D., Massoubre, C., Is there any impact of cognitive remediation on an ecological test in schizophrenia?, Cognitive neuropsychiatry, 17, 19-35, 2012	Outcomes not relevant
Ruddy, R. A., Dent-Brown, K., Drama therapy for schizophrenia or schizophrenia-like illnesses, Cochrane Database of Systematic Reviews, (1) (no pagination), 2007	None of the included studies(n=5) from this systematic review met our inclusion criteria
Ruddy, R., Milnes, D., Art therapy for schizophrenia or schizophrenia-like illnesses, Cochrane Database of Systematic Reviews, 2005	No relevant outcomes reported
Ruiz, J. C., Fuentes, I., Roder, V., Tomas, P., Dasi, C., Soler, M. J., Effectiveness of the cognitive differentiation program of the integrated psychological therapy: Group versus individual treatment, Journal of nervous and mental disease, 199, 978-982, 2011	Comparison not relevant

Study	Reason for Exclusion
Ruiz, M. I., Aceituno, D., Rada, G., Art therapy for schizophrenia?, Medwave, 17, e6845, 2017	Expert review
Rus-Calafell, M., Gutiérrez-Maldonado, J., Ortega-Bravo, M., Ribas-Sabaté, J., Caqueo-Úrizar, A., A brief cognitive-behavioural social skills training for stabilised outpatients with schizophrenia: a preliminary study, Schizophrenia research, 143, 327-336, 2013	Unclear whether in rehab. settings
Rush, B. R., Dennis, M. L., Scott, C. K., Castel, S., Funk, R. R., The interaction of co-occurring mental disorders and recovery management checkups on substance abuse treatment participation and recovery, Evaluation Review, 32, 7-38, 2008	Population not relevant
Sachs, G., Winklbaur, B., Jagsch, R., Lasser, I., Kryspin-Exner, I., Frommann, N., Wölwer, W., Training of affect recognition (TAR) in schizophrenia--impact on functional outcome, Schizophrenia research, 138, 262-267, 2012	Outcomes not relevant
Sailer, P., Wieber, F., Propster, K., Stoewer, S., Nischk, D., Volk, F., Odenwald, M., A brief intervention to improve exercising in patients with schizophrenia: a controlled pilot study with mental contrasting and implementation intentions (MCII), BMC Psychiatry, 15, 211, 2015	Intervention not relevant
Salkever, D., Domino, M. E., Burns, B. J., Santos, A. B., Deci, P. A., Dias, J. a., Faldowski, R. A., Paolone, J., Assertive community treatment for people with severe mental illness: the effect on hospital use and costs, Health services research, 34, 577-601, 1999	Intervention not in protocol
Salkever, D., Gibbons, B., Ran, X., Do comprehensive, coordinated, recovery-oriented services alter the pattern of use of treatment services? Mental health treatment study impacts on SSDI beneficiaries' use of inpatient, emergency, and crisis services.[Erratum appears in J Behav Health Serv Res. 2014 Oct;41(4):559], Journal of Behavioral Health Services & Research J Behav Health Serv Res, 41, 434-46, 2014	Population unclear (diagnoses not reported)
Salyers, M. P., McGuire, A. B., Kukla, M., Fukui, S., Lysaker, P. H., Mueser, K. T., A randomized controlled trial of illness management and recovery with an active control group, Psychiatric services (Washington, D.C.), 65, 1005-1011, 2014	Unclear whether in rehab setting or complex psychosis.
Salyers, M. P., McGuire, A. B., Rollins, A. L., Bond, G. R., Mueser, K. T., Macy, V. R., Integrating assertive community treatment and illness management and recovery for consumers with severe mental illness, Community Mental Health Journal, 46, 319-29, 2010	Intervention not relevant
Salzer, M. S., Rogers, J., Salandra, N., O'Callaghan, C., Fulton, F., Balletta, A. A., Pizziketti, K., Brusilovskiy, E., Effectiveness of peer-delivered Center for Independent Living supports for individuals with psychiatric disabilities: A randomized, controlled trial, Psychiatric Rehabilitation Journal Psychiatr Rehabil J, 39, 239-47, 2016	Unclear whether in rehab setting (outpatients)
Sancassiani, F., Cocco, A., Cossu, G., Lorrari, S., Trincas, G., Floris, F., Mellino, G., Machado, S., Nardi, A. E., Fabrici, E. P., et al., "VelaMente?!" - Sailin in a crew to improve self-efficacy in people with psychosocial disabilities: a randomized controlled trial, Clinical practice and epidemiology in mental health, 13, 200-212, 2017	Population not relevant

Study	Reason for Exclusion
Sancassiani, F., Lorrain, S., Cossu, G., Cocco, A., Trincas, G., Floris, F., Mellino, G., Machado, S., Nardi, A. E., Fabrici, E. P., et al., The effects of "velaMente?!" Project on social functioning of people with severe psychosocial disabilities, <i>Clinical practice and epidemiology in mental health</i> , 13, 220â€• 232, 2017	Population not relevant
Sanches, S. A., Van Busschbach, J. T., Michon, H. W. C., Van Weeghel, J., Swildens, W. E., The role of working alliance in attainment of personal goals and improvement in quality of life during psychiatric rehabilitation, <i>Psychiatric Services</i> , 69, 903-909, 2018	The diagnosis of included population is unclear
Sánchez, P., Peña, J., Bengoetxea, E., Ojeda, N., Elizagárate, E., Ezcurra, J., Gutiérrez, M., Improvements in negative symptoms and functional outcome after a new generation cognitive remediation program: a randomized controlled trial, <i>Schizophrenia bulletin</i> , 40, 707â€• 715, 2014	Outcomes not relevant
Sanchez-Moreno, J., Bonnin, C., Gonzalez-Pinto, A., Amann, B. L., Sole, B., Balanza-Martinez, V., Arango, C., Jimenez, E., Tabares-Seisdedos, R., Garcia-Portilla, M. P., Ibanez, A., Crespo, J. M., Ayuso-Mateos, J. L., Vieta, E., Martinez-Aran, A., Torrent, C., Cibersam Functional Remediation Group, Do patients with bipolar disorder and subsyndromal symptoms benefit from functional remediation? A 12-month follow-up study, <i>European neuropsychopharmacology</i> , 27, 350-359, 2017	Unclear whether in rehab. setting
Sauve, G., Lepage, M., Corbiere, M., Impacts of vocational programs integrating cognitive remediation on job tenure in schizophrenia: A meta-analysis, <i>Annales Medico Psychologiques.</i> , 2018	French language
Scheewe, T. W., Backx, F. J., Takken, T., Jorg, F., van Strater, A. C., Kroes, A. G., Kahn, R. S., Cahn, W., Exercise therapy improves mental and physical health in schizophrenia: a randomised controlled trial, <i>Acta Psychiatrica Scandinavica</i> , 127, 464-73, 2013	Outcomes not relevant
Schonebaum, A. D., Boyd, J. K., Dudek, K. J., A comparison of competitive employment outcomes for the clubhouse and PACT models, <i>Psychiatric services (Washington, D.C.)</i> , 57, 1416â€• 1420, 2006	Population unclear (diagnoses not reported)
Schonebaum, A., Boyd, J., Work-ordered day as a catalyst of competitive employment success, <i>Psychiatric Rehabilitation Journal</i> , 35, 391-395, 2012	Population unclear (diagnoses not reported)
Scott, J., Garland, A., Moorhead, S., A pilot study of cognitive therapy in bipolar disorders, <i>Psychological medicine</i> , 31, 459â€• 467, 2001	Unclear whether in rehab setting
Segal, S. P., Silverman, C. J., Temkin, T. L., Self-help and community mental health agency outcomes: a recovery-focused randomized controlled trial, <i>Psychiatric services (Washington, D.C.)</i> , 61, 905â€• 910, 2010	Population not relevant
Sellwood, W., Barrowclough, C., TARRIER, N., Quinn, J., Mainwaring, J., Lewis, S., Needs-based cognitive-behavioural family intervention for carers of patients suffering from schizophrenia: 12-Month follow-up, <i>Acta Psychiatrica Scandinavica</i> , 104, 346-355, 2001	Unclear whether population is relevant.
Sellwood, W., Thomas, C. S., TARRIER, N., Jones, S., Clewes, J., James, A., Welford, M., Palmer, J., McCarthy, E., A	Not a relevant comparison

Study	Reason for Exclusion
randomised controlled trial of home-based rehabilitation versus outpatient-based rehabilitation for patients suffering from chronic schizophrenia, <i>Social Psychiatry & Psychiatric Epidemiology</i> Soc Psychiatry Psychiatr Epidemiol, 34, 250-3, 1999	
Sellwood, W., Wittkowski, A., Tarrier, N., Barrowclough, C., Needs-based cognitive-behavioural family intervention for patients suffering from schizophrenia: 5-year follow-up of a randomized controlled effectiveness trial, <i>Acta psychiatrica scandinavica</i> , 116, 447-452, 2007	See Sellwood 2001. Unclear whether relevant population
Sergi, M. J., Kern, R. S., Mintz, J., Green, M. F., Learning potential and the prediction of work skill acquisition in schizophrenia, <i>Schizophrenia Bulletin</i> , 31, 67-72, 2005	Not a relevant intervention
Sharifi, V., Tehranidoost, M., Yunesian, M., Amini, H., Mohammadi, M., Jalali Roudsari, M., Effectiveness of a low-intensity home-based aftercare for patients with severe mental disorders: a 12-month randomized controlled study, <i>Community Mental Health Journal</i> , 48, 766-770, 2012	Study conducted in Iran
Shern, D. L., Tsemberis, S., Anthony, W., Lovell, A. M., Richmond, L., Felton, C. J., Winarski, J., Cohen, M., Serving street-dwelling individuals with psychiatric disabilities: outcomes of a psychiatric rehabilitation clinical trial, <i>American Journal of Public Health</i> , 90, 1873-1878, 2000	Population not relevant
Simpson, C. J., Seager, C. P., Robertson, J. A., Home-based care and standard hospital care for patients with severe mental illness: a randomised controlled trial, <i>British journal of psychiatry</i> , 162, 239-243, 1993	Intervention not relevant
Skrinar, G.S., Huxley, N.A., Hutchinson, D.S., Menninger, E., Glew, P., The role of a fitness intervention on people with serious psychiatric disabilities, <i>Psychiatric rehabilitation journal</i> , 29, 122-127, 2005	Population not clear
Smelson, D., Kalman, D., Losonczy, M. F., Kline, A., Sambamoorthi, U., Hill, L. S., Castles-Fonseca, K., Ziedonis, D., A brief treatment engagement intervention for individuals with co-occurring mental illness and substance use disorders: results of a randomized clinical trial, <i>Community Mental Health Journal</i> , 48, 127-132, 2012	Not a rehabilitation setting
Smith, D. J., Griffiths, E., Poole, R., di Florio, A., Barnes, E., Kelly, M. J., Craddock, N., Hood, K., Simpson, S., Beating Bipolar: exploratory trial of a novel Internet-based psychoeducational treatment for bipolar disorder, <i>Bipolar disorders</i> , 13, 571-577, 2011	Unclear whether in rehab. settings
Smith, M. J., Fleming, M. F., Wright, M. A., Jordan, N., Humm, L. B., Olsen, D., Bell, M. D., Job Offers to Individuals With Severe Mental Illness After Participation in Virtual Reality Job Interview Training, <i>Psychiatric services (Washington, D.C.)</i> , 66, 1173-1179, 2015	Unclear whether in rehab. setting
Smith, M. J., Fleming, M. F., Wright, M. A., Roberts, A. G., Humm, L. B., Olsen, D., Bell, M. D., Virtual reality job interview training and 6-month employment outcomes for individuals with schizophrenia seeking employment, <i>Schizophrenia Research</i> , 166, 86-91, 2015	Unclear whether rehab. setting
Smith, T. E., Hull, J. W., Romanelli, S., Fertuck, E., Weiss, K. A., Symptoms and neurocognition as rate limiters in skills	Outcomes not relevant

Study	Reason for Exclusion
training for psychotic patients, American Journal of Psychiatry, 156, 1817-1818, 1999	
Somers, J. M., Moniruzzaman, A., Palepu, A., Changes in daily substance use among people experiencing homelessness and mental illness: 24-month outcomes following randomization to Housing First or usual care, Addiction (Abingdon, England), 110, 1605-1614, 2015	Not a relevant population
Somers, J. M., Patterson, M. L., Moniruzzaman, A., Currie, L., Rezansoff, S. N., Palepu, A., Fryer, K., Vancouver At Home: pragmatic randomized trials investigating Housing First for homeless and mentally ill adults, Trials, 14, 2013	Not a relevant intervention
Soundy, A., Roskell, C., Stubbs, B., Probst, M., Vancampfort, D., Investigating the benefits of sport participation for individuals with schizophrenia: a systematic review, Psychiatria DanubinaPsychiatr, 27, 2-13, 2015	Not relevant outcomes
Sousa, S. A., Corriveau, D., Lee, A. F., Bianco, L. G., Sousa, G. M., The LORS-enabled dialogue: a collaborative intervention to promote recovery from psychotic disorders, Psychiatric services (Washington, D.C.), 64, 58-64, 2013	Unclear whether rehab setting.
Souto, Y. M., Campo, M. V., Llenderrozas, F. D., Alvarez, M. R., Mateos, R., Caballero, A. G., Randomized clinical trial with e-Motional Training 1.0 for social cognition rehabilitation in Schizophrenia, Frontiers in psychiatry, 9, 2018	Unclear whether rehab setting.
Stanton, R., Happell, B., A systematic review of the aerobic exercise program variables for people with schizophrenia, Current Sports Medicine Reports, 13, 260-6, 2014	Outcomes not relevant
Stefancic, A., Tsemberis, S., Housing First for long-term shelter dwellers with psychiatric disabilities in a suburban county: a four-year study of housing access and retention, Journal of primary prevention, 28, 265-279, 2007	Not a relevant intervention
Stergiopoulos, V., Hwang, S. W., Gozdzik, A., Nisenbaum, R., Latimer, E., Rabouin, D., Adair, C. E., Bourque, J., Connelly, J., Frankish, J., et al., Effect of scattered-site housing using rent supplements and intensive case management on housing stability among homeless adults with mental illness: a randomized trial, JAMA, 313, 905-915, 2015	Not a relevant intervention
Stiekema, A. P. M., Looijmans, A., van der Meer, L., Bruggeman, R., Schoevers, R. A., Corpeleijn, E., Jorg, F., Effects of a lifestyle intervention on psychosocial well-being of severe mentally ill residential patients: ELIPS, a cluster randomized controlled pragmatic trial, Schizophrenia Research, 199, 407-413, 2018	Population unclear
Stubbs, B., Rosenbaum, S., Ward, P. B., Barreto Schuch, F., Vancampfort, D., No evidence of a control group response in exercise randomised controlled trials in people with schizophrenia: A systematic review and meta-analysis, Psychiatry Research, 229, 840-3, 2015	Does not include relevant outcomes
Suijkerbuijk, Y. B., Schaafsma, F. G., van Mechelen, J. C., Ojajarvi, A., Corbiere, M., Anema, J. R., Interventions for obtaining and maintaining employment in adults with severe mental illness, a network meta-analysis, Cochrane Database of Systematic Reviews, 2017 (9) (no pagination), 2017	Systematic review, inclusion criteria does not match our protocol but checked for relevant studies.
Sungur, M. Z., Guner, P., Ustun, B., Cetin, I., Soygur, H., Optimal treatment project for schizophrenia: results from a	Full text not available in English

Study	Reason for Exclusion
randomized, controlled, longitudinal study, <i>Seishin shinkeigaku zasshi</i> , 105, 1175-1180, 2003	
Swildens, W., van Busschbach, J. T., Michon, H., Kroon, H., Koeter, M. W., Wiersma, D., van Os, J., Effectively working on rehabilitation goals: 24-month outcome of a randomized controlled trial of the Boston psychiatric rehabilitation approach, <i>Canadian journal of psychiatry. Revue canadienne de psychiatrie</i> , 56, 751-760, 2011	Population not relevant
Sytema, S., Wunderink, L., Bloemers, W., Roorda, L., Wiersma, D., Assertive community treatment in the Netherlands: a randomized controlled trial, <i>Acta Psychiatrica Scandinavica</i> , 116, 105-112, 2007	Intervention not in protocol
Talwar, N., Crawford, M. J., Maratos, A., Nur, U., McDermott, O., Procter, S., Music therapy for in-patients with schizophrenia: exploratory randomised controlled trial, <i>British journal of psychiatry</i> , 189, 405-9, 2006	Outcomes not relevant
Tan, B. L., King, R., The effects of cognitive remediation on functional outcomes among people with schizophrenia: A randomised controlled study, <i>Australian and New Zealand Journal of Psychiatry</i> , 47, 1068-1080, 2013	Study conducted in Singapore
Tao, J., Zeng, Q., Liang, J., Zhou, A., Yin, X., Xu, A., Effects of cognitive rehabilitation training on schizophrenia: 2 years of follow-up, <i>African journal of psychiatry (south africa)</i> , 18, 1-4, 2015	Study conducted in China
Tarrier, N., Beckett, R., Harwood, S., Baker, A., Yusupoff, L., Ugarteburu, I., A trial of two cognitive-behavioural methods of treating drug-resistant residual psychotic symptoms in schizophrenic patients: i. Outcome, <i>British Journal of Psychiatry</i> , 162, 524-532, 1993	Outcomes not relevant
Tatsumi, E., Yotsumoto, K., Nakamae, T., Hashimoto, T., Effects of occupational therapy on hospitalized chronic schizophrenia patients with severe negative symptoms, <i>The kobe journal of medical sciences</i> , 57, E145-54, 2012	Study conducted in Japan
Terzian, E., Tognoni, G., Bracco, R., De Ruggieri, E., Ficociello, R. A., Mezzina, R., Pillo, G., Social network intervention in patients with schizophrenia and marked social withdrawal: a randomized controlled study, <i>Canadian journal of psychiatry. Revue canadienne de psychiatrie</i> , 58, 622-631, 2013	Unclear whether in rehab setting.
Theodoridou, A., Hengartner, M. P., Gairing, S. K., Jäger, M., Ketteler, D., Kawohl, W., Lauber, C., Rössler, W., Evaluation of a new person-centered integrated care model in psychiatry, <i>Psychiatric Quarterly</i> , 86, 153-168, 2015	Not a relevant population
Thomas, E. C., Despeaux Katie, E., Drapalski, A. L., Bennett, M., Person-oriented recovery of individuals with serious mental illnesses: A review and meta-Analysis of longitudinal findings, <i>Psychiatric Services</i> , 69, 259-267, 2018	Outcomes not relevant
Thomas, M. L., Bismark, A. W., Joshi, Y. B., Tarasenko, M., Treichler, E. B. H., Hochberger, W. C., Zhang, W., Nungaray, J., Sprock, J., Cardoso, L., et al., Targeted cognitive training improves auditory and verbal outcomes among treatment refractory schizophrenia patients mandated to residential care, <i>Schizophrenia research, (no pagination)</i> , 2018	Not relevant outcomes
Todd, N. J., Jones, S. H., Hart, A., Lobban, F. A., A web-based self-management intervention for Bipolar Disorder 'living with	Population unclear - self reported bipolar disorder. Online trial

Study	Reason for Exclusion
bipolar': a feasibility randomised controlled trial, <i>Journal of Affective Disorders</i> , 169, 21-9, 2014	(researchers did not meet participants).
Torrent, C., Bonnin Cdel, M., Martínez-Arán, A., Valle, J., Amann, B. L., González-Pinto, A., Crespo, J. M., Ibáñez, Á, Garcia-Portilla, M. P., Tabarés-Seisdedos, R., et al., Efficacy of functional remediation in bipolar disorder: a multicenter randomized controlled study, <i>American journal of psychiatry</i> , 170, 852â€• 859, 2013	Unclear whether in rehab setting.
Tsang, H. W., Chan, A., Wong, A., Liberman, R. P., Vocational outcomes of an integrated supported employment program for individuals with persistent and severe mental illness, <i>Journal of behavior therapy and experimental psychiatry</i> , 40, 292â€• 305, 2009	Study conducted in Hong Kong
Tsang, M. M., Man, D. W., A virtual reality-based vocational training system (VRVTS) for people with schizophrenia in vocational rehabilitation, <i>Schizophrenia research</i> , 144, 51â€• 62, 2013	Study conducted in Hong Kong
Tungpunkom, P., Maayan, N., Soaresâ€• Weiser, K., Life skills programmes for chronic mental illnesses, <i>Cochrane Database of Systematic Reviews</i> , 2012	Systematic review, inclusion criteria does not match our protocol but checked for relevant studies.
Tungpunkom, P., Nicol, M., Life skills programmes for chronic mental illnesses, <i>Cochrane Database of Systematic Reviews</i> , (2) (no pagination), 2008	Systematic review, inclusion criteria does not match our protocol but checked for relevant studies.
Turkington, D., Kingdon, D., Weiden, P. J., Cognitive behavior therapy for schizophrenia, <i>American journal of psychiatry</i> , 163, 365-73, 2006	Not a systematic review
Turner, D. T., McGlanaghy, E., Cuijpers, P., van der Gaag, M., Karyotaki, E., MacBeth, A., A Meta-Analysis of Social Skills Training and Related Interventions for Psychosis, <i>Schizophrenia bulletin</i> , 44, 475-491, 2018	Systematic review, inclusion criteria does not match our protocol but checked for relevant studies.
Twamley, E. W., Jeste, D. V., Bellack, A. S., A review of cognitive training in schizophrenia, <i>Schizophrenia bulletin</i> , 29, 359-382, 2003	Expert review
Twamley, E. W., Jeste, D. V., Lehman, A. F., Vocational rehabilitation in schizophrenia and other psychotic disorders: A literature review and meta-analysis of randomized controlled trials, <i>Journal of nervous and mental disease</i> , 191, 515-523, 2003	Systematic review, inclusion criteria does not match our protocol but checked for relevant studies.
Twamley, E. W., Narvaez, J. M., Becker, D. R., Bartels, S. J., Jeste, D. V., Supported employment for middle-aged and older people with schizophrenia, <i>American Journal of Psychiatric Rehabilitation</i> , 11, 76-89, 2008	Unclear whether in rehab setting
Twamley, E. W., Vella, L., Burton, C. Z., Becker, D. R., Bell, M. D., Jeste, D. V., The efficacy of supported employment for middle-aged and older people with schizophrenia, <i>Schizophrenia Research</i> , 135, 100â€• 104, 2012	Unclear whether in rehab setting
Twamley, E. W., Vella, L., Burton, C. Z., Heaton, R. K., Jeste, D. V., Compensatory cognitive training for psychosis: effects in a randomized controlled trial, <i>Journal of clinical psychiatry</i> , 73, 1212-9, 2012	Unclear how many participants were receiving rehabilitation.
Ulrich, G., Houtmans, T., Gold, C., The additional therapeutic effect of group music therapy for schizophrenic patients: a	Unclear whether in rehab setting or complex psychosis.

Study	Reason for Exclusion
randomized study, <i>Acta psychiatrica scandinavica</i> , 116, 362-370, 2007	
Valencia, M., Fresan, A., Juárez, F., Escamilla, R., Saracco, R., The beneficial effects of combining pharmacological and psychosocial treatment on remission and functional outcome in outpatients with schizophrenia, <i>Journal of psychiatric research</i> , 47, 1886-1892, 2013	Study conducted in Mexico
Valencia, M., Rascon, M. L., Juarez, F., Escamilla, R., Saracco, R., Liberman, R. P., Application in Mexico of psychosocial rehabilitation with schizophrenia patients, <i>Psychiatry</i> , 73, 248-263, 2010	Study conducted in Mexico
van der Gaag, M., Kern, R. S., van den Bosch, R. J., Liberman, R. P., A controlled trial of cognitive remediation in schizophrenia, <i>Schizophrenia bulletin</i> , 28, 167-176, 2002	Not relevant outcomes
van der Gaag, M., Stant, A. D., Wolters, K. J., Buskens, E., Wiersma, D., Cognitive-behavioural therapy for persistent and recurrent psychosis in people with schizophrenia-spectrum disorder: cost-effectiveness analysis, <i>British Journal of Psychiatry</i> , 198, 59-65, sup 1, 2011	Outcomes not relevant (social functioning not reported separately)
van Gestel-Timmermans, H., Brouwers, E. P., van Assen, M. A., van Nieuwenhuizen, C., Effects of a peer-run course on recovery from serious mental illness: a randomized controlled trial, <i>Psychiatric services (Washington, D.C.)</i> , 63, 54-60, 2012	Population does not include >67% with complex psychosis or related severe mental illness
Vancampfort, D., Probst, M., Helvik Skjaerven, L., Catalan-Matamoros, D., Lundvik-Gyllensten, A., Gomez-Conesa, A., Ijntema, R., De Hert, M., Systematic review of the benefits of physical therapy within a multidisciplinary care approach for people with schizophrenia, <i>Physical Therapy</i> , 92, 11-23, 2012	Systematic review, inclusion criteria does not match our protocol but checked for relevant studies.
Vaughan, K., Doyle, M., McConaghy, N., Blaszczyński, A., Fox, A., Tarrier, N., The Sydney intervention trial: a controlled trial of relatives' counselling to reduce schizophrenic relapse, <i>Social psychiatry and psychiatric epidemiology</i> , 27, 16-21, 1992	Population not relevant. Newly diagnoses cases not in rehabilitation settings.
Velligan, D. I., Diamond, P. M., Maples, N. J., Mintz, J., Li, X., Glahn, D. C., Miller, A. L., Comparing the efficacy of interventions that use environmental supports to improve outcomes in patients with schizophrenia, <i>Schizophrenia research</i> , 102, 312-9, 2008	Intervention not based in rehabilitation settings
Velligan, D. I., Diamond, P., Mueller, J., Li, X., Maples, N., Wang, M., Miller, A. L., The short-term impact of generic versus individualized environmental supports on functional outcomes and target behaviors in schizophrenia, <i>Psychiatry research</i> , 168, 94-101, 2009	Intervention not based in rehabilitation settings
Velligan, D. I., Pihoda, T. J., Ritch, J. L., Maples, N., Bow-Thomas, C. C., Dassori, A., A randomized single-blind pilot study of compensatory strategies in schizophrenia outpatients, <i>Schizophrenia bulletin</i> , 28, 283-292, 2002	Intervention not based in rehabilitation settings
Velligan, D. I., Roberts, D., Mintz, J., Maples, N., Li, X., Medellin, E., Brown, M., A randomized pilot study of MOtiVation and Enhancement (MOVE) Training for negative symptoms in schizophrenia, <i>Schizophrenia Research</i> , 165, 175-80, 2015	Outcomes not relevant

Study	Reason for Exclusion
Velligan, Dawn I., Diamond, Pamela M., Mintz, Jim, Maples, Natalie, Li, Xueying, Zeber, John, Ereshefsky, Larry, Lam, Yui-Wing F., Castillo, Desiree, Miller, Alexander L., The use of individually tailored environmental supports to improve medication adherence and outcomes in schizophrenia, <i>Schizophrenia bulletin</i> , 34, 483-493, 2008	Intervention not based in rehabilitation settings
Velligan, Dawn I., Mueller, Janet, Wang, Mei, Dicocco, Margaret, Diamond, Pamela M., Maples, Natalie J., Davis, Barbara, Use of environmental supports among patients with schizophrenia, <i>Psychiatric Services</i> , 57, 219-224, 2006	Intervention not based in rehabilitation settings
Veltro, F., Mazza, M., Vendittelli, N., Alberti, M., Casacchia, M., Roncone, R., A comparison of the effectiveness of problem solving training and of Cognitive-Emotional Rehabilitation on neurocognition, social cognition and social functioning in people with schizophrenia, <i>Clinical practice and epidemiology in mental health</i> , 7, 123132, 2011	Intervention not based in rehabilitation settings
Vera-Garcia, E., Mayoral-Cleries, F., Vancampfort, D., Stubbs, B., Cuesta-Vargas, A. I., A systematic review of the benefits of physical therapy within a multidisciplinary care approach for people with schizophrenia: An update, <i>Psychiatry Research</i> , 229, 828-39, 2015	Systematic review, inclusion criteria does not match our protocol but checked for relevant studies.
Vittorielli, M., Pioli, R., Brambilla, L., Archiati, L., Rossi, G., Sleijpen, C., Magliano, L., Veltro, F., Morosini, P., Efficacy of the "VADO" approach in psychiatric rehabilitation: a controlled study, <i>Epidemiologia e psichiatria sociale</i> , 12, 4352, 2003	Article in Italian
Vittorielli, M., Pioli, R., Brambilla, L., Archiati, L., Rossi, G., Sleijpen, C., Magliano, L., Veltro, F., Morosini, P., Parmeggiani, M., et al., VADO approach efficacy in psychiatric rehabilitation: a controlled study, <i>Epidemiologia e psichiatria sociale</i> , 12, 4352, 2003	Conference abstract
Waghorn, G., Dias, S., Gladman, B., Harris, M., Saha, S., A multi-site randomised controlled trial of evidence-based supported employment for adults with severe and persistent mental illness, <i>Australian occupational therapy journal</i> , 61, 424-436, 2014	Population diagnosis is unclear
Wang, L., Zhou, J., Yu, X., Qiu, J., Wang, B., Psychosocial rehabilitation training in the treatment of schizophrenia outpatients: a randomized, psychosocial rehabilitation training- and monomedication-controlled study, <i>Pakistan journal of medical sciences</i> , 29, 2013	Study conducted in China
Webber, M., Fendt-Newlin, M., A review of social participation interventions for people with mental health problems, <i>Social Psychiatry & Psychiatric Epidemiology</i> , 52, 369-380, 2017	Systematic review, inclusion criteria does not match our protocol but checked for relevant studies.
Wenze, Susan J., Gaudio, Brandon A., Weinstock, Lauren M., Tezanos, Katherine M., Miller, Ivan W., Adjunctive psychosocial intervention following hospital discharge for patients with bipolar disorder and comorbid substance use: A pilot randomized controlled trial, <i>Psychiatry Research</i> , 228, 516-525, 2015	Not relevant outcomes
Wiersma, D., Kluiters, H., Nienhuis, F. J., Rüphan, M., Giel, R., Costs and benefits of day treatment with community care for schizophrenic patients, <i>Schizophrenia bulletin</i> , 17, 411-419, 1991	Not a relevant intervention

Study	Reason for Exclusion
Wolwer, W., Frommann, N., Social-cognitive remediation in schizophrenia: generalization of effects of the training of affect recognition (TAR), Schizophrenia bulletin, 37, S63S70, 2011	Unclear whether population and setting is relevant.
Wood, Lisa, Byrne, Rory, Varese, Filippo, Morrison, Anthony P., Psychosocial interventions for internalised stigma in people with a schizophrenia-spectrum diagnosis: A systematic narrative synthesis and meta-analysis, Schizophrenia ResearchSchizophr Res, 176, 291-303, 2016	Not all studies of the review are relevant. Review scanned for potential studies reporting functional outcomes.
Wykes, T., Huddy, V., Cellard, C., McGurk, S. R., Czobor, P., A meta-analysis of cognitive remediation for schizophrenia: Methodology and effect sizes, American journal of psychiatry, 168, 472-485, 2011	Outcomes not relevant
Wykes, Til, Reeder, Clare, Williams, Clare, Corner, Julia, Rice, Christopher, Everitt, Brian, Are the effects of cognitive remediation therapy(CRT) durable? Results from an exploratory trial in schizophrenia, Schizophrenia Research, 61, 163-174, 2003	Overlap with Wykes 2007
Xia, J., Grant, T. J., Dance therapy for schizophrenia, Cochrane Database of Systematic Reviews, CD006868, 2009	Early version of Ren 2013 Cochrane review
Xia, J., Merinder, L. B., Belgamwar, M. R., Psychoeducation for schizophrenia, Cochrane Database of Systematic ReviewsCochrane Database Syst Rev, CD002831, 2011	Systematic review, inclusion criteria does not match our protocol but checked for relevant studies.
Zhao, S., Sampson, S., Xia, J., Jayaram, M. B., Psychoeducation (brief) for people with serious mental illness, Cochrane Database of Systematic Reviews, 2015 (4) (no pagination), 2015	Systematic review, inclusion criteria does not match our protocol but checked for relevant studies.

Economic studies

A global economic literature search was undertaken for this guideline, covering all 18 review questions. The table below is a list of excluded studies across the entire guideline and studies listed were not necessarily identified for this review question.

Table 11: Excluded studies from the economic component of the review

Study	Reason for Exclusion
Aitchison, K J, Kerwin, R W, Cost-effectiveness of clozapine: a UK clinic-based study (Structured abstract), British Journal of PsychiatryBr J Psychiatry, 171, 125-130, 1997	Available as abstract only.
Barnes, T. R., Leeson, V. C., Paton, C., Costelloe, C., Simon, J., Kiss, N., Osborn, D., Killaspy, H., Craig, T. K., Lewis, S., Keown, P., Ismail, S., Crawford, M., Baldwin, D., Lewis, G., Geddes, J., Kumar, M., Pathak, R., Taylor, S., Antidepressant Controlled Trial For Negative Symptoms In Schizophrenia (ACTIONS): a double-blind, placebo-controlled, randomised clinical trial, Health Technology Assessment (Winchester, England)Health Technol Assess, 20, 1-46, 2016	Does not match any review questions considered in the guideline.

Study	Reason for Exclusion
Barton, Gr, Hodgekins, J, Mugford, M, Jones, Pb, Croudace, T, Fowler, D, Cognitive behaviour therapy for improving social recovery in psychosis: cost-effectiveness analysis (Structured abstract), Schizophrenia ResearchSchizophr Res, 112, 158-163, 2009	Available as abstract only.
Becker, T., Kilian, R., Psychiatric services for people with severe mental illness across western Europe: what can be generalized from current knowledge about differences in provision, costs and outcomes of mental health care?, Acta Psychiatrica Scandinavica, SupplementumActa Psychiatr Scand Suppl, 9-16, 2006	Not an economic evaluation.
Beecham, J, Knapp, M, McGilloway, S, Kavanagh, S, Fenyo, A, Donnelly, M, Mays, N, Leaving hospital II: the cost-effectiveness of community care for former long-stay psychiatric hospital patients (Structured abstract), Journal of Mental HealthJ Ment Health, 5, 379-94, 1996	Available as abstract only.
Beecham, J., Knapp, M., Fenyo, A., Costs, needs, and outcomes, Schizophrenia BulletinSchizophr Bull, 17, 427-39, 1991	Costing analysis prior to year 2000
Burns, T., Raftery, J., Cost of schizophrenia in a randomized trial of home-based treatment, Schizophrenia BulletinSchizophr Bull, 17, 407-10, 1991	Not an economic evaluation. Date is prior to 2000
Bush, P. W., Drake, R. E., Xie, H., McHugo, G. J., Haslett, W. R., The long-term impact of employment on mental health service use and costs for persons with severe mental illness, Psychiatric ServicesPsychiatr Serv, 60, 1024-31, 2009	A United States costing analysis. Outcomes which relate to the Welfare system differs in substantial ways to a UK context.
Chalamat, M., Mihalopoulos, C., Carter, R., Vos, T., Assessing cost-effectiveness in mental health: vocational rehabilitation for schizophrenia and related conditions, Australian & New Zealand Journal of PsychiatryAust N Z J Psychiatry, 39, 693-700, 2005	Australian cost-benefit analysis - welfare system differs from UK context.
Chan, S., Mackenzie, A., Jacobs, P., Cost-effectiveness analysis of case management versus a routine community care organization for patients with chronic schizophrenia, Archives of Psychiatric NursingArch Psychiatr Nurs, 14, 98-104, 2000	Study conducted in Hong Kong. A costing analysis.
Clark, R. E., Teague, G. B., Ricketts, S. K., Bush, P. W., Xie, H., McGuire, T. G., Drake, R. E., McHugo, G. J., Keller, A. M., Zubkoff, M., Cost-effectiveness of assertive community treatment versus standard case management for persons with co-occurring severe mental illness and substance use disorders, Health Services ResearchHealth Serv Res, 33, 1285-308, 1998	Not cost-utility analysis. Cost-effectiveness analysis but does not consider UK setting. Date of study is prior to year 2000.
Crawford, M. J., Killaspy, H., Barnes, T. R., Barrett, B., Byford, S., Clayton, K., Dinsmore, J., Floyd, S., Hoadley, A., Johnson, T., Kalaitzaki,	Study not an economic evaluation.

Study	Reason for Exclusion
E., King, M., Leurent, B., Maratos, A., O'Neill, F. A., Osborn, D., Patterson, S., Soteriou, T., Tyrer, P., Waller, D., Matisse project team, Group art therapy as an adjunctive treatment for people with schizophrenia: a randomised controlled trial (MATISSE), Health Technology Assessment (Winchester, England)Health Technol Assess, 16, iii-iv, 1-76, 2012	
Dauwalder, J. P., Ciompi, L., Cost-effectiveness over 10 years. A study of community-based social psychiatric care in the 1980s, Social Psychiatry & Psychiatric EpidemiologySoc Psychiatry Psychiatr Epidemiol, 30, 171-84, 1995	Practice has changed somewhat since 1980s - not a cost effectiveness study.
Garrido, G., Penades, R., Barrios, M., Aragay, N., Ramos, I., Valles, V., Faixa, C., Vendrell, J. M., Computer-assisted cognitive remediation therapy in schizophrenia: Durability of the effects and cost-utility analysis, Psychiatry ResearchPsychiatry Res, 254, 198-204, 2017	Cost effectiveness study, but population of interest is not focussed on rehabilitation for people with complex psychosis.
Hallam, A., Beecham, J., Knapp, M., Fenyo, A., The costs of accommodation and care. Community provision for former long-stay psychiatric hospital patients, European Archives of Psychiatry & Clinical NeuroscienceEur Arch Psychiatry Clin Neurosci, 243, 304-10, 1994	Economic evaluation predates 2000. Organisation and provision of care may have changed by some degree.
Hu, T. W., Jerrell, J., Cost-effectiveness of alternative approaches in treating severely mentally ill in California, Schizophrenia BulletinSchizophr Bull, 17, 461-8, 1991	A United States costing analysis. Outcomes which relate to the Welfare system differs in substantial ways to a UK context.
Jaeger, J., Berns, S., Douglas, E., Creech, B., Glick, B., Kane, J., Community-based vocational rehabilitation: effectiveness and cost impact of a proposed program model.[Erratum appears in Aust N Z J Psychiatry. 2006 Jun-Jul;40(6-7):611], Australian & New Zealand Journal of PsychiatryAust N Z J Psychiatry, 40, 452-61, 2006	Study is a New Zealand based costing analysis of limited applicability to the UK.
Jonsson, D., Walinder, J., Cost-effectiveness of clozapine treatment in therapy-refractory schizophrenia, Acta Psychiatrica ScandinavicaActa Psychiatr Scand, 92, 199-201, 1995	Costing analysis which predates year 2000.
Knapp, M., Patel, A., Curran, C., Latimer, E., Catty, J., Becker, T., Drake, Re, Fioritti, A., Kilian, R., Lauber, C., Rossler, W., Tomov, T., Busschbach, J., Comas-Herrera, A., White, S., Wiersma, D., Burns, T., Supported employment: cost-effectiveness across six European sites (Structured abstract), World Psychiatry, 12, 60-68, 2013	Available as abstract only.
Lazar, S. G., The cost-effectiveness of psychotherapy for the major psychiatric diagnoses, Psychodynamic psychiatry, 42, 2014	Review of clinical and cost studies on psychotherapy. Studies cited do not match population for relevant review question.
Leff, J., Sharpley, M., Chisholm, D., Bell, R., Gamble, C., Training community psychiatric	Structured abstract. Not a cost effectiveness study.

Study	Reason for Exclusion
nurses in schizophrenia family work: a study of clinical and economic outcomes for patients and relatives (Structured abstract), <i>Journal of Mental Health</i> <i>J Ment Health</i> , 10, 189-197, 2001	
Liffick, E., Mehdiyoun, N. F., Vohs, J. L., Francis, M. M., Breier, A., Utilization and Cost of Health Care Services During the First Episode of Psychosis, <i>Psychiatric Services</i> <i>Psychiatr Serv</i> , 68, 131-136, 2017	A United States costing analysis. Outcomes which relate to the Welfare system differs in substantial ways to a UK context.
Mihalopoulos, C., Harris, M., Henry, L., Harrigan, S., McGorry, P., Is early intervention in psychosis cost-effective over the long term?, <i>Schizophrenia Bulletin</i> <i>Schizophr Bull</i> , 35, 909-18, 2009	Not a cost utility analysis. Australian costing analysis.
Perlis, R H, Ganz, D A, Avorn, J, Schneeweiss, S, Glynn, R J, Smoller, J W, Wang, P S, Pharmacogenetic testing in the clinical management of schizophrenia: a decision-analytic model (Structured abstract), <i>Journal of Clinical Psychopharmacology</i> , 25, 427-434, 2005	Structured abstract. Does not match any review question considered in this guideline.
Quinlivan, R., Hough, R., Crowell, A., Beach, C., Hofstetter, R., Kenworthy, K., Service utilization and costs of care for severely mentally ill clients in an intensive case management program, <i>Psychiatric Services</i> <i>Psychiatr Serv</i> , 46, 365-71, 1995	A United States costing analysis. Outcomes which relate to the Welfare system differs in substantial ways to a UK context.
Roine, E., Roine, R. P., Rasanen, P., Vuori, I., Sintonen, H., Saarto, T., Cost-effectiveness of interventions based on physical exercise in the treatment of various diseases: a systematic literature review, <i>International Journal of Technology Assessment in Health Care</i> <i>Int J Technol Assess Health Care</i> , 25, 427-54, 2009	Literature review on cost effectiveness studies based on physical exercise for various diseases and population groups - none of which are for complex psychosis.
Rosenheck, R A, Evaluating the cost-effectiveness of reduced tardive dyskinesia with second-generation antipsychotics (Structured abstract), <i>British Journal of Psychiatry</i> <i>Br J Psychiatry</i> , 191, 238-245, 2007	Structured abstract. Does not match any review question considered in this guideline.
Rund, B. R., Moe, L., Sollien, T., Fjell, A., Borchgrevink, T., Hallert, M., Naess, P. O., The Psychosis Project: outcome and cost-effectiveness of a psychoeducational treatment programme for schizophrenic adolescents, <i>Acta Psychiatrica Scandinavica</i> <i>Acta Psychiatr Scand</i> , 89, 211-8, 1994	Not an economic evaluation. Cost effectiveness discussed in narrative only, with a few short sentences.
Sacristan, J A, Gomez, J C, Salvador-Carulla, L, Cost effectiveness analysis of olanzapine versus haloperidol in the treatment of schizophrenia in Spain (Structured abstract), <i>Actas Luso-espanolas de Neurologia, Psiquiatria y Ciencias Afines</i> , 25, 225-234, 1997	Available as abstract only.
Torres-Carbajo, A, Olivares, J M, Merino, H, Vazquez, H, Diaz, A, Cruz, E, Efficacy and effectiveness of an exercise program as community support for schizophrenic patients	Available as abstract only

Study	Reason for Exclusion
(Structured abstract), American Journal of Recreation Therapy, 4, 41-47, 2005	
Wang, P S, Ganz, D A, Benner, J S, Glynn, R J, Avorn, J, Should clozapine continue to be restricted to third-line status for schizophrenia: a decision-analytic model (Structured abstract), Journal of Mental Health Policy and Economics, 7, 77-85, 2004	Available as abstract only.
Yang, Y K, Tarn, Y H, Wang, T Y, Liu, C Y, Laio, Y C, Chou, Y H, Lee, S M, Chen, C C, Pharmaco-economic evaluation of schizophrenia in Taiwan: model comparison of long-acting risperidone versus olanzapine versus depot haloperidol based on estimated costs (Structured abstract), Psychiatry and Clinical Neurosciences, 59, 385-394, 2005	Taiwan is not an OECD country.
Zhu, B., Ascher-Svanum, H., Faries, D. E., Peng, X., Salkever, D., Slade, E. P., Costs of treating patients with schizophrenia who have illness-related crisis events, BMC Psychiatry, 8, 2008	USA costing analysis. The structure of the US health system means that costs do not translate well into a UK context.

Appendix L – Research recommendations

Research recommendations for review question 5.2: What interventions specific to rehabilitation are effective for people with complex psychosis and related severe mental health conditions to improve their inter-personal functioning?

Research question

What structured group activities are effective at improving interpersonal functioning (social skills) for people with complex psychosis?

Why this is important

All patients who have complex psychosis have difficulties with interpersonal functioning, often of a severe degree. Structured group activities are routinely provided by all rehabilitation services but there is a limited evidence base for their efficacy at improving interpersonal functioning. There is also little known about which structured group activities might be most effective.

Table 12: Research recommendation rationale

Research question	What structured group activities are effective at improving interpersonal functioning (social skills) for people with complex psychosis?
Why is this needed	
Importance to 'patients' or the population	The majority of patients with complex psychosis have difficulties with interpersonal functioning that affects many areas of everyday life. The evidence base for structured group activities is limited, however, most rehabilitation services advocate a number of structured group activities.
Relevance to NICE guidance	Ability to provide guidance on effective group-based interventions to improve interpersonal functioning.
Relevance to the NHS	Increase likelihood of sustainable discharge to the community and greater independence.
National priorities	Improve well being.
Current evidence base	Current evidence is not clear, graded as low quality.
Equality	All patients in rehabilitation services with interpersonal difficulties.
Feasibility	Many patients have these problems and sufficient numbers are likely to have capacity.
Other comments	None

SMI: severe mental illness

Table 13: Research recommendation modified PICO table

Criterion	Explanation
Population	Patients aged 18+ with complex psychosis in rehabilitation service
Intervention	Group-based structured activities
Comparator	Other interventions aiming to improve interpersonal functioning
Outcomes	Critical Outcomes <ul style="list-style-type: none"> • Interpersonal functioning (social skills)

Criterion	Explanation
	<ul style="list-style-type: none">• Readmission/Relapse• Sustaining tenancy• Challenging behaviour Important outcomes <ul style="list-style-type: none">• Quality of life
Study design	Feasibility controlled trial
Timeframe	1 year
Additional information	There are candidates for interventions but none have a solid research base. First steps would be to design the intervention and test acceptability and feasibility before progressing to a more definitive clinical trial