



Aalborg Universitet

AALBORG UNIVERSITY
DENMARK

Psychosocial interventions promoting personal recovery in people with schizophrenia: a scoping review protocol

Quistgaard, Maria; Myklebust, Oda Leonarda Pollestad; Aure, Thomas; Austin, Stephen Fitzgerald; Berring, Lene Lauge; Vernal, Ditte Lammers; Storebø, Ole Jakob

Published in:
BMJ Open

DOI (link to publication from Publisher):
[10.1136/bmjopen-2023-073901](https://doi.org/10.1136/bmjopen-2023-073901)

Creative Commons License
CC BY-NC 4.0

Publication date:
2023

Document Version
Publisher's PDF, also known as Version of record

[Link to publication from Aalborg University](#)

Citation for published version (APA):
Quistgaard, M., Myklebust, O. L. P., Aure, T., Austin, S. F., Berring, L. L., Vernal, D. L., & Storebø, O. J. (2023). Psychosocial interventions promoting personal recovery in people with schizophrenia: a scoping review protocol. *BMJ Open*, 13(12), Article e073901. <https://doi.org/10.1136/bmjopen-2023-073901>

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal -

Take down policy

If you believe that this document breaches copyright please contact us at vbn@aub.aau.dk providing details, and we will remove access to the work immediately and investigate your claim.

BMJ Open Psychosocial interventions promoting personal recovery in people with schizophrenia: a scoping review protocol

Maria Quistgaard ¹, Oda Leonarda Pollestad Myklebust ^{2,3}, Thomas Aure,⁴ Stephen Fitzgerald Austin,^{1,5,6} Lene Lauge Berring,^{1,7} Ditte Lammers Vernal,^{8,9} Ole Jakob Storebø ^{1,5}

To cite: Quistgaard M, Myklebust OLP, Aure T, *et al.* Psychosocial interventions promoting personal recovery in people with schizophrenia: a scoping review protocol. *BMJ Open* 2023;**13**:e073901. doi:10.1136/bmjopen-2023-073901

► Prepublication history and additional supplemental material for this paper are available online. To view these files, please visit the journal online (<http://dx.doi.org/10.1136/bmjopen-2023-073901>).

Received 24 March 2023
Accepted 20 November 2023



© Author(s) (or their employer(s)) 2023. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.

For numbered affiliations see end of article.

Correspondence to

Professor Ole Jakob Storebø; ojs@regionsjaelland.dk

ABSTRACT

Introduction Personal recovery is an important aspect for many individuals diagnosed with schizophrenia, as people can live rich, fulfilling lives despite ongoing symptoms. Prior reviews have found several factors to be associated with personal recovery, but a comprehensive overview of the psychosocial interventions aimed at improving personal recovery in schizophrenia is needed.

Methods and analysis Key terms relating to personal recovery and psychosocial interventions to promote personal recovery will be searched for in the following databases: PubMed, EMBASE, PsycINFO, CINAHL, MEDLINE, Google Scholar, Web of Science Core Collection and Cochrane. Additionally, a simple search for grey literature will be conducted in The Networked Digital Library of Theses and Dissertations. Two reviewers will individually screen and extract the data, and the selection of sources will be documented in a Preferred Reporting Items for Systematic reviews and Meta-Analyses flow chart. A content analysis will be conducted on the data, and the findings will be presented in tables, and narratively synthesised. Lastly, research gaps will be identified, and recommendations for future research will be proposed.

Ethics and dissemination Ethics approval was not required for the development or publishing of this protocol. Findings will be disseminated through conferences, meeting with patient organisations and consumers, and published in a peer-reviewed scientific journal.

INTRODUCTION

Schizophrenia is a heterogeneous and serious mental disorder, with large costs to the individual, their families and society overall.^{1 2} Schizophrenia is characterised by fundamental and characteristic changes in thinking, perception and inadequate or flattened affect.³ The symptoms of schizophrenia are divided into positive, negative and disorganised symptoms.³ Positive symptoms include hallucinations and delusions, while negative symptoms are absences and/or deficiencies in function and experience.^{1 4} Disorganised symptoms include

STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ The screening approach done independently in duplicate follows best practice guidelines.
- ⇒ The extensive use of databases and use of grey literature, ensures a thorough investigation of the literature.
- ⇒ The development of the scoping review protocol was guided by literature on established scoping review methodology.
- ⇒ The languages in the searches are restricted to Scandinavian and English languages, which might favour western studies.

disorganised behaviour and disorganised speech.^{1 4} Alongside debilitating symptoms, decreased function and sometimes cognitive deficits,^{5 6 4} people with schizophrenia often experience comorbidities, with at least one comorbid psychiatric disorder occurring in approximately 50% of people diagnosed with schizophrenia.⁷ A systematic review of 188 studies estimated the median lifetime risk of schizophrenia to 7.2/1000.⁸ The majority of people with schizophrenia experience intermittent episodes of schizophrenic symptoms and remission, with persistent or residual psychotic symptoms and decremented function.^{4 6 9 10} Schizophrenia is associated with decreased life expectancy and excess early mortality.^{11 12} Factors associated with excess early mortality include: adverse effects of polypharmacy, suicide, lack of treatment and lack of preventative efforts for somatic comorbidities.^{11 12} Despite the severity of the disorder, recovery is also possible. For many years, recovery from schizophrenia referred to the sustained reduction of symptoms and attainment of adequate function, for example, vocationally, socially and daily living skills.^{13 14} typically known as clinical recovery (CR).^{15–17}



CR for people with psychotic disorders ranges from an estimated recovery rate of 14.28% (1 in 7 people)¹⁸ to 37.75%.¹⁴ However, studies have indicated that there is a large variation in the degree of improvement attainable^{17 19} and that individuals with schizophrenia can still experience meaningful lives, whether they meet the criteria for CR or not.^{17 19 20} Incorporating consumer perspectives in the understanding of recovery has aided in creating a more person-centred treatment model¹⁶ with a less paternalistic and pessimistic view.¹⁶ Personal recovery (PR) draws on the consumer's perspective and represents an adaptation process, in which the individual endeavours to master the disorder and its consequences through a non-linear, individual process.²¹⁻²³ PR is a unique process of inner change,²⁴ in values attitudes, goals, feelings and/or roles, which enables a more satisfying and meaningful life regardless of ongoing clinical symptoms.^{17 25} As PR is a highly subjective process, various frameworks and interpretations of PR have emerged, such as CHIME²⁶ and Enhanced Sense of Self (ESoS).²⁷ The CHIME framework encapsulates the components: Connectedness, Hope and optimism about the future, Identity, Meaning in life and Empowerment, producing the acronym CHIME.²⁶ CHIME has been validated as a framework for PR in populations with psychosis and schizophrenia, with the factors holding medium to large correlations with PR.^{21 28} ESoS embodies similar elements to CHIME, and additionally includes 'good' feelings and perceived symptom relief.²⁷ There is some discrepancy in terminology for PR, for example, subjective recovery,^{23 29} and consumer defined recovery,³⁰ resulting in various understandings of PR in the literature. Likewise, other elements of PR (e.g., acceptance) have emerged in the literature on PR.^{23 28 31}

According to the National Institute for Health and Care Excellence guidelines 2020, people suffering from complex psychosis (e.g., schizophrenia) should be offered psychosocial rehabilitation services in conjunction with antipsychotic medication as the first line of treatment for clinical symptoms.³² Psychosocial intervention is an umbrella term for non-pharmacological and non-surgical interventions emphasising social and psychological factors.^{33 34} Psychosocial interventions might be helpful for other aspects than symptom management and reattainment of function, where positive changes to the individual's context can aid in the well-being of the individual (e.g., positive connections, acquiring work).^{23 24}

Prior reviews on PR in schizophrenia have primarily focused on PR's relation to CR, or entailed research regarding PR in the entirety of the psychotic spectrum.^{14 17 21 29} Van Eck *et al*¹⁷ found a small to medium correlation between clinical symptoms of schizophrenia and PR, indicating that while CR and PR are affiliated to some degree, some elements of CR and PR are not shared. The elements of PR for people with serious mental illness have been disseminated in multiple reviews, however an overview of interventions using PR metrics for people with schizophrenia, is still missing.^{23 31 35-37}

Numerous studies indicate that various degrees of improvement for individuals with schizophrenia and related psychoses are attainable.^{20 21 30 33} Solely considering objective measures, such as symptom reduction or functional capacity, might lead to the exclusion of important phenomena relevant to the recovery journey of the individual.^{20 38} Furthermore, considering the often severe and sustained symptoms of schizophrenia,¹⁸ a holistic perspective of recovery for people with schizophrenia is more appropriate. Prior research on PR has identified a need for identification of interventions commencing PR.^{20 23} Further, creating an overview of different psychosocial interventions evaluating impact on PR for people with schizophrenia can function as a template for future systematic reviews and meta-analyses. Moreover, the findings might inform on appropriate treatment elements for the development of a psychosocial intervention aimed at promoting PR. To our knowledge, no review has identified and described psychosocial interventions promoting PR for people with schizophrenia. Therefore, a scoping review using qualitative and quantitative literature to identify psychosocial interventions promoting PR for people with schizophrenia and any research gaps is warranted.

Objectives

The aim of this scoping review is to identify what psychosocial interventions exist for PR for people with schizophrenia, and what the characteristics of these interventions are. Two objectives will figure as a guide to answer our aim. Additionally, we will identify gaps in research in line with established scoping review methodology.³⁹

1. What type of psychosocial interventions exist for PR for people with schizophrenia in the published scientific literature?
2. What are the characteristics of the psychosocial interventions used to facilitate PR in people with schizophrenia?

METHODS AND ANALYSIS

The development of the scoping review protocol was guided by the Joanna Briggs Institute guidelines for conducting scoping reviews.^{39 40} Additionally, Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR)⁴¹ was used to ensure that all relevant information for the future scoping review could be answered based on the scoping review protocol.

Key definitions

In the following section, an overview of the key terms applied to the screening is presented.

Personal recovery

PR will refer to a positive, inner change reported by a person with lived experience of schizophrenia, for example, self-report, qualitative statements. As the process of PR has no objective outcomes, but rather individual, intermediate statuses, findings on PR will be summarised

as indicators of PR more so than ‘outcomes’ of PR.³³ PR indicators entail any factor used to indicate an element of PR, which presents some challenges for identifying PR. A PR indicator dictionary from existing recovery frameworks have been developed for guiding the screening of the included references, and further enhanced through peer-inclusion (see the Peer inclusion section).^{27 29 38} Additionally, inductive qualitative content analysis⁴² with consumer involvement will be undertaken for the qualitative data to identify potential PR terms not included in the PR dictionary.

Schizophrenia

For the scoping review, participants in the included studies must meet or previously have met the diagnostic criteria for schizophrenia of either current or previous versions of the Diagnostic and Statistical Manual of Mental Disorders (DSM) (code 295.90)⁴³ or the International Classification of Diseases (ICD) (F20–F20.6 and F20.9).⁴⁴ Studies employing subgroup analysis of participants with schizophrenia will also be included. Any study claiming to report on participants with schizophrenia will be assumed to adhere to the diagnostic principles of either current or former versions of the DSM or ICD, unless otherwise stated. Participants with comorbidities will also be included, as comorbidities are common in people with schizophrenia.⁷

Psychosocial intervention

For the review, a psychosocial intervention will refer to an intervention targeting psychological and/or social treatment elements (e.g., family therapy, psychotherapy, structured employment, skills-training, psychoeducation).⁴⁵ The psychosocial treatment can be delivered in an individual and/or group setting. The intervention should include at least one session of psychosocial treatment administered by a healthcare worker or mental health professional to a person with schizophrenia. A healthcare worker will be defined as someone providing health/mental health services to a person with mental health issues (e.g., nurse, peer-facilitator, occupational therapist). While the focus of the review is on non-pharmacological interventions, studies will be included regardless of participants’ medicinal status. PR can include continued or discontinued use of pharmaceuticals, or fall anywhere on a spectrum between the two, seeing as every person’s disorder, needs, and beliefs are unique.²⁵

Registration of study

The scoping review protocol was registered at the Open Science Framework (OSF) on 14 December 2022, with the identifier DOI 10.17605/OSF.IO/NMJ84. <https://doi.org/10.17605/OSF.IO/NMJ84>.

Patient and Public involvement

The first draft of this protocol incorporated feedback from peer workers with lived experience (see Acknowledgements). Their feedback was incorporated into the

protocol, such as suggesting additional relevant literature and PR terms for the search string.

Eligibility criteria

Publications will be included if they meet the following criteria. The eligibility criteria might be modified following the search results, in accordance with scoping review methodology.⁴¹

Inclusion criteria

- ▶ Published in English or the Scandinavian languages.
- ▶ Literature that quantitatively or qualitatively reports original, empirical evidence of psychosocial interventions for people with schizophrenia. Literature reviews’ references will be tracked and included in the review, if eligible.
- ▶ The studies must be based on people with a schizophrenia diagnosis of any age or include a subgroup analysis of the participants with schizophrenia.
- ▶ Any study designs, apart from literature reviews will be included.
- ▶ Studies must include at least one session of a psychosocial intervention.
- ▶ A full-text version of the article exists and is retrievable through open access or with institutional access.

Exclusion criteria

- ▶ Studies including psychosocial interventions, which are not in part administered by a healthcare worker or mental health professional.
- ▶ Studies not reporting on indicators of PR.

Information sources

For sufficient data coverage, the scoping review will include publications from the electronic databases: EMBASE, PsycINFO, CINAHL, MEDLINE, Web of Science, Cochrane, PubMed and Google Scholar.⁴⁶ Incognito mode will be used for searches in Google Scholar,⁴⁷ and the results sorted by relevance. A simple search for grey literature will be performed, after the recommendations of Sutton *et al*⁴⁸ in The Networked Digital Library of Theses and Dissertations. Reference lists of reviews and other relevant literature located with the search string, alongside reference lists of the included literature will be used for citation tracking, and eligible studies will be included in the review.

Search

The search strategy was formed by the two first authors based on information from prior studies on PR, while guided by peer workers input (see Acknowledgements) and two experienced research librarians and information specialists (see [table 1](#) and online supplemental file 1). A preliminary search was conducted in PsycINFO and EMBASE, and a literature screening of prior reviews on PR was undertaken to further refine our search by identifying terms related to PR. The peers identified additional terminology and knowledge on PR, which has similarly been incorporated into the search string and protocol.

**Table 1** Search string below is an example of the search string used in the PsycINFO database

PsycINFO search string	
Block 1	
1	rehabilitat*.ab,ti.
2	recover*.ab,ti.
3	exp Recovery (Disorders)/
4	exp Rehabilitation/
5	1 or 2 or 3 or 4
Block 2	
6	schizophrenic*.ab,ti.
7	schizophrenia.ab,ti.
8	exp Schizophrenia/
9	6 or 7 or 8
Block 3	
10	exp Well Being/
11	exp Life Satisfaction/
12	exp Quality of Life/
13	(chime or 'life quality' or 'quality of life' or QoL or 'well being' or 'life satisfaction' or well-being).ab,ti.
14	exp Belonging/
15	exp Social Connectedness/
16	(belong* or communit* or compassion* or connect*).ab,ti.
17	exp Agency/
18	exp Autonomy/
19	exp Self-confidence/
20	exp Coping Style/ or exp Coping Behaviour/
21	exp Empowerment/
22	exp Self-Management/
23	exp Self-Determination/
24	(agency or autonomy or confiden* or coping or empower* or independence or risk-taking).ab,ti.
25	exp Posttraumatic Growth/
26	exp Resilience (Psychological)/
27	(accept* or future or growth or identit* or overcom* or rebuild* or resilien* or self* or worthy).ab,ti.
28	(first-person or personal or subjective or user* or consumer*).ab,ti.
29	exp Existentialism/
30	exp Faith/
31	exp Religion/
32	exp Spirituality/
33	exp Meaning/
34	exp Hope/
35	exp Optimism/
36	(existential* or faith* or hope* or journey* or meaning* or optimis* or purpose or religion* or spiritual*).ab,ti.

Continued

Table 1 Continued

PsycINFO search string	
37	10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 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
Block 4	
38	exp Psychoeducation/
39	exp Psychotherapy/
40	exp Training/
41	exp Treatment/
42	exp Intervention/
43	(intervention* or therap* or psychoeducat* or psychotherap* or treatment* or training).ab,ti.
44	38 or 39 or 40 or 41 or 42 or 43
45	5 and 9 and 37 and 44
46	limit 45 to (Danish or English or Norwegian or Swedish)

Lastly, a pilot search in PubMed and PsycINFO using the search terms was done in the spring of 2023, which led to further refinement of the search string. The identified PR indicators have additionally been used to create a PR dictionary. The PR dictionary will be used as a guide for screening and data analysis. No limitations on type of empirical study and year of publication will be applied, as part of a scoping review's purpose is to map the existing literature.^{40 49}

Selection of sources of evidence

Data extracted from the search will be exported to Covidence,⁵⁰ and duplicates will be removed through Covidence. To identify eligible studies, two reviewers will individually screen the titles and abstracts of the studies in duplicate,⁵¹ following the aforementioned eligibility criteria. Reviews will be forwarded in the title/abstract screening for citation tracking and excluded in full-text screening. If a full-text version of an article cannot be retrieved through open access, institutional access or through contacting the first author of the article, the reference will be excluded. Full-text screening of the included studies will similarly be administered by two reviewers. A conservative screening method will be applied to the title/abstract screening, to ensure relevant studies are not prematurely excluded. If a disagreement regarding study eligibility occurs at any stage, the reviewers will reach an agreement through discussion, or alternatively include a third reviewer. A PRISMA flowchart will be included with a narrative description of source selection made at each phase of the process.⁵²

Data charting process

Covidence⁵⁰ will be used for organising data, removing duplicates and managing data from full-text versions. Studies will be grouped according to type of study; qualitative, quantitative, and mixed methods, and further organised into tables with study information, study

Box 1 Data items
Data information

- ⇒ Study information.
- ⇒ Author(s).
- ⇒ Title.
- ⇒ Year of publication.
- ⇒ Country of publication.
- ⇒ Sources of funding.
- ⇒ Conflicts of interests.
- ⇒ Country of origin.
- ⇒ Registration/preregistration.

Study characteristics

- ⇒ Study type.
- ⇒ Study design.
- ⇒ Intervention setting.
- ⇒ Intervention type.
- ⇒ Group/individual treatment.
- ⇒ Administrator of intervention.
- ⇒ Study duration.
- ⇒ Number of session(s).
- ⇒ Length of session(s).
- ⇒ Studies' objectives/aims.
- ⇒ Scales/measurement tools.
- ⇒ Type of analysis/analyses.
- ⇒ Key findings.

Participant characteristics

- ⇒ Number of participants (%male).
- ⇒ Age.
- ⇒ Nationality of participants.
- ⇒ Onset of disorder.
- ⇒ Community or psychiatric residence.
- ⇒ Phase of disorder.
- ⇒ Schizophrenia subtype(s).
- ⇒ Comorbidities.
- ⇒ Attrition.

characteristics and participant characteristics, and elements of interventions. The data table (see [box 1](#)) will be piloted by a minimum of two independent reviewers. The specific data items are still under revision and the forms might be updated should they be lacking, as is consistent with scoping review methodology.⁴¹

Quality assessment

No critical appraisal or quality assessment tool will be used to evaluate individual sources of evidence, in accordance with established methodology of scoping reviews.⁴¹

Data synthesis

An overview of the included studies will be presented in a table and sorted according to study type, intervention, and PR indicator. The tables will be supplemented by a visual model and a narrative description. A basic content analysis of the studies will be administered by two reviewers.^{53 54} As aspects of PR will likely converge but also diverge from the existing literature, all identified concepts related to PR will be included. In line with guidelines for scoping reviews,⁴¹ we might need to adjust

our data-reporting plan as well as introduce additional statistical analysis when appropriate, due to the broad scope of the review.

Study status

As of mid-February 2023, references from PsycINFO and PubMed were imported into Covidence (n=8335, including duplicates, n=3121), where a preliminary title/abstract screening commenced. References from an updated search based on the findings from the preliminary screening, and references from the remaining databases has been imported to Covidence mid October 2023. We anticipate data extraction to be finalised by February 2024 and the scoping review to be done in April 2024.

DISCUSSION

Beliefs about schizophrenia in the psychiatric system have been characterised by pessimistic views on improvement partly due to the clinician-defined goals of recovery (cf. CR) and paternalistic treatment of people with mental health issues.¹⁶ However, in recent years, great quantities of literature on recovery definitions defined by people with lived experience of mental health issues have amassed.^{14 17 21 26 31 35–37} The field of PR has emerged and diverged into various definitions and frameworks, resulting in a diverse field and differing terminology. The scoping review will be conducted, to create an overview of the current findings on psychosocial interventions promoting PR, while encompassing various definitions. The scoping review will serve as a stepping stool for future systematic reviews and meta-analyses. Furthermore, identifying interventions targeting strengths of the individual may be considered a more empowering framework and narrative for combating the negative aspects of severe mental illness, for example, stigma, loss of identity, etc.^{55 23} We have limited the scope of this review to schizophrenia-specific literature, as people with schizophrenia is among the most stigmatised groups of people with mental illnesses worldwide,⁵⁶ and stigma has been identified as a barrier to PR.^{33 37 55} As people with schizophrenia are largely stigmatised, we expect the PR journey to be qualitatively different for people with schizophrenia than other mental disorders.

Robust, methodological rigour is a strength of this scoping review protocol, where established scoping review methodology has guided the development of this manuscript and future study.^{39–41} Additionally, best practice for screening will be followed,⁵¹ by screening the references from the databased independently in duplicate. Lastly, the saturated usage of databases, and qualitative and quantitative literature ensures a thorough mapping of the scientific research of this area.⁴⁶ A limitation of the scoping review is the language restriction, where only publications written in English, or the Scandinavian languages will be included. By doing so, we will likely reduce the number of non-western publications, which might bias the findings

towards a more western-centred representation of PR in people with schizophrenia.

Ethics and dissemination

Ethics approval is not required for this protocol. Findings will be disseminated through conferences, consumer-involvement, and published in a peer-reviewed scientific journal.

Author affiliations

¹Psychiatric Research Unit, Psychiatric Services Region Zealand, Slagelse, Denmark

²Action Aid Denmark, Aarhus, Denmark

³PsykTærilig, Oslo, Norway

⁴Ålesund behandlingssenter, Ålesund, Norway

⁵Department of Psychology, University of Southern Denmark, Odense, Denmark

⁶Mental Health Services, East, Copenhagen University Hospital, Copenhagen, Denmark

⁷Institute for Regional Sundhedsforskning (IRS), University of Southern Denmark, Odense, Denmark

⁸Psychiatry, Aalborg University Hospital, Aalborg, North Denmark Region, Denmark

⁹Department of Clinical Medicine, Aalborg University, Aalborg, North Denmark Region, Denmark

Acknowledgements We would like to thank Luise Skinnerup and Maria A. Bonde for their contribution to this manuscript. Luise Skinnerup and Maria A. Bonde, two healthcare workers and members of Northern Jutland's Psychiatric Peer-board and former patients, gave feedback on the first draft of the protocol (and they gave written, informed consent to be mentioned in this article). Luise Skinnerup has a health educational background as an occupational therapist, and Maria A. Bonde has a background as a pedagogue working at Northern Jutland's Psychiatric Hospital, Denmark. Furthermore thanks goes to Trine Lacoppidan Kæstel, information Specialist and former Research Librarian at Psychiatric Research Unit, Psychiatric Services Region Zealand, Denmark, and Vibeke Rabjerg Grünbaum, Research Librarian, Psychiatric Research Unit, Psychiatric Services Region Zealand, Denmark for their aid in the development and revisions of the search.

Contributors Joint first authors and guarantors, OLPM and MQ, contributed equally to the development of this protocol. All authors contributed to the conceptualisation of this scoping review. Authors MQ and OLPM developed the search strategy in collaboration with research librarians (see the Acknowledgements section). Authors MQ, OLPM and TA wrote the first draft of the scoping review protocol, and OJS, SAF, DLV and LLB, critically revised all drafts, and made recommendations for changes. Joint first authors further revised the protocol, before the final manuscript for the scoping review protocol was read and approved by all authors.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests DLV has received speaking fees from the medical company H. Lundbeck A/S. The other authors have no competing interests to declare.

Patient and public involvement Patients and/or the public were involved in the design, or conduct, or reporting, or dissemination plans of this research. Refer to the Methods section for further details.

Patient consent for publication Not applicable.

Provenance and peer review Not commissioned; externally peer reviewed.

Supplemental material This content has been supplied by the author(s). It has not been vetted by BMJ Publishing Group Limited (BMJ) and may not have been peer-reviewed. Any opinions or recommendations discussed are solely those of the author(s) and are not endorsed by BMJ. BMJ disclaims all liability and responsibility arising from any reliance placed on the content. Where the content includes any translated material, BMJ does not warrant the accuracy and reliability of the translations (including but not limited to local regulations, clinical guidelines, terminology, drug names and drug dosages), and is not responsible for any error and/or omissions arising from translation and adaptation or otherwise.

Open access This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is

properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0/>.

ORCID iDs

Maria Quistgaard <http://orcid.org/0009-0004-3700-044X>

Oda Leonarda Pollestad Myklebust <http://orcid.org/0009-0003-1923-5889>

Ole Jakob Storebø <http://orcid.org/0000-0003-0204-7745>

REFERENCES

- 1 Lawrence RE, First MB. Psychopathology. In: Lieberman JA, Scott Stroup T, Perkins DO, et al, eds. *Textbook of schizophrenia*. 2nd. Washington, USA: The American Psychiatric Association, 2020: 35–52.
- 2 Chong HY, Chaiyakunapruk N, D B C W, et al. Global economic burden of schizophrenia: a systematic review. *Value Health* 2014;17.
- 3 Tandon R, Gaebel W, Barch DM, et al. Definition and description of schizophrenia in the DSM-5. *Schizophr Res* 2013;150:3–10.
- 4 Castonguay LG, Oltmanns TF, Lott AP. *Psychopathology: from science to clinical practice* Second. New York: Guilford Press, 2021.
- 5 Martínez AL, Brea J, Rico S, et al. Cognitive deficit in schizophrenia: from etiology to novel treatments. *Int J Mol Sci* 2021;22.
- 6 Tandon R, Nasrallah HA, Keshavan MS. 'Just the facts' 4 clinical features and conceptualization. *Schizophr Res* 2009;110:1–23.
- 7 Kessler T, Lev-Ran S. The association between comorbid psychiatric diagnoses and hospitalization-related factors among individuals with schizophrenia. *Compr Psychiatry* 2019;89:7–15.
- 8 McGrath J, Saha S, Chant D, et al. Schizophrenia: a concise overview of incidence, prevalence, and mortality. *Epidemiol Rev* 2008;30:67–76.
- 9 Harding CM. Course types in schizophrenia: an analysis of European and American studies. *Schizophr Bull* 1988;14:633–43.
- 10 Lieberman JA, Perkins D, Belger A, et al. The early stages of schizophrenia: speculations on pathogenesis, pathophysiology, and therapeutic approaches. *Biological Psychiatry* 2001;50:884–97.
- 11 Laursen TM, Nordentoft M, Mortensen PB. Excess early mortality in schizophrenia. *Annu Rev Clin Psychol* 2014;10:425–48.
- 12 Saha S, Chant D, McGrath J. A systematic review of mortality in schizophrenia: is the differential mortality gap worsening over time? *Arch Gen Psychiatry* 2007;64:1123–31.
- 13 Morin L, Franck N. Rehabilitation interventions to promote recovery from schizophrenia: a systematic review. *Front Psychiatry* 2017;8:100.
- 14 Huxley P, Krayer A, Poole R, et al. Schizophrenia outcomes in the 21st century: a systematic review. *Brain Behav* 2021;11:e02172.
- 15 Corrigan PW. Recovery from schizophrenia and the role of evidence-based psychosocial interventions. *Expert Rev Neurother* 2006;6:993–1004.
- 16 Slade M, Amering M, Oades L. Recovery: an international perspective. *Epidemiol Psychiatr Soc* 2008;17:128–37.
- 17 Van Eck RM, Burger TJ, Vellinga A, et al. The relationship between clinical and personal recovery in patients with schizophrenia spectrum disorders: a systematic review and meta-analysis. *Schizophr Bull* 2018;44:631–42.
- 18 Jääskeläinen E, Juola P, Hirvonen N, et al. A systematic review and meta-analysis of recovery in schizophrenia. *Schizophr Bull* 2013;39:1296–306.
- 19 Lieberman JA. The American psychiatric Association publishing textbook of schizophrenia. 2nd edn. Washington, District of Columbia: American Psychiatric Association Publishing, 2020.
- 20 Bellack AS. Scientific and consumer models of recovery in schizophrenia: Concordance, contrasts, and implications: promoting recovery. *Schizophr Bull* 2006;32:432–42.
- 21 Leendertse JCP, Wiersma AI, van den Berg D, et al. Personal recovery in people with a psychotic disorder: a systematic review and meta-analysis of associated factors. *Front Psychiatry* 2021;12:622628.
- 22 van Weeghel J, van Zelst C, Boertien D, et al. Conceptualizations, assessments, and implications of personal recovery in mental illness: a scoping review of systematic reviews and meta-analyses. *Psychiatr Rehabil J* 2019;42:169–81.
- 23 Wood L, Alsawy S. Recovery in psychosis from a service user perspective: a systematic review and thematic synthesis of current qualitative evidence. *Community Ment Health J* 2018;54:793–804.
- 24 Topor A, Borg M, Di Girolamo S, et al. Not just an individual journey: social aspects of recovery. *Int J Soc Psychiatry* 2011;57:90–9.
- 25 Anthony WA. Recovery from mental illness: the guiding vision of the mental health service system in the 1990s. *Int J Psychosoc Rehabilitation* 1993;16:11–23.

- 26 Leamy M, Bird V, Le Boutillier C, *et al*. Conceptual framework for personal recovery in mental health: systematic review and narrative synthesis. *Br J Psychiatry* 2011;199:445–52.
- 27 Schrank B, Riches S, Bird V, *et al*. A conceptual framework for improving well-being in people with a diagnosis of psychosis. *Epidemiol Psychiatr Sci* 2014;23:377–87.
- 28 Jose D, Lalitha K, *et al*. Consumer perspectives on the concept of recovery in schizophrenia: a systematic review. *Asian J Psychiatr* 2015;14:13–8.
- 29 Temesgen WA, Chien WT, Bressington D. Conceptualizations of subjective recovery from recent onset psychosis and its associated factors: a systematic review. *Early Interv Psychiatry* 2019;13:181–93.
- 30 Schrank B, Slade M. Recovery in psychiatry. *Psychiatr Bull* 2007;31:321–5.
- 31 Walsh J, Hochbrueckner R, Corcoran J, *et al*. The lived experience of schizophrenia: a systematic review and meta-synthesis. *Social Work in Mental Health* 2016;14:607–24.
- 32 Killaspy H, Baird G, Bromham N, *et al*. Rehabilitation for adults with complex psychosis: summary of NICE guidance. *BMJ* 2021;372:1.
- 33 Isaacs AN, Brooks H, Lawn S, *et al*. Effectiveness of personal recovery facilitators in adults with schizophrenia and other psychoses: a systematic review of reviews and narrative synthesis. *Schizophr Res* 2022;246:132–47.
- 34 Medalia A, Saperstein A, Grant P. Psychosocial and Rehabilitative therapies. In: Lieberman JA, Stroup S, Perkins DO, *et al*, eds. *Textbook of schizophrenia*. 2nd. edn. Washington, USA: The American psychiatric association, 2020: 185–204.
- 35 Andresen R, Oades L, Caputi P. The experience of recovery from schizophrenia: towards an empirically validated stage model. *Aust N Z J Psychiatry* 2003;37:586–94.
- 36 Sells DJ, Stayner DA, Davidson L. Recovering the self in schizophrenia: an integrative review of qualitative studies. *Psychiatr Q* 2004;75:87–97.
- 37 Soundy A, Stubbs B, Roskell C, *et al*. Identifying the facilitators and processes which influence recovery in individuals with schizophrenia: a systematic review and thematic synthesis. *J Ment Health* 2015;24:103–10.
- 38 Wang W, Zhou Y, Chai N, *et al*. Cognitive-behavioural therapy for personal recovery of patients with schizophrenia: a systematic review and meta-analysis. *Gen Psychiatr* 2019;32:e100040.
- 39 Peters MDJ, Marnie C, Tricco AC, *et al*. Updated methodological guidance for the conduct of scoping reviews. *JBIEvid Synth* 2020;18:2119–26.
- 40 Peters MDJ, Godfrey CM, Khalil H, *et al*. Guidance for conducting systematic scoping reviews. *Int J Evid Based Healthc* 2015;13:141–6.
- 41 Tricco AC, Lillie E, Zarin W, *et al*. PRISMA extension for scoping reviews (PRISMA-SCR): checklist and explanation. *Ann Intern Med* 2018;169:467–73.
- 42 White MD, Marsh EE. Content analysis: a flexible methodology. *Library Trends* 2006;55:22–45.
- 43 American Psychiatric Association. Schizophrenia spectrum and other psychotic disorders. In: *Diagnostic and statistical manual of mental disorders*. 5th edn. edn. 2013.
- 44 World Health Organization. International statistical classification of diseases and related health problems. 2019. Available: <https://icd.who.int/>
- 45 Forsman AK, Nordmyr J, Wahlbeck K. Psychosocial interventions for the promotion of mental health and the prevention of depression among older adults. *Health Promot Int* 2011;1:85–107.
- 46 Bramer WM, Rethlefsen ML, Kleijnen J, *et al*. Optimal database combinations for literature searches in systematic reviews: a prospective exploratory study. *Syst Rev* 2017;6:245.
- 47 Rethlefsen ML, Kirtley S, Waffenschmidt S, *et al*. PRISMA-S: an extension to the PRISMA statement for reporting literature searches in systematic reviews. *Syst Rev* 2021;10:39.
- 48 Sutton A, Clowes M, Preston L, *et al*. Meeting the review family: exploring review types and associated information retrieval requirements. *Health Info Libr J* 2019;36:202–22.
- 49 Munn Z, Pollock D, Khalil H, *et al*. What are scoping reviews? Providing a formal definition of scoping reviews as a type of evidence synthesis. *JBIEvid Synth* 2022;20:950–2.
- 50 Veritas health innovation. Covidence systematic review software; 2021.
- 51 Waffenschmidt S, Knelangen M, Sieben W, *et al*. Single screening versus conventional double screening for study selection in systematic reviews: a methodological systematic review. *BMC Med Res Methodol* 2019;19:132.
- 52 Page MJ, McKenzie JE, Bossuyt PM, *et al*. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ* 2021;372:71.
- 53 Baxter J. Content analysis. In: Kobayashi A, ed. *International Encyclopedia of Human Geography*. Second. Oxford: Elsevier, 2020: 391–6.
- 54 Hsieh H-F, Shannon SE. Three approaches to qualitative content analysis. *Qual Health Res* 2005;15:1277–88.
- 55 Slade M. *Personal Recovery and Mental Illness: A Guide for Mental Health Professionals*. Cambridge: Cambridge University Press, 2009.
- 56 Hazell CM, Berry C, Bogen-Johnston L, *et al*. Creating a hierarchy of mental health stigma: testing the effect of psychiatric diagnosis on stigma. *BJPsych Open* 2022;8:e174.