BMJ Open

Physical comorbidity and use of healthcare services in people with schizophrenia: protocol for a systematic review

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To cite: Salvador Robert M, Porras-Segovia A, Peñuelas-Calvo I, *et al*. Physical comorbidity and use of healthcare services in people with schizophrenia: protocol for a systematic review. *BMJ Open* 2021;**11**:e053324. doi:10.1136/bmjopen-2021-053324

► 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-2021-053324).

Received 13 May 2021
Accepted 17 November 2021

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ABSTRACT

Introduction People with schizophrenia die about 15–20 years earlier than the general population. A constellation of factors contributes to this gap in life expectancy: side effects of psychotropic drugs, unhealthy lifestyles (inactivity, unhealthy diet) and inequality in the provision of healthcare services. This is a topic of main importance, which requires constant update and synthesis of the literature. The aim of this review is to explore the evidence of physical comorbidity and use of healthcare services in people with schizophrenia.

Methods and analysis We will conduct a systematic literature search in the databases PubMed/MEDLINE, EMBASE, Scopus, Web of Science, PsycINFO and Cochrane Library, Proquest Health Research Premium Collection, in order to identify studies that answer to our research question: Are patients with schizophrenia different from the non-psychiatric population in terms of physical comorbidity and use of healthcare services? Two authors will independently review the studies and extract the data.

Ethics and dissemination This study does not include human or animal subjects. Thus, ethics considerations are not applicable. Dissemination plans include publications in peer-reviewed journals and discussion of results in psychiatric congresses.

PROSPERO registration number CRD42020139972.

Strengths and limitations of this study

- The systematic review is methodologically sound.
- The limitations of this study are the expected heterogeneity of the results, which will preclude carrying out a meta-analysis.
- This heterogeneity is likely to be the result of methodological designs, diagnostic variations, different clinical settings and cultural differences, including health policies and medical professionals' attitudes in each country.
- Another limitation is that language of studies will be restricted to English, French and Spanish, meaning that evidence published in any other language will be missed.

BACKGROUND

About 7 out of every 1000 people will suffer from schizophrenia in their lifetime.[1] There is an excess mortality in patients with schizophrenia, which is mainly the result of a higher prevalence of physical conditions.[1 2] For instance, patients with schizophrenia are at two to five times higher risk of developing diabetes than the rest of the population.[3] Schizophrenia has been described as a 'life-shortening illness', and physical comorbidity accounts for 60% of premature deaths unrelated to suicide.[4–6] Nearly 50% of patients with schizophrenia comorbid medical conditions, but these are often underdiagnosed.[7–9]

Evidence suggests that people with schizophrenia have not experienced the same improvement in life expectancy as the general population in recent decades. The mortality gap between people with schizophrenia and the general population not only persists but may have increased.[10–12] Furthermore, the physical health of people with schizophrenia may have deteriorated since the start of the pandemic in the early 2020s, according to some studies.[13] Patients with schizophrenia are also less likely to be vaccinated against COVID-19.[14]

One of the factors that may be involved in the poorer physical health of patients with schizophrenia are the side effects of second-generation antipsychotics.[15] There are also barriers to the provision of adequate healthcare and help-seeking in this population. These barriers may be related to the patient and their illness, to the attitudes of clinicians and to the structure of the healthcare system. Fragmented health systems, financial difficulties in accessing healthcare or patients' inability to describe their physical problems, are some of the factors that may explain the substandard medical care of patients with schizophrenia.[16] General practitioners and specialists in fields other than psychiatry often feel insecure when treating patients with schizophrenia[17] and may even fear them.[18] Patients with schizophrenia may suffer from

the stigma associated with mental health at the hands of health professionals, putting their physical health at risk. In a survey of patients with schizophrenia in 27 countries, 17% reported feeling discriminated against when being treated for their physical health problems.[19] Psychiatrists, for their part, lack the training needed to take care of their patients' physical health, but are often the main healthcare provider of patients with schizophrenia, both for their mental and physical health problems.[20] Further collaboration between departments and a more holistic approach are needed for taking care of the physical health of patients with schizophrenia.

There are other risk factors that can contribute to this excess mortality, such as lifestyle: studies show that people with schizophrenia have higher rates of smoking, unhealthy diet and sedentarism.[21–24]

There are some previous systematic reviews about different aspects of physical comorbidity in patients with schizophrenia. For instance, a review by Janssen *et al*, carried out in 2015, showed a high prevalence of medical conditions among people with schizophrenia.[25] For their part, a meta-analysis by Vancampfort *et al* revealed an increased risk of metabolic syndrome in people with schizophrenia compared with the general population.[26] Despite the great contribution of these and other previous reviews, there are still gaps of knowledge that deserve to be explored, such as the use of healthcare services among people with schizophrenia. Moreover, this is a crucial topic, which requires constant update of the literature. The aim of this review is to explore the prevalence of physical comorbidity and use of healthcare services among people with schizophrenia. Our research question is 'Are there quantitative differences patients regarding physical comorbidity and use of healthcare services between patients with schizophrenia and the non-psychiatric population?'

METHODS AND ANALYSIS

The review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Protocols (PRISMA) guidelines.[27] PRISMA guidelines checklist is shown in table 1.

Inclusion/exclusion criteria

Inclusion criteria are:

1. Original observational (cohort, case/control or cross-sectional) studies published in peer-reviewed journals.
2. Studies that compare people with schizophrenia (diagnosis established either by a clinician or by using standardised questionnaires) with non-psychiatric populations (either clinical or non-clinical).
3. Studies that explore at least one of the following outcomes:
   a. Quantitative differences in the prevalence and/or clinical features of physical conditions in schizophrenia patients versus non-psychiatric populations.
   b. Quantitative differences in use of healthcare services in schizophrenia patients versus non-psychiatric populations, including: bed occupancy, hospitalisation stays, wait times to surgery, adherence to treatment plans and admission to trials of new drugs.

Exclusion criteria are:

1. Case studies, case series and studies with n=1
2. Reviews
3. Clinical trials

There will be no restrictions regarding healthcare setting (inpatients, outpatients, community-dwelling people, etc) or treatment received (people with or without treatment).

There will be no restrictions regarding publication date of the studies.

Publication language will be restricted to English, Spanish or French.

Main outcomes are: Physical comorbidity (prevalence of physical conditions, clinical features and prognosis of such conditions); Use of healthcare services (hospitalisation days, outpatient appointments, emergency visits, expenses).

Search strategy

We will conduct a systematic literature search of the following databases: PubMed/MEDLINE, EMBASE, Scopus, Web of Science, PsycINFO and Cochrane Library, Proquest Health Research Premium Collection.

Language restriction: English, Spanish or French.

There will be no restrictions by date.

The following search terms will be used: "Schizophrenia"[Mesh]) AND "Comorbidity"[Mesh])) AND "schizophrenia"[Title]) AND (("medical comorbidity") OR "physical comorbidity")

The references of included studies will also be screened.

Full search strategy is shown in online supplemental file 1.

Planned start date is 20 November 2021. Planned completion date is 20 February 2022.

Study selection and data extraction

Titles and/or abstracts of the paper retrieved will be screened independently by two reviewers to identify studies that potentially meet the inclusion criteria. The full text of these studies will be independently assessed by the two reviewers. Discrepancies between reviewers will be resolved by discussion, with the participation, if necessary, of a collaborator.

Data will be identified, checked and mined by two independent reviewers. The following variables will be collected: author; design; country; year of study publication; study design; sample size; age of the sample; gender distribution of the sample; clinical setting—inpatients/outpatients—; outcomes; measures; main findings. Authors of the selected studies will be contacted if additional information is needed. A qualitative synthesis of data will be performed. The strength of the body of evidence regarding our research topic will be assessed

Table 1 Preferred Reporting Items for Systematic Reviews and Meta-Analyses Protocols 2015 checklist: recommended items to address in a systematic review protocol

Section and topic	Item no	Cheklist item	Page no
Administrative information			
Title:			
Identification	1a	Identify the report as a protocol of a systematic review	1
Update	1b	If the protocol is for an update of a previous systematic review, identify as such	N/A
Registration	2	If registered, provide the name of the registry (such as PROSPERO) and registration number	6
Authors:			
Contact	3a	Provide name, institutional affiliation, e-mail address of all protocol authors; provide physical mailing address of corresponding author	2
Contributions	3b	Describe contributions of protocol authors and identify the guarantor of the review	10
Amendments	4	If the protocol represents an amendment of a previously completed or published protocol, identify as such and list changes; otherwise, state plan for documenting important protocol amendments	N/A
Support:			
Sources	5a	Indicate sources of financial or other support for the review	10
Sponsor	5b	Provide name for the review funder and/or sponsor	N/A
Role of sponsor or funder	5c	Describe roles of funder(s), sponsor(s), and/or institution(s), if any, in developing the protocol	N/A
Introduction			
Rationale	6	Describe the rationale for the review in the context of what is already known	4–6
Objectives	7	Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO)	6
Methods			
Eligibility criteria	8	Specify the study characteristics (such as PICO, study design, setting, time frame) and report characteristics (such as years considered, language, publication status) to be used as criteria for eligibility for the review	6–7
Information sources	9	Describe all intended information sources (such as electronic databases, contact with study authors, trial registers or other grey literature sources) with planned dates of coverage	7–8
Search strategy	10	Present draft of search strategy to be used for at least one electronic database, including planned limits, such that it could be repeated	7–8
Study records:			
Data management	11a	Describe the mechanism(s) that will be used to manage records and data throughout the review	8

N/A, not available; PROSPERO, International Prospective Register of Systematic Reviews.

through the Grading of Recommendations Assessment, Development and Evaluation system.[28]

Risk of bias (quality) assessment

All eligible studies will be reviewed and critically appraised. Quality will be independently assessed by two reviewers. Discrepancies between reviewers will be resolved by discussion, with the participation, if necessary, of a collaborator. Aspects assessed will include risk of bias, methodological design, quality of reporting, etc.

We will use the Newcastle-Ottawa Scale to assess the quality of case control and longitudinal cohort studies.[29] Strengthening the Reporting of Observational Studies in Epidemiology individual component checklists will also be used to appraise the studies.[30] Studies will be considered methodologically solid if they present an appropriate design, their case and control groups are comparable, and they are free of selection bias, attrition bias, detection bias, and reporting bias.

Patient and public involvement

It was not possible to involve patients, families, healthcare professionals or other members of the community in the design, conduct, reporting, and dissemination plans of our research.

DISCUSSION

Regarding our dissemination plans, this systematic review will be published in a peer-reviewed journal. This systematic review presents with some potential limitations: language of articles will be restricted to English, French or Spanish, meaning that evidence published in any other language will be missed. The expected heterogeneity of the articles to be reviewed will most likely preclude a quantitative synthesis of results. Finally, the broad topic may represent a challenge but will contribute to closing gaps of knowledge in the existing literature.

Increasing knowledge about physical comorbidity and use of healthcare services in patients with schizophrenia will contribute to informing programmes aimed at providing medical care of this population. This, in turn, is expected to reduce their excess mortality and increase their quality of life, as well as reduce costs by avoiding medical complications.

Ethics and dissemination

This study does not include human or animal subjects. Thus, ethics considerations are not applicable. Dissemination plans include publications in peer-reviewed journals and discussion of results in psychiatric congresses.

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Contributors MSR, EB-G and AP-S designed the systematic review protocol. MSR and AP-S registered the review protocol in the PROSPERO database. AP-S and IP-C drafted the manuscript. All authors contributed substantially to the revision of the manuscript. All authors read and approved the final manuscript.

Funding This study received grant support from Instituto de Salud Carlos III (CM19/00026).

Competing interests None declared.

Patient consent for publication Not applicable.

Provenance and peer review Not commissioned; externally peer reviewed.

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