

INPLASY PROTOCOL

To cite: Li et al. Mental health of physical disabled and interventions for it: a protocol for a scoping review. Inplasy protocol 202320084. doi: 10.37766/inplasy2023.2.0084

Received: 20 February 2023

Published: 20 February 2023

Corresponding author:
Mengqian Li

mengqianli@ncu.edu.cn

Author Affiliation:
The first Hospital Affiliated of
Nanchang University

Support: No specific financial
support.

**Review Stage at time of this
submission:** Data analysis.

Conflicts of interest:
None declared.

Mental health of physical disabled and interventions for it: a protocol for a scoping review

Li, MQ¹; Chen, GH²; Li, H³; Li, YY⁴; Wang, YL⁵; Wang, X⁶.

Review question / Objective: (1) What is the mental health status of people with physical disabilities? (2) What's the current state of the evidence on the effectiveness of interventions to reduce mental health problems in people with physical disabilities?

Background: According to the World Health Organization, early one fifth of the world's population is disabled, among them physical disability accounts for the largest part. Physical image and function impairment are often accompanied with people who suffer from physical disabilities, which usually leads to a decline in the quality of life. At the same time, an increase in social stigma, lack of social relations and social interaction, as well as mental health problems and mental diseases will happen. According to some studies people with physical disabilities are more likely to suffer from mental health problems such as depression and anxiety than healthy people. Preliminary literature search shows that there are few studies on the mental health status and intervention measures of the physically disabled, and there are great differences between different studies.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 20 February 2023 and was last updated on 20 February 2023 (registration number INPLASY202320084).

INTRODUCTION

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Rationale: We have defined several key terms related to this field, including several major categories: physical disability, mental health and intervention. The above three types of keywords are closely related to the field we want to study. We will select physical disability and mental health as the keywords of the summary and title, and then use intervention measures as the keywords of the title to search in the database. We selected Pubmed, Embase, and Web of Science from its establishment to December 31, 2021. Finally, we hope to integrate and analyze the number of each type of keywords in each database and the correlation between the articles under this type of keywords and the fields we want to study, to help us better understand and summarize the current situation of this field, and determine the key gaps in the existing literature, to guide the relevant scoring review for future research.

METHODS

Strategy of data synthesis: Initially, a limited search was carried out on Pubmed, Embase and Web of Science databases to determine the text contained in the title and summary of the relevant articles on the topic and the index terms used to describe the articles to develop a complete search strategy (see Appendix I). After the preliminary search, we determined to select physical disability and mental health as the keywords of the summary and the title, and then use the intervention measures as the keywords of the title to search in the database. Finally, we define

physical disability as "the long-term loss or damage of a person's physical function, resulting in limited movement, endurance, flexibility or physical function". The main mental health problems included affective disorder, depression, bipolar disorder, mania, anxiety, post-traumatic stress, sleep, self-injury, suicide, anorexia, bulimia, happiness and self-efficacy. The health-related quality of life is excluded because it contains physical, social and psychological factors. Alzheimer's disease is not within the scope of this review, because they are considered as neurological problems rather than mental health problems. Eating disorders seriously damage physical health or psychosocial functions, so they are included in. After the statistics of the preliminary data results, we will adjust for each included database and information source. The data that are not repetitive and related to our research field are screened and included in the reference list of evidence sources for subsequent research. This will include the relevant research published in English from the establishment of three databases to December 31, 2021.

Eligibility criteria: Participants include any gender or age group. Concept include physical disability as "the long-term loss or damage of a person's physical function, resulting in limited movement, endurance, flexibility or physical function" And the main mental health problems. While concept exclude evidence focuses on mental, intellectual, visual or auditory disabilities rather than physical disabilities OR health related quality of life OR Alzheimer's disease.

Context include any geographical location or environment AND cross-sectional study, randomized controlled trial, cohort study, case-control study, mixed method study and natural experiment with pre-and post-measurement AND have objective outcome indicators AND published in English. While context exclude summary, meta-analysis, research protocols, unpublished and ongoing trials, conference summaries, guides, books and annual reports OR case reports, editorials, magazine/newspaper

articles, review articles, letters and papers without original data OR grey literature.

Source of evidence screening and selection: After searching Pubmed, Embase and Web of Science databases, all identified citations will be sorted out and uploaded to EndNoteX9 software, and duplicates will be deleted. Then upload the remaining records to the online Rayyan software (<https://www.rayyan.ai/>) After that, the title and summary will be screened by two or more independent reviewers to evaluate according to the inclusion criteria of the review. The potential relevant sources will be fully retrieved, and their citation details will be imported into the JBI Unified Information Management, Evaluation and Review System (JBI SUMARI) (JBI SUMARI paper citation). The full text of the selected citation will be evaluated in detail by two or more independent reviewers according to the selection criteria. The reasons for excluding the full text evidence sources that do not meet the inclusion criteria will be recorded and reported in the scope review. At each stage of the selection process, any differences between reviewers will be resolved through discussion or with other reviewers. The search results and research inclusion process will be fully reported in the final scope review and will be displayed in the system review and meta-analysis extension preferred report project (PRISMA ScR) flow chart of the scope review.

Data management: Two or more independent reviewers will use the data extraction tools developed by the reviewers to extract data from the papers included in the scoping review. The extracted data will include the specific details of participants, concepts, background, research methods and key findings related to the review question. In the process of extracting data from each included evidence source, the draft data extraction tool will be modified and revised as needed. Modifications will be detailed in the scope review. Any differences between reviewers will be resolved through discussion or with other

reviewers. If appropriate, the author of the paper will be contacted to request missing or additional data. The evidence submitted should directly respond to the review objectives and questions. Data is usually presented in the form of graphs or charts or tables. The preparation of the review scheme provides the author with the opportunity to experiment and determine how to best present its data or map and provide the reader with a detailed description. The list and/or chart results will be accompanied by a narrative summary and will describe the relationship between the results and the review objectives and issues.

Reporting results / Analysis of the evidence: Tables will be used to compare the results, table 1 will show prevalence of multiple mental health problems in people with physical disabilities. Authors will list title, authors (Years), country, methodology, participants and prevalence of different papers. Table 2 will exhibit existing interventions for mental health problems in people with physical disabilities. Authors will list title, authors (years), country, methodology, Intervention, participants, effect of intervention of different papers.

Language restriction: We only search language published in English.

Main outcome(s): China.

Keywords: physical disabilities; mental health.

Contributions of each author:

Author 1 - Mengqian Li - Li MQ worked as the first corresponding author, response for initial planning for the whole review and contact with editors of journals.

Email: mengqqianli@ncu.edu.cn

Author 2 - Hongguang Chen - Chen HG worked as the second corresponding author, response for initial planning for the whole review.

Email: chenhg@bjmu.edu.cn

Author 3 - Hui Li - Li H had the initial research idea, formulated the research questions, contributed to designing the searches and response for reviewing the

titles, abstracts and full texts with the third author Li Y., writing the manuscript, and interpreting the findings.

Email: sy1342409570@163.com

Author 4 - Yunyue Li - Li YY searched for published work, selected articles, extracted and analyzed the data and made some tables to better describe results.

Email: liyunyuelyy@163.com

Author 5 - Yilu Wang - Wang YL drafted the protocol and manuscript and performed the statistical analysis.

Email: 2217258424@qq.com

Author 6 - Xing Wang - Wang X revised the manuscript and helped with searching for and data selection.

Email: xing.wang@ncu.edu.cn