BMJ Open

# Depression in older adults during the COVID-19 pandemic: a systematic review protocol

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**To cite:** Silva C, Fonseca C, Ferreira R, *et al*. Depression in older adults during the COVID-19 pandemic: a systematic review protocol. *BMJ Open* 2022;**12**:e065610. doi:10.1136/bmjopen-2022-065610

► 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-2022-065610).

Received 13 June 2022
Accepted 15 September 2022



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## ABSTRACT

**Introduction** Depression is a common mental disorder and is a major cause of years lived with disability. The COVID-19 pandemic has caused an increase in the prevalence of depression worldwide. Our aim is to identify and synthesise the determinants of depression, the diagnostic assessment tools used to evaluate depression, and the interventions carried out since the beginning of the COVID-19 pandemic in the population aged 60 and older.

**Methods and analysis** A systematic review of the literature will be conducted. The following databases will be searched: CINAHL Plus with Full Text, MedicLatina, MEDLINE with Full Text, and Psychology and Behavioural Sciences Collection. The search strategy will include the following Medical Subject Headings or similar terms: "Depression", "Depressive Disorder", "Depressive Symptoms", "Older Adults", "Aging", "Elderly", Pandemic" and "COVID-19". Two independent reviewers will ascertain whether the resulting articles meet inclusion and exclusion criteria, and perform the analysis of data quality. Disagreements will be resolved by a third reviewer. All studies reported between December 2019 and March 2022 meeting the following criteria will be included: studies in adults aged 60 and over, and articles written in English, Portuguese, Spanish or German. Information on determinants of depression, assessment instruments used to assess depressive symptoms and/or interventions to decrease depression are reported. Studies will not be excluded based on geographical area study context (eg, community, culture or specific environment). All studies related to diagnostic assessment, care planning and/or intervention strategies specifically for older adults with depression will be included.

**Ethics and dissemination** As only secondary data will be analysed, no ethical approval is required for this study. This scientific article is a systematic review protocol for which data have not yet been extracted or analysed. The results will be disseminated through peer-reviewed publications.

**PROSPERO registration number** CRD42022299775.

## STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ This systematic review will use a detailed search strategy focusing on three main topics with respect to older adults with depression during the COVID-19 pandemic: the determinants of depression, the assessment instruments that have been used to evaluate depression and the interventions that have been implemented to decrease depression in older adults since the onset of the pandemic.
⇒ The search strategy will be adapted according to each database and will be restricted to the period from December 2019 to March 2022.
⇒ This review will include primary quantitative empirical studies, including cross-sectional, longitudinal, observational or experimental studies.
⇒ Publications in languages besides English, Portuguese, Spanish and German will not be surveyed due to language barriers, so there may be a language bias.
⇒ There may be high heterogeneity among the studies, given that there may be different determinants of depression identified in included studies.

## INTRODUCTION

Depression is considered a common mental disorder by the WHO, with around 280 million people worldwide diagnosed.[1] Estimates from 2019 indicate that depression affects 5% of adults, rising to 5.7% in people over the age of 60.[1] Moreover, depression is one of the leading causes of years lived with disability (YLDs).[2 3]

Some literature reviews have concluded that there was a significant increase in the prevalence of major depression with the COVID-19 pandemic.[3–6] In the early months of the pandemic (until May 2020), a meta-analysis showed that the prevalence of depression ranged from 7.45% to 48.30%, with a pooled prevalence of depression of 25%, which is roughly seven times higher compared with the global prevalence in 2017 (3.44%).[4] Another meta-analysis in the same time period found a prevalence of depression across 14 studies of 33.7%.[5] In April 2021, another meta-analysis was published that analysed 16 studies and showed that the average prevalence of depression in the included studies was 34.31%, with

prevalence rates being higher in China (36.32%) than in other countries (28.3%).[6] A systematic literature review (1 January 2020 and 29 January 2021) that included 46 studies with patients meeting criteria for major depressive disorder estimated an increase of 54.1 million additional cases worldwide (+28.1%).[3] After adjusting for the impact of the pandemic, major depression moved from the fifth to the second leading cause of YLDs (years of healthy life lost due to disability), explaining 5.6% of all YLDs worldwide. In addition, it caused 49.5 million disability-adjusted life years.[3]

Depression in older adults is associated with major distress, impairment in daily life functioning,[7] low remission rates[8] and suicide.[8 9] Older adults are particularly vulnerable to the determinants of depression, and in this age group, depression is associated with cognitive deficits, including a higher risk of dementia.[10] A prospective cohort study found that one-third of older adults with multimorbidity had depression. It also concluded that, among several multimorbidity clusters, in those in which one of the pathologies was depression, greater deficits in activities of daily living and instrumental activities of daily living occurred than in those in which only somatic pathological illnesses were present.[11]

Depression was prevalent before the COVID-19 pandemic, and it is estimated that only 50% of patients received adequate treatment.[12 13] This reality is due to communication and coordination failures between health organisations, with deficits in care integration in which there is a lack of a global vision in the treatment of people with depression.[12]

Therefore, there is evidence of the need to develop screening, prevention and intervention strategies during and after the pandemic crisis, including appropriate diagnostic assessment and care planning,[14] where the patient is at the centre of care. This is one of the six elements for high-quality care identified by the Institute of Medicine.[15] Patient-centred care implies that the delivery of such care is in accordance with the needs and wishes of patients where decisions are made on a shared decision-making basis.[16–19]

The individualisation of patient-centred care is necessary because individuals have specific individual and environmental characteristics. Care planning for people with depression should be individualised, dynamic, flexible and involve the participation of the person.[17] It should respond to the specific necessities of the person, identifying problems and setting individual goals in a perspective of shared decision-making, information and education.[17 18] In addition, there is a need for systematic feedback and overall case management, and attention should be paid to the patient's preferences and satisfaction, involving the family and therapeutic management in care.[17–19] Care planning focuses on patient-centred care, encompassing an individual and holistic method.[16 18 19]

Patient-centred care planning strategies have great potential in the treatment of depression, which should naturally encompass pharmacological treatment and programming activities that promote patient self-care management. A recent systematic review and meta-analysis of randomised controlled trials and non-randomised studies concluded that person-centred care is more effective than standard healthcare, improving depression and increasing the likelihood of remission from depression.[20]

To plan patient-centred mental healthcare for older adults, it is essential to know the factors associated with depression, as well as the assessment tools that can be used for a correct diagnostic evaluation. With the pandemic having caused extensive changes to life in society, it is crucial to understand which factors remain relevant and which new factors can be identified as determinants of depression.

We only identified one previous systematic review of the literature, which looked at studies through February 2021 that examined factors associated with depression in adults aged 60 during the COVID-19 pandemic.[21] Female gender, loneliness, poor sleep quality and poor motor functioning were identified as factors associated with depression. Having a stable and high monthly income, and physical exercise represented protective factors for depression. An update on these factors examining in detail which factors are directly associated with the pandemic and which are indirectly associated is important. Our review aims to respond to this gap in the literature. In addition, we also sought to determine what diagnostic assessment instruments were used to evaluate depression and what interventions targeting older adults with depression were conducted in the pandemic period.

Thus, with this protocol, we intend to specify the conditions to initiate this review. With the development of this protocol, we aimed to ensure the rigour, clarity and quality of the process. To this end, we involved two reviewers in the multiple stages of identification and selection of studies and also in the search of different databases. As a result of this systematic review, we believe that we can contribute to the knowledge on the topic, identify guidelines for practice based on scientific evidence and inform potential guidelines for future research.

## Objectives

This study aimed to identify and synthesise the determinants of depression, the diagnostic assessment tools used to evaluate depression, and the interventions carried out since the beginning of COVID-19 pandemic in the population aged 60 and older.

## Review questions

This review will be undertaken in order to answer the following questions:

What are the determinants of depression in older adults since the onset of the COVID-19 pandemic?

What assessment instruments were used to evaluate depressive symptoms in older adults during the COVID-19 pandemic?

What interventions were implemented to decrease depressive symptoms in older adults during the COVID-19 pandemic?

## METHODS AND ANALYSIS

This protocol was developed in accordance with Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)[22] and was registered in PROSPERO under registration number CRD42022299775.

Taking into account that the scope of this study is very specific and still understudied, we chose to include in this review primary empirical quantitative studies: cross-sectional, longitudinal, observational or experimental studies.

This protocol was developed in May 2022. We started data analysis in September 2022, and aim to complete the review by the end of November 2022.

### Eligibility criteria

#### Population

The inclusion criteria are older adult patients aged 60 years or greater and with any diagnosis of depression. For example, studies in which participants had acute or chronic depression or depression coexisting with another pathology will be included because we want to report as much information as possible, as such reviews are still scarce in the scientific literature.

#### Intervention

The review will include studies on interventions to decrease depressive symptomatology in older adults since the onset of the pandemic by COVID-19, in any geographical area, regardless of context (community, culture or specific environment).

#### Comparison

This review will include studies with or without a comparison group.

#### Primary outcome

The primary objective will be to synthesise the determinants of depression, diagnostic assessment tools for depression and interventions to reduce depression.

The data can be of a quantitative nature, such as averages, measures of prevalence or incidence, and frequencies, synthesised from primary empirical quantitative studies: cross-sectional, longitudinal, observational or experimental.

#### Study design

This review should include primary empirical quantitative studies: cross-sectional, longitudinal, observational or experimental.

#### Context

All studies related to determinants of depression, diagnostic assessment, care planning or intervention strategies focused on older adults aged 60 years and over with depression, regardless of the context (community, culture or specific environment) will be included in this review.

### Search strategy

#### Data sources

In the research strategy, the aim is to carry out a broad literature search. The databases to be consulted will be CINAHL Plus with Full Text, MedicLatina, MEDLINE with Full Text and Psychology and Behavioural Sciences Collection.

#### Search terms

The research will include the combination of three key concepts according to Medical Subject Headings terms: (“Depression”) OR (“Depressive Disorder”) OR (“depressive symptoms”) AND (“Older Adults”) OR (“Aging”) OR (“Elderly”) AND (“Pandemic”) OR (“COVID-19”).

The strategy will be adapted according to each database and will be restricted to the period between December 2019 and March 2022, in English, Portuguese, Spanish and German.

The employed search terms and the search strategy used for each database are specified in online supplemental tables 1–5).

### Data collection and analysis

#### Selection of studies

The studies resulting from the search in each database will be exported to Mendeley and duplicates will be removed.

To minimise bias, two reviewers will independently assess the inclusion of studies by reading the title, abstracts and keywords and excluding those that do not meet the inclusion criteria for this review. The third reviewer will be consulted in case of disagreements or uncertainties. Then, the full texts will be evaluated. A PRISMA flowchart[22] will be presented with the results of the screening in the different phases.

#### Data extraction

Initially in the data extraction phase, a descriptive assessment of each study will be performed using the extraction instrument designed to extract information according to the research questions (determinants of depression, assessment instruments used to evaluate depression and interventions implemented to reduce depression). Other information to be extracted will be the aim of the study, sample, prevalence of depression, authors, year, methods, results and conclusions and country in which the study was conducted.

The data extraction will be performed by the same two reviewers independently and any uncertainty or disagreement will be resolved by consulting the third reviewer.

#### Quality appraisal

Since this is a review of quantitative studies, the quality assessment tool will be the Joanna Briggs Institute assessment tools to assist in assessing the reliability, relevance and results of the articles published.[23]

Again, this step will be performed by the same two reviewers independently, and any disagreement with the quality assessment of the studies will be resolved again with the intervention of the third reviewer.

The result of the quality assessment of each study will be presented. These data are not inclusion/exclusion criteria, so all studies selected up to this stage will be included. Thus, it will be possible to understand the quality of the evidence produced within the scope of this assessment. Studies of low quality will contribute less to the analysis process.

### Strategy for data synthesis

The synthesis and analysis of the results will be narrative in nature, structured to answer the research questions presented.

The characteristics of the studies to be included should correspond to the following data: determinants of depression in older adults since the onset of the COVID-19 pandemic, such as gender and age; assessment instruments used to evaluate depression in older adults during the COVID-19 pandemic; the interventions implemented to decrease depression in older adults during the COVID-19 pandemic; and the outcomes of the implemented interventions, that is, evidence of whether or not the interventions decreased depression.

A data summary table will be constructed to synthesise the answers to the research questions. These data will be grouped into a table with the characteristics of the included studies. The author, year, sample, gender, objectives, methods, assessment tools, interventions, outcomes, conclusions, country and relevant comments will be noted, and a data compilation scheme will be made.

This representation will allow grouping and synthesising of the available data from each study and will facilitate the analysis and discussion of the results.

Tables, graphs and/or figures will be prepared to present the results of the synthesised data and will be arranged in the same way as syntheses are reported in the narrative text to facilitate comparison of the findings of each study included in the review.

All team members will participate in this process, with the aim of improving the presentation of the data.

### Assessment of the quality of the evidence produced by the review

The Grade of Recommendations Assessment, Development and Evaluation protocol will be used to assess the quality of the evidence from the studies, which provides information on the presence of biases, inaccuracies or inconsistencies of results, among other important factors.[24 25]

## Patient and public involvement

There was no patient or public involvement in this study.

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**Contributors** All authors will contribute to the study as follows: CS initiated the study design; LP, BS, AW and BM initiated the study design and reviewed the study. CS and CF drafted the protocol and LP, RF, BS, AW and ML reviewed the manuscript. CF, RF and ML provided theoretical, practical, and research expertise on depression in older adults. All authors contributed to refinement of the study protocol and approval of the final manuscript.

**Funding** This research is funded by European Regional Development Fund (ERDF). Programme Interreg VA España-Portugal (POCTEP), grant number 0499_4IE_PLUS_4_E.

**Competing interests** None declared.

**Patient and public involvement** Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

**Patient consent for publication** Not applicable.

**Provenance and peer review** Not commissioned; externally peer reviewed.



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