A SCOPING REVIEW PROTOCOL TO MAP THE EVIDENCE ON SELF-REPORTED HEALTH AND NEUROTICISM IN OLDER ADULTS

Protocolo de revisão de escopo para mapear as evidências sobre autopercepção de saúde e neuroticismo em idosos

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ABSTRACT

OBJECTIVE: To identify the evidence on self-reported health and neuroticism in older adults. **METHODS:** Indexed literature published in English, Spanish and Portuguese will be systematically searched and retrieved from 10 databases; reference lists from included studies will be manually searched. Two authors will independently screen titles, abstracts, and full texts against the eligibility criteria. A customized data extraction form will be used to perform data extraction of the included studies, which will be: studies written in English, Portuguese, and Spanish; studies of older adults aged 55 years or over (mean age is 60 years at least); studies of community-dwelling older adults; studies that evaluated both self-reported health and personality; studies that evaluated self-reported health and personality with validated instruments; observational, review, and intervention studies. **RESULTS:** The results will be presented in a tabular format, accompanied by a narrative summary.

KEYWORDS: aged; personality; neuroticism; self-assessment.

RESUMO

OBJETIVO: Identificar as evidências sobre autopercepção de saúde e neuroticismo em idosos. **METODOLOGIA:** A literatura indexada publicada em inglês, espanhol e português será sistematicamente pesquisada e coletada em 10 bases de dados; as listas de referência dos estudos incluídos serão pesquisadas manualmente. Dois autores irão avaliar títulos, resumos e textos completos de forma independente de acordo com os critérios de elegibilidade. Um formulário de extração de dados customizado será utilizado para realizar a extração de dados dos estudos incluídos, que serão: estudos em inglês, português e espanhol; estudos com idosos com 55 anos ou mais (a média de idade é de 60 anos, no mínimo); estudos com idosos residentes na comunidade; estudos que avaliaram autopercepção de saúde e personalidade; estudos que avaliaram autopercepção de saúde e personalidade com instrumentos validados; estudos observacionais, de revisão e de intervenção. **RESULTADOS:** Os resultados serão apresentados em formato tabular, acompanhado de resumo narrativo.

PALAVRAS-CHAVE: idoso; personalidade; neuroticismo; autoavaliação.

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INTRODUCTION

“Personality” refers to individual differences in characteristic patterns of thought, feeling, and behavior.¹ It is a construct that encompasses basic dispositions or trends, self-concept, typical adaptations, objective biography, and external influences, which allows to describe, explain, and predict behaviors.²

The generalized hypothesis that personality affects health status is supported by increasing evidence in research evaluating self-reported health in various sociocultural contexts and age cohorts. People receive input about their physical health from both internal (e.g., body sensations) and external (e.g., health care professionals) sources.³ All those inputs are processed and cognitively organized and will affect how people assess their own health.³ In Jylhä's self-reported health model,⁴ individual psychological factors such as affective dispositions create an important structure for evaluating health components, resulting in an important influence on the assessment of the individual's health. The tendency to experience frequent positive or negative affect is strongly related to personality traits, especially extroversion and neuroticism.^{5,6}

Personality traits are examples of characteristics associated with results in health evaluation. They are established predictors of health and longevity as strong as socioeconomic status and schooling.⁷⁻¹⁰ They are generally understood as lasting tendencies to feel, think, and behave in similar life situations.¹¹ However, Chopik and Kitayama¹² found that personality traits can be characterized by both stability and lifelong changes. The primary interpretation of age-related changes is that our personalities change in response to the roles and social responsibilities we adopt over time.¹² Authors such as Letzring et al.¹³ suggest that changes in personality traits in adulthood are also associated with self-reported health changes.

Löckenhoff et al.¹⁴ suggested that there are at least two ways by which personality traits can influence subjective health assessment. First, personality can indirectly influence self-reported health through its action on objective health; personality traits can moderate physiological responses to stress or promote healthy or unhealthy behavior patterns. For example, neuroticism, which is the general tendency to experience different forms of negative affect,¹⁵ is probably associated with different health outcomes through physiological reactions to stress.^{16,17} Neuroticism is a predictor of many different mental and physical disorders including comorbidities and frequency of use of mental and general health services.¹⁸ However, healthy neuroticism can be good, especially when accompanied by higher conscientiousness. Conscientiousness may provide the bases of self-discipline and planning that are required to take actions; if neurotic

people channel their concerns into proactive health behaviors, such as urgent search for medical care, this may substantially improve the prognosis of treatment.^{19,20}

Although all five major personality traits (openness to experience, conscientiousness, extroversion, neuroticism, and kindness) are related to health in the literature, the two most consistent predictors of positive self-reported health, clinically evaluated biomarkers, and longevity are high conscientiousness and low neuroticism.²¹ There is evidence indicating that neuroticism, extroversion, and openness to experience tend to decline throughout life. A hypothesis is that this late decline coincides with a rapid decline in health and cognitive capacity.²² Low scores in conscientiousness and high scores in neuroticism indicate lower self-rated health.²³ Reductions in conscientiousness and extroversion and increases in neuroticism predict worse self-reported physical health.²⁴

The second way by which personality dimensions can influence self-reported health is shaping subjective interpretations about objective health status.¹⁴ Neuroticism is an important moderator of reported symptoms. People with a high level of neuroticism are more likely to report unfounded symptoms with no physiological basis to amplify their symptoms and bodily sensations and ask for medical help than those with a low level of neuroticism.²⁵ They also show more negative interpretations of their health status and a lower level of self-reported health.²⁶ This second path that prioritizes subjective interpretations of physical health suggests that individuals' views on their general lives probably also play a significant role in self-reported health.¹⁷

Authors such as Löckenhoff et al.²⁷ and Letzring et al.¹³ suggest that there is a need for studies to examine the association of neuroticism and self-reported health in older adults, considering that this population has a wide range of health problems, even though their self-reports and perceptions are not always negative. Therefore, investigating a possible relationship between self-assessment of health and personality trait “neuroticism” among them is a matter of great importance for the formulation of public health policies. This review will identify evidence in the literature on the relationship between self-reported health and neuroticism in older adults.

METHODS

The present review will be conducted based on the Preferred Reporting Items for Systematic Reviews and Meta-Analysis Extension for Scoping Reviews (PRISMA-ScR)²⁸ and previously published recommendations about scoping review methodology.²⁹⁻³³ As recommended, the present protocol was preregistered on the Open Science Framework (<https://osf>.

io/jswp9). The main steps adopted for this scoping review are summarized in the following subsections.

Identifying the research question

The review questions for this scoping review are:

- Do personality traits influence self-reported health in community-dwelling older adults?;
- What is the relationship between neuroticism and self-reported health in community-dwelling older adults?

The population, concept, and context (PCC) framework recommended by the Joanna Briggs Institute for scoping reviews will be used in this review to determine the research question and eligibility criteria.³⁰ Studies will be selected according to inclusion criteria. This review will consider studies that include community-dwelling older adults (55 years old or over), men and/or women (mean age 60 years at least) [participants].

This review will consider gerontological literature that reports neuroticism and self-reported health in older adults, including all synonyms for both terms [concept]. This review will consider published studies conducted in the community as long as they had included older adults [context].

Identifying relevant studies

This scoping review aims to identify published studies in English, Spanish, and Portuguese, with no date limits in searches. The search strategy designed for PubMed is detailed in Table 1. A second search strategy using all identified keywords and index terms will be done in all included databases, and their reference lists will be manually searched. The final search string will be applied in the following databases: Ageline, BVS-Bireme, CINAHL, Cochrane, Embase, PsycArticles, PSYCINFO, PubMed, Scopus, and Web of Science. The search process will be conducted with the support of a specialized librarian.

Table 1. PRISMA-P 2015 Checklist.

Section/topic	#	Checklist item	Information reported	
			Yes	No
ADMINISTRATIVE INFORMATION				
Title				
Identification	1a	Identify the report as a protocol of a systematic review	☒	☐
Update	1b	If the protocol is for an update of a previous systematic review, identify as such	☐	☐
Registration	2	If registered, provide the name of the registry (e.g., PROSPERO) and registration number in the Abstract	☒	☐
Authors				
Contact	3a	Provide name, institutional affiliation, and e-mail address of all protocol authors; provide physical mailing address of corresponding author	☒	☐
Contributions	3b	Describe contributions of protocol authors and identify the guarantor of the review	☒	☐
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	☐	☐
Support				
Sources	5a	Indicate sources of financial or other support for the review	☒	☐
Sponsor	5b	Provide name for the review funder and/or sponsor	☐	☐
Role of sponsor/ funder	5c	Describe roles of funder(s), sponsor(s), and/or institution(s), if any, in developing the protocol	☐	☐
INTRODUCTION				
Rationale	6	Describe the rationale for the review in the context of what is already known	☒	☐
Objectives	7	Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO)	☒	☐

Continue...

Table 1. Continuation.

Section/topic	#	Checklist item	Information reported	
			Yes	No
METHODS				
Eligibility criteria	8	Specify the study characteristics (e.g., PICO, study design, setting, time frame) and report characteristics (e.g., years considered, language, publication status) to be used as criteria for eligibility for the review	☒	☐
Information sources	9	Describe all intended information sources (e.g., electronic databases, contact with study authors, trial registers, or other grey literature sources) with planned dates of coverage	☒	☐
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	☒	☐
STUDY RECORDS				
Data management	11a	Describe the mechanism(s) that will be used to manage records and data throughout the review	☒	☐
Selection process	11b	State the process that will be used for selecting studies (e.g., two independent reviewers) through each phase of the review (i.e., screening, eligibility, and inclusion in meta-analysis)	☒	☐
Data collection process	11c	Describe planned method of extracting data from reports (e.g., piloting forms, done independently, in duplicate), any processes for obtaining and confirming data from investigators	☒	☐
Data items	12	List and define all variables for which data will be sought (e.g., PICO items, funding sources), any pre-planned data assumptions and simplifications	☒	☐
Outcomes and prioritization	13	List and define all outcomes for which data will be sought, including prioritization of main and additional outcomes, with rationale	☐	☐
Risk of bias in individual studies	14	Describe anticipated methods for assessing risk of bias of individual studies, including whether this will be done at the outcome or study level, or both; state how this information will be used in data synthesis	☐	☐
DATA				
Synthesis	15a	Describe criteria under which study data will be quantitatively synthesized	☒	☐
	15b	If data are appropriate for quantitative synthesis, describe planned summary measures, methods of handling data, and methods of combining data from studies, including any planned exploration of consistency (e.g., I^2 , Kendall's tau)	☐	☐
	15c	Describe any proposed additional analyses (e.g., sensitivity or subgroup analyses, meta-regression)	☐	☐
	15d	If quantitative synthesis is not appropriate, describe the type of summary planned	☐	☐
Meta-bias(es)	16	Specify any planned assessment of meta-bias(es) (e.g., publication bias across studies, selective reporting within studies)	☐	☐
Confidence in cumulative evidence	17	Describe how the strength of the body of evidence will be assessed (e.g., GRADE)	☐	☐

Source: adapted for use with protocol submissions to *Systematic Reviews* from Table 3³⁴.

Selecting the studies

Two authors will select studies considering the inclusion criteria and using Rayyan (<https://rayyan.qcri.org/welcome>), a web and mobile app for systematic reviews, to analyze titles and abstracts of the articles. If they disagree, a third author will be consulted. Selected studies will be read in full by two authors, and discrepancies will be solved by consensus. The date of the studies that meet the eligibility criteria will be imported into the Endnote Web library database, and the reference lists of the selected studies will be reviewed. The inclusion criteria for the present review follows the PCC framework, which is recommended to guide scoping reviews. The following studies will be considered:

- studies of community-dwelling older adults (55 years old and over), men and/or women (mean age 60 years at least) [participants];
- gerontological literature that reports neuroticism and self-reported health in older adults [context];
- published studies conducted in the community as long as they had included older adults [concept].
- Studies using different research designs (observational studies, experimental studies, quantitative studies, and reviews) will be considered in the present scoping review. Papers will be excluded if they are:
 - not fully published in the selected languages described above;
 - grey literature (i.e., books, thesis, dissertations);
 - case reports, letters to the editor, qualitative studies, case-control studies, commentaries, or opinion papers.

Charting the data

Relevant data for this review will be extracted from the included studies by two independent reviewers using methods recommended by Peters et al.²⁹ Data extraction will include author(s), year of publication, article title, source (journal, volume, issue, page numbers), type of study, aims, sample size, population characteristics (mean age, sex, specific diseases), methods, instruments (neuroticism and self-reported health), level of neuroticism and self-reported health, and outcomes (<https://osf.io/jswp9>). Analysis of the selected articles will check whether the study methodology was robust, which statistical analyses were used for inference about self-reported health and neuroticism in older adults, and whether validated instruments were used to validate self-reported health and neuroticism.

Collating, summarizing, and reporting the results

The review decision process will be presented in a flow chart, including search results, removal of duplicate

citations, phases of study selection (title/abstract and full text), reasons for excluding papers after full text screening, and final number of included studies. To illustrate this process, a PRISMA flow diagram will be used. The results will be presented in a tabular format, accompanied by a narrative summary related to the objective of the present scoping review. A data presentation table will be developed based on the extracted data, which will be grouped together according to study type.

Ethical approval

Since the scoping review methodology aims to synthesize information from available publications, this study does not require ethical approval.

Relevance and dissemination

This scoping review has potential to inform health care researchers about how neuroticism might be able to affect self-reported health in many ways. Results from this review may assist the formulation of public health policies, which can improve the quality of life of older adults. The complete scoping review will be disseminated through presentations at aging conferences and publication in a peer-reviewed international journal.

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CONFLICTS OF INTEREST

The authors declare no conflict of interest.

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AUTHORS' CONTRIBUTION

MC: conceptualization, writing — review & editing. VA: conceptualization, writing — review & editing. GCC: conceptualization, writing — review & editing. RCM: writing — review & editing. CP: writing — review & editing.

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