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REVIEW PROTOCOL

Repercussions of the Covid-19 pandemic on university health: A scoping review protocol

Repercussões da pandemia de Covid-19 na saúde universitária: um protocolo de revisão de escopo

Magda Guimarães de Araujo Faria[1]
ORCID: 0000-0001-9928-6392

Christiane Gleyce da Silva Freitas Venancio[1]
ORCID: 0000-0001-5082-5092

Fádia Carvalho Pacheco[1]
ORCID: 0000-0003-1150-0900

Gabriel Santos da Silva[1]
ORCID: 0000-0001-7853-9995

Beatriz Marques da Silva Kind[1]
ORCID: 0000-0001-8099-9974

Virginia Luiza Ponte Cruz Cardoso[1]
ORCID: 0000-0003-0477-3345

Genes de Lima Martins Neto[1]
ORCID: 0000-0002-7477-4848

Fabiana Ferreira Koopmans[1]
ORCID: 0000-0003-2238-5469

[1]Universidade do Estado do Rio de Janeiro, Faculdade de Enfermagem, RJ, Brasil

[2]Instituto Nacional de Câncer

Corresponding author:
Magda Guimarães de Araujo Faria
E-mail: magda.faria@uerj.br

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ABSTRACT

Objective: We aim to outline a scoping review protocol on the repercussions of the Covid-19 pandemic on the health of university faculty and students. **Method**: This scoping review protocol will be conducted according to the methods proposed by the Joanna Briggs Institute. We defined the review question based on the PCC (Population, Concept, Context) mnemonic: "What are the repercussions of the Covid-19 pandemic on the health of university faculty and students?". Eligibility criteria are associated with publications available in full text, covering methodological approaches including qualitative, quantitative, mixed methods, reflections, editorials, guidelines, manuals, and policies published between 2020 and 2023. The searches will be conducted in the databases Embase, MEDLINE via PubMed, Web of Science, Scopus, Portal de Periódicos da Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, and LILACS. The data will be presented descriptively using the PRISMA-ScR (Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews) flowchart and subsequently presented in a synoptic table.

Keywords: Universities; Health Promotion; Covid-19

RESUMO

Objetivo: Objetivamos delinear um protocolo de revisão de mapeamento das repercussões da pandemia de covid-19 na saúde de docentes e discentes universitários. **Método:** Protocolo de revisão de escopo conduzido de acordo com os métodos propostos pelo Instituto Joanna Briggs. Definimos a questão de revisão baseada no mnemônico PCC (população, conceito, contexto), a citar: "Quais as repercussões da pandemia de covid-19 na saúde de docentes e discentes universitários?" Os critérios de elegibilidade estão associados às publicações disponíveis para consulta na íntegra, com abordagens metodológicas compreendidas entre: qualitativas, quantitativas, mistas, reflexões, editoriais, diretrizes, manuais, políticas publicadas entre 2020 e 2023. As buscas ocorrerão nas bases Embase, MEDLINE via PubMed, Web of Science, Scopus, Portal de Periódicos da Coordenação de Aperfeiçoamento de Pessoal de Nível Superior e LILACS. Os dados serão apresentados de forma descritiva, por meio da utilização do fluxograma Principais Itens para Relatar Revisões Sistemáticas e Meta-análises para Revisões de Escopo (PRISMA-ScR) e, posteriormente, apresentados o quadro sinóptico.

Descritores: Universidades; Promoção da Saúde; Covid-19

INTRODUCTION

At the end of 2019, in the Chinese city of Wuhan, the first case of a new type of coronavirus was identified, which causes severe acute respiratory syndrome 2 (SARS-CoV-2), also known as COVID-19. The rapid global spread of the virus led the WHO to declare a pandemic in March 2020[1]. In the initial absence of a vaccine to combat the high transmissibility, alternative measures were implemented, such as biosafety strategies and social isolation[2].

In this context, university education had to undergo adaptations to be continuously offered, and emergency remote teaching was the stra-

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tegy used to maintain activities[3]. The abrupt transition and the lack of pedagogical and technical training were the main characteristics of this period, requiring faculty and students to quickly adapt to the use of new technologies without training or equipment provided by the institutions[4].

The modification of the academic work process was accompanied by lifestyle changes shared by the entire population. These changes include the reduction or absence of physical exercise and even physical activity, increased screen time (whether on the computer, television, or personal cell phone), increased consumption of ultra-processed foods such as snacks, fast foods, and sugary foods, and changes in alcohol consumption[5]. The health damages caused by these deleterious behaviors catalyzed by the restrictions imposed by the pandemic have yet to be fully quantified.

It is also worth noting the absence of public policies aimed at minimizing or repairing the consequences of the emergency measures during the pandemic. However, the vulnerability of the academic community is evident, as observed in studies on the subject. The first issue related to this vulnerability is the loss of learning, where low academic progress has already been identified in elementary education with emergency remote teaching. This loss is more noticeable among students from low-income families[6].

Nevertheless, the second issue related to the vulnerability of the academic population is the impact on health, particularly mental health[7]. It was observed among French students that symptoms of anxiety and depression increased even during periods when social isolation was lifted[8]. In the United States, nearly 42% of students reported feeling sadness and hopelessness since the beginning of the Covid-19 pandemic, while 9% of participants admitted to suicidal behavior during the same period[9].

Parallel to this, it is evident that university faculty also suffer similar consequences, exacerbated by stress factors that were already observed in the pre-pandemic period, such as productivity pressure, which is intrinsically associated with increased stress levels[10]. In this context, a study conducted in Japan observed that 33% of university faculty were at risk of emotional distress and developing mental disorders[11], while a systematic review study found that illness may be more associated with pre-existing conditions[12].

It is observed that health in the university setting was severely impacted by a new lifestyle and the sudden onset of a new work process. During this pandemic period, numerous primary studies on the topic were published. However, there is a lack of systematic evidence regarding the repercussions of the Covid-19 pandemic on the health of university students and faculty. In this sense, a preliminary search on MEDLINE was conducted to assess the thematic relevance, and the results indicated the feasibility of proceeding with this scoping review.

Considering this, the objective of this study is to map the repercussions of the Covid-19 pandemic on the health of university faculty and students.

During the registration of this protocol, a search for similar protocols was conducted on Open Science Framework®. As of mid-May 2023, no similar studies were registered. It is also worth noting that various research protocols on the topic are registered on PROSPERO®; however, they differ from the presented investigation by associating the health condition of the academic community with variables such as vaccination and the use of medications and alternative therapies for individuals infected with Covid-19. In this sense, the proposal to study the phenomenon of the pandemic and its repercussions on the health of university faculty and students is unprecedented.

METHOD

The proposed scoping review will be conducted according to the principles established by the methods proposed by the Joanna Briggs Institute (JBI)[13] for scoping reviews. The data will be presented descriptively to systematically visualize the results, following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) flowchart[14]. This protocol was prepared and previously registered on Open Science Framework (OSF) on 23/05/2023 (DOI:10.17605/OSF.IO/3RKBG).

Research question

What are the repercussions of the Covid-19 pandemic on the health of university faculty and students?

Eligibility criteria

The eligibility criteria are associated with publications covering methodological approaches including qualitative, quantitative, mixed methods, reflections, editorials, guidelines, manu-

als, and policies published between 2020 and 2023. This time frame was selected due to the absence of the Covid-19 phenomenon before 2020 and the end of the international public health emergency declared by the World Health Organization in 2023[15].

Population
In this study, the population will be recognized as university students and faculty. For better reader understanding, "university students" are defined as individuals enrolled in higher education, regardless of their course of study or type of institution, whether public, private, or any other format. Regarding university faculty, this includes professors and researchers affiliated with higher education institutions, regardless of their employment status (permanent or temporary), course of affiliation, or type of institution.

Concept
All health repercussions will be considered, whether they are protective factors or processes of illness of any nature, regardless of whether the evidence is physical or mental.

Contexto
All health repercussions will be considered, whether they are protective factors or processes of illness of any nature, regardless of whether the evidence is physical or mental.

Sources of search
A concept mapping was developed using controlled health vocabularies, specifically the Health Sciences Descriptors (DeCS) thesaurus produced by the Latin American and Caribbean Center on Health Sciences Information/Pan American Health Organization/World Health Organization (BIREME/PAHO/WHO), and the Medical Subject Headings (MeSH) produced by the US National Library of Medicine (NLM).
With DeCS, the mapping was created using the four languages recommended by BIREME: Portuguese, English, Spanish, and French. The MeSH terms, however, are exclusively in English. In both cases, primary descriptors and alternative terms were used, employing Boolean operators AND (inclusion) and OR (alternative), as well as truncation (*) to retrieve all terms with the prefix and/or suffix of the accompanying root.
The selected databases for this research are: EMBASE, MEDLINE via PubMed, and Scopus, along with the Portals: CAPES Journals and the Regional Portal of the Virtual Health Library (BVS Regional).
With the structured concept mapping and the chosen databases, the search terms for each database were developed on April 6, 2023, respecting each database's research premises and peculiarities. The concept mapping can be observed below (Figure 1).

CONCEPT MAPPING		
University teachers and students	Docentes OR Faculty OR "Corps enseignant" OR Estudantes OR Students OR Estudiantes OR Étudiants	MeSH/DeCS controlled vocabulary terms
	University Professor* OR "School Enrollment" OR "School Enrollments" OR Student*	Alternative terms in English
	"Corpo Docente" OR Docent* OR Educador* OR Professor* OR "Professor de Ensino Terciário" OR "Professor Universitário" OR "Professores de Ensino Superior" OR "Professores do Ensino Superior" OR "Professores Universitários" OR "Cuerpo Docente" OR Profesor* OR "Profesor Universitario" OR "Profesores Universitarios" OR "Corps enseignants" OR Alun* OR Estudant* OR Alumn* OR Estudiant* OR Élèves OR Étudiantes OR "Inscription à l'école" OR "Inscription scolaire"	Alternative terms in Portuguese, Spanish, and French
Health repercussions	"Avaliação do Impacto na Saúde" OR "Health Impact Assessment" OR "Evaluación del Impacto en la Salud" OR "Évaluation des impacts sur la santé"	MeSH/DeCS controlled vocabulary term
	"Health Impact Assessments"	Alternative terms in English

Health repercussions	"EIS (Évaluation de l'Impact sur la Santé)" OR "Évaluation des effets sanitaires" OR "Évaluation des effets sur la santé" OR "Évaluation des impacts sanitaires" OR "Évaluation des incidences sanitaires" OR "Évaluation des incidences sur la santé"	Alternative terms in Portuguese, Spanish, and French
Covid-19 pandemic	COVID-19	MeSH/DeCS controlled vocabulary terms
	"COVID-19 Pandemic" OR "COVID-19 Pandemics" OR "2019 Novel Coronavirus Pandemic" OR "2019-nCoV Pandemic" OR "COVID 19 Pandemic" OR "COVID-19 pandemic" OR "COVID-19 Pandemics" OR "Wuhan Coronavirus Pandemic"	Alternative terms in English
	"Pandemia COVID-19" OR "Pandemia por COVID-19" OR "Pandemias por COVID-19" OR "Pandemia de COVID-19" OR "Pandemia de la COVID-19" OR "Pandemia del Nuevo Coronavirus 2019" OR "Pandemia por el Coronavirus de Wuhan" OR "Pandemia por el Nuevo Coronavirus (2019-nCoV)" OR "Pandemia por el Nuevo Coronavirus 2019" OR "Pandemias de COVID-19" OR "Pandémie de coronavirus de 2019-2020" OR "Pandémie de COVID-19" OR "Pandémies de COVID-19"	Alternative terms in Portuguese, Spanish, and French

Figure 1 - Concept mapping. Rio de Janeiro, RJ, Brazil, 2023

Search strategy

A three-step search strategy was defined. The first step involved a specific search in MEDLINE. The second step of the research will be conducted in the following databases: Embase, Scopus, Portal de Periódicos da Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES), and LILACS. The third step involves searching for grey literature, which will be conducted in Google Scholar and the Brazilian Digital Library of Theses and Dissertations (BDTD). The first step of the search strategy is described in Figure 2.

Figure 2 – First stage of the search strategy - MEDLINE via PubMed. Rio de Janeiro, RJ, Brazil, 2023

	Combinations used	Results
#1	(Faculty[MeSH Terms]) OR (Faculty[Title/Abstract] OR University Professor*[Title/Abstract])	81,958
#2	(Students[MeSH Terms]) OR (Students[Title/Abstract] OR "School Enrollment"[Title/Abstract]) OR ("School Enrollments"[Title/Abstract] OR Student*[Title/Abstract])	393,745
#3	("Health Impact Assessment"[MeSH Terms]) OR ("Health Impact Assessment"[Title/Abstract] OR "Health Impact Assessments"[Title/Abstract])	1,831
#4	(COVID-19[MeSH Terms]) OR (COVID-19[Title/Abstract] OR "COVID-19 Pandemic"[Title/Abstract] OR "COVID-19 Pandemics"[Title/Abstract] OR "2019 Novel Coronavirus Pandemic"[Title/Abstract] OR "2019-nCoV Pandemic"[Title/Abstract] OR "COVID 19 Pandemic"[Title/Abstract] OR "COVID-19 pandemic"[Title/Abstract] OR "COVID-19 Pandemics"[Title/Abstract] OR "Wuhan Coronavirus Pandemic"[Title/Abstract])	341,094
#5	#1 OR #2	443,762
#6	#13 AND #3 AND #4	0

Selection of studies

The results obtained after the search will be imported into the Rayyan review manager[16], an open-access web application developed by the Qatar Computing Research Institute (QCRI). Initially, Rayyan will be used for blinded title and abstract screening by three independent researchers. Articles that address the research question will be selected for full-text reading. The full-text reading of the selected articles will also be conducted by the same three independent researchers. An article will be included in the study if it is approved by at least two researchers. The representation of the inclusion of works in this review will be done using the Preferred Reporting Items for

Systematic Reviews and Meta-Analyses (PRISMA-Scr) flowchart[14].

Strategies for data extraction

Extracted data will be presented in a single table composed of the following information: Identification (title, year, author, country, year), database, journal, Qualis classification, impact factor (when available), objective, method, studied population, and repercussions of the pandemic on health.

Synthesis and presentation of findings

Data will be presented descriptively to promote a systematic visualization of the results. Representations will be made through tables and synoptic charts that illustrate the main characteristics of the studies, such as: sources of evidence, methodology used, population, sample size, study objectives, location of data collection, and main findings. In the event of similar characteristics among the study findings, the data may be presented in groups based on interpretive categorical affinity.

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AUTHORSHIP CONTRIBUTIONS
Project design: Faria MG de A, Venancio CG da SF
Data collection: Pacheco FC
Data analysis and interpretation: Faria MG de A, Venancio CG da SF, Silva GS da, Kind BM da S, Cardoso VLP, Martins Neto G de L, Koopmans FF
Writing and/or critical review of the intellectual content: Faria MG de A, Venancio CG da SF, Silva GS da, Kind BM da S, Cardoso VLP, Martins Neto G de L, Koopmans FF
Final approval of the version to be published: Faria MG de A, Venancio CG da SF, Pacheco FC, Silva GS da, Kind BM da S, Cardoso VLP, Martins Neto G de L, Koopmans FF
Responsibility for the text in ensuring the accuracy and completeness of any part of the paper: Faria MG de A, Venancio CG da SF, Pacheco FC, Silva GS da, Kind BM da S, Cardoso VLP, Martins Neto G de L, Koopmans FF