INPLASY PROTOCOL

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None declared.

Psychological impact of the SARS-CoV-2 pandemic on the mental health of university students - PRISMA Systematic Review

Ala, S[1]; Ramos, R[2]; Relva, I[3].

Review question / Objective: Our goal will be to assess the impact on mental health of university students by comparing data from studies during and after contingency measures imposed to contain the spread of the SARS-CoV-2 coronavirus and to identify potential risk and protective factors for mental health. The results will be important for designing appropriate psychological interventions and mental health resources needed by university students. The research question was constructed following the PECO strategy. P=Population includes university students. E= exposure comprises contingency measures (confinement/social isolation/quarantine). C= comparison of studies conducted during and after the contingency measures (confinement/social isolation/quarantine) imposed by the pandemic of COVID-19. O= outcome immediate effect or consequences such as psychological impacts (depression, stress, anxiety, well-being, fear, burnout). Thus, the main question to be asked is: "What is the psychological impact caused by the Sars-Cov-2 pandemic on students' mental health during and after the contingency/restriction measures (confinement/social isolation/quarantine)?"

INTRODUCTION

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following the PECO strategy. P=Population includes university students. E= exposure comprises contingency measures (confinement/social isolation/quarantine). C= comparison of studies conducted during and after the contingency measures (confinement/social isolation/quarantine) imposed by the pandemic of COVID-19. O= outcome immediate effect or consequences such as psychological impacts (depression, stress, anxiety, well-being, fear, burnout). Thus, the main question to be asked is: "What is the psychological impact caused by the Sars-Cov-2 pandemic on students' mental health during and after the contingency/restriction measures (confinement/social isolation/quarantine)?"

Rationale: After more than two years of the pandemic, it is having an impact on the global health of the populations, namely on mental health, as a direct consequence of the viral infection, but also, due to the social and economic changes resulting in most of the measures adopted to control the spread of the virus in the world community.
The World Health Organization (WHO) defines mental health as the state of wellbeing in which an individual realizes their capabilities to combat with normal life stressors and work competencies in contributing to the belonged community, which is underpinned by six psychological elements comprising (i) self-acceptance, (ii) meaning in life, (iii) autonomy, (iv) healthy relationships with others, (v) environmental mastery, and (vi) personal growth (Mukhtar, 2020). These mental health and emotional issues are now among the foremost public health concerns throughout the world because of the coronavirus 2019 (COVID-19) pandemic, due to fear of infection or fear of death from the virus.
Effectively, COVID-19 is already recognized as a direct and indirect cause of social and psychological consequences that can affect the mental health of the population and that can translate into serious stress disorders, anxiety, irritability, poor concentration and indecision, deterioration performance at work, post-traumatic stress disorders, high psychological distress, depressive symptoms and sleep disturbances (e.g., Bäuerle et al., 2020; Casagrande et al., 2020; Gualano et al., 2020; Huang & Zhao, 2020; 2020; Losada-Baltar et al., 2020; Pierce et al., 2020; Rossi et al., 2020). It is important to consider the methodological heterogeneity between the studies carried out, for example in terms of measurement instruments and types of sampling, which may explain significant differences in estimated incidences or prevalence (Ren et al., 2020; Salari et al., 2020). Even so, international studies are unanimous in concluding that there are important mental health problems associated with the pandemic context.
From an early age, the academic population suffered directly from the measures adopted to control the spread of the virus, from social distancing, followed by the general confinement of the population, legitimized by the restrictive measures imposed (closings of educational establishments, declaration of the state of calamity, imposition of sanitary fences, restrictions on the movement of people, and finally, the declaration of the State of Emergency), the suspension of face-to-face academic activities led to the adoption and adaptation of new university teaching methodologies.

Condition being studied: It is relevant to know the state of mental health of university students, in the context of living with the COVID-19 pandemic and, in particular, indicators of anxiety, depression, post-traumatic stress disorder and burnout, as well as identifying determinants of resilience and vulnerability in this population, it is essential to adopt measures that can mitigate psychological suffering and promote mental health and well-being of the university population. Therefore, the academic debate about the consequences on the mental health of university students during the covid-19 crisis persists.

METHODS

Search strategy: This Systematic Review will be conducted according to PRISMA-P standards (Preferred Reporting Items for

Systematic Review and Meta-analysis Protocols) (Moher et al., 2015).

MeSH terms will be used for electronic search in three databases, PubMed, Psychinfo and Web of Science (WoS) - all Databases. Academic Google will be used for grey literature search. The search strategy will be designed by two authors (SA and IR) consisting of three concepts in relation to the aim of the study: (1) The new coronavirus disease, (2) Psychological impact, (3) college students. It is also limited to articles in English, Portuguese, and Spanish published from December 2019 to date. The construction steps of the search query will be with the combinations between the selected descriptor groups will use the Boolean operators AND and OR and the truncation symbol (*) to increase the search ranges of the specific descriptor variations for each selected database based on the PECO question: ("Covid 19" OR covid-19 OR Sars-Cov-2 OR COVID OR pandemic OR "coronavirus disease") AND ("university education" OR "University student*" OR "higher education" OR Student* OR "academic* impacts") AND ("mental health" OR "psychological impacts" OR "psychological health").
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Participant or population: University students.

Intervention: None.

Comparator: Comparison of studies conducted during and after the contingency measures (confinement/social isolation/quarantine) imposed by the pandemic of COVID-19.

Study designs to be included: Inclusion criteria: observational epidemiological studies (prevalence studies - cross-sectional).Reviews, letters, commentaries, viewpoints, editorials, correspondence, dissertations, theses, news articles, and other types of documents that are not research articles will be excluded. In addition, research data that are not complete; studies that focus only on physical health outcomes and studies that do not discuss the psychological impacts of the new coronavirus pandemic (COVID-19) will also be disregarded in the final sample.Translated with http://www.DeepL.com/Translator (free version).

Eligibility criteria: According to the review objectives, the inclusion criteria will be as follows: those in which the study population are college students in times of pandemic COVID-19, demonstrating the prevalence of psychological states, use of at least one validated quantitative scoring scale to measure mental health outcomes such as depression, stress, anxiety, distress, fear, burnout. Cross-sectional studies and longitudinal studies will be considered. December 2019 will be adopted as the cutoff point, considering that it was the beginning of reported cases. In addition, only studies written in Portuguese - Portugal, English and Spanish will be considered.The exclusion criteria adopted will be other study designs, written in other languages, articles in which the sample are not university students, with incomplete/unavailable data, studies focusing only on physical health outcomes.

Information sources: Research papers assessing various aspects of the psychological state of university students due to the SARS-CoV-2 outbreak will be included in this study. The search process and screening of titles and abstracts will be performed by two authors (SA & IR). After all articles have been identified, the full texts will be evaluated to extract the relevant data.

Main outcome(s): The mental health of college students will be the outcome of interest in this systematic review. The main outcomes will be the incidence and prevalence (depression, stress, anxiety, fear and burnout) in the target population as a result of the restrictions (confinement/social isolation/quarantine) due to the pandemic of COVID-19.

Data management: Two reviewers will search the electronic databases using the search strategy described. Study titles and abstracts will be evaluated by each

independent reviewer to select study eligibility. After agreement of the selected studies, a standardized form will be used to extract the data from the included studies. The same reviewers will perform the data extraction independently.

The information to be extracted will include: study characteristics (authors, year of publication, country, and date of data collection); participant information (study population and sociodemographic characteristics); study methodology (study design, measures, validity, reliability); and outcomes (implications and conclusions for college students' mental health).

Quality assessment / Risk of bias analysis:
The researchers (SA & IR) will independently assess the risk of bias of the included studies. If there is any doubt, a third investigator (FR) will resolve through discussion. The assessment tools used will be from the Joanna Briggs Institute (JBI) for cross-sectional prevalence, other tools will be used to assess the risk of bias according to the design of the included studies.

Strategy of data synthesis: A narrative synthesis of the results of the included studies will be provided, structured around the impact of the pandemic COVID-19 contingency measures on the mental health of college students, the characteristics of the target population and the type of outcome, a summary of the effects of COVID- 19 will also be provided.

Subgroup analysis: Through this review, subgroups can be made after analyzing the results according to the criteria used, and the types of participants can be compared in relation to countries, cities, or age, gender, socioeconomic level, the types of methods used in each study, the questionnaires used, or if they had any intervention, and according to public or private educational institution, course, and year of study.

Sensitivity analysis: Not Applied.

Language restriction: English, Portuguese, Spanish.

Country(ies) involved: Portugal.

Keywords: Covid-19; psychological impacts; university student; depression; anxiety; burnout; wellbeing and fear.

Contributions of each author:
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