REVISTA ENFERMAGEM ATUAL IN DERME

PREVALENCE AND FACTORS ASSOCIATED WITH SUICIDAL IDEATION AMONG NURSES DURING THE COVID-19 PANDEMIC: SYSTEMATIC REVIEW PROTOCOL

EL REVALÊNCIA E FATORES ASSOCIADOS: ENFERMEIROS E IDEAÇÃO SUICIDA NA PANDEMIA COVID-19: PROTOCOLO DE REVISIÓN SISTEMÁTICA

PREVALÊNCIA E FATORES ASSOCIADOS À IDEAÇÃO SUICIDA ENTRE ENFERMEIROS NA PANDEMIA DA COVID-19: PROTOCOLO DE REVISÃO SISTEMÁTICA

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ABSTRACT

Objective: To analyze the prevalence and factors associated with suicidal ideation among nurses before, during, and after the COVID-19 pandemic. Method: Systematic review protocol, following the guidelines of the Joanna Briggs Institute and the Preferred Reporting Items for Systematic Reviews and Meta Analyses. Searches will be conducted in six search sources: MEDLINE/PubMed, SCOPUS, EMBASE, LILACS, Cochrane Central, and Google Scholar. Studies with nurses who developed suicidal ideation working in health services, before, during, and after COVID-19, will be included. Study selection, data extraction, and critical evaluation will be performed independently by two reviewers, with a third to resolve discrepancies. It is proposed to develop a statistical synthesis with meta-analysis, if appropriate. Expected results: It is expected to identify the prevalence of suicidal ideation and its associated factors among nurses, providing support for the development of public policies for occupational health and mental he alth strategies.
Keywords: Suicidal Ideation; Nurses; COVID-19; Mental Health; Occupational Heal.

RESUMEN

Objective: To analyze the prevalence and factors associated with suicidal ideation among nurses before, during, and after the COVID-19 pandemic. Method: Systematic review protocol, following the guidelines of the Joanna Briggs Institute and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses. Searches will be conducted in six search sources: MEDLINE/PubMed, SCOPUS, EMBASE, LILACS, Cochrane Central, and Google Scholar. Studies with nurses who developed suicidal ideation working in health services, before, during, and after COVID-19, will be included. Study selection, data extraction, and critical evaluation will be carried out independently by two reviewers, with a third to resolve discrepancies. It is proposed to develop a statistical synthesis with meta-analysis, if appropriate. Expected results: It is expected to identify the prevalence of suicidal ideation and its associated factors among nurses, providing support for the development of public policies for occupational health and mental health strategies.
Palabras clave: Iseação Suicida; Enfermeras; COVID-19; Salud Mental; Salud Laboral.

RESUMO

Objetivo: Analisar a prevalência e fatores associados à ideação suicida entre enfermeiros antes, durante e após a pandemia da COVID-19. Método: Protocolo de revisão sistemática, seguindo as diretrizes do Joanna Briggs Institute e do Preferred Reporting Items for Systematic Reviews and Meta-Analyses. As buscas serão realizadas em seis fontes de busca: MEDLINE/PubMed, SCOPUS, EMBASE, LILACS, Cochrane Central e Google Acadêmico. Serão incluídos estudos com enfermeiros que desenvolveram ideação suicida atuando em serviços de saúde, antes, durante e após a COVID-19. A seleção dos estudos, extração de dados e avaliação crítica serão realizadas de forma independente por dois revisores, com um terceiro para resolver discrepâncias. Propõe-se desenvolver uma síntese estatística com metanálise, se apropriado. Resultados esperados: Espera-se identificar a prevalência de ideação suicida e seus fatores associados entre enfermeiros, fornecendo subsídios para o desenvolvimento de políticas públicas para a saúde do trabalhador e estratégias de saúde mental
Palavras-chave: Ideação Suicida; Enfermeiros; COVID-19; Saúde Mental; Saúde Ocupacional.

INTRODUCTION

Nursing is a profession that performs numerous functions within healthcare services. However, these professionals are exposed to high levels of harassment and stress, physical and verbal violence, conflicts with supervisors, lack of autonomy and recognition, factors that can contribute to mental illness, as well as suicidal ideation [1]. According to a report by the Pan American Health Organization (PAHO), there was a significant increase in cases of depression and anxiety during the pandemic, with a greater impact on women, young people, healthcare professionals, socioeconomically vulnerable populations, and people with a history of mental disorders [2]. Among those most affected are nurses, who worked in frontline care services and faced extreme workload [3]. In Latin America and the Caribbean, more than 1.8 million healthcare professionals were infected with COVID-19, resulting in approximately 9,000 deaths. In Brazil, data reveal that 59,386 nurses were infected, with 871 deaths recorded [4]. The COVID-19 pandemic brought with it countless social and emotional challenges, particularly impacting nursing professionals. The need for social isolation and physical distancing, essential to contain the spread of the virus, compounded the exhausting workload, preventing these workers from maintaining contact with their primary support networks. Furthermore, many did not receive the necessary support from their employers, further aggravating the situation [5]. Therefore, it is clear that the pandemic context played a decisive role in the increase in illnesses and the deterioration of nursing professionals' mental health [6]. Furthermore, the COVID-19 pandemic brought consequences that worsened the mental state of these professionals, impacting them with serious psychological problems, such as stress, anxiety, depression, and suicidal ideation [7-8]. Therefore, it is extremely important to understand the prevalence and behavior of suicidal ideation among nurses, as well as its risk factors and the characteristics of this specific population, in order to find support for the development of strategies and public policies focused on worker health.

METHOD

This is a Systematic Review Protocol. It will strictly follow the guidelines established by the Joanna Briggs Institute (JBI) [9]. Furthermore, the presentation of results will be structured according to the recommendations of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) extension [10-11], ensuring completeness and clarity in the dissemination of extracted studies on the prevalence of suicidal ideation among nurses [12]. The Systematic Review will be conducted through the following steps: development of the research question, establishment of eligibility criteria, search for studies in scientific databases, and subsequent selection of studies that meet the defined criteria.

Question, search strategy and database

The guiding question for this systematic review protocol was formulated using the mnemonic CoCoPop. The terms Condition (Prevalence and Factors Associated with Suicidal Ideation), Context (COVID-19 Pandemic), and Population (Nurses). Thus, the following research question was structured: What is the prevalence and factors associated with suicidal ideation among nurses before, during, and after the COVID-19 pandemic? The search strategy will combine descriptors extracted from Medical Subject Headings (MeSH Terms). After defining the search terms, the strategies were combined using the Boolean operators "AND" and "OR." Therefore, for a better understanding, a comprehensive search strategy was conducted in the Medical Literature and Retrivial System Online MEDLINE (PubMed) database. For the bibliographic search, six main databases will be consulted: MEDLINE (PubMed), EMBASE and SCOPUS (Elsevier), LILACS, Cochrane Central, and Google Scholar for gray literature. Remote access to the databases will be provided through the Journal Portal of the Coordination for the Improvement of Higher Education Personnel (CAPES) of the Federal University of Santa Maria.

Figure 2 – Search strategy for a systematic review of effectiveness according to the MEDLINE database. Santa Maria, RS, Brazil, 2025.

Search	Search strategy	References
#1	('nurses' OR 'nursing staff') AND ('suicidal ideation' OR suicid* OR 'nonsuicidal self injury') AND ('cohort study' OR 'cohort' OR 'prospective study' OR 'retrospective study' OR 'follow-up study' OR 'longitudinal' OR 'cross-sectional study' OR 'cross-sectional' OR 'prevalence' OR 'prevalence study' OR 'survey') NOT ('teenagers' OR 'child*' OR 'adolescent*' OR 'doctor' OR 'patients' OR 'military' OR 'veterinary')	1078
#2	((("Nurses"[Title/Abstract] OR "nurses male"[Title/Abstract]) AND "covid 19" [Title/Abstract] AND "suicidal ideation"[Title/Abstract]) OR "suicide attempted" [Title/Abstract]) NOT "teenagers"[Title/Abstract]	242
#3	(((((nurses[Title/Abstract]) OR (Nurses, Male[Title/Abstract])) AND (COVID-19[Title/Abstract])) AND (Suicide[Title/Abstract])) OR (Suicide, Assisted[Title/Abstract])	47
Search date: May 4th,2025		

Eligibility criteria

The following inclusion criteria were adopted: observational studies that investigated the prevalence and factors associated with suicidal ideation in nurses who worked in health services before, during, and after COVID-19. Scientific publications that are unable to extract relevant data and assess their methodological quality will be excluded.

Selection of primary studies.

After importing the selected articles into the databases, a database will be structured using the literature manager, and duplicates will be removed using Zotero (Reference Manager) to reduce research bias. Articles will be selected by independent double-reading. If there is disagreement between reviewers, the review will be forwarded to a third reviewer. First, studies will be screened by reading titles, abstracts, and keywords, followed by full-text reading of the included articles. For reference management, Rayyan software will be used for title and full-text reading. Results will be reported following the PRISMA guidelines [10-11] using a flowchart.

Data Extraction.

After the studies are included, they will be subjected to a second reading by the lead author. A table will be created in Excel, which will be exported and will display the manuscript's identification variables and main results. The following information will be extracted from the manuscript identification variables (author, year of study, country, study title, method, number of the population studied, research dates) and main results of suicidal ideation with absolute and relative frequencies and confidence intervals (results and conclusion).

Methodological Quality

The methodological quality of the studies will be critically assessed by two independent reviewers. Disagreements between reviewers will be resolved by consensus, with the participation of a third reviewer when necessary. The results of this assessment will be presented narratively and in tables, considering both the risk of bias and the methodological quality of the included studies. The methodological instruments recommended by the Joanna Briggs Institute (JBI) [9] will be used.

Evidence Synthesis

The aim is to perform a statistical synthesis with meta-analysis, provided the data allow. If this approach is not feasible, a narrative synthesis will be conducted, also following the recommendations [9]. The meta-analysis will be conducted using the random-effects model, which assumes that true effects vary across studies and that the observed effect size represents an average of this distribution [9]. Different types of effect measures will be considered, including risk ratio (RR), risk difference (RD), odds ratio (OR), weighted mean difference (WMD), and standardized mean difference (SMD). For dichotomous data, the calculation will be based on the logarithm of the

odds ratio, presenting the results also in terms of RR and RD. For continuous data, the effect size will be estimated using means, standard deviations, and number of participants, comparing intervention and control groups. For this, Cohen's coefficient will be applied. The meta-analysis will be performed using Review Manager 5.3 software. Statistical heterogeneity will be assessed using the I² index, interpreted according to the following criteria: 25% indicates low heterogeneity; 50%, moderate; and 75%, high. If heterogeneity is equal to or greater than 50%, the random-effects model will be maintained. For lower values, the fixed-effects model will be used. A sensitivity analysis will also be conducted to assess the impact of including or excluding studies, considering sample size, methodological quality, or variations in observed effects. Furthermore, subgroup analyses will be performed to investigate potential sources of heterogeneity. Forest plots will be used to visually illustrate the pooled prevalence estimates and the extent of heterogeneity. Subgroup analyses and meta-regressions will also be conducted to explore the impact of covariates on the pooled prevalence of suicidal ideation, identifying potential sources of variability across studies.

Expected results

Identify the prevalence of suicidal ideation before, during, and after the COVID-19 pandemic and understand the factors associated with this condition, such as risk factors for this specific population, such as working conditions, occupational stress, and a history of mental disorders. By outlining sociodemographic characteristics and associated factors, it will be possible to invest in public policies and strategies to address mental health within health services and thus promote a better quality of life in the workplace.

CONCLUSION

The development of this protocol will strictly follow the recommendations of the Joanna Briggs Institute and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) checklist. It is ready to be implemented, aiming to provide a robust summary of the prevalence of suicidal ideation among nurses before, during, and after the COVID-19 pandemic. It is also expected to identify studies that highlight the factors associated with this condition, with a view to identifying prioritie for future research, as well as supporting the development of strategies and public policies focused on the mental health of nursing professionals.

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