Esc Anna Nery 2021;25(spe):e20200363

REVIEW | REVISÃO

www.scielo.br/EAN

Psychological distress among nursing professionals during the COVID-19 pandemic: Scoping Review

Sofrimento psíquico entre os profissionais de enfermagem durante a pandemia da COVID-19: Scoping Review

Distrés Psicológico entre los profesionales de Enfermería durante la pandemia de COVID-19: Scoping Review

Fernanda Berchelli Girão Miranda[1]
Mellina Yamamura[1]
Sarah Salvador Pereira[1]
Caroline dos Santos Pereira[1]
Simone Teresinha Protti-Zanatta[1]
Marceli Karina Costa[1]
Sonia Regina Zerbetto[1]

1. Universidade Federal de São Carlos, Programa de Pós-Graduação em Enfermagem. São Carlos, SP. Brasil.

Abstract

Objective: To design a systematic map of the production of knowledge, together with national and international literature, on situations of psychological distress that Nursing professionals experience when exposed to the COVID-19 pandemic. **Method:** A Scoping Review according to the Joanna Briggs Institute Reviewer's Manual for Scoping Reviews and PRISMA-ScR. Searches were conducted between April and June 2020 in the electronic databases by means of the descriptors; the peer reviewers analyzed the relevance of the studies, selecting those that answered the research question. **Results:** A total of 38 studies were selected. The most reported situations of psychological distress were related to work overload, scarcity or absence of individual protective equipment, fear of becoming infected, infecting other people and being in the front line with patients diagnosed or suspected for COVID-19. The most common signs and symptoms for psychological distress were the following: anxiety, depression, insomnia, stress, post-traumatic stress and fear. **Conclusions and implications for the practice:** Nursing professionals face situations of psychological distress, mainly triggered by factors related to work conditions, manifesting depressive symptoms, anxiety and stress, which may remain for a long period. Health institutions had to implement training, protection and security actions, as well as psychosocial help and support in a short period of time.

Keywords: Nurse Practitioners; Nursing, Team; Stress, Psychological; Mental Health; COVID-19.

Resumo

Objetivo: mapear sistematicamente a produção de conhecimento, com a literatura nacional e internacional, de situações de sofrimento psíquico que os profissionais de enfermagem vivenciam quando expostos à pandemia da COVID-19. **Método**: Scoping Review conforme Joanna Briggs Institute Reviewer's Manual for Scoping Reviews e PRISMA-ScR. Executaram-se buscas entre abril e junho de 2020 nas bases eletrônicas por intermédio dos descritores; revisores aos pares analisaram a relevância dos estudos, selecionando os que responderam à pergunta de investigação. **Resultados**: selecionaram-se 38 estudos. As situações de sofrimento psíquico mais relatadas relacionaram-se à sobrecarga de trabalho, escassez ou ausência de equipamento de proteção individual, medo de se infectar, infectar outras pessoas e estar na linha de frente com pacientes com diagnóstico ou suspeita de COVID-19. Os sinais e sintomas de sofrimento psíquico mais encontrados foram ansiedade, depressão, insônia, estresse, estresse pós-traumático e medo. **Conclusões e implicações para a prática**: os profissionais de enfermagem enfrentam situações de sofrimento psíquico, principalmente desencadeadas por fatores relacionados às condições de trabalho, manifestando sintomas depressivos, de ansiedade e de estresse que podem permanecer por longo período. As instituições de saúde precisaram implementar ações de capacitação, proteção e segurança, bem como suporte e apoio psicossocial em curto espaço de tempo.

Palavras-chave: Profissionais de Enfermagem; Equipe de Enfermagem; Sofrimento Psíquico; Saúde Mental; COVID-19.

Resumen

Objetivo: Mapear sistemáticamente la producción de conocimiento, de acuerdo con la literatura nacional e internacional, de las situaciones de distrés psicológico experimentadas por los profesionales de enfermería cuando se exponen a la pandemia de COVID-19. **Método:** *Scoping Review* según el *Reviewer's Manual for Scoping Reviews* del Joanna Briggs Institute y PRISMA-ScR. Las búsquedas tuvieron lugar entre abril y junio de 2020 en las bases de datos electrónicas mediante descriptores; los revisores analizaron la relevancia de los estudios, seleccionando aquellos que respondían a la pregunta de investigación. **Resultados:** Se seleccionaron 38 estudios. Las situaciones de distrés psicológico más informadas estuvieron relacionadas con la sobrecarga de trabajo, la escasez o ausencia de equipos de protección personal, el miedo a infectarse, a infectar a otras personas y a estar en primera línea con pacientes diagnosticados o sospechosos de COVID-19. Los signos y síntomas más comunes de distrés psicológico fueron los siguientes: ansiedad, depresión, insomnio, estrés, estrés postraumático y miedo. **Conclusiones e implicaciones para la práctica:** Los profesionales de Enfermería afrontan situaciones de distrés psicológico, desencadenadas principalmente por factores relacionados con las condiciones de trabajo, manifestando síntomas depresivos, ansiedad y estrés, que pueden permanecer durante un largo período. Las instituciones sanitarias debieron aplicar medidas de capacitación, protección y seguridad, así como de soporte y apoyo psicosocial en un breve período de tiempo.

Palabras clave: Enfermeras Practicantes; Grupo de Enfermería; Estrés Psicológico; Salud Mental; COVID-19.

Corresponding author:
Fernanda Berchelli Girão Miranda.
E-mail: fernanda.berchelli@ufscar.br.

Submitted on 09/04/2020.
Accepted on 12/21/2020.

DOI:https://doi.org/10.1590/2177-9465-EAN-2020-0363

INTRODUCTION

The world has been facing a pandemic called COVID-19 (Coronavirus Disease 2019), which involves a new coronavirus (2019-nCoV), which triggers Severe Acute Respiratory Syndrome (SARS-CoV-2).[1] With the evolution of the disease in China, the mortality rate was estimated between 2% and 3%[1] and, at the beginning of March 2020, it was 3.4%.[2] Faced with this pandemic and critical situation, health professionals, and more specifically Nursing professionals, are at the forefront of care and attention to people with COVID-19, which can trigger psychological distress.[3,4]

Chinese and national studies indicate that health professionals, mainly nurses, exposed to the COVID-19 disease during the epidemic period, suffered negative impacts on mental health[3-6] related to the labor context.[3,5] However, psychological distress affects and impacts the life of Nursing professionals in the psychosocial context and their general well-being, which denotes the relevance of identifying such situations of mental distress. In this study, the concept of psychological distress is not limited to identifying mental disorder signs and symptoms, but also to the situations evidenced among the Nursing professional in their "existence-distress in the relationship with the social body".[7] In this perspective, the distress of the Nursing professionals is associated to their diverse relations in the labor, social and familiar context during the pandemic. The discovery of such situations contributes so that both health institutions and Nursing staff can identify and implement coping strategies in the dimensions of promotion, treatment and psychosocial rehabilitation. In this sense, to support this process, this study aims to systematically map, with the national and international literature, the situations of psychological distress experienced by Nursing professionals when exposed to the COVID-19 pandemic.

METHOD

This Scoping Review was conducted using the methodological structure developed according to the Joanna Briggs Institute Reviewer's Manual for Scoping Reviews[8] and in the items and guidance of PRISMA-ScR.[9] The development of a Scoping Review is indicated to be a precursor to a systematic review, to identify the types of evidence available in a given field, to analyze knowledge gaps, to examine how research is conducted on a given topic or field, and to identify and clarify the main characteristics or factors related to a concept/definitions in the literature.[10]

It is a useful method to examine emerging evidence on a given subject matter.[11] For the construction of the research question, the PCC strategy was applied, which represents a mnemonic for Population, Concept and Context,[11] defining: P- Nursing Professionals; C- Psychological Distress; C- Pandemic. For the search and selection of studies, the following guiding question was established: "What are the situations of psychological distress experienced by Nursing professionals when exposed to the COVID-19 pandemic?".

In order to identify potentially relevant documents, the search was carried out in pairs according to JBI criteria[7] in the following databases: *Literatura Latino-Americana e do Caribe em Ciências da Saúde* (LILACS), National Library of Medicine (PubMed), SCOPUS; in the Web of Science platform and in the Capes Journals by means of the descriptors and/or their synonyms. Thus, they were used according to the Descriptors in Health Sciences (*Descritores em Ciências da Saúde*, DeCS) for each item of the Population (P): "Profissionais de Enfermagem" OR "Recursos Humanos de Enfermagem" OR "Equipe de Enfermagem" OR Enfermeiros OR Enfermagem AND Concept (C): "Estresse Psicológico" OR "Agente de Estresse Psicológico" OR "Fatores de Estresse Psicológico" OR "Sofrimento Mental" OR "Sofrimento Psíquico" OR Sofrimentos OR "Transtornos Mentais" OR "Doença Mental" OR "Transtorno Mental" OR "Saúde Mental" AND Context (C) strategy: "pandemias" OR "pandemia" OR "Infecções por Coronavirus" OR "COVID-19" OR "Doença pelo Novo Coronavírus (2019-nCoV)" OR "Doença por Coronavírus 2019-nCoV" OR "Doença por Novo Coronavírus (2019-nCoV)". For the descriptors of the Medical Subject Headings (MeSH), the combination was used for each item of the Population (P): "Nurse Practitioners" OR "Nursing Staff" OR "Nursing, Team" OR "Nurse" OR "Nursing" AND Concept (C): "Stress, Psychological" OR "Stress, Psychological" OR "Psychological Stresses" OR "Stresses, Psychological" OR "Stress, Psychologic" OR "Psychologic Stress" OR "Mental Suffering" OR "Suffering, Mental" OR "Mental Disorders" OR "Mental Health" AND Context (C) strategy: "pandemics" OR "COVID-19" OR "COVID19" OR "2019-nCoV infection" OR "coronavirus disease 2019" OR "COVID-19 pandemic" OR "2019-nCoV disease" OR "2019 novel coronavirus disease" OR "2019 novel coronavirus infection" OR "coronavirus disease-19".

For the combination of descriptors, the Boolean operators *AND* and *OR* were considered. After the search, research studies conducted in English, Spanish and Portuguese, with quantitative and qualitative approaches, mixed methods were included, as well as primary studies, systematic reviews, meta-analyses and/or meta-syntheses, books and guidelines, consensus, editorials, published in indexed sources that answered the established question. Articles in languages other than those established were not included, justified by the authors' non-mastery of the language and for non-financing of the study; nor those in the gray literature because they are recent scientific records with current publications available in digital database media and due to the fact of social isolation in the country; or publications of opinions, retractions, websites and advertisements published in the media because they are not publications with scientific rigor.

The searches were performed between April and June 2020, period during which all publications were accessed, without any restrictions regarding the time space. For the selection process of the studies, the titles and abstracts were analyzed by two independent reviewers. When the reviewers had doubts about the relevance of a study based on its abstract, the full version of the text was selected to be analyzed. Randomly, the articles were distributed among the reviewers, and again two reviewers independently examined the full version of the text of the articles

to verify whether they met the inclusion criteria and whether they answered the guiding question of this review. In case of disagreements between the pairs of reviewers, a third reviewer resolved. The reviewers of all stages were appointed as authors of this manuscript.

For content extraction, an instrument structured by the authors themselves was used, considering the following variables: study basis where the manuscript was identified; origin of the article; study design; sample; research site; tools used to assess psychological distress; situations of psychological distress; signs and symptoms of psychological distress; and other situations relevant to the theme among the selected studies. The reviewers independently mapped the data, discussed the results, and continuously updated the data mapping form in an interactive process as recommended by the JBI.[8] The evidence found in this study is presented in a narrative manner through tables and diagrams.[9]

RESULTS

The research identified 2,416 potentially relevant records in the selected databases; three records were identified as duplicates, leaving 90 for reading. Of the total of 90 articles, only 36 were selected for full reading and nine others were selected through their references. Thus, 45 articles were included for full-text analysis by independent reviewers. After reading, five other studies were excluded because they did not involve nurses, one study was excluded because it was written in full in the French language, and one study because it was in full in preprint and without evaluation of reviewers. At the end, 38 studies were selected for answering the research question. For the presentation of the results, the searches were numbered from 01 to 38.

The detailed description of the process of selection and inclusion of the articles is described in Figure 1.

All the studies included in the sample were published in 2020. Most of the studies found, 23 (60.5%), were published in the PubMed database, followed by 9 (24.0%) in secondary bibliography, 5 (13.0%) in Scopus and 1 (2.5%) in Web of Science. Chart 1 displays the studies analyzed according to country of origin, objective, sample and methodological approach of the studies.

Of the 38 articles considered, 21 (55.3%) were carried out in China, 3 (7.9%) in India, 2 (5.3%) did not describe the study site or mentioned any country of origin of the study, 2 (5.3%) were carried out in Europe (Italy and Spain), 2 (5.3%) in the UK and England, 2 (5.3%) in Singapore, 2 (5.3%) in Australia, 1 (2.6%) in the United States, 1 (2.6%) in Pakistan, 1 (2.6%) in Lebanon, 1 (2.6%) in Hong Kong and 1 (2.6%) in Saudi Arabia.

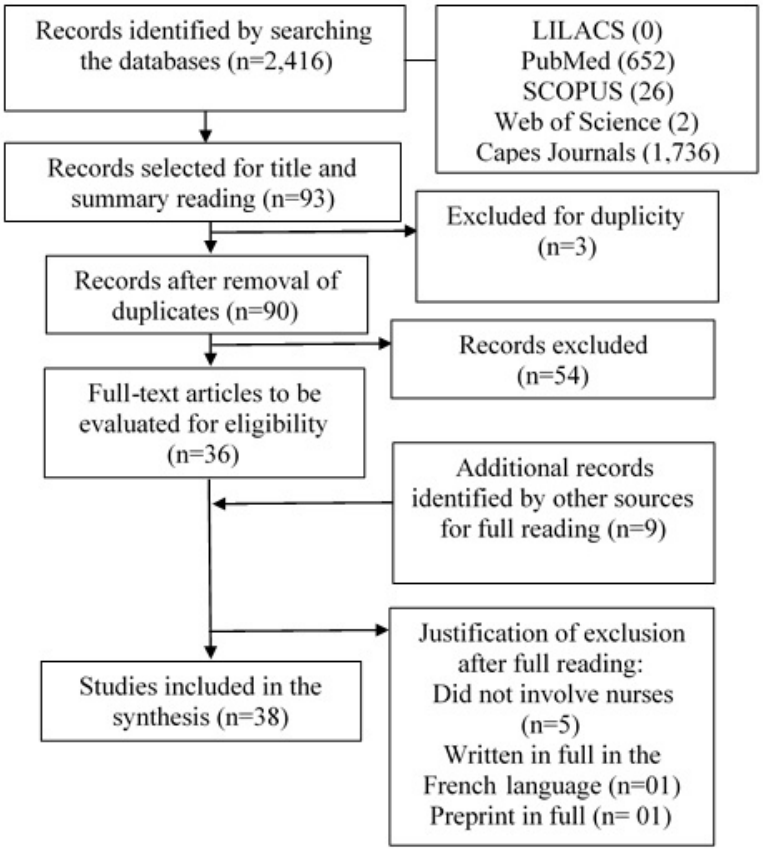

Figure 1. Description of the study selection process. São Carlos, SP, Brazil, 2020.
Source: Prepared by the authors.

Chart 1. Studies analyzed according to country of origin, methodological approach and study sample. São Carlos, SP, Brazil, 2020.

Analysis items	*Studies*
Origin of the article	
Far East	China E1*, E2, E3, E4, E5, E6, E7, E8, E9, E10, E11,[12-22] E14,[25] E18, E19,[29,30] E23, E24,[34,35] E30, E31, E32,[41-43] E34,[45] E36,[47] E37;[48] Hong Kong E35[46]
Middle East	Lebanon E28[39]
East Asia	Singapore E12,[23] E27[38]
Indian Subcontinent	India E15,[26] E17;[28] Pakistan E21[32]
Arabian Peninsula	Saudi Arabia E20[31]
Western Europe	Italy E22;[33] Spain E29;[40] United Kingdom E33;[44] England E13[24]
North America	United States E16[27]
Western Pacific	Australia E25, E26[36,37]
Does not mention	E38[49]
Type of study	
Cross-sectional	E2,[13] E6,[17] E7,[18] E9,[20]E11,[22] E12,[23] E18, E19, E20[29-31]E22, E23, E24,[33-35] E27,[38] E30,[41] E31,[42] E34,[45] E36[47]
Descriptive	E3[14]
Narrative reviews	E1,[12] E14,[25] E15,[26] E29,[40] E37, E38[48,49]
Systematic reviews and meta-analyses	E13,[24] 4E25[36]
Editorials, comments or discussions	E4,[15] E5,[16] E17,[28] E2,[32] E26,[37] E32, E33,[43,44] E35[46]
Experience report	E16[27]
Qualitative	E10,[21] E28[39]
Mixed	E8[19]
Sample	
Studies with 50 or fewer nurses	E8,[19] E9,[20] E10,[21] E28[39]
Studies with more than 100 nurses	E7,[18] E11,[22]E18,[29] E22,[33] E31,[42] E36[47]
Studies with more than 300 nurses	E20,[31] E24,[35] E27,[38] E34[45]
Studies with more than 500 nurses	E2,[13] E3,[14]E6,[17]E11,[22] E19,[30] E23,[34] E30[41]
Involve only studies or does not apply	E1,[12] E4,[15] E5,[16]E13, E14, E15, E16, E17,[24-28] E21,[32] E25, E26,[36-40] E29,[40] E32,[43] E33,[44] E35,[46] E37, E38[48,49]

*E1=Study 1
Source: Information extracted from scientific articles indexed in the National Library of Medicine (PubMed) and SCOPUS databases; in the Web of Science platform, 2020.

Regarding the type of study, 17 (44.7%) were cross-sectional studies, 7 (18.4%) narrative reviews, 5 (13.2%) editorials, 2 (5.3%) comments or discussions, 2 (5.3%) qualitative, 2 (5.3%) systematic reviews and meta-analyses, 1 (2.6%) descriptive, 1 (2.6%) experience report and 1 (2.6%) mixed approach. Considering the population (sample) of the cross-sectional studies, nurses and physicians were the professionals with the highest frequency of investigation. In an elucidative manner, China conducted 13 of the 17 articles with a cross-sectional study type, totaling approximately 13,728 nurses and 8,065 physicians as a study population, and it was not possible to analyze which professionals participated repeatedly in the research.

Regarding the work institution of the nurses, 26 (68.4%) of the studies were related to hospital care and the other, 12 (31.6%) studies, did not specify. Among the tools to assess psychological distress, the studies presented scales (n=17; 36.2%), applications (n=2; 4.2%); interviews (n=3; 6.4%), instruments (n=3; 6.4%), questionnaires (n=8; 17.0%) and did not use any type of instrument because it did not apply (n=17; 29.8%).

The main associated causes found, related to situations that contributed to psychological distress, were lack of labor rest, work overload, long working hours, deficit of team members, Burnout, psychological pressure, lack of employer support, and low job satisfaction, which were evidenced in the following

studies: E1,[12] E4,[15] E7, E8,[18,19] E12,[23] E14, E15, E16,[25-27] E19,[30] E21, E22,[32,33]E25,[36] E29,[40] E36, E37.[47,48]

The second most frequent contributing situation was performance in the front line in the care of the COVID-19 patient, working in high-risk clinical environments and risk of infection, represented by the studies E2, E3, E4, E5,[13-16] E13, E14,[24,25] E17,[28] E19,[30] E2,[13] E24, E25,[35,36] E36,[47] E38.[49] Fear of self-infection and concern for family, friends, neighbors or colleagues were characterized by a constant in the studies E1,[12] E4,[15] E6,[17] E8,[19] E10, E11,[21,22] E14,[25] E16, E17,[27,28] E20,[31] E25, E26, E27,[26-28] E37, E38.[48,49] Finally, not unlike expected, the situation of shortage of Personal Protective Equipment (PPE), resource-limited patient care, also showed high representativeness in E3, E4,[14,15] E10,[21]E14, E15,[25,26] E17,[28] E19,[30] E24,[35] E26,[37] E33.[44] Chart 2 contains the signs and symptoms of psychological distress presented by the Nursing professionals.

DISCUSSION

This study aimed to identify which situations of psychological distress Nursing professionals experience when exposed to the COVID-19 pandemic according to a systematic mapping, also contributing to the identification of gaps in knowledge with the national and international scientific literature.

It is emphasized that the complexity of human care involves a Nursing assistance that demands technical, science, knowledge, feelings and human relationship. The professionals constantly experience situations of pain, distress, death and losses, to which unfavorable working conditions and low remuneration are added.[50] For the author,[51] no other professional performs the exclusive service that nurses do, and it is impossible to match them. All this complexity became even more intense with the advent of the COVID-19 pandemic because, in addition to this entire burden previously faced, nurses began to experience greater pressure due to several factors evidenced by this study. Considering the extensive advantages of conducting a Scoping Review, it was identified, according to the results, that China, as the first country to experience the impasses of the COVID-19 pandemic, became the world's largest producer of scientific articles.[52] However, these articles did not propose or cite the monitoring of nurses and other health professionals over time to identify the post traumatic effects of this pandemic.

Cohort studies were the highest in the evidence hierarchies in the classification of the observational studies.[53] However, for

Chart 2. Studies analyzed according to signs and symptoms of psychological distress. São Carlos, SP, Brazil, 2020.

Signs and symptoms of psychological distress	*Studies*
Anxiety	E2,[13] E5, E6, E7,[16-18] E10, E11,[21,22] E13, E14, E15, E16, E17, E18, E19, E20, E21,[24-32] E24,[35] E30, E31,[41,42] E36[47]
Depression symptoms	E2,[13] E5, E6,[16,17] E9,[20] E11,[22] E13, E14,[24,25] E16, E17, E18,[27-29] E21,[32] E23, E24,[34,35] E31,[42] E35[46]
Insomnia	E2,[13] E6,[17] E8,[19] E11, E12, E13, E14,[22-25] E17,[28] E22,[33] E37[48]
Stress	E7, E8,[18,19] E11, E12,[22,23] E14, E15,[25,26] E17,[28] E20,[31] E25,[36] E29,[30] E35[46]
Post-traumatic stress symptoms	E5,[16] E14,[25] E21,[32] E23,[34] E25,[36] E27,[38] E35,[46] E37[48]
Fear	E5,[16] E10,[21] E16,[27] E20, E21,[31,32] E28, E29,[39,40] E33[44]
Physical and emotional exhaustion	E1,[12] E8,[19] E10,[21] E26,[37] E35[46]
Anguish	E2,[13] E6,[17] E14[25]
Fatigue	E10,[21] E25,[36] E29[40]
Rage	E16, E17,[27,28] E36[47]
Some kind of physical pain, such as headache, stomachache, chest pain	E8,[19] E22,[33] E27[38]
Burnout Symptoms	E8,[19] E35[46]
Loneliness	E16,[27] E35[46]
Panic	E16, E17[27,28]
Loss of appetite	E8,[19] E32[43]
Professional identity crisis	E16,[27] E28[39]
Irritability	E4,[15] E22[33]
Suicidal thoughts	E32[43]

Source: Information extracted from scientific articles indexed in the National Library of Medicine (PubMed) and SCOPUS databases; in the Web of Science platform, 2020.

this to happen, a period is necessary to analyze the risk factors of a given event, and it is not possible to make these assertions, since COVID-19 still remains a threat to nurses and other health professionals, even to all humanity, due to the long-term consequences, and also due to lack of scientific evidence of standardized treatment and immunization.[54]

Cohort type studies involving professionals active in the severe Acute Respiratory Syndrome (SARS) and Middle Eastern Respiratory Syndrome (MERS) epidemics show, as found in this review,[44] that investments are needed for post-trauma control measures in health professionals.

This scope points out that the situations that affected the mental health of Nursing professionals during the outbreak of COVID-19 are mainly related to the work environment, triggering signs and symptoms of psychological distress, which were also evidenced in the studies. Among the findings, one of the most evident factors to trigger such distress was related to work overload.[16,18,19,23,33,36,38,40,42,43]

The literature[55] stresses out that, worldwide, the Nursing team is experiencing a challenging scenario in this pandemic, which involves work overload directly associated with the high transmissibility of the virus and the excessive and careful handling of specific protective equipment, as well as excessive working hours.[3] It is inferred that such a pandemic work context requires attention and concentration from that professional during the execution of such procedures, but that such mental functions can be impaired considering the strenuous working hours and the sensation of tiredness.

In this context, our findings pointed out other labor factors, for example, the scarcity or absence of Personal Protective Equipment (PPE),[15,23,25,27,36,38,39,48,49] the fear of becoming infected and of infecting other people, such as patients, family and frien ds.[12,14-17,19,21-23,33,37-39,41,46-49]

These findings corroborate studies[56-60] which report that extreme loads and long working hours, physical and mental exhaustion, fear of being infected or transmitting the virus to people close to them, carrying out work activities with absence or inadequate PPE, low stock of medications and loss of friends and relatives[60] impact on the mental health of the health professionals. A study addresses that the professionals' fear of contaminating their family members or relatives causes and social distancing and isolation to protect them, which intensifies mental distress.[59]

Being on the front line with patients that have been diagnosed with COVID-19 or are suspected to have it, shows a risk for psychological distress,[13-16,21,23,24,27,32,33,39,40,45,47] supporting the literature.[61] A study identified in this manuscript shows that hospital nurses presented high rates of anxiety (60.9%) and depression (64.8%) symptoms, when in contact with patients diagnosed with COVID-19; and, with suspected cases, anxiety (57.7%) and depression (58%),[30] supporting the studies.[58,59]

Other factors that impacted on anxiety and depression symptoms were related to experience time[26,27,30,47] and occupation in the health service.[26,27,47] The studies pointed out that the more years of experience the health care professional has, the less intense the symptoms of anxiety and depression will be.[26,27,47] The Nursing team is the closest professional category in care to the patient with COVID-19, so the risks of infection and psychological pressure increase. However, the length of active performance and experience at work and in the context of pandemics can enable the construction of knowledge and skills that provide safety and emotional tranquility to the Nursing professional.

In our findings, the studies[21,35,38,39,41] at some point demonstrated that the media and news affected the mental health of the professionals. Fake News is an ancient technique that has been used since the 20th century, but which in recent years with the advance of Internet has been strengthening and enabling pseudoinformation to the reader.[62]

The main signs and symptoms of psychological distress evidenced in this scope involved anxiety,[13,15,16,21-24,27-29,32,34,38-41,44-46] depression,[13,16,17,20,22-24,26,27,29,34,39,40,45,46] insomnia,[13,17,19,22,23,33,36,39,42,45] str ess,[18,19,22,23,36,38,39,41,43,44,47] post-traumatic stress disorder,[16,23,26,33,34,37,40,47] fear[16,21,34,40,41,43,44,46] and physical and mental exhaustion.[12,19,21,34,48] Other symptoms less frequently found were also reported in the studies, such as distress,[13,17,23] fatigue,[21,43,47] rage,[32,39,46] some kind of physical pain, like headache, stomachache, chest pain,[19,37,42] Burnout,[20,34] loneliness,[34,46] panic,[39,46] loss of appetite[19,30] and professional identity loss.[35,46]

A meta-analysis[54] with the objective of identifying impacts on the physical and mental health of health professionals exposed to SARS, MERS and COVID-19, showed psychological symptoms similar to our findings. However, the common symptom of fear was lesser among the professionals who worked in the front line against SARS, while insomnia and difficulty sleeping were more frequent among those who worked on the front line against COVID-19. In relation to Burnout, this syndrome was particularly greater in nurses who worked long hours with patients with MERS. Comparing data on lethality and transmissibility between diseases, both SARS and MERS were controlled pandemics, with mortality and transmission rates in the population lower than COVID-19, which could justify the low concern of the Nursing professionals.[54]

However, there were high suicide rates in the general population during the SARS period, considered a worrying pandemic; nevertheless, when compared in the universe of health professionals, suicide cases were identified in health workers related to COVID-19.[54] With regard to post-traumatic stress, early onset in the context of COVID-19 is observed in comparison with that of SARS and MERS.[54]

In this context, it is worth mentioning that several notes had already been made regarding the importance of the mental health of health professionals,[54] mainly of the Nursing team,[4] which represents the backbone of any health service.[63] Although the promotion of mental health is one of the global priorities on the agenda of the Sustainable Millennium Development Goals,[64] little

has been invested in strategies to identify psychosocial needs and situations of emotional vulnerability in the health professionals. Generally, the physical health of these professionals has been the main focus of attention, surveillance and intervention.[4]

In addition to this issue of promoting mental health, despite not being the object of study in this manuscript, it can be observed that several studies[12,15-23,27,30,31,33,35,36,38-50] highlighted initial support strategies, the first of which were related to the resumption of training to reduce the fear of transmission,[23,30,33,36,44,47,50] provision of basic supplies, and work safety subsidies for the front-line team.[21,43,47,50]

Concomitantly, there were also recommendations or use of support strategies to prevent situations of psychological distress, with the greatest adherence being the provision of teams for psychosocial and technical support for psychological intervention,[15,18-26,30,33,34,39,43-45,47] as well as psychoeducation assistance by telephone and *WebChat*.[15,19,30,38,39]

Other strategies involved valuing relational and communicational support with co-workers or peers,[12,19,23,30,33,38,44] such as video or telephone chat with family members,[19,47] encouraging sports, signing, diary writing, video screenings, food and basic physical needs.[19-21,30,38,43,47] In the field of the professionals' work, improvements in the resting spaces.[15,20,38,43,44] Three studies[18,33,35] offered financial incentive as a support strategy and only one study reported a reduction in the workload.[40]

Another relevant support strategy was the improvement of the assistance group to strengthen humanitarian assistance, made up of team leaders and co-workers with the mission of regularly visiting family members of Nursing teams to identify and resolve their requests in a timely manner, since that the professionals reported great concern for their family members.[30] The involvement of team leaders, communication and good relationships with managers and several hospital leaders were also topics pointed out in other studies of this scope.[35,44] This strategy has been used with the objective of improving the working environment, since effective dialog between managers and teams through team meetings makes it possible to notice and identify early signs and symptoms that may portray any risk situation.[4] However, it should be stressed that, as well as in the studies found,[44,46] all of the aforementioned strategies should not be used only in the context of a major emergency. It is necessary to give permanent continuity in order to guarantee, in the long term, mechanisms of resilience and support to the Nursing team and to all other health professionals, considering that pandemic-type emergencies will be constant.[54]

Particularly in Brazil, most health services do not have experience of working in major emergencies, as is the case with COVID-19, which represents an additional stressor for the teams.[6] Thus, there is a strong need for strategies to support this category of workers, since mental health, in addition to being part of the sustainable development goals of the millennium,[64] also articulates with the goal of the 2030 agenda, which foresees the need for nine million nurses and midwives to achieve universal health coverage.[63]

Before the advent of the COVID-19 pandemic, Brazil had signs of exhaustion by the Nursing team, as the literature found that nearly 56% of these professionals fell ill in the last 12 months, had accidents at work, and approximately 180,000 professionals in the last year feel unassisted.[65]

CONCLUSION AND IMPLICATIONS FOR THE PRACTICE

The study showed that Nursing professionals face situations of psychological distress, mainly triggered by factors related to the working conditions, manifesting depressive, anxiety and stress symptoms that can remain for a long period of time. The results also highlighted that the health institutions needed to implement training, protection and safety actions, as well as psychosocial support and aid in a short period of time. However, such strategies need to be permanent, which requires continuous financial investment, long-term monitoring of the mental health of these professionals, and treatment by public and private health institutions. This scope identified that the studies addressed the hospital context, which denotes the knowledge production gap in the primary health care and pre-hospital network. Furthermore, scientific production has not been identified on some continents, thus denoting the need for social attitudes and public policies around the mental health of these professionals.

It is worth mentioning that the lack of funding for this research restricted access to full articles for a fee, being consolidated as a limitation.

FINANCIAL SUPPORT

This work was carried out with the support of the Coordination for the Improvement of Higher Education Personnel (*Coordenação de Aperfeiçoamento de Pessoal de Nível Superior*, CAPES) – Brazil – Funding Code 001, Master's scholarship, granted to Caroline dos Santos Pereira and PhD scholarship, granted to Sarah Salvador Pereira.

AUTHOR'S CONTRIBUTIONS

Study design. Mellina Yamamura. Simone Teresinha Protti-Zanatta. Sonia Regina Zerbetto. Fernanda Berchelli Girão Miranda.

Data collection or production. Sarah Salvador Pereira. Caroline dos Santos Pereira. Marceli Costa. Fernanda Berchelli Girão Miranda.

Data analysis. Sarah Salvador Pereira. Caroline dos Santos Pereira. Marceli Costa. Fernanda Berchelli Girão Miranda.

Interpretation of the results. Sarah Salvador Pereira. Caroline dos Santos Pereira. Marceli Costa. Fernanda Berchelli Girão Miranda.

Writing and critical review of the manuscript. Mellina Yamamura. Sarah Salvador Pereira. Caroline dos Santos Pereira. Simone

Teresinha Protti-Zanatta. Sonia Regina Zerbetto. Marceli Costa. Approval of the final version of the article. Mellina Yamamura. Sarah Salvador Pereira. Caroline dos Santos Pereira. Simone Teresinha Protti-Zanatta. Sonia Regina Zerbetto. Marceli Costa. Fernanda Berchelli Girão Miranda.

Responsibility for all aspects of the content and integrity of the published article. Mellina Yamamura. Sarah Salvador Pereira. Caroline dos Santos Pereira. Simone Teresinha Protti-Zanatta. Sonia Regina Zerbetto. Marceli Costa. Fernanda Berchelli Girão Miranda.

ASSOCIATED EDITOR

Cristina Rosa Baixinho

REFERENCES

1. Singhal T. A review of Coronavirus Disease-2019 (COVID-19). Indian J Pediatr. 2020;87(4):281-6. http://dx.doi.org/10.1007/s12098-020-03263-6. PMid:32166607.
2. World Health Organization. Situation reports. [Internet]. WHO; 2020 [citado 2020 Mar]. Disponível em: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports.
3. Torales J, O'Higgins M, Castaldelli-Maia JM, Ventriglio A. The outbreak of COVID-19 coronavirus and its impact on global mental health. Int J Soc Psychiatry. 2020 jun;66(4):317-20. http://dx.doi.org/10.1177/0020764020915212. PMid:32233719.
4. Oliveira WA, Oliveira-Cardoso EA, Silva JL, Santos MA. Impactos psicológicos e ocupacionais das sucessivas ondas recentes de pandemias em profissionais da saúde: revisão integrativa e lições aprendidas. Estud Psicol. 2020;37:e200066. http://dx.doi.org/10.1590/1982-0275202037e200066.
5. Jiang X, Deng L, Zhu Y, Ji H, Tao L, Liu L et al. Psychological crisis intervention during the outbreak period of new coronavirus pneumonia from experience in Shanghai. Psychiatry Res. 2020;286:1-3. http://dx.doi.org/10.1016/j.psychres.2020.112903. PMid:32146245.
6. Marques LC, Lucca DC, Alves EO, Fernandes GCM, Nascimento KC. COVID-19: cuidados de enfermagem para segurança no atendimento de serviço pré-hospitalar móvel. Texto Contexto Enferm. 2020;29:1-12. http://dx.doi.org/10.1590/1980-265x-tce-2020-0119.
7. Rotelli F, Leonardis O, Mauri D, Risio C. Desinstitucionalizaçao. São Paulo: Hucitec, 1990.
8. Peters MDJ, Godfrey C, McInerney P, Baldini SC, Khalil H, Parker D. Chapter 11: Scoping Reviews. In: Aromataris E, Munn Z, editors. Joanna Briggs Institute Reviewer's Manual. [Internet]. JBI; 2017. [citado 2020 Mar]. Disponível em: https://reviewersmanual.joannabriggs.org/.
9. Tricco AC, Lillie E, Zarin W, O'Brien KK, Colquhoun H, Levac D et al. PRISMA extension for scoping reviews (PRISMA-ScR): checklist and explanation. Ann Intern Med. 2018;169(7):467-73. http://dx.doi.org/10.7326/M18-0850. PMid:30178033.
10. Munn Z, Peters MDJ, Stern C, Tufanaru C, McArthur A, Aromataris E. Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. BMC Med Res Methodol. 2018;18(1):143. http://dx.doi.org/10.1186/s12874-018-0611-x. PMid:30453902.
11. Tricco AC, Lillie E, Zarin W, O'Brien K, Colquhoun H, Kastner M et al. A scoping review on the conduct and reporting of scoping reviews. BMC Med Res Methodol. 2016;16(15):1-10. http://dx.doi.org/10.1186/s12874-016-0116-4. PMid:26857112.
12. Xiang YT, Jin Y, Wang Y, Zhang Q, Zhang L, Cheung T. Tribute to health workers in China: A group of respectable population during the outbreak of the COVID-19. Int J Biol Sci. 2020;16(10):1739-40. http://dx.doi.org/10.7150/ijbs.45135. PMid:32226292.
13. Lai J, Ma S, Wang Y, Cai Z, Hu J, Wei N et al. Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019. JAMA Netw Open. 2020;3(3):e203976. http://dx.doi.org/10.1001/jamanetworkopen.2020.3976. PMid:32202646.
14. Li Z, Ge J, Yang M, Feng J, Qiao M, Jiang R et al. Vicarious traumatization in the general public, members, and non-members of medical teams aiding in COVID-19 control. Brain Behav Immun. 2020, S0889-1591(20):30309-3. https://doi.org/10.1016/j.bbi.2020.03.007.
15. Chen Q, Liang M, Li Y, Guo J, Fei D, Wang L et al. Mental health care for medical staff in China during the COVID-19 outbreak. Lancet Psychiatry. 2020 abr;7(4):e15-6. http://dx.doi.org/10.1016/S2215-0366(20)30078-X. PMid:32085839.
16. Xiang YT, Yang Y, Li W, Zhang L, Zhang Q, Cheung T et al. Timely mental health care for the 2019 novel coronavirus outbreak is urgently needed. Lancet Psychiatry. 2020;7(3):228-9. http://dx.doi.org/10.1016/S2215-0366(20)30046-8. PMid:32032543.
17. Kang L, Ma S, Chen M, Yang J, Wang Y, Li R et al. Impact on Mental Health and Perceptions of Psychological Care among Medical and Nursing Staff in Wuhan during the 2019 Novel Coronavirus Disease Outbreak: a Cross-sectional Study. Brain Behav Immun. 2020;87:11-7. http://dx.doi.org/10.1016/j.bbi.2020.03.028. PMid:32240764.
18. Mo Y, Deng L, Zhang L, Lang Q, Liao C, Wang N et al. Work stress among Chinese nurses to support Wuhan in fighting against COVID-19 epidemic. J Nurs Manag. 2020;28(5):1002-9. http://dx.doi.org/10.1111/jonm.13014. PMid:32255222.
19. Cao J, Wei J, Zhu H, Duan Y, Geng W, Hong X et al. A Study of Basic Needs and Psychological Wellbeing of Medical Workers in the Fever Clinic of a Tertiary General Hospital in Beijing during the COVID-19 Outbreak. Psychother Psychosom. 2020;89(4):252-4. http://dx.doi.org/10.1159/000507453. PMid:32224612.
20. Liang Y, Chen M, Zheng X, Liu J. Screening for Chinese medical staff mental health by SDS and SAS during the outbreak of COVID-19. J Psychosom Res. 2020;133:110102. http://dx.doi.org/10.1016/j.jpsychores.2020.110102. PMid:32224344.
21. Sun T, Wei L, Shi S, Jiao D, Song R, Ma L et al. A qualitative study on the psychological experience of caregivers of COVID-19 patients. Am J Infect Control. 2020;48(6):592-8. http://dx.doi.org/10.1016/j.ajic.2020.03.018. PMid:32334904.
22. Zhang C, Yang L, Liu S, Ma S, Wang Y, Cai Z et al. Survey of insomnia and related social psychological factors among medical staff involved with the 2019 novel coronavirus disease outbreak. Front Psychiatry. 2020;11(306):306. http://dx.doi.org/10.3389/fpsyt.2020.00306. PMid:32346373.
23. Wang S, Wen X, Liu B, Dong Y, Cui M. Psychological influence of Coronavirus disease 2019 (COVID-19) pandemic on the general public, medical workers and patients with mental disorders and its countermeasures. Psychosomatics. 2020;61(6):616-24. http://dx.doi.org/10.1016/j.psym.2020.05.005. PMid:32739051.
24. Ni MY, Yang L, Leung CMC, Li N, Yao XI, Wang Y et al. Mental Health, risk factors, and social media use during the COVID-19 epidemic and cordon sanitaire among the community and health professionals in Wuhan, China: cross-sectional survey. JMIR Ment Health. 2020;7(5):e19009. http://dx.doi.org/10.2196/19009. PMid:32365044.
25. Liu CY, Yang YZ, Zhang XM, Xu X, Dou QL, Zhang WW et al. The prevalence and influencing factors in anxiety in medical workers fighting COVID-19 in China: A cross-sectional survey. Epidemiol Infect. 2020;148(98):1-7. http://dx.doi.org/10.1017/S0950268820001107. PMid:32430088.
26. Song X, Fu W, Xiaoran L, Liu X, Luo Z, Wang R et al. Mental health status of medical staff in emergency departments during the Coronavirus disease 2019 epidemic in China. Brain Behav Immun. Print. 2020;88;60-65. https://doi.org/10.1016/j.bbi.2020.06.002
27. Xiao X, Zhu X, Fu S, Hu Y, Li X, Xiao J. Psychological impact of healthcare workers in China during COVID-19 pneumonia epidemic: a multi-center cross-sectional survey investigation. J Affect Disord.

2020;274:405-10. http://dx.doi.org/10.1016/j.jad.2020.05.081. PMid:32663970.

28. Cai W, Lian B, Song X, Hou T, Deng G, Li H. A cross-sectional study on mental health among health care workers during the outbreak of Corona Virus Disease 2019. Asian J Psychiatr. 2020;51:102111. http://dx.doi.org/10.1016/j.ajp.2020.102111. PMid:32361388.
29. Juhong Z, Lin S, Lan Z, Wang H, Fan A, Yang B et al. Prevalence and influencing factors of anxiety and depression symptoms in the first-line medical staff fighting against COVID-19 in Gansu. Front Psychiatry. 2020;11:386. http://dx.doi.org/10.3389/fpsyt.2020.00386. PMid:32411034.
30. Shen X, Zou X, Zhong X, Yan J, Li L. Psychological stress of ICU nurses in the time of COVID-19. Crit Care. 2020;24(1):200. http://dx.doi.org/10.1186/s13054-020-02926-2. PMid:32375848.
31. Sun D, Yang D, Li Y, Zhou J, Wang W, Wang Q et al. Psychological impact of 2019 novel coronavirus (2019-nCoV) outbreak in health workers in China. Epidemiol Infect. 2020;148:e96. http://dx.doi.org/10.1017/S0950268820001090. PMid:32430086.
32. Cai H, Tu B, Ma J, Chen L, Fu L, Jiang Y et al. Psychological Impact and Coping Strategies of Frontline Medical Staff in Human Between January and March 2020 During the Outbreak of Coronavirus Disease 2019 (COVID-19) in Hubei, China. Med Sci Monit. 2020;26:e924171. http://dx.doi.org/10.12659/MSM.924171. PMid:32291383.
33. Conversano C, Marchi L, Miniati M. Psychological distress among healthcare professionals involved in the Covid-19 emergency: vulnerability and resilience factors. Clinical Neuropsychiatry. 2020;17(2):94-6. http://dx.doi.org/10.36131/CN20200212.
34. Cheung T, Fong TKH, Bressington D. COVID-19 under the SARS Cloud: Mental Health Nursing during the Pandemic in Hong Kong. J Psychiatr Ment Health Nurs. 2020;1–3:jpm.12639. http://dx.doi.org/10.1111/jpm.12639. PMid:32311811.
35. Fawaz M, Samaha A. The psychosocial effects of being quarantined following exposure to COVID-19: A qualitative study of Lebanese health care workers. Int J Soc Psychiatry. 2020;66(6):1-6. http://dx.doi.org/10.1177/0020764020932202. PMid:32489149.
36. Tan BYQ, Chew NWS, Lee GKH, Jing M, Goh Y, Yeo LLL et al. Psychological Impact of the COVID-19 Pandemic on Health Care Workers in Singapore. Ann Intern Med. 2020;173(4):317-20. http://dx.doi.org/10.7326/M20-1083. PMid:32251513.
37. Nicholas WS, Chewa GKH, Leeb BYQ, Tanb C, Mingxue J, Yihui G et al. A multinational, multicentre study on the psychological outcomes and associated physical symptoms amongst healthcare workers during COVID19 outbreak. Brain Behav Immun. 2020;88:559-565. http://dx.doi.org/10.1016/j.bbi.2020.04.049.
38. Rajkumar RP. COVID-19 and mental health: A review of the existing literature. Asian J Psychiatr. 2020;52:102066. http://dx.doi.org/10.1016/j.ajp.2020.102066. PMid:32302935.
39. Grover S, Dua D, Sahoo S, Mehra A, Nehra R, Chakrabarti S. Why all COVID-19 hospitals should have mental health professionals: The importance of mental health in a worldwide crisis! Asian J Psychiatr. 2020;51:102147. http://dx.doi.org/10.1016/j.ajp.2020.102147. PMid:32473537.
40. Mukhtar S. Mental Well-Being of Nursing Staff During the Coronavirus Disease 2019 Outbreak: A Cultural Perspective. J Emerg Nurs. 2020;1-2(4):426-7. http://dx.doi.org/10.1016/j.jen.2020.04.003. PMid:32418672.
41. Temsah MH, Al-Sohime F, Alamro N, Al-Eyadhy A, Al-Hasan K, Jamal A et al. The psychological impact of COVID-19 pandemic on health care workers in a MERS-CoV endemic country. J Infect Public Health. 2020;13(6):877-82. http://dx.doi.org/10.1016/j.jiph.2020.05.021. PMid:32505461.
42. Barello S, Palamenghi L, Graffigna G. Burnout and somatic symptoms among frontline healthcare professionals at the peak of the Italian COVID-19 pandemic. Psychiatry Res. 2020;290:1-4. http://dx.doi.org/10.1016/j.psychres.2020.113129. PMid:32485487.
43. Blanco-Donoso LM, Garrosa E, Moreno-Jiménez J, Gálvez-Herrer M, Moreno-Jiménez B. Occupational psychosocial risks of health professionals in the face of the crisis produced by the COVID-19: From the identification of these risks to immediate action. Int J Nurs Stud. 2020;2:100003. http://dx.doi.org/10.1016/j.ijnsa.2020.100003.
44. Maben J, Bridges J. Covid-19: Supporting nurses' psychological and mental health. J Clin Nurs. 2020;29(15-16):2742-50. http://dx.doi.org/10.1111/jocn.15307. PMid:32320509.
45. Pappa S, Ntella V, Giannakas T, Giannakoulis VG, Papoutsi E, Katsaounou P. Prevalence of depression, anxiety, and insomnia among healthcare workers during the COVID-19 pandemic: A systematic review and meta-analysis. Brain Behav Immun. 2020;S0889-1591(20):30845-X. http://dx.doi.org/10.1016/j.bbi.2020.05.026.
46. Albott CS, Wozniak JR, McGlinch BP, Wall MH, Gold BS, Vinogradov S. Battle buddies: rapid deployment of a psychological resilience intervention for health care workers during the COVID-19 Pandemic. Anesth Analg. 2020;131(1):43-54. http://dx.doi.org/10.1213/ANE.0000000000004912. PMid:32345861.
47. Kisely S, Warren N, McMahon L, Dalais C, Henry I, Siskind D. Occurrence, prevention, and management of the psychological effects of emerging virus outbreaks on healthcare workers: rapid review and meta-analysis. BMJ. 2020;369:m1642. http://dx.doi.org/10.1136/bmj.m1642. PMid:32371466.
48. Alharbi J, Jackson D, Usher K. The potential for COVID-19 to contribute to compassion fatigue in critical care nurses. J Clin Nurs. 2020;29(15-16):2762-4. http://dx.doi.org/10.1111/jocn.15314. PMid:32344460.
49. Spoorthy MS, Pratapa SK, Mahant S. Mental health problems faced by healthcare workers due to the COVID-19 pandemic-A. Asian J Psychiatr. 2020;51:102119. http://dx.doi.org/10.1016/j.ajp.2020.102119. PMid:32339895.
50. Humerez DC, Ohl RIB, Silva MCN. Mental health of Brazilian nursing professionals in the context of the covid-19 pandemic: action of the Nursing Federal Council. Cogitare enferm. 2020; 25:1-10. http://dx.doi.org/10.5380/ce.v25i0.74115.
51. Catton H. Global challenges in the health and health care for nurses and midwives everywhere. Int Nurs Rev. 2020;67(1):4-6. http://dx.doi.org/10.1111/inr.12578. PMid:32083728.
52. Tollefson J. China declared world's largest producer of scientific articles. Nature. 2018;553(7689):390. http://dx.doi.org/10.1038/d41586-018-00927-4.
53. Thiese MS. Observational and interventional study design types; an overview. Biochem Med (Zagreb). 2014;24(2):199-210. http://dx.doi.org/10.11613/BM.2014.022. PMid:24969913.
54. Salazar de Pablo G, Vaquerizo-Serrano J, Catalan A, Arango C, Moreno C, Ferre F et al. Impact of coronavirus syndromes on physical and mental health of health care workers: Systematic review and meta-analysis. J Affect Disord. 2020;275:48-57. http://dx.doi.org/10.1016/j.jad.2020.06.022. PMid:32658823.
55. Miranda FMA, Santana LL, Pizzolato AC, Saquis LMM. Working conditions and the impact on the health of the nursing professionals in the context of Covid-19. Cogitare enferm. 2020;25. http://dx.doi.org/10.5380/ce.v25i0.72702.
56. Santos CF. Reflections about the impact of the SARS-COV-2/COVID-19 pandemic on mental health. Br J Psychiatry. 2020;42(3):329. http://dx.doi.org/10.1590/1516-4446-2020-0981. PMid:32321063.
57. The Lancet. The Lancet. COVID-19: protecting health-care workers. Lancet. 2020;395(10228):922. http://dx.doi.org/10.1016/S0140-6736(20)30644-9.
58. Walton M, Murray E, Christian MD. Mental health care for medical staff and affiliated healthcare workers during the COVID-19 pandemic. Eur Heart J Acute Cardiovasc Care. 2020;9(3):241-7. http://dx.doi.org/10.1177/2048872620922795. PMid:32342698.
59. Liu Q, Luo D, Haase JE, Guo Q, Wang XQ, Liu S et al. The experiences of health-care providers during the COVID-19 crisis in China: a qualitative study. Lancet Glob Health. 2020;8(6):e790-8. http://dx.doi.org/10.1016/S2214-109X(20)30204-7. PMid:32573443.

60. Prado AD, Peixoto BC, Silva AMB, Scalia LAM. A saúde mental dos profissionais de saúde frente à pandemia do COVID-19: uma revisão integrativa. REAS jun 2020;46:e4128. https://doi.org/10.25248/reas.e4128.2020.

61. Arpacioglu S, Gurler M, Cakiroglu S. Secondary Traumatization Outcomes and Associated Factors Among the Health Care Workers Exposed to the COVID-19. Int J Soc Psychiatry. 2020;00(0):1-6. http://dx.doi.org/10.1177/0020764020940742. PMid:32635786.

62. Neto M, Gomes TO, Porto FR, Rafael RMR, Fonseca MHS, Nascimento J. Fake news in the context of the covid-19 pandemic. Cogitare enferm. 2020;25. http://dx.doi.org/10.5380/ce.v25i0.72627.

63. World Health Organization. Director-General's opening remarks at the media briefing on COVID-19. Genebra: WHO; 2020

64. Orellana JDY, Ribeiro MRC, Barbieri MA, Saraiva MC, Cardoso VC, Bettiol H et al. Mental disorders in adolescents, youth, and adults in the RPS Birth Cohort Consortium (Ribeirão Preto, Pelotas and São Luís), Brazil. Cad Saude Publica. 2020;36(2):e00154319. http://dx.doi.org/10.1590/0102-311x00154319. PMid:32022176.

65. Silva, MCN, Machado MH. Health and Work System: challenges for the Nursing in Brazil. Ciênc. saúde coletiva. 2020 jan;25(1):7-13. https://doi.org/10.1590/1413-81232020251.27572019.