

Repercussions for mental health of nursing professionals who are in the face of The Covid-19: integrative review

Repercussões para saúde mental de profissionais de enfermagem atuantes no enfrentamento à Covid-19: revisão integrativa

Repercusiones para la salud mental de los profesionales de enfermería que trabajan en el afrontamiento del Covid-19: una revisión integradora

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Abstract: Objective: To identify the repercussions on mental health of nursing professionals who are in the face of Covid-19 in the first year of the pandemic context. **Method:** integrative literature review conducted in May 2021 in the electronic databases SCOPUS, *Cumulative Index to Nursing and Allied Health Literature* (CINAHL), *Web of Science and Latin American and Caribbean Literature on Health Sciences* (LILACS). **Results:** 1,249 publications were found whose application of inclusion, exclusion and critical reading criteria culminated in the analysis of 18 articles from experiences from China, Turkey, Italy, Canada, United States, Philippines, Brazil, Portugal and Ethiopia. The main repercussions involved in mental illness were anxiety, depression, stress, *Burnout syndrome*, mental sleep disorders and posttraumatic stress disorder. **Conclusion:** The mental health of nurses is extremely fragile in the face of the pandemic context. This emergency in world health eventually triggered physical, emotional and psychological consequences in these workers.

Descriptors: Occupational health; Mental health; Nurses; Coronavirus infections; Pandemics

Resumo: Objetivo: identificar as repercussões na saúde mental de profissionais de enfermagem atuantes no enfrentamento da Covid-19 no primeiro ano do contexto pandêmico. **Método:** revisão integrativa de literatura realizada

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em maio de 2021 nas bases de dados eletrônicas SCOPUS, *Cumulative Index to Nursing and Allied Health Literature* (CINAHL), *Web of Science* e Literatura Latino-Americana e do Caribe em Ciências da Saúde (LILACS). **Resultados:** foram encontradas 1249 publicações cuja aplicação de critérios de inclusão, exclusão e leitura crítica, culminou na análise de 18 artigos provenientes de vivências da China, Turquia, Itália, Canadá, Estados Unidos, Filipinas, Brasil, Portugal e Etiópia. As principais repercussões envolvidas no adoecimento mental foram: ansiedade, depressão, estresse, síndrome de *Burnout*, transtornos mentais do sono e transtorno de estresse pós-traumático. **Conclusão:** a saúde mental dos enfermeiros encontra-se extremamente fragilizada frente ao contexto pandêmico. Essa emergência na saúde mundial, acabou por desencadear consequências físicas, emocionais e psicológicas nesses trabalhadores.

Descritores: Saúde do trabalhador; Saúde mental; Enfermeiras e enfermeiros; Infecções por coronavírus; Pandemias

Resumen: Objetivo: identificar las repercusiones en la salud mental de los profesionales de enfermería que trabajan en el afrontamiento del Covid-19 en el primer año del contexto pandémico. **Método:** revisión integrativa de la literatura realizada en mayo de 2021 en las bases de datos electrónicas SCOPUS, Índice Acumulativo de Literatura de Enfermería y Afines en Salud (CINAHL), Web of Science y Literatura de Ciencias de la Salud de América Latina y el Caribe (LILACS). **Resultados:** se encontraron 1249 publicaciones cuya aplicación de criterios de inclusión, exclusión y lectura crítica culminó en el análisis de 18 artículos de experiencias en China, Turquía, Italia, Canadá, Estados Unidos, Filipinas, Brasil, Portugal y Etiopía. Las principales repercusiones de la enfermedad mental fueron: ansiedad, depresión, estrés, síndrome de Burnout, trastornos del sueño mental y trastorno por estrés postraumático. **Conclusión:** la salud mental de las enfermeras es extremadamente frágil frente al contexto pandémico. Esta emergencia sanitaria mundial acabó provocando consecuencias físicas, emocionales y psicológicas para estos trabajadores.

Descriptores: Salud laboral; Salud mental; Enfermeras y enfermeros; Infecciones por coronavirus; Pandemias

Introduction

March 11, 2020 was marked by the disclosure of the first pandemic in history caused by a coronavirus, demarcating the worldwide spread of SARS-CoV-2, commonly called Covid-19.¹ After the first year of pandemic, the current Brazilian scenario points to an even more chaotic picture, since the number of deaths by Covid-19 until May 16, 2021 indicates the number of more than 435,000, which more than 153,000 were recorded in the last two months alone.²

The work of health professionals on the front line of the fight against the disease potentiates vulnerability in relation to contagion,³ in the world scenario the contamination of these is a reality. In China, the country that reported the first cases of the disease, 23 professionals were killed.⁴ Despite the intense and accelerated change in incidence and mortality profiles, it is observed that the Brazilian reality has very different data from Chinese statistics, since in May 2021 only in the nursing category, there are already almost 56,000 confirmed cases and 778 deaths.⁵

In this context, it is observed that the global reality as well as the possibility of contamination generates an impact on the mental health of health professionals, especially nurses working in direct care to the user, affecting the condition of well-being and the ability to perform their activities.⁶ Moreover, the incessant instructions on personal conduct in the context of the pandemic, together with the scarcity of protective materials reported at the beginning of the health emergency, in addition to routine contact with situations of illness and death, can trigger to these professionals numerous situations of psychic suffering.⁷

Moreover, it is emphasized that the pandemic context evidently brought changes in the praxis of nursing professionals, generating discomfort, fear and sensations still little explored that culminate in repercussions for mental health. In this sense, identifying such repercussions are essential for the construction of coping, support and strengthening strategies of these professionals.

The relevance of this research is associated with the need to highlight the human aspect of health professionals, which due to the emotional fragility caused by the context of crisis can culminate in illness processes, affecting health, social life, the family nucleus and their work process. Knowing the repercussion on mental health of health professionals, especially nursing, the objective of this article is to identify the repercussions on mental health of nursing professionals who work in coping with Covid-19 in the first year of the pandemic context.

Method

This is a research of the integrative literature review (RIL) type, which takes into account the grouping of scientific productions focused on a given subject, in order to systematize several studies already published and synthesize them in a new work.⁸ Because it is an analysis of information already published and the absence of any kind of data collection with human beings, the ethical assessment of this investigation has become unnecessary.

The six steps of the RIL were fulfilled, to mention: 1. design of the guide question; 2. Establishment of inclusion criteria, exclusion and search strategies; 3. definition of the information that will be extracted and analyzed from the listed studies; 4. Evaluation of manuscripts; 5. interpretation of the results; 6. presentation of the summary of the results.^{8,9}

First, the theme was selected and the guide question was outlined with the use of the PICO strategy (Population, Phenomenon of Interest and Context).^{8,10} Nursing professionals (P) defined the phenomenon of interest (I), the repercussions for mental health in the first pandemic year and the Context (Co), the pandemic scenario of Covid-19. Thus, the following review question was obtained: What are the repercussions on the mental health of nursing professionals who are in the confrontation of Covid-19 in the first year of the pandemic context?

In the second step, the criteria for inclusion and exclusion of studies were considered as inclusion criteria: publications in the scientific article format with full *texts available online*, published in Portuguese, English or Spanish with the use of temporal restriction for the years 2020-2021.⁸ Exclusion criteria were considered: literature reviews, theoretical or reflective manuscripts, investigations whose data collection occurred before the recognition of the pandemic and those that did not contemplate the research question, that is, thematic impertinence. It is worth noting that duplicate manuscripts were computed only once.

For this search, we chose to use descriptors in the electronic databases SCOPUS, *Cumulative Index to Nursing and Allied Health Literature* (CINAHL), *Web of Science and Latin American and Caribbean Literature in Health Sciences* (LILACS). The descriptors chosen and searched for their English equivalents, according to the terms of the Medical Subject *Headings*. Therefore, the survey was carried out in May 2021 in a combined manner between the terms: ((*Nursing*) OR (*Nurse*) OR (*Nursing, team*) AND (*Mental Health*) AND ((Covid-19) OR (SARS-CoV-2)).

For the third step, the information that would be extracted and analyzed from the listed studies was defined, to mention: title of the article, country of publication, year of publication,

objective of the study and repercussions for mental health.⁸

The fourth step of the RIL refers to the analysis of the studies. The flowchart with the representation of eligibility and inclusion of articles in the selection of studies is shown in Figure 1.

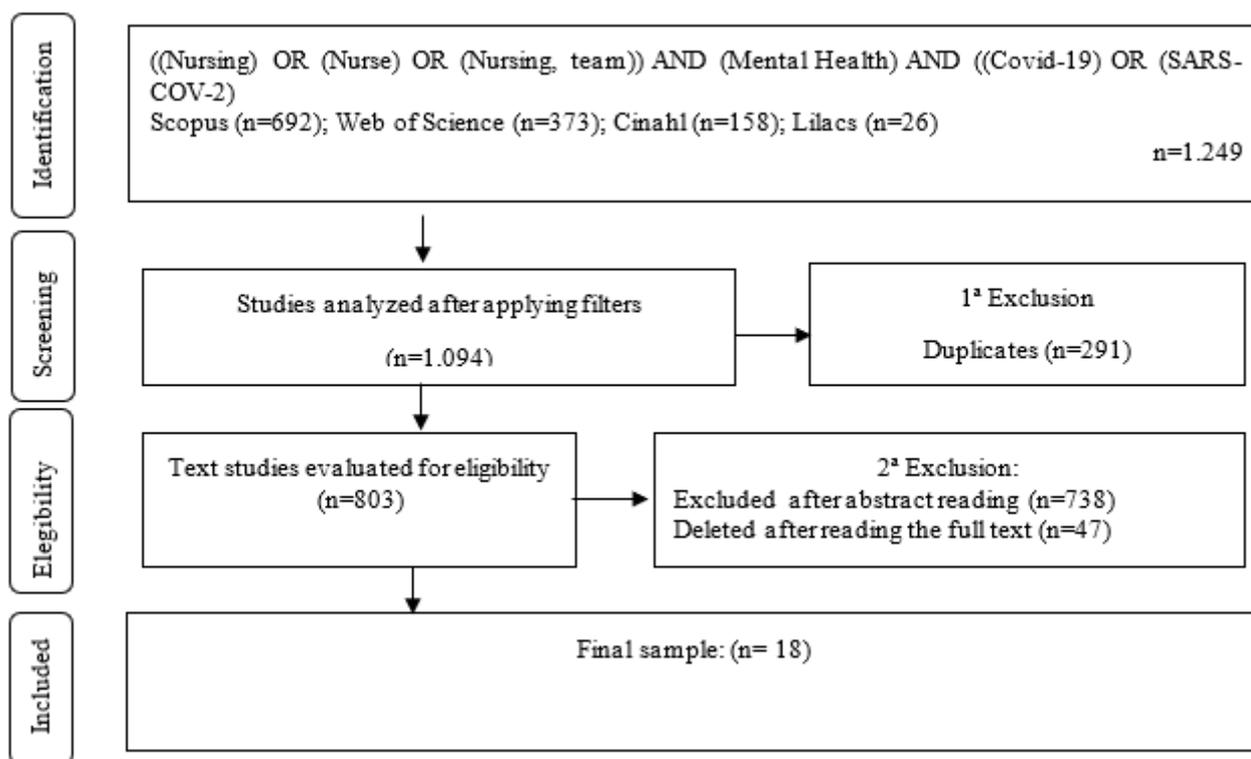


Figure 1 - Flowchart with representation of eligibility and inclusion of articles in the selection of studies

In the fifth step, the studies were analyzed descriptively and interpretively, considering the ethical aspects, respecting the authorship of the ideas, concepts and definitions pointed out by the authors. The evaluation of the relevant studies was concentrated in the reference administrator named Rayyan¹¹ with the collaboration of three independent evaluators.

The sixth stage of THE RIL is the presentation of the review in the form of a synoptic table to synthesize the most relevant findings.⁸ The variables selected to make up the picture were the same variables used in stage three of the RIL, to mention: sample and place of study, objective and repercussions for mental health.

Results

We found 1,249 publications, whose application of filters, exclusion of duplicates and complete reading generated a sample of 18 articles,¹²⁻²⁹ as described in Chart 1.

Table 1. Summary of the articles included in the study - Brazil, 2021.

Sample, collection period and study site	objective	Repercussions on Mental Health
180 nurses, March-April 2020, China ¹²	Investigate the mediating roles of positive and negative affect in the relationship between resilience <i>and burnout</i> in Wuhan hospitals at the peak of the COVID-19 pandemic	<i>Burnout</i>
169 nurses, April-August, 2020, Turkey ¹³	Examine perceived stress and the factors affecting pandemic-related COVID-19 of emergency nurses in the first stage of the pandemic	Stress
1005 nurses, February-April, 2020, Italy ¹⁴	Assess the prevalence of anxiety, sleep disorders and self-efficacy and their predictive factors among nurses facing COVID -19	Anxiety and sleep mental disorders
270 nurses, May, 2020, Turkey ¹⁵	Determine the anxiety levels of nurses caused by the changes experienced during the Covid-19 pandemic	Anxiety
3676 nurses, June-July, 2020, Canada ¹⁶	Examine the impact of COVID-19 working conditions on nurses' mental health outcomes	Posttraumatic stress disorder, anxiety, depression
587 nurses, May-June, 2020, USA ¹⁷	Describe the levels of insomnia, fatigue and psychological well-being related to nursing teams during the COVID-19 pandemic in the United States	Sleep mental disorders, post-traumatic stress disorder, anxiety and depression
291 nurses, March-April, 2020, Italy ¹⁸	Evaluate <i>Burnout syndrome</i> in nurses who provide care to patients with coronavirus disease	<i>Burnout</i>
12596 nurses, March-April, 2020, China ¹⁹	Assess trauma, <i>burnout</i> and post-traumatic stress disorder among nurses in the COVID-19 pandemic	Post-traumatic stress disorder, <i>Burnout</i>
325 nurses, April-May, 2020, Philippines ²⁰	Identify the relative influence of personal resilience, social support and organizational support in reducing anxiety among nurses working on the front line	Anxiety
123 nurses, April, 2020, Turkey ²¹	Investigate pandemic-related anxiety in nurses working at a university hospital in Turkey	Anxiety

713 nurses, May-July, 2020, Turkey ²²	Determine stress, depression and <i>burnout levels</i> of frontline nurses during the COVID-19 pandemic	Stress, Depression and <i>Burnout</i>
1794 nurses, March, 2020, China ²³	Investigate the prevalence of insomnia among frontline nurses fighting COVID-19 in Wuhan	Sleep mental disorders
388 nursing professionals, March-April, 2020, Brazil ²⁴	Identify the prevalence and factors associated with anxiety and depression in nursing professionals working to cope with COVID-19 in a university hospital	Anxiety and depression
767 nurses, March-April, 2020, Portugal ²⁵	Describe the mental health status of nurses during the Covid-19 outbreak	Depression, anxiety and stress
320 nurses, April-May, 2020, USA ²⁶	Examine the impact of several factors affecting nurses' mental health during the COVID-19 pandemic	Depression, anxiety and stress
1457 nurses, April-May, 2020, Turkey ²⁷	Investigate anxiety levels of nurses providing care to COVID-19 patients in Turkey	Anxiety
109 nurses, May, 2020, Canada ²⁸	Examine mental health nurses who provide direct patient care during the initial phase of the COVID-19 pandemic in Canada	Posttraumatic stress disorder, anxiety, depression, stress
302 nurses, September-October, 2020, Ethiopia ²⁹	Assess the prevalence and associated factors of anxiety, depression and stress among nurses working in referral hospitals in northwestern Amhara	Depression, anxiety and stress

It is notable that all studies analyzed were quantitative and descriptive investigations, in addition they were classified as evidence level 4, that is, they are a study with a non-experimental design as descriptive correlational and/or qualitative research as case studies.³⁰ In the analyzed studies, it was observed the existence of six repercussions for the mental health of nursing professionals in the front line of coping with The Covid-19, to mention: anxiety, depression, stress, posttraumatic stress disorder, sleep mental disorders and *Burnout*.

Discussion

The emotional responses to the public health emergency brought by the worldwide spread of

the SARS-CoV-2 virus are associated with individual and collective coping mechanisms, influencing the way the entire population acts, especially health professionals.³¹

Thus, from the collected studies, it was noticed that anxiety is the most reported impact for mental health among nursing professionals who work in coping with Covid-19.^{14-17,20-21,24,29} The feeling of anxiety is observed with some frequency in the daily lives of health professionals, however, the approximation of situations such as the imminent death of patients may point to anxiety levels up to 40% higher than normal ones.³³

The survey showed the prevalence of anxiety ranging from 48% to 24 to 86%,¹⁵⁻¹⁶ being observed in one of the studies, the existence of dysfunctional anxiety in almost 40% of the sample.²⁰ It is important to emphasize that the prevalence of anxiety among nursing professionals is higher than the rates observed in other health categories, such as in relation to physiotherapy with a rate of 32%³³ and medicine with a prevalence of 29.7%.³³

Although the assistance to users with Covid-19 already represents a great reason for anxiety, studies indicate other genesis such as family exposure,²⁸ concerns about the amount of Personal Protective Equipment (PPE) available,²⁵ changes in care protocol, leading to sudden changes in the work process.¹⁶

It was observed the existence of characteristics related to high prevalence of anxiety, namely:

1. Being female,²⁷ being in direct care to the infected user²⁶ and experience in the profession that can be a determining factor in the perception of the vulnerability experienced.²¹

It is important to emphasize that an increase in anxiety levels among nurses on the front line to combat Covid-19 is perceived, especially after the identification of the pandemic scenario. In studies conducted in February 2020, i.e., prior to the identification of the pandemic, the rates of anxiety signs among nurses ranged from 8%^{to} 31%.³⁷

Depression was also considered a prevalent theme among professionals who are active in coping with Covid-19.^{16,22,24-26,28-29} It is worth noting that the rates of involvement of nursing

professionals in front line due to depression are fluctuating ranging from 26% to 55% of the sample.^{28,29} This is a serious pathology that affects negatively how the individual thinks, feels and acts, causing a feeling of sadness and disinterest in daily activities, affecting functional groups of the body, such as: cognitive, motivational, somatic, affective, behavioral and vegetative, in addition to the worker's work capacity.³⁷

It was observed the trend of higher levels of depression among nurses with chronic disease, whose prevalence was higher than five times when compared to groups without this type of disease. The history of previous mental disorder also increased the risk of depression, reaching rates up to seven times higher when compared to other nurses.²⁹

Another major factor for depression involvement was the age of nurses, since the younger and less experienced, the higher the risk of involvement by depressive symptoms.²² Nevertheless, the number of hours worked and work shifted to other sectors were also observed as important risk factors.²⁵

Paradoxically, the exhibit inherent to nursing work on the front line, the social isolation recommended as a pandemic containment strategy was associated with an increase in the prevalence of depression.²⁶

It is emphasized that social isolation was determinant in mental illness processes throughout the population, not only of health professionals. In relation to young adults, comparisons between January 2020 and May 2020 showed a statistical increase in the prevalence of depressive symptoms.³⁸ Thus, social isolation related to the elderly population is related to the increase in cases of depression, constituting a public health problem.³⁹

Another repercussion evidenced was stress. This, in contrast to the aforementioned pathologies, is not defined as a disease itself, but rather as a reaction of the body to some type of change, and can serve as a fuse to trigger other psychological problems.^{13,22,25-26,28-29,40}

The prevalence rate of stress observed in the analyzed studies ranged from 20% to 45% of the

sample.²⁹ Again, being female, young and with few years of education were recognized as important risk factors.¹³ In addition, nurses displaced to new sectors, especially for intensive care for covid-19 victims, were predominant in the record of occupational stress, as well as night work.^{25-26,29}

In pandemic times, the literature reports as the main situations of occupational stress among health professionals: the lack of EPIs, the possible contagion before the disease, the fear of transmitting it to family members and the constant questioning about their own performance.⁴¹⁻⁴² In addition, the feeling of inability of professionals to deal with their own psychological demands, generating the urgent need for support, not always met, which in turn increases the risk of illness, and then the actions of safety management for mental health are emerging.⁴³⁻⁴⁴

The gradual evolution of stress situations allied to other phenomena can generate the recording of the psychic condition, culminating in burnout syndrome, which exhaustion, anguish and hopelessness are recurrent signs, especially allied to the context of coping with Covid-19.^{12,18-19,22} It is also added that the work process of health professionals translates into a potential risk of developing Burnout syndrome.⁴⁵

Therefore, the prevalence of Burnout reported in the literature reached rates higher than 50% of the sample.¹² Female gender and recent training were risk factors for increased prevalence, however, with regard to the specific dimensions of Burnout Syndrome, only emotional exhaustion showed significant differences, and depersonalization and personal fulfillment were matched in terms of the gender of the participants.¹⁸

Nurses working in emergencies, intensive care or Covid wards had a higher prevalence rate of *Burnout* when compared to professionals from other sectors of the hospital. Among those affected, feelings of hopelessness, unhappy memories and irritability were constant.¹⁹ Frontline professionals who tested for Covid-19 and were removed from work functions, also showed high burnout rates after returning to work.²¹

It is necessary to emphasize the *close relationship between burnout, overload and working*

conditions, which general physiological and psychological changes in workers' health, significantly reaching the performance of their activities.⁴⁶

Another important repercussion on the mental health of frontline care nurses is sleep-related mental disorders.^{14,22-23} Sleep is essential for the good physical, cognitive, occupational and social functioning of the individual and health professionals routinely have problems associated with sleep patterns, especially due to the pace of work.⁴⁷ The rates of sleep pattern alterations perceived among frontline nurses ranged from 53%²³ to 87%.¹⁷

When acting in the front line of nursing care for users with Covid-19, it was observed the existence of protective profiles the occurrence of mental sleep disorders, such as being male and acting in management, education or research and anxiety control, since it is related to the increase in the prevalence of insomnia.¹⁴

It is also added that in this first year of coping with the pandemic symptoms were observed consistent with other disorders, such as posttraumatic stress disorder.^{16-17,19,28}

The prevalence of this disorder ranged from 38%²⁸ to 25%¹⁷ reaching 56% of sample.²⁸ Despite the high percentage of involvement, there are still few reports, which it is believed that there will be a quantitative increase in the coming months.

Although the performance in the nursing area is not pointed out as a risk factor for the development of posttraumatic stress disorder, a pattern is observed close to the demographic reality of nursing, since being a woman, working in a hospital and worrying about possible contaminations are conditions related to the increase in the rates of this disorder.⁴⁸

It is worth mentioning that the association of all repercussions for mental health when evaluated collectively and associated with factors such as work overload and insufficient autonomy may culminate in suicidal ideation.⁴⁹ The phenomenon of suicide associated with acting on the front line of the Covid-19 is still poorly studied and lacks a meticulous evaluation, especially by the conjunction of several risk factors presented by nurses, however, it is notepoint that preliminary

assessments to the pandemic context point to an index of approximately 6% of nurses with suicidal ideations.^{35.50-51}

Despite the numerous situations that culminate in repercussions on the mental health of nurses working in coping with Covid-19, it is possible to recognize the existence of protective factors such as social and family support, development of spirituality and resilience, decrease the chance of mental illness by up to six times.²⁶

The capacity to overcome and reinvention of nursing professionals⁵² doesn't replace the necessary occupational interventions in mental health that can provide social support in this moment of crisis, even if it is virtually.⁵³

Nevertheless, the limitations of the present study should be accentuated, which are related to the high flow of information on the beginning of the pandemic moment and an investigative gap at the end of the second semester, especially in the Latin American context.

Conclusion

It is evident, therefore, that the mental health of nursing professionals is in a state of fragility in the context of a pandemic in Covid-19. This emergency in world health eventually triggered physical and psychological consequences that may extend into a post-pandemic future.

It is worth reflecting on the circumstances that are present in the daily lives of these agents, such as excessive workday, precarious work environment caused by government mismanagement, neglect of self-care and deficiencies in social support. Thus, it is clear the indispensability of awareness about the problems that endangers the mental health of nurses operating in health.

It is also pointed out the need for further investigations on the subject, evidencing the strategies to support the mental health of professionals working in the face of coping at Covid-19, as well as the late repercussions, since the pandemic context extends, and its consequences are still imprecise.

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