

Quality of Life, Fatigue and Social Support Among Healthcare Professionals During the COVID-19 Pandemic: A Systematic Review

Theofilou P^{ORCID} and Moschopoulos A

Hellenic Open University, School of Social Sciences, Patra, Greece

*Corresponding author: Paraskevi Theofilou, Hellenic Open University, School of Social Sciences, Patra, Greece

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Abstract

Background: With the demanding nature of their work, healthcare professionals often face challenges that can affect their overall well-being. Understanding the factors that affect their quality of life is crucial to developing effective interventions and support systems.

Aim: The present systematic review investigated the relationship between quality of life, fatigue, and social support among healthcare professionals during the COVID-19 pandemic.

Methods: The search for studies included in the study was performed using four online databases: PubMed, Embase, Scopus, and Web of Science. The search was limited to articles published in English between January 1, 2020 and March 31, 2023. In total, 14 articles were included in the systematic review.

Results: The findings of this work showed a negative correlation between fatigue and quality of life in health professionals, as well as a positive correlation between social support and quality of life. Furthermore, it was found that the increased social support of healthcare professionals during the period of COVID-19 is associated with a better quality of professional life.

Conclusion: It seems that higher levels of social support are associated with lower levels of anxiety and depression among health professionals.

Keywords: quality of life, fatigue, social support, COVID-19, health professionals

1. Introduction

Healthcare professionals, including doctors, nurses, and allied health workers, are known to experience high levels of stress and burnout due to the demanding nature of their work. This stress can affect their overall quality of life, leading to fatigue, exhaustion, and a reduced ability to cope with the demands of their work [1]. One of the factors that can affect the quality of life of health professionals is the level of social support they receive. Social support can come from a variety of sources, including coworkers, friends, and family members. When healthcare professionals feel supported and connected to others, they are more likely to have better mental health and a greater ability to cope with the demands of their work [1]. However, when healthcare professionals lack social support, they are more likely to experience exhaustion, burnout, and reduced job satisfaction. This can lead to a negative impact on patient care and

outcomes, as well as the health and well-being of healthcare professionals themselves. Fatigue is another important issue that can affect the quality of life of healthcare professionals. Fatigue can occur due to long working hours, shift work, and the demands of patient care. When healthcare professionals experience fatigue, they may have difficulty concentrating, making decisions, and providing high-quality care to their patients [1]. Fatigue can also affect the physical health of healthcare professionals, increasing the risk of accidents, injuries, and illnesses. This can further affect their quality of life, as well as their ability to provide high-quality care to their patients [2]. In order to address these issues, healthcare organizations must prioritize the well-being of their employees. This can be done by providing resources to manage stress, implementing flexible work schedules, and fostering a culture of support and collaboration among colleagues [2]. In addition, healthcare organizations can provide education and training about the importance of self-

care and healthy lifestyle habits, such as exercise, a healthy diet, and adequate sleep. By prioritizing the well-being of healthcare professionals, healthcare organizations can improve the quality of care provided to patients as well as the overall quality of life of their employees [2].

Despite the importance of social support and the impact of fatigue on the quality of life of healthcare professionals, there is a lack of attention to these issues in many healthcare organizations. Healthcare professionals often face significant challenges in accessing the support they need to cope with the demands of their jobs, and fatigue is often seen as an inevitable part of the healthcare profession [1]. This lack of attention to social support and fatigue can have significant consequences for both health professionals and their patients. When healthcare professionals are unsupported and fatigued, they are more likely to experience burnout and reduced job satisfaction, leading to a higher risk of turnover and reduced quality of care. Furthermore, the impact of burnout and fatigue can extend beyond individual healthcare professionals and affect the overall functioning of healthcare organizations. When a significant number of healthcare professionals experience burnout and fatigue, there is a greater risk of errors, accidents, and reduced productivity, which can affect patient outcomes and the reputation of the healthcare organization [1]. In addition, the COVID-19 pandemic has highlighted the importance of social support and fatigue management for healthcare professionals. The pandemic has placed unprecedented demands on healthcare workers, leading to increased stress, burnout, and fatigue. In many cases, healthcare professionals work longer hours, face an increased risk of infection, and face difficult ethical decisions [1]. The pandemic has also highlighted the need for healthcare organizations to prioritize the well-being of their employees. Healthcare professionals face significant challenges in accessing the support they need to cope with the demands of their jobs during the pandemic. This has led to increased concern about the mental health and well-being of healthcare professionals, as well as the quality of care they can provide to patients. In order to address these issues, healthcare organizations need to prioritize social support and fatigue management for their employees. This may include providing resources for stress management and mental health support, implementing flexible work schedules, and fostering a culture of support and collaboration among colleagues. Healthcare organizations can also prioritize education and training about the importance of self-care and healthy lifestyle habits, such as exercise, a healthy diet, and adequate sleep. By prioritizing the well-being of healthcare professionals, healthcare organizations can improve the quality of care provided to patients, as well as the overall functioning of the healthcare system [1].

The main aim of this paper is to investigate the relationship between social support, fatigue, and

quality of life of healthcare professionals. Specifically, this work aims to:

- Review of the existing literature on the effect of social support and fatigue on the quality of life of healthcare professionals.
- Identify factors that contribute to social support and burnout among health professionals, including organizational, individual, and social factors.
- Assessing the effectiveness of existing interventions and strategies aimed at promoting social support and managing fatigue among healthcare professionals.
- Provide recommendations to healthcare organizations and policymakers on how to prioritize social support and fatigue management for healthcare professionals, with the aim of improving their quality of life and the quality of care provided to patients.

Overall, this paper aims to contribute to a better understanding of the importance of social support and fatigue management for healthcare professionals and to provide evidence-based recommendations to improve the well-being of healthcare professionals and the quality of care provided to patients.

2. Methods

To identify relevant studies for this systematic review, a comprehensive search strategy was developed. The search strategy was designed to identify articles related to social support, fatigue, and quality of life of healthcare professionals during the COVID-19 pandemic. The search strategy was developed using a combination of keywords and subject headings related to COVID-19, health professionals, fatigue, and quality of life. The search was performed using four online databases: PubMed, Embase, Scopus, and Web of Science. The search was limited to articles published between January 1, 2020 and March 31, 2023. The search was also limited to articles published in English. The search strategy was adapted for each database and the following search terms were used: ("COVID-19" OR "coronavirus" OR "SARS-CoV-2") AND ("healthcare" OR "health system" OR "health institution" OR "hospital" OR "clinic" OR "primary care" OR "emergency department") AND ("stress" OR "burn out" OR "depression" OR "social support"). In addition to the online database search, reference lists of relevant articles and reviews were manually searched to identify additional studies that may have been missed in the online search. The search strategy resulted in a total of 2872 potentially relevant articles, in which articles were extracted into reference management software, and duplicates were removed, leaving a total of 1532 unique articles. The next step was to examine the titles and abstracts of the 1532 articles to determine their relevance to the research question.

The inclusion criteria were:

- The article must relate to fatigue, quality of life, and social support in response to the COVID-19 pandemic.
- The article must be published between January 1, 2020 and March 31, 2023.
- The article must be published in English.

The exclusion criteria were as follows:

- Articles published before 2019.
- Articles not written in English.
- Articles that did not address the impact of the COVID-19 pandemic on social support, fatigue, and quality of life of healthcare professionals.

A total of 340 articles were selected for full-text review. The inclusion criteria for the full-text review were the same as the screening criteria. Articles that met the inclusion criteria were included in the final analysis. A total of 222 articles were included in the final analysis. After applying the exclusion criteria,

the remaining articles were further screened by reading the titles and abstracts. Articles were assessed for relevance based on their titles and abstracts. Articles that did not meet the inclusion criteria were excluded. The remaining articles were read in full text to assess their suitability for inclusion in the review. In total, 14 articles were included in the systematic review. These articles were published between 2020 and 2023 and were all written in English. The articles came from a variety of sources, including academic journals, government reports, and news reports. The articles covered a range of topics related to the impact of the COVID-19 pandemic on the social support, fatigue, and quality of life of healthcare professionals.

A PRISMA flowchart of the literature review is presented below (Figure 1).

The table presents the articles used in this research (Table 1).

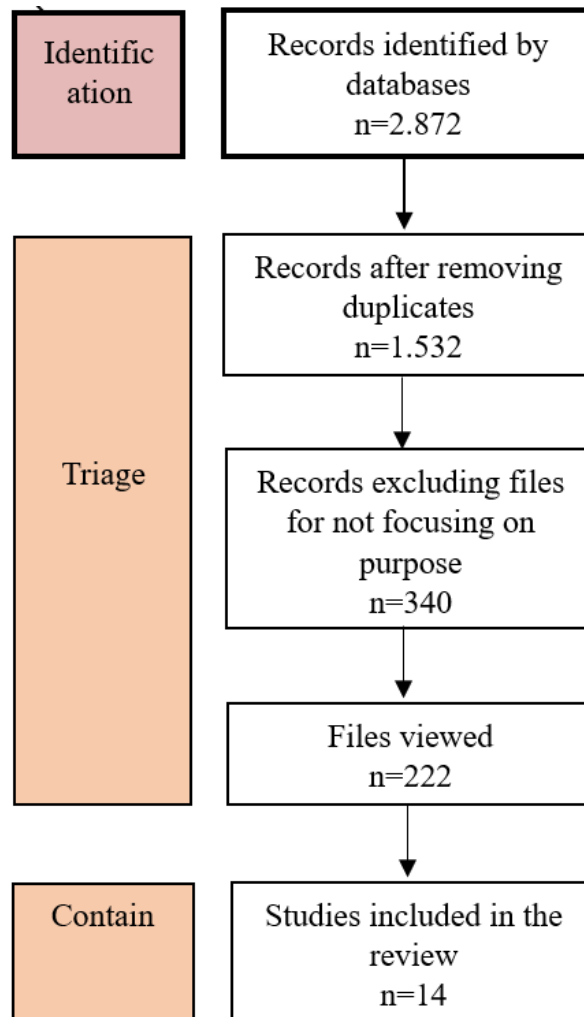


Figure 1: PRISMA flowchart of the literature review.

Article title	Authors	Year	DOI
Nursing students' views on the COVID-19 pandemic and their perceived stress levels	Hakime Aslan, Hatice Pekince	2021	10.1111/ppc.12597
The effect of social support on work stress in health workers during the pandemic: the mediation role of resilience	Ayşe Karadaş, Songül Duran	2021	10.1002/jcop.22742
Relationship between social support, anxiety, and depression among frontline healthcare workers in China during COVID-19 pandemic	Zhan J, Chen C, Yan X, Wei X, Zhan L, Chen H and Lu L	2022	10.3389/fpsy.2022.947945
Mental health and quality of professional life of healthcare workers: one year after the outbreak of the COVID-19 pandemic	Nadia Rania, Ilaria Coppola and Marta Brucci	2023	10.3390/su15042977
Assessment of quality of life among health professionals during COVID-19: review	Usha Rani Kandula, Addisu Dabi Wake	2021	10.2147/JMDH.S344055
The effects of COVID 19 on health care workers: analysing of the interaction between optimism, job stress and emotional exhaustion	Şefik Özdemir, Gökhan Kerse	2020	10.17583/rimcis.2020.5849
Impact of COVID-19 pandemic on the mental health of healthcare workers during the first wave in Portugal: a cross-sectional and correlational study	Ivone Duarte, Rita Pinho, Andreia Teixeira Vera Martins, Rui Nunes, Helder Morgado, Luísa Castro, Carla Serrão	2022	10.1136/bmjopen-2022-064287
General health, fatigue and social support among health professionals: the contribution of sociodemographic and occupational variables	Paraskevi Theofilou, Despoina Iona, Maria Tsironi	2022	10.31586/wjcmr.2022.419
Mental health status of healthcare workers during the COVID-19 outbreak	Christiana Nicolaou, Joanna Menikou, Demetris Lamnisis, Jelena Lubenko, Giovambattista Presti, Valeria Squatrito, Marios Constantinou, Savvas Papacostas, Gokcen Aydın, Yuen Yu Chong, Wai Tong Chien, Ho Yu Cheng, Francisco J. Ruiz, Miguel A. Segura-Vargas, Maria B. Garcia-Martin, Diana P. Obando-Posada, Vasilis S. Vasiliou, Louise McHugh, Stefan Höfer, Adriana Baban, David Dias Neto, Ana Nunes da Silva, Jean-Louis Monestès, Javier Alvarez-Galvez, Marisa Paez-Blarrina, Francisco Montesinos, Sonsoles Valdivia-Salas, Dorottya Ori, Bartosz Kleszcz, Raimo Lappalainen, Iva	2021	10.1024/2673-8627/a000010

	Ivanović, David Gosar, Frederick Dionne, Rhonda M. Merwin, Angelos P. Kassianos, Maria Karekla, and Andrew T. Gloster		
Professional quality of life and fear of COVID-19 among Spanish nurses: A longitudinal repeated cross-sectional study	González-Nuevo C, Postigo Á, González-Menéndez A, Alonso-Pérez F, Cuesta M, and González-Pando D	2023	10.1111/jocn.16688
Stress, depression, anxiety, and burnout among healthcare workers during the COVID-19 pandemic: a cross-sectional study in a tertiary centre	Mohammad J. Jaber, Ahmad M. AlBashaireh, Mohammad H. AlShatarat, Ola M. Alqudah, Susanna E. Du Preez, Khalid S. AlGhamdi, Hind M. AlTmaizy, Mohammad A. Abo Dawass	2022	10.2174/18744346-v16-e2203140
Perceived health, perceived social support and professional quality of life in hospital emergency nurses	María Dolores Ruiz-Fernández, Juan Diego Ramos-Pichardo, Olivia Ibañez-Masero, Máximo Juan Sánchez-Ruiz, Antonia Fernández-Leyva, Ángela María Ortega-Galán	2021	10.1016/j.ienj.2021.101079
Social support and mental health among health care workers during Coronavirus Disease 2019 outbreak: a moderated mediation model	Hou T, Zhang T, Cai W, Song X, Chen A, Deng G, Ni C.	2020	10.1371/journal.pone.0233831
Association between coping strategies and professional quality of life in nurses and physicians during COVID-19: a cross sectional study	Jessica Graziella Calegari, Selena Russo, Michela Luciani, Maria Grazia Strepparava, Stefania Di Mauro, Davide Ausili	2022	10.1111/jonm.13845

Table 1: Articles that were used.

After the data extraction process, the next step was to synthesize the findings from the selected articles. The articles were organized based on the research questions and themes that emerged from the literature. Themes were analyzed to identify commonalities and differences between articles. The topics are as follows:

- Identify the factors that contribute to social support and fatigue among health professionals, including organizational, individual, and social factors.
- Evaluation of the effectiveness of existing interventions and strategies aimed at promoting social support and in the management of fatigue among healthcare professionals.
- Provide recommendations to healthcare organizations and policymakers on how to prioritize social support and fatigue management for health professionals, with the aim of improving their quality of life and the quality of care provided to patients.

3. Results

The systematic review conducted in this chapter aimed to synthesize the current literature on the relationship between social support, fatigue, and

quality of life of healthcare professionals during the COVID-19 pandemic. 14 articles that met the inclusion criteria were identified and analyzed for research design, population, sample size, outcome measures, and their results. The articles came from a variety of countries, including the US, UK, China, Spain, South Korea, Vietnam, India, and Singapore.

The research of Aslan et al. [3] aimed to examine the relationship between work stress and meaning in life in relation to nurses' compassion fatigue, as well as to determine the factors influencing compassion fatigue. The survey was cross-sectional. The study population consisted of nurses working in a university hospital in eastern Turkey. The research was carried out with 336 nurses. The research found that the correlation between compassion fatigue and life attitude is negative ($r = -.542^{**}$, $p = 0.000$), while the correlation between job stress and compassion fatigue is positive ($r = .204^{**}$, $p = 0.000$). In addition, life profile attitude, work stress, work style, working time in an occupation, and gender were determined to have an effect on compassion fatigue.

Subsequently, research by Hou et al. [4] was conducted to examine whether the mediating role of resilience on social support and mental health could be replicated in healthcare workers from a less affected area during the COVID-19 epidemic and to

examine whether the relationship between social support and mental health through resilience is moderated by age group. The present study constructed a conceptual model to address mediation effects. The cross-sectional study was conducted from February 1 to 7, 2020, which was the peak period of the COVID-2019 epidemic in China. The participants were healthcare workers from local hospitals, community health service centers, and a government department of Jiangsu Province involved in the fight against COVID-19. Questionnaires were distributed via the Internet. All participants provided written informed consent prior to completing the online survey regarding demographic information, social support, resilience, and mental health. All participants were free to withdraw from the study at any time. The research was approved by the ethics committees of the Second Military Medical University. 1472 people participated in the survey. Findings indicated that resilience could partially mediate the effect of social support on mental health among healthcare workers.

The age of the participants has a moderate negative relationship with the social support of their mental health and resilience. Specifically, as participants age, their mental health, resilience, and social support decline. Still, the research of Karadaş et al. [5] aimed to examine the mediation of resilience in the effect of perceived social support on occupational stress among health workers. The study sample consisted of 402 health workers. The "General Work Stress Scale", the "Short Resilience Scale", and the "Multidimensional Scale of Perceived Social Support" were used in the research. There was a statistically significant negative correlation between work stress and social support ($r = -0.223$, $p = 0.00$) and resilience ($r = -0.432$, $p = 0.00$) and a statistically significant positive relationship between social support ($r = 0.226$, $p = 0.00$). Resilience mediates the relationship between perceived social support and job stress. In designing effective intervention strategies, it will be critical to reduce the risk of adverse mental health outcomes in healthcare workers battling the COVID-19 pandemic by increasing social support and resilience and reducing occupational stress. The purpose of the research by Zhan et al. [6] was to investigate the level of social support and the prevalence of depression and anxiety among healthcare professionals during the COVID-19 pandemic and to determine the factors influencing the relationship between social support, depression, and anxiety. This study was cross-sectional using an online survey conducted between February 15 and March 31, 2020 in China. Of the 201 participants, 44 (21.9%) had symptoms of depression, and 32 (15.9%) had symptoms of anxiety. Mean total SSRS scores among FHW were lower than those of Chinese general population norms (37.17 ± 7.54 vs. 44.38 ± 8.38 , $P < 0.001$). Marital status positively influenced the SSRS score ($\beta = 7.395$, $P < 0.01$). Age over 40 years negatively affected the SSRS score ($\beta = -5.349$, $P =$

0.017). Total social support score, subjective social support score, objective social support score, and support utilization score were negatively correlated with anxiety and depression ($P < 0.05$). There was a significant effect of social support with high anxiety and depression symptoms ($\beta = -0.869$, $P = 0.024$; $\beta = -1.088$, $P = 0.035$, respectively).

The research by Rania et al. [7] aimed to analyze the mental health and quality of work life of healthcare workers one year after the outbreak of the COVID-19 pandemic. The present study is based on an exploratory and quantitative method. 340 hits were recorded in the survey. Of these, only 25% completed the questionnaire. A total of 85 healthcare workers from hospitals in northwestern Italy participated in the online questionnaire. The results showed that as the participants' stress increases, their well-being decreases. This results in participants feeling psychological distress and thus increasing burnout. The burnout and secondary traumatic stress scale (ProQOL) are two variables that affect the mental health of health workers. The aim of this study was to analyze the occupational quality of life in hospital emergency department nurses based on perceived health, social support, and a range of sociodemographic and socio-professional variables. This descriptive cross-sectional study included professional nurses working in hospital emergency departments in Andalusia, Spain. Occupational quality of life, perceived health, sociodemographic and occupational variables, and perceived social support were measured. Descriptive and multiple regression analysis was performed. A total of 253 professional nurses participated, of which 62.5% had high levels of compassion fatigue and satisfaction (45.1%). Burnout levels were moderate (58.5%). Perceived health significantly influenced fatigue and compassion fatigue. Perceived social support was found to be significantly related to all three dimensions of occupational quality of life but had the greatest effect on the occurrence of burnout. Purpose of the study by Kandula et al. [8] was to assess the quality of life of healthcare professionals during the COVID-19 outbreak. All healthcare professionals, such as doctors, nurses, and other allied health personnel, are key caregivers in hospitals and other healthcare settings, especially in pandemic situations such as COVID-19. The emergence of the COVID-19 pandemic has caused numerous diversions in maintaining the quality of life of healthcare professionals from deviations from normal aspects of physical, mental, and social well-being. Healthcare professionals are the most vulnerable population to the transmission of the COVID-19 virus while providing emergency medical services to people infected with the virus in various healthcare settings. In this study, it was shown for the quality of life of health professionals, that they often experience fear and anxiety due to viral transmissions in the workplace and the family. Nurses tend to experience insomnia caused by a sudden increase in work pressure and suffer from

mental health disorders such as depressive episodes, mood disorders, and suicidal tendencies due to the sudden onset of the disease.

The research of Özdemir et al. [9] has focused on determining the levels of optimism, stress, and emotional exhaustion of healthcare workers related to COVID-19 and the effect of optimism directly and indirectly (via work stress) on emotional exhaustion caused by COVID-19. Data were collected through the online questionnaire that measured optimism, job stress, and emotional exhaustion about COVID-19. Data were collected from 169 healthcare workers working in Turkey and analyzed using different statistical programs. The resulting findings showed that health professionals are quite optimistic about this process, even though they have experienced stress and emotional exhaustion, their levels are lower than optimism. Also, being optimistic despite COVID-19 affects the emotional exhaustion caused by COVID-19 both directly and indirectly through work stress. Therefore, as the level of optimism increases, the emotional exhaustion caused by COVID-19 decreases, but this decrease was significantly exacerbated by stress. The purpose of the research of González-Nuevo et al. [10] was the investigation of professional quality of life and fear of COVID-19 among Spanish nurses. A total of 439 registered nurses participated in this survey in December 2020 and 410 in December 2021 via an online survey. The survey found that fear of COVID-19 has not decreased among nurses. Burnout levels remain stable and continue to be high in half of professionals. Burnout has decreased with a small effect size ($d = 0.30$), while caregiving has also decreased ($d = 0.30$). Positive correlations were found at both assessment points between fear of COVID-19 and burnout ($r = .44$, $p \leq 0.001$; $r = .41$, $p \leq 0.001$) and also between fear of COVID-19 ($r = .57$, $p \leq .001$, $r = .50$, $p \leq .001$). Negative correlations were also found between fear and caregiving ($r = -.16$, $p = .001$; $r = -.22$, $p \leq .001$).

The study by Duarte et al. [11] aims to determine the extent to which socio-demographic variables and indicators of subjective well-being and psychological resilience are positively and negatively associated with the outcomes of burnout, stress, depression, and anxiety in Portuguese healthcare professionals observed during the first wave, as and their relationship. 1535 professionals participated in the study, with an average age of 38 years. High levels of personal burnout (55%; $n = 844$), occupational burnout (55.1%; $n = 846$), and client-related burnout (35.4%; $n = 543$) were found. Additionally, participants expressed significant levels of depression (28.7%; $n = 441$), stress (36.4%; $n = 558$), and anxiety (33.1%; $n = 508$). Approximately 1202 participants (78.3%) demonstrated moderate to high levels of resilience. Occupation, work situation during the pandemic, health problems, resilience, and life satisfaction are independent variables significantly related to burnout, stress, depression, and anxiety. Life

satisfaction was the independent variable significantly associated with all outcomes.

The purpose of the study by Theofilou et al. [12] was to examine the above three variables in relation to demographic factors (education, gender) and employment factors (working hours, department). The survey was conducted on 165 health professionals working in hospitals in the region of Eastern Macedonia-Thrace and the urban centers of Athens and Thessaloniki. The majority of health professionals presented a high score on the GHQ-28 subscales, indicating low general health (mean $8.59 \geq 5$). One hundred and thirty-nine of 165 health professionals (84%) were tired, and 15 of 165 (9%) were very tired. Perceived social support was at high levels (mean 5.57). Healthcare professionals experience high fatigue and low levels of general health and quality of life. Instead, they receive high social support.

The research of Nicolaou et al. [13] aimed to investigate the mental health status of healthcare workers during the COVID-19 outbreak. This study served to determine the mental health outcomes of 1,556 health professionals from 45 countries participating in the IMPACT COVID-19 project and to examine predictors of outcomes during the first wave of the pandemic. Outcomes assessed were perceived anxiety, depressive symptomatology, and self-reported sleep changes. Predictors examined included sociodemographic factors and perceived social support. The results showed that half of the health professionals had moderate levels of perceived stress and depressive symptoms. Half of the healthcare professionals ($n = 800$, 51.4%) had similar sleep patterns since the start of the pandemic, and one in four were sleeping more or sleeping less. Healthcare professionals reported fewer perceived symptoms of anxiety and depression and higher levels of perceived social support than the general population participating in the same project. Predictors associated with higher perceived stress and depressive symptoms among health professionals included female gender, not having children, living with parents, lower educational level, and lower social support. Research by Calegari et al. [14] examined associations between coping strategies (social support, avoidance strategies, positive attitude) and occupational quality of life (compassion satisfaction, burnout, and posttraumatic stress) of nurses and physicians during COVID-19. An observational study was conducted involving health professionals ($n = 143$). The research found that avoidance, problem orientation, and social support worsened occupational quality of life, while positive attitude improved it.

Finally, the purpose of Jaber et al. [15] research was to assess stress, depression, anxiety, and burnout among healthcare workers during the COVID-19 pandemic. In addition, the relationship between stress, depression, anxiety, burnout, and stress related to COVID-19 was examined. The response rate was 87.6% (831 of 949), the majority of

participants were nurses (87.4%), and 38.4% worked in nursing settings. The means of stress related to COVID-19 (17.38 ± 4.95) and burnout (20.16 ± 6.33) were high and tended to be in the upper part of the total scores. Participants reported moderate to extremely severe levels of stress (26.5%), anxiety (55.8%), and depression (37.2%). Men reported a higher level of stress (16.59 ± 10.21 vs 13.42 ± 9.98 , $p = 0.002$) and depression (14.97 ± 10.98 vs 11.42 ± 10.56 , $p = 0.001$). Stress-related to COVID-19 was significantly associated with participants' occupations ($p = 0.004$). Burnout ($p = 0.003$) and depression ($p = 0.044$) were significantly associated with participants' workplaces. Significant positive associations were found between stress, depression, anxiety, burnout, and stress related to COVID-19.

In summary, the research showed that:

- Ten of the fourteen studies found significant positive associations between stress, depression, anxiety, burnout, and stress related to COVID-19.
- Three of the fourteen surveys found that fear of COVID-19 has not decreased among nurses. Burnout levels remain stable and continue to be high for healthcare professionals.
- In two of the fourteen surveys, it emerged that health professionals have high levels of fatigue and low levels of general health and quality of life. On the contrary, the increased social support of health professionals improves their professional lives.

4. Discussion

The discussion section of the present research focuses on the interpretation and analysis of findings regarding the relationship between social support, fatigue, and quality of life of healthcare professionals during the COVID-19 pandemic. It also explores the implications of these findings and their significance in the context of health professionals' well-being and mental health. The research findings provided evidence of a negative association between job stress and social support, indicating that higher levels of job stress were associated with lower levels of social support among healthcare professionals. The reduced social support experienced by healthcare professionals during the pandemic can be attributed to several factors, including increased work demands, physical isolation due to infection control measures, and limited access to supportive networks. These findings highlight the need for interventions and support systems that enhance social support among healthcare professionals, as it can play a key role in mitigating the negative effects of stress on their well-being [16]. The positive association between social support and relationships is an important finding that highlights the importance of strong interpersonal ties in the healthcare setting. Healthcare professionals who perceive higher levels of social support are more

likely to experience positive relationships with their colleagues, which may contribute to a supportive work environment and better overall well-being. Fostering these positive relationships should be a priority for healthcare organizations to create a supportive and collaborative atmosphere that benefits the mental health and resilience of their staff [17].

Research findings also showed that higher levels of social support, in various dimensions, are associated with lower levels of anxiety and depression among health professionals [16]. This suggests that social support may act as a protective factor against mental health disorders during the pandemic. Healthcare organizations should consider implementing strategies to enhance social support, such as support programs and access to mental health resources. By addressing the social support needs of healthcare professionals, organizations can help prevent and manage stress and depression, ultimately promoting the well-being of their staff. The research further highlighted the detrimental impact of increased stress on the well-being of healthcare professionals during the pandemic. The findings showed that higher stress levels were associated with reduced well-being and an increased risk of burnout [16]. The unique challenges faced by healthcare professionals during the pandemic, such as fear of contagion, increased workload, and difficulties in maintaining work-life balance, contribute to increased levels of stress. These findings highlight the urgent need for comprehensive support programs that address the specific stressors faced by healthcare professionals. Strategies such as mental health screenings, stress management workshops, and access to counseling services can help mitigate the negative effects of stress on the well-being and mental health of professionals [16]. The research findings also shed light on the psychological experiences of healthcare professionals during the pandemic, such as fear, anxiety, insomnia, and the risk of mental health disorders. As mentioned below, the essence of the interventions is emphasized. These findings highlight the need for personalized interventions that respond to the unique psychological needs of healthcare professionals. Healthcare organizations should prioritize the implementation of supportive measures such as psychological counseling, mental health resources, and strategies to promote work-life balance. Creating a supportive work environment that prioritizes mental health can help mitigate the negative psychological consequences experienced by healthcare professionals. Overall, the present research contributes valuable insights into the relationship between social support, fatigue, and quality of life in healthcare professionals during the COVID-19 pandemic. The findings highlight the importance of social support in mitigating the negative effects of stress, anxiety, and depression. They also highlight the need for comprehensive support programs that address the unique challenges health professionals face during the pandemic. By prioritizing social support and mental health

initiatives, healthcare organizations can promote the well-being and resilience of their staff, ultimately improving the quality of care provided to patients [17].

5. Conclusion

The purpose of the research was to investigate the relationship between social support, fatigue, and quality of life of healthcare professionals during the COVID-19 pandemic. A total of 14 articles from the international literature were included in the present study. The research findings revealed several significant associations. First, there was a negative correlation between job stress and social support, as well as resilience. This suggests that as job stress increases, social support and resilience tend to decrease. In addition, there was a statistically significant positive correlation between social support and relationships, suggesting that higher levels of social support are associated with better relationships among health professionals. In addition, the research showed that various aspects of social support, including total social support score, subjective social support score, objective social support score, and support utilization score, were negatively associated with anxiety and depression. This means that greater levels of social support were associated with lower levels of anxiety and depression among health professionals. The study also highlighted the impact of increased stress on the well-being of healthcare professionals. The findings showed that well-being tends to decrease as stress levels increase, leading to psychological distress and eventually resulting in conditions such as burnout. Healthcare professionals often experience fear and anxiety due to the risk of transmission of viruses in the workplace and potential cross-contamination between family members. They also often struggle with insomnia caused by increased work pressure and face challenges in balancing their work and personal lives [18–31]. In addition, health professionals are vulnerable to mental health disorders, including depressive episodes, mood disorders, and suicidal tendencies, due to the unpredictable nature of the disease epidemic. Finally, the research also identified significant associations between burnout, depression, stress, and anxiety related to COVID-19 and participants' workplaces. These findings suggest that specific characteristics of participants' occupations and workplaces play a role in the experience of stress, burnout, and mental health problems related to the COVID-19 pandemic. In conclusion, the research revealed important information about the relationship between social support, fatigue, and quality of life of healthcare professionals during the COVID-19 pandemic. He highlighted the negative impact of work-related stress, the importance of social support in mitigating stress and depression, and the challenges health professionals face in maintaining their well-being and mental health. The findings highlight the need for effective support systems and interventions to address

the psychological impact of the pandemic on healthcare professionals.

Limitations

Despite the comprehensive search strategy and selection criteria, there are some limitations to this systematic review. First, the search was limited to English-language articles published between January 2020 and March 2023. This may have resulted in the exclusion of potentially relevant articles published in other languages or before the specified time frame. In addition, the search was limited to articles available in online databases, which may have excluded relevant studies published in other sources, such as conference proceedings. Second, the quality of the studies included in this review varied considerably. While some studies used rigorous study designs and methods, others had important limitations, such as small sample sizes or unclear definitions of key variables. Additionally, due to the nature of the COVID-19 pandemic, many studies were conducted in a rapidly evolving context and may not reflect the current state of knowledge or practice. Finally, the studies included in this review were conducted in a variety of settings, including different countries and populations, which may limit the generalizability of the findings. The impact of the pandemic on healthcare professionals varies significantly between different regions and populations, and findings from one study may not be applicable to other contexts. Despite these limitations, this systematic review provides a comprehensive overview of the available literature on COVID-19. The inclusion of a wide range of study designs and populations provides a holistic understanding of the impact of the pandemic on different aspects of society. By synthesizing findings from multiple studies, this review can inform future research and policy initiatives aimed at mitigating the impact of the pandemic on healthcare professionals.

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