Acta Bioethica 2023; 29(2): 229-236. http://dx.doi.org/10.4067/S1726-569X2023000200229

THE RELATIONSHIP BETWEEN COVID-19 BURNOUT AND THE MORAL SENSITIVITY OF HEALTHCARE PROFESSIONALS

Şerife Yılmaz[1], Gamze Özbek Güven[2], Mehmet Demirci[3], Mehmet Karataş[4]

Abstract: This study aimed to examine the relationship between the burnout of physicians and nurses and their moral sensitivity during the pandemic. This was a descriptive and correlational study. This study was carried out with physicians and nurses who were continuing to work actively during the pandemic. Snowboard sampling method was utilized. The total mean score of the participants on the MSQ was 90.78±19.10. The total mean score of the COVID-19 Burnout Scale was 34.52±9.65. A statistically weak and significant correlation was found between the COVID-19 Burnout Scale and the MSQ total score, as well as the "benefit" and "conflict" sub-dimensions. It was determined that as MSQ total scores, "benefit" and "conflict" scores decreased in healthcare workers, COVID-19 burnout scores increased. In our study, the moral sensitivity of the participants was found to be moderate, and their burnout levels were found to be high. Although there was a weak relationship, it was observed that burnout levels increased as moral sensitivity levels increased. It is crucial that we learn from pandemic experiences and transfer this knowledge to future generations. In particular, we must assimilate these important lessons into training in order to develop and protect the moral sensitivity of healthcare professionals.

Keywords: COVID-19 Burnout; Ethics, Healthcare Professional; Moral Sensitivity

La relación entre el burnout por COVID-19 y la sensibilidad moral de los profesionales sanitarios

Resumen: Este estudio pretendía examinar la relación entre el burnout de médicos y enfermeras y su sensibilidad moral durante la pandemia. Se trató de un estudio descriptivo y correlacional, y se llevó a cabo con médicos y enfermeras que seguían trabajando activamente durante la pandemia. Se utilizó el método de muestreo de Snowboard. La puntuación media total de los participantes en el MSQ fue de 90,78±19,10. La puntuación media total de la Escala de Burnout COVID-19 fue de 34,52±9,65. Se encontró una correlación estadísticamente débil y significativa entre la Escala de Burnout COVID-19 y la puntuación total del MSQ, así como las subdimensiones "beneficio" y "conflicto". Se determinó que, a medida que disminuían las puntuaciones totales del MSQ y las puntuaciones de "beneficio" y "conflicto" en los trabajadores sanitarios, aumentaban las puntuaciones de burnout de la COVID-19. En nuestro estudio, se observó que la sensibilidad moral de los participantes era moderada y que sus niveles de burnout eran elevados. Aunque existía una relación débil, se observó que los niveles de burnout aumentaban a medida que lo hacían los de sensibilidad moral. Es crucial que aprendamos de las experiencias pandémicas y transmitamos estos conocimientos a las generaciones futuras. En particular, debemos asimilar estas importantes lecciones en la formación para desarrollar y proteger la sensibilidad moral de los profesionales sanitarios.

Palabras clave: burnout COVID-19, ética, profesional sanitario, sensibilidad moral

A relação entre o burnout pela COVID-19 e a sensibilidade moral de profissionais de cuidados à saúde

Resumo: Esse estudo objetivou examinar a relação entre o burnout de médicos e enfermeiras e sua sensibilidade moral durante a pandemia. Esse era um estudo descritivo e correlacional. Esse estudo foi realizado com **médicos e** enfermeiras que continuaram trabalhando ativamente durante a pandemia. O método da amostragem em snowboard foi utilizado. A média total dos participantes no MSQ foi 90,78±19,10. A média total na Escala de Burnout pela COVID-19 foi 34,52±9,65. Uma correlação fraca e significante foi encontrada entre os escores totais na Escalas de Burnout pela COVID-19 e MSQ, assim como nas subdimensões "benefício" e "conflito". Determinou-se que como os escores totais na MSQ e os escores "benefício" e "conflito" diminuiram em trabalhadores de cuidados à saúde, os escores de burnout pela COVID-19 aumentaram. Em nosso estudo, a sensibilidade moral dos participantes foi considerada ser moderada e seus níveis de burnout considerados serem altos. Embora tenha havido uma correlação fraca, foi observado que os níveis de burnout aumentaram quando os níveis de sensibilidade moral aumentaram. É essencial que aprendamos das experiências com a pandemia e passemos esse conhecimento para as futuras gerações. Em particular, nós devemos assimilar essas importantes lições em treinamentos, de forma a desenvolver e proteger a sensibilidade moral de profissionais de cuidados à saúde.

Palavras chave: Burnout pela COVID-19, Ética, Profissional de Cuidados à Saúde, Sensibilidade Moral

1 Harran University Faculty of Medicine History of Medicine and Ethics Department, Şanlıurfa, Turkey, serifeyilmaz83@gmail.com, ORCİD: 0000-0002-5660-7712

2 Malatya Turgut Özal University Faculty of Medicine History of Medicine and Ethics Department, Malatya, Turkey, gamzeozbekguven@gmail.com, ORCİD: 0000-0002-5391-8873

3 Pamukkale University Faculty of Medicine History of Medicine and Ethics Department, dr_mehmet23@hotmail.com, ORCID: 0000-0003-4171-9540

4 İnönü University Faculty of Medicine History of Medicine and Ethics Department, mehmet.karatas@inonu.edu.tr, ORCID: 0000-0002-9093-6456

Introduction

Burnout is a physical and psychological threat to employees in professions that require intense relationships with people, such as medicine/nursing. It was first identified by Freudenberger as "the state of exhaustion that occurs in the internal resources of the individual as a result of failure, weariness, decreased energy and power, or unsatisfied desires"*(1)*. According to Brenninkmeijer (2003), burnout is a mental state caused by chronic stress in business life. This potentially severe syndrome can be a consequence of factors such as a heavy workload, an excessive level of control, insufficient rewards, negative relationships with colleagues, lack of justice, value conflicts, long working hours*(1,2)*.

The COVID-19 pandemic has resulted in most of the factors that can cause healthcare professionals to experience burnout. In particular, healthcare professionals have been working in a stressful environment for about two and a half years due to their low numbers, the excessive workload, the necessity of working with protective clothing, the risk of infection, and the deaths loss of their colleagues. Since burnout, which has physiological and psychological repercussions for employees, can also negatively affect service quality, it is important to determine the current state of exhaustion caused by this stressful environment.

Healthcare professionals provide services to those in need of medical treatment and care. Practices to ensure the well-being of patients are generally value-laden initiatives with a moral dimension*(3)*. Therefore, such work can result in ethical problems and conflicts. In order to solve the ethical problems that might arise during medical practices, it is necessary to first identify and acknowledge them*(3)*. Healthcare professionals are expected to display a high level of moral sensitivity in their medical decisions. However, the current pandemic has been very difficult and stressful for these professionals. It is important, therefore, in terms of employee health, service quality, and education planning, to determine how this difficult situation affects the burnout and moral sensitivity of healthcare professionals. We aimed to examine the relationship between the burnout of physicians and nurses and their moral sensitivity during the pandemic.

Methods

Design

This was a descriptive and correlational study.

Sample and Settings

This study was carried out with physicians and nurses who were continuing to work actively during the pandemic in "Y". All private or public health institutions and family health centers were included in the study. The sample size was determined by power analysis, which calculates the statistical power of the sample size*(4)*. According to the calculation conducted using the G*Power 3.1 program, the sample size was determined to be 260 (130 nurses and 130 doctors) with an effect size of 0.45, a margin of error of 0.05, a confidence level of 0.95, and a population representation of 0.95*(4)*. According to Cohen (1988), a sample size for which power values ranging from 0.90–0.99 are calculated should be reached*(5)*. Snowboard sampling method was utilized. The study was completed with a total of 448 participants (302 nurses and 146 physicians).

Data Collection

The study data were collected through a Sociodemographic Information Form, the COVID-19 Burnout Scale, and the Moral Sensitivity Questionnaire to ascertain their moral sensitivity. Media platforms and invitations sent through personal e-mail addresses were employed for data collection. In addition, a preliminary study was carried out with a total of 40 participants (20 physicians and 20 nurses). Then, the questionnaire form was revised according to their feedback and suggestions.

Data Collection Tools

Sociodemographic Information Form: This form asks about the socio-demographic characteristics of the participants (gender, age, profession,etc.).

Moral Sensitivity Questionnaire (MSQ): This

questionnaire was developed by Lützén in 1994 to determine the moral sensitivity shown in the ethical decision-making process*(3)*. The adaptation of the scale to Turkish and the assessment of its validity and reliability were conducted by Tosun (2018). This 7-point Likert-type scale consists of 30 items and six sub-dimensions, including autonomy, benevolence, holistic approach, conflict, practice, and orientation. This scale high scores on the scale indicate low moral sensitivity. In this study and for the Turkish version of the questionnaire, the Cronbach's alpha was 0.84*(6)*.

COVID-19 Burnout Scale: This 5-point Likert-type scale consisting of 10 items was adapted from the Burnout Criterion-Short Version*(7)*. The scale's total score is obtained by adding 10 items and ranges from 10–50 points. A higher score indicates higher levels of burnout related to COVID-19. The Cronbach's alpha coefficient of the scale is 0.92*(8)*. In our study, the Cronbach's alpha coefficient for the whole scale was found to be 0.93.

Data Analysis

The data analysis was performed using Statistical Package for the Social Sciences (SPSS) 21. For the independent pairs, comparisons between groups were made using the significance test (t-test) of the difference between the two means in the data with normality assumption. Additionally, for the independent multiple groups, comparisons between groups in the data with normality assumptions were made with the ANOVA test. The Tukey test was employed to determine from which group the difference originated.

Correlation analysis was performed to examine the relationship between the measurement values. The Pearson correlation coefficient was used because the data displayed normal distribution. The level of significance in statistical analysis was $p < 0.05$.

Ethics Approval

The study was performed according to the ethical standards of the Helsinki Declaration and Good Clinical Practice guidelines. It received ethical approval from the "X" University Faculty of Medicine Ethics Committee for Non-Invasive Clinical Research and the Ministry of Health of the Republic of "Y". Moreover, permission was obtained from the owners of the scales used in the study. Data were collected after receiving informed consent from each study participant. Participation was entirely voluntary.

Results

Of the participants, 67.4% were nurses, 32.6% were physicians, 80.1% were female, and 66.5% were married. Their mean age was 38.09±8.40 years, and the mean number of working years was 14.71±9.48. In addition, 61.8% of the participants also worked with COVID-19 patients. The demographic characteristics of the participants are presented in Table 1.

The total mean score of the participants on the MSQ was 90.78±19.10. There was no statistical difference between the ethical sensitivity of the participants and their occupation, gender, age, marital status, and years of work. However, a statistically significant difference was found for the total scores of the MSQ based on the institution of the participants ($p<0.05$). The difference was especially significant for employees working at a private health institution (Table 2).

The average "autonomy" of the participants was 19.68±6.19, the average "benefit" was 12.53±4.13, the average "holistic approach" was 12.75±4.34, the average "conflict" was 13.44±3.32, the average "application" was 12.43±3.93, and the average "orientation" was 8.18±3.51. In the "benefit" sub-dimension, the mean score for men was higher than the mean score for women. It was remarkable that the mean scores of physicians for "benefit" "holistic approach" and "orientation" were lower than those of nurses for these dimensions.

A statistically significant difference was found in the scores for "autonomy" depending on the institution, marital status, and age; for "benefit" depending on the institution, gender, and marital status; for "holistic approach" depending on the institution, age, marital status, and years of work; for "conflict" depending on age, marital

status, and years of work; and for "orientation" depending on age, occupation, and years of work ($p \leq 0.05$). There were no statistically significant relationships between other variables (Table 2).

The total mean score of the COVID-19 Burnout Scale was 34.52±9.65. In our study, the total scores on this scale were significantly higher for nurses than physicians, women compared to men, and those who worked with COVID-19 patients compared to those who did not work with them. In addition, a statistically significant difference was found in the total scores of the COVID-19 Burnout Scale depending on the institution where the participants worked (i.e., a state hospital) ($p<0.05$). There were no statistically significant relationships between other variables (Table 3). However, a statistically significant difference was found in the total scores of the COVID-19 Burnout Scale depending on institution, gender, profession, and work in a pandemic clinic ($p<0.05$). No other statistically significant relationships between other variables were found (Table 3).

The relationship between the COVID-19 Burnout Scale and the MSQ is presented in Table 4. A statistically significant very low, negative correlation was found between the COVID-19 Burnout Scale and the MSQ total score, as well as the "benefit" and "conflict" sub-dimensions. It was determined that as MSQ total scores, "benefit" and "conflict" scores decreased in healthcare workers, COVID-19 burnout scores increased. In other words, although there is a weak relationship, the level of burnout increased as the level of moral sensitivity increased.

Discussion

Most of the scientific studies on the COVID-19 pandemic are related to the diagnosis, treatment, and course of the disease. However, another issue that is as important as the clinical aspects of the disease is the status of healthcare professionals. They encountered more traumatic and complex situations in their work environment than previously, a situation compounded by the fact that they had already been experiencing burnout before the pandemic. As a result of COVID-19, they had to work under extraordinary conditions and away from support. At the same time, health professionals had to deal with many ethical problems and decisions that often led to burnout in this population.

In this study, the relationship between the moral sensitivity of healthcare professionals and their COVID-19 burnout was investigated. As there is only one study in the literature investigating a similar association*(9)*, the researcher used other articles that measured the level of burnout and moral sensitivity of healthcare professionals in an attempt to present a comprehensive discussion of the study results.

This study showed a moderate overall level of moral sensitivity in nurses and physicians. In the study by Alyousefi et al. (2021) with physicians*(10)*, Kirilmaz et al. (2015)'s study with physicians and nurses*(11)*, and Palazoğlu and Koç (2019)'s study with emergency nurses*(9)*, the moral sensitivity of the participants was found to be moderate. In addition, contrary to the findings of this study, in Khodaveisi et al. (2021)'s study with nurses who take care of COVID-19 patients, Amiri et al. (2019)'s studies with healthcare professionals, and Ohnishi et al. (2019)'s studies with psychiatric nurses*(12-14)* moral sensitivity levels were found to be high. This difference could be due to different cultural and organizational contexts, personal characteristics (such as attitudes towards care, religious beliefs, and values), and work areas.

Moral sensitivity levels of healthcare professionals differ according to studies. Ethical background, gender, moral values, culture, religion, upbringing, education, age, clinical experience, and clinical practice can affect the level of moral sensitivity*(9,11,15-17)*. In our study, a significant difference was found in terms of the institution, similar to the results of Seo and Kim (2022), which likely results from its ethical climate*(18)*. No relationship was found for other sociodemographic variables.

Further, in the study of Seo and Kim, working in the COVID-19 direct response department was seen to have an impact on moral sensitivity*(18)*. In our study, however, no significant difference was found between the moral sensitivity levels of

those who worked in COVID-19 units and those who did not work.

Studies have shown that the pandemic causes burnout*(8,19-22).* It has been reported that factors such as heavy and increased workload, too much overtime, fear of being infected and infecting others, the necessity of working with protective clothing, the long duration and uncertainty of the pandemic, significant changes in daily life routines, and long-term preventive measures cause the burnout of health workers*(8,19,23-25)*.

Moroń and Biolik-Moroń stated that COVID-19 burnout may be a persistent risk factor for mental health problems*(26).* Yildirim et al. also found that the pandemic caused extreme psychosocial effects, especially for healthcare workers*(27)*. Finally, Alkhamees et al. discovered a high rate of burnout and depressive symptoms in psychiatry residents (roughly 27.3%) and a significant positive correlation between them during the COVID-19 pandemic in Saudi Arabia*(28)*.

Health professionals experienced more burnout in the relatively early stages of the pandemic and became exhausted over time during the pandemic process*(23)*. This study used a scale specifically for COVID-19 and was conducted two years after the onset of the pandemic. Given these factors, it can be said that the data have a high likelihood of accurately revealing the effect of COVID-19 on the burnout of healthcare professionals.

In our study, the COVID-19 burnout of physicians and nurses was found to be high. Similarly, in Derya's study with emergency service personnel, the levels of COVID-19 burnout were seen to be high*(29)*. Other studies have also shown that healthcare professionals have experienced high levels of burnout during the pandemic*(8,24,28,30-32)*.

In our study, a statistically significant difference was found between the total scores of the COVID-19 Burnout Scale depending on the institution (i.e., working in a state hospital). It was thought that this situation was caused by the health policies of the country, the excessive workload of healthcare workers, especially in government institutions, and taking on additional roles during the pandemic.

In our study, nurses' burnout scores were found to be significantly higher than those of physicians. Similarly, Pappa et al. 2021 and Denning et al. 2020 found that nurses experience higher levels of burnout compared to other healthcare professionals*(33,34)*. This may be due to factors such as increased workload, exposure risk, and length of care, as well as the fact that nurses encounter suffering, death, and ethical dilemmas more frequently because they are in closer contact with patients.

In our study, the burnout scores of women were found to be significantly higher than those of men. Similarly, in the study of Yıldırım and Geçer (2021) women were more likely to experience exhaustion*(35)*. This situation was probably due to the increase in workloads at home for women due to the restrictions experienced during the pandemic.

The burnout scores in our study for those who worked in pandemic clinics were found to be significantly higher than for those who did not. Healthcare professionals working in these wards experienced heavy workloads, irregular work hours and conditions, and the pressures of caring for terminally ill patients. At the same time, emerging infectious diseases, such as COVID-19, involve complex ethical issues. So, during the pandemic, they had to make critical decisions and experienced intense stress. Making ethical decisions and experiencing ethical problems may affect the well-being and cause the burnout of healthcare professionals*(10,33,36-39)*. In our study, while there was no difference in moral sensitivity between those working and not working with COVID-19 patients, there was a difference for burnout. This data can also be considered as an indicator of the increase in the burnout of healthcare professionals while making decisions and maintaining their moral sensitivity.

While having to deal with ethical problems can cause burnout*(18)*, burnout can also cause ethical insensitivity*(40)*. In an ethical conflict, a high level of moral sensitivity is very important to correctly recognize the problem and make

the right decision*(9,18)*. Thanks to moral sensitivity, healthcare professionals perceive ethical problems and patient needs*(41)*. In this study, a weak negative correlation was found between MSQ scores and COVID-19 burnout scores. It was determined that as MSQ scores decreased in healthcare workers, COVID-19 burnout scores increased. In other words, although there is a weak relationship, the level of burnout increased as the level of moral sensitivity increased. Similarly, in the study by Palazoğlu and Koç (2019), a very weak correlation was found between MSQ scores and burnout*(9)*. Therefore, it is important to examine ethical problems experienced while evaluating the burnout of healthcare professionals.

Conclusion

In our study, the moral sensitivity of the participants was found to be moderate, and their burnout levels were found to be high. Although there was a weak relationship, it was observed that burnout levels increased as moral sensitivity levels increased.

It is important to determine the moral sensitivity of healthcare professionals and their burnout resulting from the pandemic, which has deeply affected all segments of society. In order to protect the moral sensitivity of healthcare professionals, there is a need for activities that support them, as well as reduce and prevent burnout.

It is crucial that we learn from pandemic experiences and transfer this knowledge to future generations.

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Received: March 3, 2023
Accepted: April 12, 2023