Makara Journal of Health Research

Volume 26
Issue 3 *December*

Article 3

12-25-2022

Perceived Stress and Its Relationship to Moral Resilience Among Nurses in the Hail Region, Saudi Arabia

Hamdan Albaqawi
College of Nursing, University of Hail, Hail 55476, Saudi Arabia, albaqawihamdan@gmail.com

Maha Sanat Alrashidi
College of Nursing, University of Hail, Hail 55476, Saudi Arabia, m.alrashidi@uoh.edu.sa

Recommended Citation

Albaqawi H, Alrashidi MS. Perceived Stress and Its Relationship to Moral Resilience Among Nurses in the Hail Region, Saudi Arabia. Makara J Health Res. 2022;26.

Makara J Health Res. 2022;26(3):159–164
doi: 10.7454/msk.v26i3.1370

Makara Journal of Health Research

Perceived Stress and Its Relationship to Moral Resilience Among Nurses in the Hail Region, Saudi Arabia

Hamdan Albaqawi*, Maha Sanat Alrashidi

College of Nursing, University of Hail, Hail 55476, Saudi Arabia

Abstract

Background: This study aimed to determine the relationship between perceived stress and moral resilience among nurses.

Methods: The researcher used a quantitative–comparative correlational study design that utilized a self-administered questionnaire with 393 nurse participants in the Hail Region, Saudi Arabia. Adapted questionnaires were distributed through Google Form survey. Data collection was conducted between October and November 2021.

Results: The nurses were moderately stressed (21.69/30) but morally resilient (2.74/4). Perceived stress scale ($p < 0.033$) and moral resilience ($p < 0.25$) were found to be significantly associated with gender. The designated ward and age were not significantly associated with perceived stress and moral resilience. Conversely, the years of experience showed a significant association with perceived stress ($p < 0.038$) but not with moral resilience ($p > 0.255$). Finally, no relationship was observed between perceived stress and moral resilience ($p > 0.248$).

Conclusions: The nurses were perceived to be moderately stressed but morally resilient. Gender was found to have a significant association with perceived stress and moral resilience but not with designated ward and age. Conversely, the years of experience had a significant association with perceived stress but not with moral resilience. Meanwhile, perceived stress had no significant relationship with moral resilience. Therefore, being morally robust allows nurses to respond to challenging, frequently intractable ethical issues that arise in clinical practice and during pandemics, regardless of the underlying stress at work.

Keywords: correlational, moral resilience, nurses, perceived stress, Saudi Arabia

INTRODUCTION

Moral resilience refers to a person's ability to deal with morally challenging circumstances[1] and to maintain or restore his or her moral integrity in reaction to moral uncertainty and difficulties.[2] In its broadest sense, moral distress is a category of moral suffering that represents the sorrow felt in response to moral wrongs, failures, or injuries; it is frequently accompanied by the sensation that one's integrity has been compromised.[3] Simultaneously minimizing psychological distress, alongside the ongoing pandemic, frontline nurses have been challenged with moral distress because of on-the-job pressure. Moral distress has hovered above them because of the novel working conditions brought about by the COVID-19 pandemic.[4] The resulting circumstances have increased the difficulties involved in delivering vital services and added to the stress of frontline workers. Challenges such as inadequate supplies of personal protective equipment, shortages of lifesaving equipment, compromised standards of care, and professional duty colliding with personal health and safety concerns are faced by frontline healthcare professionals during the COVID-19 crisis.[5] Consequently, several nurses and other healthcare personnel are currently experiencing moral distress, which may worsen as the predicted spike in patients exacerbates the barriers to providing safe and effective care.[5]

Present and past pandemics and epidemics have all challenged the moral resilience of healthcare workers. For example, during the COVID-19 pandemic, studies indicated that healthcare workers were subjected to a variety of stressors that involved psychological consequences,[6] stigma,[7] and emotional distress.[8] During the MERS-COV outbreak in Saudi Arabia, healthcare workers experienced emotional distress, with the major stresses of that outbreak being their own safety and that of their families.[9] Based on the results from the SARS outbreak of 2003, the H1N1 outbreak of 2009, and numerous Ebola outbreaks, frontline healthcare workers may be at risk of suffering higher levels of stress.[10] Furthermore, 39.1% of the healthcare workers experienced clinically relevant psychological issues, particularly those based in Wuhan, who had experienced being quarantined and/or infecting a coworker or family member.[11] Such circumstances can be an appeal to an organization to examine the moral status of healthcare workers and to provide the conditions for the development of moral and ethical activity. Resilience is a significant characteristic that can help nurses manage their perceived stress when working in such critical situations and undergoing significant stress and fatigue.[12] When confronted with ethical challenges, nurses' knowledge, experience, risk-taking ability, bravery, and good problem-solving skills

***Corresponding author:**
Hamdan Albaqawi
College of Nursing, University of Hail, Hail, Saudi Arabia
E-mail: h.albaqawi@uoh.edu.sa

have been proven useful in motivating them to take positive action.[13]

Investigations that measure perceived stress and its relationship with the moral resilience of healthcare providers, particularly nurses, are limited. When one acknowledges one's moral responsibilities in a particular circumstance, one examines the possible courses of action and identifies the proper moral decision in accordance with one's own perspective. Regardless of the underlying systemic reasons, being morally resilient provides practitioners with the ability to respond to difficult, frequently intractable ethical concerns that occur in clinical practice and during a pandemic. Thus, this study aimed to determine the relationship between the perceived stress and moral resilience of nurses.

METHODS

Ethical approval

This study obtained clearance and approval from the Institutional Review Board of the University of Hail with IRB Number H-2021-003 dated September 1, 2021.

Study design and sampling

The researcher used a quantitative–comparative correlational study design to determine the relationship between the perceived stress and moral resilience of nurses. This study was conducted at four main hospitals of the Hail Region, Saudi Arabia: Hail General Hospital, King Khalid Hospital, King Salman Specialist Hospital, and Convalescent Hospital. This study used the RAOSOFT sample calculator with a 95% confidence level, resulting in a requirement of 393 participants. In selecting the 393 individuals, the researcher utilized a simple random selection technique and number generator. Based on the list of nurses under the Ministry of Health, each nurse was given a distinct sequential number. The numbers allotted to each eligible participant were obtained from a list of random numbers produced by an automatic random number generator program. The inclusion criteria included staff nurses working in a government hospital with a COVID area, who are able to write and understand English and are willing to participate. Nurses who had no direct contact with patients were excluded (*e.g.*, nurse administrators).

Data collection

Data collection commenced with the ethical clearance and approval from the directors of the participating hospitals. The researcher used a Google Form survey in this investigation. The link to the survey was given to the key person of each hospital. They shared the link to the WhatsApp number of the staff nurse, which was taken from the computer's random generator. The informed consent was on the first page of the Google Form survey. The nurses had to read and agree to that before they could proceed to the questionnaire proper. Data collection was conducted between October and November 2021.

Questionnaire

Two questionnaires were used in this investigation. The first questionnaire was the perceived stress scale (PSS) by Cohen, Kamarck, and Mermelstein.[14] It had 10 items in a five-point Likert scale (0 = never, 1 = almost never, 2 = sometimes, 3 = fairly often, and 4 = very often). The original developer of the PSS suggested that responses to items 4, 5, 7, and 8 could be reversed before summing their scores; the higher the score, the higher the level of perceived stress. Low stress would be a score between 0 and 13. Scores between 14 and 26 would be regarded as a moderate stress level, and scores between 27 and 40 would be regarded as a high perceived stress level. The second questionnaire was the Rushton Moral Resilience Scale.[15] It had 17 items answerable by a four-point Likert scale (1 = disagree, 2 = somewhat disagree, 3 = somewhat agree, and 4 = agree) and four subscales (response to moral adversity, personal integrity, relational integrity, and moral efficacy). Scores were obtained by summing items 1 through 17 and then dividing by 17; the higher the mean, the higher the level of moral resilience.

The questionnaires had undergone validation and testing for content and cultural sensitivity in one of the hospitals in the Hail Region. Four professionals in the field of nursing education and practice served as validators. The nursing education was composed of two people, one of whom serving as a psychometrician in their institutions, and nursing practice was composed of two nursing directors. According to these four experts, all objects were appropriate for the intended theme. Following content validation, the reliability of the instrument was evaluated with a pretest using 15 nurses. Alpha coefficient for the reliability test was 0.85 and 0.80 for PSS and Rushton Moral Resilience Scale, respectively.

Data analysis

SPSS version 25 was used to analyze the gathered data. Descriptive statistics were used to determine the frequency and percentage. Tests for difference (*t*-test and one-way ANOVA) were used to determine significant differences between various socio-demographic variables (*e.g.*, age, gender, years of experience, and designated ward), PSS, and moral resilience. Finally, correlation analysis was used to determine the relationship between PSS and moral resilience.

RESULTS

Of the 393 participants, the age range of 31–35 years dominated (34.8%), and more females (65.9%) than males (9.6%) were identified. Over 30% of the participants had at least 6–10 years of experience, and more nurses were assigned to the non-COVID ward (71%; Table 1). The level of perceived stress and moral resilience of the

nurses were 21.69 ± 2.04 and 2.74 ± 0.30 respectively. The nurses perceived that they were moderately stressed but morally resilient.

Table 2 shows the differences among the demographic characteristics, PSS, and moral resilience. Significant differences were observed between gender and PSS (p < 0.033) and moral resilience (p < 0.025), indicating that males perceived themselves to be moderately stressed and females to be more morally resilient. With regard to nurses' designated ward, no significant differences were found between being in the non-COVID or the COVID ward and the PSS (p > 0.715) or moral resilience (p > 0.333). Regarding the age of the nurses, no significant differences were found between age and perceived stress (p > 0.530) or moral resilience (p > 0.709). Conversely, years of experience showed a significant difference with perceived stress (p < 0.038) but not with moral resilience (p > 0.255). No significant relationship was found between perceived stress (p > 0.248) and moral resilience.

TABLE 1. Demographic characteristics of the participants (N = 393)

Characteristics	Frequency (N)	Percentage (%)
Age		
≤25 years old	44	11.2
26–30 years old	114	29.0
31–35 years old	137	34.9
≥36	98	24.9
Gender		
Male	50	12.7
Female	343	87.3
Years of experience		
≤5 years	127	32.3
6–10 years old	135	34.4
11–15 years	76	19.3
≥16 years	55	14.0
Designated ward		
Non-COVID ward	279	71.0
COVID ward	114	29.0

TABLE 2. Differences among demographic characteristics, perceived stress scale, and moral resilience

Variables	Perceived stress scale		Moral resilience	
	Mean ± SD	p	Mean ± SD	p
Gender				
Male	22.00 ± 2.28	0.033*	2.70 ± 0.24	0.025*
Female	21.60 ± 2.01		3.20 ± 0.31	
Designated ward				
Non-COVID ward	21.60 ± 2.04	0.715	2.73 ± 0.31	0.333
COVID ward	21.70 ± 2.05		2.76 ± 0.27	
Age				
≤25 years old	21.70 ± 1.79	0.530	2.68 ± 0.32	0.709
26–30 years old	21.40 ± 2.01		2.74 ± 0.30	
31–35 years old	21.70 ± 2.00		2.73 ± 0.28	
≥36	21.80 ± 2.23		2.76 ± 0.31	
Years of experience				
≤5 years	21.30 ± 1.76	0.038*	2.69 ± 0.32	0.255
6–10 years old	21.70 ± 2.03		2.75 ± 0.27	
11–15 years	22.00 ± 2.28		2.70 ± 0.29	
≥16 years	21.90 ± 2.21		2.77 ± 0.32	

DISCUSSION

The COVID-19 pandemic appears to be expanding its reach through new mutations, putting strain on healthcare systems. Thus, this study aimed to evaluate the association between the perceived stress and moral resiliency among nurses battling the COVID-19 pandemic. Nurses are unavoidably subjected to stressors because of their multiple roles. The present study found that nurses are morally resilient, although they are being moderately stressed. Being morally resilient despite stressful experiences can be attributed to their self-awareness and dedication to the profession. Accepting situational limitations and recognizing situations that are outside an individual's control[2] indicates true resilience. This finding is in concurrence with earlier studies that reported nurses having moderate-to-high stress[16,17] and being moderately resilient.[18]

In context, nurses who are resilient can cope with stress better.[19] These findings contribute to the need for nurses to continue their individual or institutional initiatives in maintaining or restoring their moral integrity to manage their stress. The support of colleagues and families and clear communication of orders and preventative measures from their higher authorities are all imperative to manage stress under these circumstances.

A significant difference between gender and perceived stress was noted, indicating that male nurses were more stressed than their female counterparts probably because males have fewer strategies to express their

stress, as compared with females. In a longitudinal analysis on gender, appraisal, and coping by Ptacek and colleagues,[20] they claimed that women utilized more problem-focused coping techniques. However, Puspitasari *et al*.[21] found that male and female nurses who are exposed to a stressful situation in a hospital have the same stress level. Moreover, findings from an earlier study suggested that female health professionals were more stressed than their male counterparts.[22] By contrast, female nurses had greater moral resilience than their male counterparts in this study. This finding could be attributed to the fact that females are more expressive; thus, they receive more support, leading to their higher scores in this study. In addition, females might have established greater regulation of their feelings,[23] which could strategically increase their moral resilience. Afshari *et al*.[24] reported that women had less resilience than men. Therefore, determining suitable strategies to support male nurses in managing their stress and to promote moral resilience among female nurses is important. Addressing such challenges can help nurses to work in accordance with the quality of care they provide.

Whether the nurses were placed in a COVID or a non-COVID ward, this present study found no significant difference with perceived stress and moral resilience. Therefore, nurses could adapt and pull through the effect of the COVID-19 situation. Nevertheless, previous research reported that hospital staff had experienced several psychological struggles[25,26] that could affect integrity to their commitment. This finding suggests that the hospital management must conduct a consistent evaluation of the holistic status of hospital staff and plan strategically to reconcile staff crises with regard to disaster situations. Moreover, no significant difference in perceived stress and moral resilience was found when the age of the nurses and ward assignment were considered. This result might imply that nurses are committed and dedicated their work probably because they can develop their coping skills or abilities to stressful situations as they grow older.[24] Although nurses play an essential role in healthcare organizations, ensuring their commitment and dedication is crucial. Thus, nurses must be given the tools they need to handle tough situations with moral fortitude.

The years of experience of nurses were found to have a significant difference in their perceived stress, indicating that those who have more years of experience perceived more stress. People with more work experience were given more workloads because their abilities had been tested at work, which causes them more stress. Pasay-an[17] explained that nurses who have more work experience in the field have been recognized to have more competencies; thus, they are considered to be critical during the pandemic. This finding is consistent with the study conducted in China among frontline nurses during the COVID-19 pandemic; it revealed that male and female nurses with few years of hospital experience and those who just graduated had a high level of emotional stress when the pandemic emerged.[27] By contrast, the present study found no significant difference between years of experience and moral resilience. This result indicates that nurses could develop their abilities to bounce back during stressful situations regardless of the years of experience. The current finding is inconsistent with those of Afshari *et al*.,[24] who reported that resilience differed with years of experience.

The current study found no significant relationship between perceived stress and moral resilience, which indicates that perceived stress does not affect moral resilience. Therefore, perceived stress in nurses does not always affect their moral resilience. The present finding is inconsistent with the previous report, that is, perceived stress had a significant relationship with resilience,[18,28] and the finding of Garcia-Leon *et al*.,[29] that is, resilience plays a role in stress perception. In this study, which was conducted during a time when boosting the need to manage stress and boosting resilience were of critical importance, support from colleagues, family, and managers could instill a sense of belongingness and may decrease stress and boost moral resilience. Furthermore, the present finding shows that the designs of policy makers should include distinct training courses explicitly for managing stress and boosting the moral resiliency of nurses.

This study had some limitations that future scholars may consider undertaking. For example, it was conducted in only one region, which underrepresents the nurses in Saudi Arabia. Therefore, a national or international study targeting nurses globally is recommended. In addition, the non-inclusion of nurses who were in private hospitals and clinics may have a different perception, as compared with those who are in government hospitals.

A balance must be achieved between the obligation to care and the protection of healthcare staff; thus, policy makers must consider the protection of nurses. Nurses must have access to up-to-date information, and clear counseling must be provided in a timely manner. Moreover, nurses should be given top priority in resource distribution, particularly in situations where the availability of healthcare personnel is paramount.

CONCLUSIONS

Nurses were perceived to be moderately stressed but morally resilient. Gender was found to have a significant association with perceived stress and moral resilience. However, designated ward and age were found to have no significant correlation with perceived stress and moral resilience. Conversely, the years of experience had a significant correlation with perceived stress but not

with moral resilience. Meanwhile, perceived stress had no significant relationship with moral resilience. Therefore, being morally robust allows nurses to respond to challenging, frequently intractable ethical issues that arise in clinical practice and during a pandemic, regardless of the underlying stress at work.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

FUNDING

This research has not received funding from any agencies or institutions.

Received: June 16, 2022 | Accepted: August 29, 2022

REFERENCES

1. Lachman VD. Moral resilience: Managing and preventing moral distress and moral residue. *Medsurg Nurs*. 2016;25:121–4.
2. Rushton CH. Moral resilience: A capacity for navigating moral distress in critical care. *AACN Adv Crit Care*. 2016;27:111–9.
3. Rushton CH. Cultivating moral resilience. *Am J Nurs*. 2017;117:S11–5.
4. Magner C, Greenberg N, Timmins F, O'Doherty V, Lyons B. The psychological impact of COVID-19 on frontline healthcare workers 'From Heartbreak to Hope'. *J Clin Nurs*. 2021;30:e53–5.
5. Altman M. *Facing moral distress during the COVID-19 crisis*. American Association of Critical-Care Nurses Coronavirus: Aliso Viejo, 2020.
6. AlAteeq DA, Aljhani S, Althiyabi I, Majzoub S. Mental health among healthcare providers during coronavirus disease (COVID-19) outbreak in Saudi Arabia. *J Infect Public Health*. 2020;13:1432–7.
7. Pasay-An E, Alshammari F, Mostoles R Jr, Gattud V, Cajigal J, Buta J. Estudio cualitativo sobre las experiencias de las enfermeras en cuanto a estigma social en el contexto de la COVID-19 [A qualitative study on nurses' experiences with social stigma in the context of COVID-19]. *Enferm Clin*. 2022;32:75–82.
8. Talevi D, Socci V, Carai M, Carnaghi G, Faleri S, Trebbi E, *et al*. Mental health outcomes of the CoViD-19 pandemic. *Riv Psichiatr*. 2020;55:137–44.
9. Khalid I, Khalid TJ, Qabajah MR, Barnard AG, Qushmaq IA. Healthcare workers emotions, perceived stressors and coping strategies during a MERS-CoV outbreak. *Clin Med Res*. 2016;14:7–14.
10. Matsuishi K, Kawazoe A, Imai H, Ito A, Mouri K, Kitamura N, *et al*. Psychological impact of the pandemic (H1N1) 2009 on general hospital workers in Kobe. *Psychiatry Clin Neurosci*. 2012;66:353–60.
11. Dai Y, Hu G, Xiong H, Qiu H, Yuan, X. Psychological impact of the coronavirus disease 2019 (COVID-19) outbreak on healthcare workers in China [Preprint]. *MedRxiv*; 2020.
12. Yu F, Cavadino A, Mackay L, Ward K, King A, Smith M. Physical activity and personal factors associated with nurse resilience in intensive care units. *J Clin Nurs*. 2020;29:3246–62.
13. Goethals S, Gastmans C, de Casterlé BD. Nurses' ethical reasoning and behaviour: A literature review. *Int J Nurs Stud*. 2010;47:635–50.
14. Cohen S, Kamarck T, Mermelstein R. A global measure of perceived stress. *J Health Soc Behav*. 1983;24:385–96.
15. Heinze KE, Hanson G, Holtz H, Swoboda SM, Rushton CH. Measuring health care interprofessionals' moral resilience: Validation of the Rushton Moral Resilience Scale. *J Palliat Med*. 2021;24:865–72.
16. Braquehais MD, Vargas-Cáceres S, Gómez-Durán E, Nieva G, Valero S, Casas M, *et al*. The impact of the COVID-19 pandemic on the mental health of healthcare professionals. *QJM*. 2020:hcaa207.
17. Pasay-An E. Exploring the vulnerability of frontline nurses to COVID-19 and its impact on perceived stress. *J Taibah Univ Med Sci*. 2020;15:404–9.
18. Alhawatmeh H, Alsholol R, Aldelky H, Al-Ali N, Albataineh R. Mediating role of resilience on the relationship between stress and quality of life among Jordanian registered nurses during COVID-19 pandemic. *Heliyon*. 2021;7:e08378.
19. Hart PL, Brannan JD, De Chesnay M. Resilience in nurses: An integrative review. *J Nurs Manag*. 2014;22:720–34.
20. Ptacek, JT, Smith RE, Zanas J. Gender, appraisal, and coping: A longitudinal analysis. *J Personal*. 1992;60:747–70.
21. Puspitasari ST, Arifin S, Anggaunitakiranantika, Tantiani FF, Wardhana LW. The differences in stress levels of male and female nurses at hospitals. *KnE Soc Sci*, 2020;4:417–22.
22. Tee ML, Tee CA, Anlacan JP, Aligam KJG, Reyes PWC, Kuruchittham V, *et al*. Psychological impact of COVID-19 pandemic in the Philippines. *J Affect Disord*. 2020;277:379–91.
23. Nolen-Hoeksema S. Emotion regulation and psychopathology: The role of gender. *Annu Rev Clin Psychol*. 2012;8:161–87.
24. Afshari D, Nourollahi-Darabad M, Chinisaz N. Demographic predictors of resilience among nurses during the COVID-19 pandemic. *Work*. 2021;68:297–303.
25. 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:e790–8.
26. Villar RC, Nashwan AJ, Mathew RG, Mohamed AS, Munirathinam S, Abujaber AA, *et al*. The lived experiences of frontline nurses during the coronavirus disease 2019 (COVID-19) pandemic in Qatar: A qualitative study. *Nurs Open*. 2021;8:3516–26.
27. Zhang Y, Ma ZF. Impact of the COVID-19 pandemic on mental health and quality of life among local residents in Liaoning Province, China: A cross-sectional study. Int *J Environ Res Public Health*. 2020;17:2381.
28. Pourafzal F, Seyedfatemi N, Inanloo M, Haghani H. Relationship between perceived stress with resilience

among undergraduate nursing students. *J Hayat*. 2013;19:41–52.
29. García-León MÁ, Pérez-Mármol JM, Gonzalez-Pérez R, García-Ríos MDC, Peralta-Ramírez MI. Relationship between resilience and stress: Perceived stress, stressful life events, HPA axis response during a stressful task and hair cortisol. *Physiol Behav*. 2019;202:87–93.