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ORIGINAL ARTICLE

Investigate the Relationship between Occupational Stress and the General Health of Nurses Affiliated with Shahid Sadoughi Hospital of Yazd City during the COVID-19 Pandemic

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A B S T R A C T

Background: One of the global challenges in the management of infectious diseases has been the management of the coronavirus, which has put considerable pressure on health care and medical systems. Nurses have borne the brunt of these pressures as the most important human resource in these organizations. Therefore, the present study aimed to investigate the relationship between occupational stress and the general health among nurses affiliated to Shahid Sadoughi as the teaching hospital of Yazd city during the COVID-19 pandemic in 2022.

Methods: The current investigation is a descriptive-correlational study conducted on 160 nurses working at Shahid Sadoughi hospital of Yazd city. Two standard questionnaires were utilized to collect data, including the Parker and DeCotiis Occupational Stress Questionnaire and the Goldberger and Hiller General Health Questionnaire. Data analysis was performed using T-test, Mann-Whitney, and Pearson correlation tests in $SPSS_{26}$ software .

Results: There was a positive correlation between job stress and the general health of nurses (r=0.515, *P-Value*=0.001). The findings revealed a significant and positive correlation between occupational stress and general health dimensions in nurses. Additionally, the results proved a significant positive correlation between time pressure and anxiety in the Occupational Stress Questionnaire with physical symptoms, anxiety and insomnia, and depression dimensions in the General Health Questionnaire.

Conclusion: The results of this research suggest that an increase in occupational stress scores leads to a rise in general health scores. Therefore, the findings indicate that higher levels of occupational stress in nurses result in a less favorable general health status. Consequently, several nurses might struggle to provide effective and high-quality care to patients, which can endanger the overall health of the community.

Keywords: Public health, Occupational stress, COVID-19, Nurse

Introduction

In recent years, various investigations have been conducted on the relationship between work, stress, and their consequences on healthcare workers. These studies have addressed issues including occupational accidents as well as physical and mental illnesses caused by work and their relationship with occupational stress (1). Psychological pressures caused by work, containing occupational stress, can lead to physical, psychological, and behavioral symptoms and endanger an individual's health as they persist for a prolonged period and beyond a certain threshold (2). In addition, these pressures disrupt organizational goals and reduce the quality of

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individual performance (3). According to the Karasek's demand-control model, jobs associated with high stress and low control cause mental and physical distress and threaten the overall health of the individual (4).

Among various occupational groups, healthcare workers, particularly in hospital and treatment environments, experience increased levels of occupational stress (5). Nursing is recognized as a high-risk occupation for fatigue and illness within this group of workers (6). According to Maurier et al (7), stressors in nurses consist of working shifts, role conflict, job dissatisfaction, fear of job loss, dealing with patient deaths, and unclear professional responsibilities (7).

The COVID-19 pandemic has resulted in physical and emotional stress on healthcare providers, leading to numerous deaths, quarantines, closures, and disruptions worldwide (8). Nurses exposed to the virus experience demanding work shifts, which contributes to physical and psychological issues such as gastrointestinal problems, hypertension, and burnout. These problems affect emotions associating with fatigue, job dissatisfaction, decreased productivity and slower work performance (9).

At present, increasing productivity is a challenge for managers (10). Undoubtedly, comprehending and investigating the job stress factors and their impact on the work and the life of employees can be an efficient way in directing managers toward greater productivity and preventing premature workforce analysis (11). Focusing on this issue is crucial in healthcare organizations as centers for providing health services due to the need for capable and specialized human resources (12). Health and treatment administers can achieve organizational excellence and advancement in this field through enhancing productivity in organizations (13). Regarding organizational productivity, it is feasible to assess the progress or regression of organizations and anticipate their future outcomes (14).

According to the prevalence of COVID-19 in Iran and the potential psychological impact of this pandemic at the community level, as well as the lack of sufficient studies on the impact of COVID-19 on the general health and psychological status of nurses and healthcare workers in Iran, this study was conducted to investigate the association between occupational stress factors and the general health of nursing staff affiliated with Shahid Sadoughi Hospital of Yazd during the COVID-19 pandemic.

Materials and Methods

This research was a descriptive cross-sectional study of the correlation type, conducted in Shahid Sadoughi Hospital of Yazd in 2022. The total population of the study (nurses employed at Shahid Sadoughi Hospital of Yazd) was 728, and the samples were selected using random sampling and the following formula.

$$n = \left(\frac{z_{1-\frac{\alpha}{2}} + z_{1-\beta}}{0.5 \ln(\frac{1+r}{1-r})} \right)^2 + 3$$

Considering$\alpha = .05$, $\beta = 0.2$ as well as $r = 0.22$, the sample size was obtained 160. Determining a 10% attrition rate, a total of 176 questionnaires was printed, of which 160 were thoroughly completed and analyzed. Data were collected using the standard 28-item General Health Questionnaire (GHQ) and the Parker and DeCotiis Job Stress Questionnaire. In addition, demographic information was extracted with a questionnaire consisting of questions regarding age, gender, marital status, work experience, and the unit of service.

After visiting Shahid Sadoughi Hospital in Yazd and obtaining the necessary consent forms and approvals, paper questionnaires were distributed among nurses working in various departments of the hospital who were randomly selected. The questionnaires were collected after the nurses completed the questionnaires in the hospital,. This process continued until the number of completed questionnaires reached the required threshold.

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The Parker and DeCotiis job stress questionnaire (1983) was scored on a five-point Likert scale ranging from one to five. This scale consists of 12 items and was firstutilized by these researchers to determine organizational stress factors. Job-related psychological stress had two dimensions: feeling under substantial time pressure and job-related feelings of anxiety.

The two dimensions of this scale had an Alpha Cronbach of 0.86 for organizational stress and 0.74 for job-related anxiety (15).

A score from one to five was assigned to each item in the job stress questionnaire based on the Likert scale. A high score (above 46) on this questionnaire demonstrated high job stress, whereas a low score (less than 30) indicated low and appropriate job stress.

The Goldberg Health Questionnaire (GHQ-28) was applied to assess the general health status of nurses. This questionnaire evaluates mental health and several psychological disorders and has no diagnostic aspect. The GHQ is contained 28 questions on a four-point Likert scale in four subscales of physical factors, anxiety and insomnia, social dysfunction, and depression, each consisting of seven questions. The correlation coefficient of this questionnaire was computed as 0.90 using a clinical symptom checklist for its validity (16). In Iran, the reliability of this questionnaire was ascertained based on three methods: retesting, split-half, and Cronbach's alpha, yielding reliability coefficients of 0.70, 0.93, and 0.90, respectively (17).

Each item on the general health questionnaire was assigned a number between zero and three based on a four-point Likert scale and its corresponding domain. A high score on this questionnaire indicated lower general health. The total score for each individual was obtained by summing the subscales scores. A total score of 23 or more revealed poor general health, whereas a score below 23 exhibited good mental health.

Statistical Analysis

Questionnaires were distributed and collected from nurses working in different departments of Shahid Sadoughi Hospital of Yazd, who were randomly selected until the quorum was reached. Subsequently, the data were entered into $SPSS_{26}$ software for data analysis using the T-test, Mann-Whitney, one-way variance change, and Pearson correlation tests. The significance level was considered as 0.05.

Access to the target group was difficult due to COVID-19 in the target hospital. Furthermore, the use of a questionnaire as the only research tool and the non-cooperation of some nurses in completing the questionnaires posed challenges in data collection. This limitation was overcome by multiple consecutive visits to the hospital in different shifts.

Ethical considerations

Approval to conduct the research was obtained from the research ethics committee of Shahid Sadoughi University of Medical Sciences (IR.SSU.SPH.REC.1401.097).

Results

Most of the participants were aged between 31 and 39 years old (41.3%) and had less than 10 years of work experience (58.1%). 52.5% of the participants worked in departments with less exposure to COVID-19, while 47.5% worked in units with the highest exposure to COVID-19. The units with lower exposure to COVID-19 included neurology, orthopedics, oncology, CCU, cardiology, nephrology, surgery, obstetrics and gynecology, and pediatrics ward. Units with more involvement in COVID-19 included ICU, Emergency Unit, and Internal Wards. Most participants in the investigation were female (66.3%). The frequency of married individuals was higher than unmarried ones (70.6% and 29.4% respectively). 91.3% of the participants had a bachelor's degree, while only 8.8% had a master's degree (Table 1).

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Table 1. Demographic characteristics of the studied subjects

	Variable	Frequency	Percent
Gender	Male	54	33.800
	Female	106	66.200
Marital	Single	47	29.400
	Married	113	70.600
Age	30 & Under 30	61	38.100
	31-39	66	41.300
	40 & Above 40	33	20.600
Work experience (years)	Less than 10	93	58.100
	10 and more	67	41.900
Unit (Exposure to COVID-19)	High exposure	84	52.500
	Low exposure	76	47.500
Degree	Bachelor	146	91.200
	Master	14	8.800

The average score for time pressure is 22.730 and the average score for job-related anxiety is 14.530. These scores display the natural level of stress in each dimension. Additionally, regarding general health dimensions, the average scores for physical factors, anxiety, social dysfunction, and depression are 7.910, 7.390, 11.450, and 3.330, respectively. A score of 7 or higher in each subscale unveils a health disorder in that dimension. Social dysfunction received the highest score of all dimensions, indicating more damage in this area. in general, the total score of occupational stress is 37.260, depicting an average level of stress, and the total score of general health is 30.100, manifesting that mental health is threatened and damaged in several areas (Table 2).

Table 2. The status of occupational stress and general health dimensions in the studied subjects

Variable	Dimensions	Mean	Standard Deviation	Minimum	Maximum
Occupational stress	Feelings of being under substantial time pressure	22.730	4.800	9	35
	Job-related feelings of anxiety	14.530	3.300	5	23
	Total	37.260	7.540	14	57
General Health	Physical factors	7.910	4.010	1	21
	Anxiety and insomnia	7.390	4.320	0	20
	Social dysfunction	11.450	2.690	3	19
	Depression	3.330	3.950	0	20
	Total	30.100	11.050	13	72

There was no significant relationship between gender, marital status, work experience, unit of service and age with occupational stress, but a significant association was detected between education and occupational stress. Individuals with a bachelor's degree experienced higher levels of stress. Similarly, with regard to general health, no significant relationship was discovered between demographic variables and this component, with the exception of education. The general health score of nurses with a bachelor's degree was higher than that of nurses with a master's degree, indicating that the general health status of nurses with a bachelor's degree was less appropriate than the other group (Table 3).

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Table 3. Scores of occupational stress and General Health based on demographic variables

		The score of occupational stress				
		Mean	**Standard Deviation**	**Median**	**Interquartile range**	***P***
Gender	Female	37.250	7.440	-	-	0.984
	Male	37.280	7.790	-	-	
Marital Status	Single	37.100	7.440	-	-	0.863
	Married	37.330	7.610	-	-	
Work Experience	<10	37.190	7.790	-	-	0.891
	10<	37.360	7.220	-	-	
Unit	High Exposure	37.900	7.690	-	-	0.316
	Low Exposure	36.690	7.260	-	-	
Age	Under30	37.550	7.150	-	-	0.898
	31-39	37.240	7.750	-	-	
	Above30	36.780	7.980	-	-	
Degree	Bachelor	-	-	30	10	0.013
	Master	-	-	35	7.500	
		The score of general health				
		Mean	**Standard Deviation**	**Median**	**Interquartile range**	***P***
Gender	Female	30.770	9.890	-	-	0.324
	Male	28.790	12.800	-	-	
Marital Status	Single	31.910	11.170	-	-	0.176
	Married	29.310	10.860	-	-	
Work Experience	<10	29.660	11.740	-	-	0.559
	10<	30.700	9.860	-	-	
Unit	High Exposure	31.250	10.980	-	-	0.170
	Low Exposure	31.250	10.980	-	-	
Age	Under30	28.240	9.580	-	-	0.241
	31-39	31.120	12.620	-	-	
	Above30	31.540	9.790	-	-	
Degree	Bachelor	-	-	36	6.500	0.003
	Master	-	-	27	13	

A significant relationship was observed between occupational stress and general health (*P-value*<0.001, r=0.515). As the occupational stress score increases, the general health score rises as well. A high score on the general health questionnaire denotes inadequate general health conditions. Therefore, as nurses' occupational stress increases, their general health decreases. Moreover, the results declared a significant and positive relationship between time pressure and job-related anxiety in the Occupational Stress Questionnaire with physical factors, anxiety, insomnia, and depression in the General Health Questionnaire (*P-value*<0.001). No significant relationship was discovered between the social dysfunction dimension and the two dimensions of occupational stress(Table 4).

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Table 4. Correlation test between Occupational Stress and General Health and their dimensions

Occupational stress General Health	Feelings of being under substantial time pressure		Job-related feelings of anxiety	
	P	r	*P*	r
Physical factors	<0.001	0.427	<0.001	0.497
Anxiety and insomnia	<0.001	0.506	<0.001	0.517
Social dysfunction	0.169	-0.110	0.494	0.055
Depression	<0.001	0.333	<0.001	0.381
Occupational stress and general health	r 0.515		*P* <0.001	

Discussion

The COVID-19 pandemic involved a wide range of psychological and social impacts on individuals at all levels. The virus's high mortality rate has resulted in individuals experiencing anxiety, fear, and stress.

The current research discovered a significant positive correlation between occupational stress and general health. This issue aligns with the findings of Meshak et al (18), which disclosed a significant positive relationship between job stress and the general health of nurses employed at Kamali Educational and Treatment Center in Karaj city. Moreover, a significant direct relationship between job stressors and the mental health of frontline nurses exposed to COVID-19 was detected by Hu et al (19).

The mean job stress level among nurses in this investigation was 37.26, suggesting a moderate level of stress and the influence of the COVID-19 pandemic on nurses' stress levels. Sarboozi et al (20), assessed depression, stress, and anxiety in nurses working in COVID-19-related wards and revealed that the severity of depression, stress, and anxiety disorders in nurses was moderate (20). Sirati's (21) research aimed to evaluate the perceived stress levels of healthcare and non-healthcare workers facing the COVID-19 pandemic revealed that the perceived stress levels of those exposed to COVID-19 were mostly moderate, with about 4.2% experiencing severe stress. The reason for this level of stress can be attributed to ineffective prevention or treatment methods for COVID-19, shortages of masks and personal protective equipment, heavy protective clothing, the use of N-95 masks, and the risk of infection spread.

The findings of this research demonstrated that the nurses' general health was impaired in the areas of physical factors, anxiety and insomnia, and social interaction. The nurses' physical health status was moderate, which was consistent with Parhizkar's (22) study exhibiting that40% of nurses had moderate status in the physical health dimension. The correlation can result from the physical conditions of the nurses' work environment, which causes various physical difficulties including back pain, the most prevalent physical problem in more than half of female nurses.

The health status of nurses was moderate in both anxiety and insomnia dimensions, which was consistent with the findings of Sepehrmanesh et al. (23) and Maghsoodi et al (24). However, this finding contradicts the results of Ali Poor and Koushali's studies (25), indicating that the nurses' anxiety level was normal. The cause of this discrepancy can be due to the timing of the present study during the COVID-19 pandemic and its impact on nurses' anxiety levels.

The results of the current study align with Ali Poor and Inanloo's study as well as Maghsoodi et al (24), which unveiled that 75.9% of nurses experienced social dysfunction. Social dysfunction is one of the aspects of job burnout and is frequently caused by a lack of supportive resources and conflict at work. Nurses are more susceptible to health risks due to the nature of their jobs and individual personality characteristics.

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The findings of this research indicated no abnormalities in the depression dimension, which was in line with Kheyri et al (26) and Maghsoodi et al (24), demonstrating the lowest concern in this dimension. However, this result contradicts Mahmodi's study (27), which reported a 58% prevalence of depression among nurses in Sanandaj City. This difference may be attributed to variations in research environments, hospital conditions, nurses' family situations, and the level of support managers provided to nurses in various aspects.

Data analysis illustrated that demographic variables were not significantly involved in the relationship between occupational stress and the general health status of nurses. This issue recommends that general health disorders can be observed in individuals over 30 years old or even younger, and that health problems are not exclusive to women, as men are also susceptible. Moreover, the lack of a significant correlation between job stress, general health status, and their units could be attributed to the involvement of all nurses in all hospital wards with COVID-19 and its related problems. In line with this research, Meshak and colleagues declared that job factors are more involved in the development of job stress than demographic factors (18). However, Aghilinejad et al (28) acknowledged in their study that nurses' stress level is significantly related to their marital status.

Conclusion

The results of this study uncovered that with the onset and widespread of the COVID-19 disease, several aspects of the general health of healthcare workers were affected, making it difficult for them to provide effective and high quality care to patients. As a result, the general health of the community could be at risk. In addition, the level of occupational stress among nurses working in various wards was moderate. Therefore, under these circumstances, maintaining the mental health of nurses working in COVID-19-related centers is essential for nursing and hospital managers.

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Author's Contribution

Z.K, R.S, H.J, and MK.R contributed as the main authors with the concept of planning the study. Z.K, H.J, and MK.R contributed to the study design. Z.K gathered data. All authors performed the statistical analysis and interpreted the data. Z.K, H.J, and MK.R wrote the manuscript. All authors read and approved the final manuscript.

Conflict of Interest

All authors declared that they have no conflict of interest.

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References

1. Nakata A. Psychosocial job stress and immunity: a systematic review. In: Yan Q, editor. Psychoneuroimmunology: Methods and Protocols. Totowa, NJ: Humana Press; 2012. p. 39-75.
2. Khuong MN, Yen VH. Investigate the effects of job stress on employee job performance: a case study at Dong Xuyen industrial zone, Vietnam. International Journal of Trade, Economics and Finance. 2016;7(2): 31.
3. Ghaseminezhad A, Amirtash AM, Aslankhani MA. Effect of job stress on counterproductive behaviors with mediating role of job affects: case study of employees of the sports and youth departments of Khuzestan province. Scientific-research quarterly of psychological methods and models. 2018; 8(30): 1-16.
4. Tummers GE, Landeweerd JA, Van Merode GG. Organization, work and work reactions: a study of the relationship between organizational aspects of nursing and nurses' work characteristics and work reactions. Scandinavian Journal of Caring Sciences. 2002;16(1):52-8.
5. Labrague LJ, McEnroe-Petitte DM, Leocadio MC, Van

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[DOI: 10.18502/jebhpme.v8i1.16617]

Bogaert P, Cummings GG. Stress and ways of coping among nurse managers: An integrative review. Journal of Clinical Nursing. 2018;27(7-8):1346-59.
6. Magnago TSBdS, Lisboa MTL, Griep RH, Kirchhof ALC, Guido LdA. Psychosocial aspects of work and musculoskeletal disorders in nursing workers. Revista latino-americana de enfermagem. 2010;18:429-35.
7. Maurier WL, Northcott HC. Job uncertainty and health status for nurses during restructuring of health care in Alberta. Western Journal of Nursing Research. 2000;22(5):623-41.
8. Kannampallil TG, Goss CW, Evanoff BA, Strickland JR, McAlister RP, Duncan J. Exposure to COVID-19 patients increases physician trainee stress and burnout. PloS one. 2020;15(8):e0237301.
9. WHO and European Investment Bank. strengthen efforts to combat COVID-19 and build resilient health systems to face future pandemics, World Health Organization. 2020, May.
10. Vakili M, Gorji MB. Consider of relation between 5S with quality of work life and quality of service in private hospitals in Gorgan city. Kuwait Chapter of the Arabian Journal of Business and Management Review. 2014;3(9):154.
11. Koivula M, Paunonen M, Laippala P. Burnout among nursing staff in two Finnish hospitals. Journal of nursing management. 2000 ;8(8):149-58.
12. Taghizadeh H, Ebrahimi R, Shokre A. Comparing and Ranking the Productivity of the Human Power in the Departments of Islamic Azad University, Tabriz Branch through the Use of Vikor Technique. The Journal of Productivity Management. 2014;8(4 (31)):75-100.
13. Buono AF. Managing human resources: Productivity, quality of work life, profits. Personnel Psychology. 1998;51(4):1041.
14. Hanson T. Efficiency and productivity in the operational units of the armed forces: A Norwegian example. International Journal of Production Economics. 2016;12-23:79.
15. Khaghani Z, Ebadi A, Sirati N, Rahmani M. Relationship between job stress and quality of work life of nurses in selected hospitals armed force. J Mil Med.2012; 84-175:10.
16. Jackson AD. A survey of the occupational stress, psychological strain, and coping resources of licensed professional counselors in Virginia: A replication study: Virginia Tech; 2004.
17. Motamed N, Ayatollahi S A, Zare N, Sadeghi Hasanabadi A. Reliability And Validity Of Sf-36 Questionnaire In The Staff Of Shiraz Medical School, 2001. J Adv Med Biomed Res 2002; 10 (38) :38-46
18. Meshak B, Farhand B, Moghadam S, Pezhom Z, HajiAlikhani T, Taghipour N, SoltanNejad N, Shahnavaz N, Farid M. Investigating the relationship between occupational stress of nurses and their general health status in Kamali educational center in 2013. Journal of Alborz University of Medical Sciences. 2015; 4(4):.231-236
19. Hu S, Dai Q, Wang T, Zhang Q, Li C, He H. Relationship between work stressors and mental health in frontline nurses exposed to COVID-19: A structural equation model analysis. Annales Médico-psychologiques, revue psychiatrique. 2022;180(5):8-421.
20. Sarboozi Hosein, Abadi T, Askari M, Miri K, Namazi Nia M. Depression, stress and anxiety of nurses in COVID-19 pandemic in Nohe-Dey Hospital in Torbat-e-Heydariyeh city, Iran. Journal-Mil-Med. 2020;22(6): 33-526.
21. Sirati Nir M, Karimi L, Khalili R. The Perceived Stress Level of Health Care and Non-health Care in Exposed to COVID-19 Pandemic. ijpcp. 2020;26(3): 305-294.
22. Parhizkar A. Comparison of the general health level between the nurses working in the hospitals of Kurdistan University of Medical Sciences and Social Security Hospital in 2018-2019.
23. Sepehrmanesh Z, Ahmadvand A, Moraveji A, Mirzadeh M .Mental health of nurses in psychiatric and dialysis departments of Akhavan Hospital of Kashan University of Medical Sciences. Journal of Rafsanjan University of Medical Sciences. 2009;12(1): 41-31.
24. Maghsoodi S, Hesabi M, Emami sigaroudi A, Kazemnejad leili E, Monfared A. General health and related factors in employed nurses in Medical-Educational Centers in Rasht. gums-hnmj. 2015; 25(1): 72-63.
25. Alipoor F, Inanloo M. The General Health of the Intensive Care Unit Nurses of the Selected Teaching Hospitals Affiliated to Iran University of Medical Sciences (2019). IJN. 2020;33(125):12-1.
26. Kheyri F, Seyedfatemi N, Oskouei F, Mardani-

[Downloaded from jebhpme.ssu.ac.ir on 2026-10-15]

[DOI: 10.18502/jebhpme.v8i1.16617]

Hamooleh M. Nurses' mental health in Iran: a national survey in teaching hospitals. Scientific Journal of Kurdistan University of Medical Sciences. 2017;22(4).
27. Mahmodi S, Zehni K. The comparison of depression prevalence between shift work nurses in education hospitals of Kurdistan Medical Sciences University. Iranian Journal of Nursing Research. 2013;8(1):38-29.
28. Aghilinejad M, Attarchi M, Golabadi M, Chehregosha H. Comparing stress level of woman nurses of different units of Iran university hospitals in autumn 2009-2010.

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