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Job Stress Among The Nurses Of The Emergency Department At King Fahad Specialist Hospital In Buraidah City

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ABSTRACT

Job stress describes the negative emotional and physical reactions that occur when the demands of a job do not match an employee's abilities, resources, or needs. Job stress was found to have dangerous effects not only on nurses' health but also on their ability to cope with the demands of their work. This research aimed to assess job stress among the nurses of the emergency department at King Fahad Specialist Hospital in Buraidah City in Saudi Arabia. This cross-sectional, descriptive research was implemented in October 2021. The study recruited a convenient sample of 80 nurses that consisted of most nurses working at the emergency department of King Fahad Specialist Hospital. An electronic questionnaire, which consisted of a sociodemographic data sheet and a job stress scale, was sent to the participating nurses. The highest levels of job stress were associated with having too much work to do and working under unreasonable deadlines in the clinical setting, while the lowest levels of job stress were associated with receiving appropriate recognition or rewards for good performance. Nurses generally suffered from a moderate level of job stress (M=3.32 ± 0.567/5). In conclusion, nurses who had less than one year of experience significantly had the lowest job stress. No other significant difference was detected in the level of job stress based on the emergency nurses' age, nationality, gender, marital status, position, or educational level. Hospitals should implement interventional programs to identify and relieve sources and consequences of stress on the emergency nurses.

Keywords: Emergency nurses, Job pressure, Qassim, Saudi Arabia, Job stress.

Introduction

Job stress or work pressure can be defined as negative emotional and physical reactions that occur when the demands of a job do not match an employee's abilities, resources, or needs (Sumeriya et al., 2019).

Healthcare workers may experience more stress and pressure than other professionals due to the dangerous nature of their work. This heightened level of job stress can lead to many health problems, including cardiovascular disease, respiratory distress, and hypertension, as well as emotional challenges resulting from public persecution, such as anxiety and agitation (Kivimäki & Kawachi, 2015). These issues inevitably lead to low productivity, increased absenteeism and use of vacation time, and threats to the safety and well-being of healthcare providers and their patients (El Shikieri & Musa, 2012).

The severity of job stress in the healthcare sector is increasing as healthcare facilities and their affiliates become more exposed to the public while continuing to shoulder the growing workload. This problem is assuming new dimension and depth, exacerbating the serious consequences of job stress for healthcare professionals.

Nurses around the world are on the front lines to provide care in hospital emergency departments, and they are under tremendous pressure from working in such a dynamic, unstable, and volatile environment. Several studies have demonstrated that nurses who work in hospital emergency departments experience varying degrees of psychological and social stress and may feel that their efforts are not being acknowledged, appreciated, or rewarded.

Due to the inherent stress of the profession, nurses can feel dissatisfied and experience doubt about their chosen profession. These feelings can negatively impact their performance as well as their psychological and professional compatibility with this difficult and stressful career. Therefore, the impact of job stress on nurses' behavior is of interest to researchers from a variety of fields. According to Schneiderman et al. (2005), this stress varies from one area to another, and each individual's level of vulnerability to stress depends on their spiritual and psychological well-being (Schneiderman et al., 2005).

Job stress was found to have dangerous effects not only on nurses' health but also on their ability to cope with work-related demands. This is a serious issue that relates to the quality of support nurses receive and impacts the effectiveness of health service delivery. A series of studies has identified nursing as a stressful career. Stress affects people's health, well-being, and satisfaction, as well as employee absenteeism and turnover, factors that can influence the quality of patient care (Jennings, 2008).

It is important to identify the key stressors and evaluate the level of job stress that nurses experience in emergency departments. These stressors can lead to a significant reduction in the quality of the services provided by nurses in emergency departments due to burnout, overtime, and the loss of skilled and expert nurses. Conversely, the ability to recognize these types of stressors and their causes may have implications for managing these stressors, and future studies can utilize this information to reduce job stress.

Many studies have shown that nurses working in health institutions and hospitals experience varying degrees of psychological and social stress in the workplace and may feel that their efforts are unappreciated and unrewarded (Dos Santos, 2020; McGrath et al., 2003; McVicar, 2003), especially emergency department nurses (Adeb-Saeedi, 2002; Healy & Tyrrell, 2011; Singh, 2013; Tavakoli et al., 2018).

As few studies have been carried out to assess the stress among nurses in Saudi Arabia, especially among emergency room nurses, this topic represents a gap in the literature. Therefore, the present study aimed to assess job stress among the nurses of the emergency department at King Fahad Specialist Hospital in Buraydah City.

Aim

This research aimed to assess job stress among the nurses of the emergency department at King Fahad Specialist Hospital in Buraidah City.

The research had the following objectives:

1) Explore the sociodemographic data of the nurses working in the emergency department at King Fahad Specialist Hospital in Buraidah City.

2) Identify the job stress levels and causes among the nurses of the emergency department at King Fahad Specialist Hospital in Buraidah City.

3) Assess differences in job stress based on nurses' sociodemographic data at the emergency department of King Fahad Specialist Hospital in Buraidah City.

Methods

Study design

This research is focused on a cross-sectional, descriptive methodology based on a quantitative, questionnaire-based system.

Data collection tool:

The questionnaire included some questions regarding the sociodemographic characteristics of the participants, such as age, gender, marital status, job title, and educational levels.

The other portion consisted of eight statements reflecting the possible factors of job stress on a five-point Likert scale extending

from "never" to "very often" to reflect the degree to which the participants regard each scenario as applicable to their daily clinical practice. This scale was adopted without any modification from the American Institute of Stress (2020). The final survey was piloted before being distributed on a wide scale to test clarity and accuracy and deemed to be suitable.

Sample and sampling:

The convenience sampling technique (total sampling, in particular) was utilized to select the study sample from the nurses working at the emergency department of King Fahad Specialist Hospital. This sampling technique was utilized due to the researchers' access to the study setting and the convenience of the researchers.

The study aimed to assess job stress among the nurses of the emergency department at King Fahad Specialist Hospital in Buraidah City. It was based on a quantitative method and used a descriptive approach. Participants were selected based on the following inclusion criteria.

Inclusion criteria:

Participants were selected based on the following inclusion criteria: (a) currently worked at the emergency department of King Fahad Specialist Hospital in Buraidah City (practical nurse, nurse specialist, or any nursing position), (b) had no fewer than six months of clinical experience in the emergency department, (c) willing to participate in the study.

A total of 85 nurses in the emergency department of King Fahad Specialist Hospital in Buraidah City met the inclusion criteria. However, five of these nurses declined to participate in the study after two reminders were sent to them. There were 80 participants who completed the questionnaire, representing a 94% response rate.

Setting

The current study was executed at the emergency department of King Fahad Specialist Hospital in Buraidah. This hospital was chosen because it is the largest hospital in the Qassim region, and it includes the largest emergency department and employs the highest number of nurses.

Plan and implementation process

After gaining ethical approval from the representative bodies of the Ministry of Health, the researchers commenced the data collection stage. The timetable for the data collection stage was one month (October 2021).

The survey was disseminated electronically to all nurses working at the emergency department of King Fahad Specialist Hospital in Buraidah via emails and social media. The completed Google forms for the questionnaire were collected and coded for analysis at a later stage. Follow-up with the staff nurses was continuous to assure proper

understanding and completion of the questionnaire by all nurses willing to participate in the study. All ethical concerns for scientific research were taken into consideration, and the nurses' responses were kept confidential and anonymous.

Statistical analysis

Following the data collection, the data were coded, tabulated, and then analyzed using the Statistical Package for Social Sciences (SPSS V26). The researchers used the following statistical techniques: Descriptive statistics such as the frequencies, percentages, and means were used to describe the demographic variables and the causes of job stress. Means and Standard Deviations were used to determine the mean job stress levels among participants. Additionally, t-tests and analysis of variance (ANOVA) were used to explore the differences among the emergency nurses based on their demographics.

Ethical consideration

Ethical approval was obtained from the General Directorate of Health Affairs in the Qassim region to use the study data for research purposes only (Ethical approval # 45/44/1331). In order to protect participants' anonymity and confidentiality, the cover letter presented information that explained the purpose of the study. It was mentioned that participation in this study was voluntary, and there was no compulsion to join the study group. Lastly, the cover letter explained that the results would be used for research purposes only with the consent of all willing participants.

Results

The results of the study are reflected in three tables that report the sociodemographic characteristics of the participants, the descriptive statistics for job stress levels, and stress sources among the participants. An additional table depicts the difference in job stress among the participants based on their sociodemographic variables. A total of 80 nurses from the emergency department at King Fahad Specialist Hospital in Buraidah City participated in the study.

The results in **Table 1** indicate that two-fifths of the study sample was 30 to 34 years of age (40%). The second-largest group of participants fell within the 35 to 39 age group (31.3%). The majority of the participants were Saudis (77.5%), males (71.3%), and married individuals (67.5%).

Data regarding the nature of participants' work indicate that approximately two-thirds of the sample were nurse specialists (66.3%), followed in prevalence by nursing assistants, head nurses, nurse supervisors, and charge nurses. Fifty percent of the sample had more than 10 years of clinical experience in nursing. The data concerning education indicate that the participants predominantly held a bachelor's degree in nursing

(62.5%), followed by those who had attained a postgraduate education (22.5%).

Table 1 Sociodemographic variables of the participants (N=80)

Sociodemographic variables		n	%
Age	< 25 years	4	5.0%
	25–29 years	15	18.8%
	30–34 years	32	40.0%
	35–39 years	25	31.3%
	40 years and older	4	5.0%
Nationality	Saudi	62	77.5%
	Non-Saudi	18	22.5%
Gender	Male	57	71.3%
	Female	23	28.8%
Marital status	Single	26	32.5%
	Married	54	67.5%
Job title	Nurse Assistant	10	12.5%
	Nurse Specialist	53	66.3%
	Charge Nurse	4	5.0%
	Head Nurse	7	8.8%
	Nurse Supervisor	6	7.5%
Experience	Less than 1 year	6	7.5%
	1–3 years	11	13.8%
	>3–5 years	14	17.5%
	> 5–10 years	9	11.3%
	>10 years	40	50.0%
Education	Diploma	12	15.0%
	Bachelor	50	62.5%
	Postgraduate education	18	22.5%

The results in **Table 2** depict the average levels of psychological stress reported by nurses in the emergency department at King Fahd Specialist Hospital in Buraidah City based on a Likert scale from 1 to 5; a score of "1" reflects the lowest level of psychological stress, while "5" reflects the highest level of psychological stress, based on eight statements in addition to the mean scores of the scale. The percentage for every factor affecting the job

stress among the participants is also represented in **Table 2** and **Figure 1**.

The results indicate that the highest levels of job stress were associated with having too much work to do and too many unreasonable deadlines to manage in the clinical setting (M=3.7±1.072), while the lowest levels of job stress were associated with appropriate recognition or rewards for good performance (M=2.35±1.3226), followed by the nurses' ability to express their opinions and feelings about the work conditions to their managers and supervisors (M=3.213±1.087).

Based on the results, the majority of nurses suffered from a moderate level of stress in the emergency department at King Fahad Specialist Hospital (M=3.32 ± 0.56/5) reflecting a 58% stress level in the entire sample.

Table 2 Descriptive statistics for job stress (N=80)

Job stress scale	n (%)	n (%)	n (%)	n (%)	n (%)	Mean	SD	%
1. Conditions at work are unpleasant or sometimes even unsafe.	6 (7.5%)	9 (11.25%)	33 (41.25%)	24 (30%)	8 (10%)	3.238	1.0341	55.95%
2. I feel that my job is negatively affecting my physical or emotional well-being.	10 (12.5%)	12 (15%)	23 (28.75%)	13 (16.25%)	22 (27.5%)	3.313	1.3557	57.83%
3. I have too much work to do and/or too many unreasonable deadlines.	4 (5%)	3 (3.75%)	28 (35%)	23 (28.75%)	22 (27.5%)	3.7	1.0721	67.50%
4. I find it difficult to express my opinions or feelings about my job conditions to my superiors.	4 (5%)	15 (18.75%)	34 (42.5%)	14 (17.5%)	13 (16.25%)	3.213	1.0873	55.33%
5. I feel that job pressures interfere with my family or personal life.	5 (6.25%)	14 (17.5%)	19 (23.75%)	14 (17.5%)	28 (35%)	3.575	1.3002	64.38%
6. I have adequate control or input over my work duties.	4 (5%)	8 (10%)	22 (27.5%)	36 (45%)	10 (12.5%)	3.5	1.0063	62.50%
7. I receive appropriate recognition or rewards for good performance.	27 (33.75%)	23 (28.75%)	13 (16.25%)	9 (11.25%)	8 (10%)	2.35	1.3226	33.75%
8. I am able to utilize my skills and talents to the fullest extent at work.	6 (7.5%)	7 (8.75%)	19 (23.75%)	23 (28.75%)	25 (31.25%)	3.675	1.2198	66.88%
Mean of total stress scores	10%	14%	30%	24%	21%	3.3203	0.5677	58.01%

The factors linked to the nurses' job stress levels were arranged in descending order, from the most to the least influential factors, as follows: too much work with unreasonable deadlines, inability to utilize personal skills and talents, interference of job stress with family or personal life, inadequate control over work duties, negative effects of stress on physical or emotional well-being, the presence of unpleasant or unsafe work conditions, the difficulty to express opinions or feeling to superiors at work, and low recognition or rewards for good performance **(Figure 1)**.

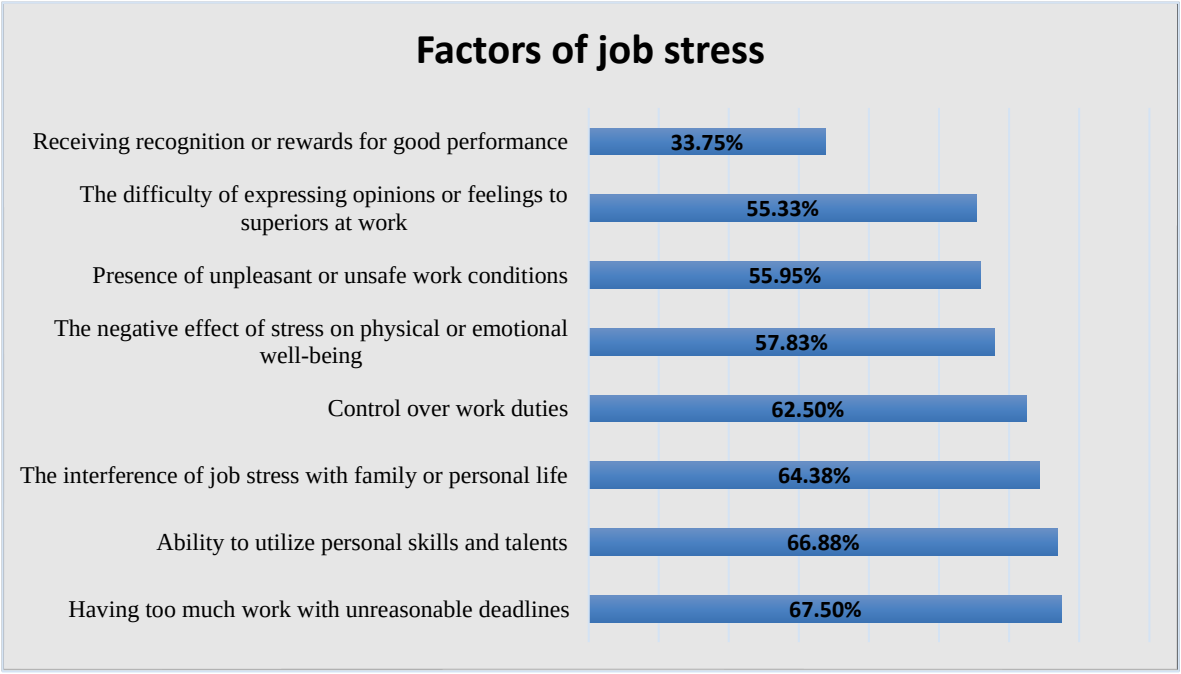

Figure 1 Factors of job stress

Table 3 shows no significant difference in the level of job stress for emergency nurses based on their age, nationality, gender, marital status, job title, or level of education. However, there were significant differences in the levels of job stress among the participants based on their experience; nurses who had less than 1 year of experience had the lowest level of job stress compared to nurses with more experience (P=0.043).

Table 3 Difference in job stress levels based on the sociodemographic characteristics of the participants

Job stress levels based on sociodemographic data		Mean of total stress		
		Mean	SD	P-value
Age	less than 25 years	2.88	0.14	[a] 0.180

	25–29 years	3.21	0.75	
	30–34 years	3.39	0.44	
	35–39 years	3.43	0.63	
	40–44 years	2.94	0.22	
Nationality	Saudi	3.35	0.57	[b] 0.392
	Non-Saudi	3.23	0.56	
Gender	Male	3.29	0.58	[b] 0.959
	Female	3.4	0.55	
Marital status	Single	3.07	0.54	[b] 0.564
	Married	3.44	0.55	
Job title	Nurse Assistant	3.38	1.06	[a] 0.779
	Nurse Specialist	3.33	0.48	
	Charge Nurse	3	0.72	
	Head Nurse	3.41	0.36	
	Nurse Supervisor	3.21	0.17	
Experience	< 1 year	2.67*	0.45	[a] 0.043*
	1–3 years	3.44	0.76	
	>3–5 years	3.27	0.51	
	>5–10 years	3.49	0.24	
	>10 years	3.37	0.55	
Education	Diploma	3.48	0.88	[a] 0.166
	Bachelor	3.36	0.52	
	Higher education	3.11	0.38	

[a] ANOVA, post hoc test

[b] Independent samples t-test

*Statistically significant difference $P < 0.05$.

Discussion

The sociodemographic characteristics of the participating nurses from the emergency department at King Fahad Specialist Hospital revealed that two-fifths of the study sample were between 30 to 34 years of age, followed by participants who fall within the age group 35 to 39 years. These data reflect the distribution of nurses in the emergency department based on their age categories and may apply to the age categories of nurses at the hospital in general.

In a recent study carried out by Bassam and Al Hosis (2021) to explore nurses' knowledge, attitudes, and infection control practices toward COVID-19 at King Fahad Specialist Hospital in Buraydah City, the mean age of the studied nurses

was 31.98 years, which coincides with the results from the present study sample regarding age distribution.

In addition, in the present study, the majority of the participants were Saudi, males, and married individuals. Those findings align with those of various studies carried out in the same hospital with regard to the gender, nationality, and marital status of the participating nurses from King Fahad Specialist Hospital in Buraydah City (Al Wutayd et al., 2018; Alrasheedi et al., 2022; Bassam & Al Hosis, 2021; Shahin, 2019).

The highest proportion of the participating nurses were nurse specialists (around two-thirds), followed by nursing assistants, head nurses, nurse supervisors, and charge nurses. This also was reflected in the educational degree of the participants, as most of the participants held bachelor's degrees in nursing while only around one-fifth had received postgraduate education in the nursing specialty.

These results reflect the educational attainment of the study participants, as well as their profession or job title at work, and they are largely applicable to the situation in all departments in King Fahd Specialist Hospital in Buraidah. The number of individuals who hold a bachelor's degree in nursing has increased significantly in recent years in the Kingdom of Saudi Arabia due to the tendency of students to study nursing in many Saudi universities.

The pursuit of postgraduate studies has also become a general trend among Saudi nursing students. Workers in the health sector have begun to target advanced postgraduate diplomas, master's degrees, and doctorates in nursing to develop in their profession and advance their clinical work in hospitals rather than to pursue teaching and other academic work at universities.

In a study carried out by Bassam and Al Hosis (2021) at King Fahad Specialist Hospital, 93% of the studied nurses held a bachelor's degree in nursing, reflecting a higher percentage of bachelor's degree holders compared with the current study.

In another study carried out at the same hospital, the majority of participants were staff nurses (82.0%). Charge nurses and healthcare assistants comprised 17.1% and 0.9%, respectively (Elmannan et al., 2020). Similar results were reflected in a study carried out in another hospital in the same city (Buraidah), which revealed that the majority of participants had a bachelor's degree in nursing (Shahin et al., 2020).

Furthermore, half of the study participants in the current study had more than 10 years of experience in clinical nursing work. Similar findings were reflected in a study at the same hospital, which found that

the mean experience was 8.61 years and that 45% of the participants had more than 10 years of experience in the nursing profession (Bassam & Al Hosis, 2021).

The above findings contradicted a study of all departments at King Fahad Specialist Hospital, which revealed that more than half (56%) of the study participants had spent 1–5 years working in their current position (Elmannan et al., 2020). In a study carried out in a comparable private hospital in Buraidah City, the number of nurses with significant experience was substantially lower than in the current study. Nurses who had more than 10 years of experience constituted only about 23% of the participating nurses (Shahin, 2019).

In the current study, which utilized a scale from 1 to 5, the highest levels of job stress among nurses were associated with having too much work to do under unreasonable deadlines in the clinical setting, while the lowest levels of job stress were observed when nurses reported receiving appropriate recognition or rewards for good performance, followed by the ability to express their opinions and feelings about the work conditions to their managers and supervisors. Nurses generally reported moderate to high levels of stress in the emergency department at King Fahad Specialist Hospital.

A study conducted in Libya to assess the sources of job stress among doctors and nurses working in the emergency departments of public hospitals revealed that the overall level of stress among health workers is quite high. The study indicates that the most common causes of job stress for Libyan health workers include insufficient technical facilities at hospitals to meet patient needs, violence from patients and their relatives, and a lack of opportunity for training and education (Eltarhuni, 2016).

Another study, carried out by AlMutairi and Mahalli (2020) in Saudi Arabia to study burnout and coping methods among emergency medical services professionals, found that these workers experienced high levels of emotional exhaustion and stress, heightened depersonalization, and low levels of personal achievement.

A study of 202 emergency nurses from Jordan aimed to assess secondary traumatic stress and its prevalence, predictors, and consequences. The study found that almost half of the sample reported high to severe levels of secondary stress. The analyses indicated that nurses who demonstrated lower levels of empathy and a heightened coping capacity tended to develop higher levels of secondary traumatic stress in the emergency department (Ratrout & Hamdan-Mansour, 2020).

In a study carried out in Saudi Arabia to explore job stress among the nursing staff of government hospitals and primary healthcare centers, Alenezi et al. (2018) found

that the workload is perceived as the most common source of job stress, while inadequate preparation is regarded as the least common source. Other major sources of job stress included conflicts with physicians and nurses in primary centers and a lack of support and uncertainty concerning the treatment in hospitals (Alenezi et al., 2018).

Another study targeted nursing students at Najran University in Saudi Arabia to explore the level of stress among nursing students. In addition to determining the sources of stress and its consequences, the study found that nursing students generally experience a high level of stress in their academic life and their clinical practice. The most common type of stressor perceived by students was stress that resulted from a lack of professional knowledge and skills, followed by stress from assignments and workload, while the least-perceived stressor was stress from peers and daily life. The study concluded that the nursing students faced different types of stressors that might inhibit a positive learning experience (Aedh et al., 2015).

A cross-sectional study of the perceived stress and coping strategies among ICU nurses in government tertiary hospitals in Saudi Arabia found that most of the respondents reported a moderate level of stress in the past month. Mean stress scores for nurses working in the cardiac ICU indicated significantly higher levels of stress compared to the surgical ICU. A belief in religion was the most common coping behavior, while the use of substances was the least common (Alharbi & Alshehry, 2019). Furthermore, insufficient technical facilities, the absence of appreciation, long working hours, and short breaks help to explain the variance in the levels of job stress among hospital staff in Saudi Arabia (Al-Omar, 2003).

Another study investigated the association between stress, shift work, and eating behavior among 395 non-Saudi female nurses from two major hospitals in Riyadh. The study concluded that for all eating styles, stress and shift duty influenced the amount of food the nurses consumed, but the results were more significant for those with a restrained eating style. Among nurses with this eating style, a significantly higher percentage reported eating more fast food and snacks and engaging in binging, while fruits and vegetables were the least likely foods for the nurses to eat while under stress. Highly stressed nurses were more likely to present with abnormal restrained eating and emotional stress compared to lower stress level nurses (Almajwal, 2016).

Saquib et al. (2019) assessed the association of job dissatisfaction with depression, anxiety, and stress among expatriate nurses in Saudi Arabia and found that the level of staff dissatisfaction with the workload was significantly associated with both anxiety and stress, but teamwork was not. There was a significant dose-response relationship between the number of

domains of dissatisfaction and nurses' experiences of depression, anxiety, and stress.

A wide-range Saudi study was carried out at 17 primary healthcare centers andat the Medical Tower Complex in Dammam city to identify the predictors of job stress among 637 nurses working in primary and secondary healthcare services in Dammam, Eastern Saudi Arabia. The study indicated a moderate level of stress among nurses; the overall prevalence of job stress among the studied nurses was 45.5%, with 43.1% in primary healthcare centers and 46.2% in secondary healthcare services (Al-Makhaita et al., 2014).

In the current study, no significant difference was detected in the level of job stress for emergency nurses based on their age, nationality, gender, marital status, job title, or level of education. However, there was a significant difference in the level of job stress among the participants based on their years of experience; nurses who had less than 1 year of experience had the lowest level of job stress (by a significant margin) compared to nurses in categories with more experience.

These findings can be rationalized due to the fact that the tasks and responsibilities of nursing staff generally increase as individuals gain experience; additionally, hospitals place fewer responsibilities on inexperienced nursing staff and their dependence on less experienced nurses is minimal compared with the senior and expert nursing staff, resulting in heightened levels of job stress among nurses with more experience in the clinical field.

Some studies carried out in the Kingdom of Saudi Arabia indicate some related findings. Alenezi et al. (2018) revealed that a nurse's age, marital status, nationality, and job position are the most significant factors that contribute to greater stress at government hospitals and primary healthcare centers in Saudi Arabia.

In another study by Al-Omar (2003) to assess the sources of job stress among hospital staff in Saudi Arabia, the Pearson correlation test indicated that both age and experience had a significant negative relationship with job stress levels. The results also demonstrated that Saudi participants experienced a significantly higher level of job stress than non-Saudis.

Furthermore, in a study involving 395 non-Saudi female nurses working in Riyadh, the study concluded that the working system of nighttime shift duty was positively associated with higher stress levels among nurses in two tertiary hospitals. These results indicate that working on a night-duty system leads to higher stress levels for the nursing staff compared with the day-duty system (Almajwal, 2016).

Finally, Al-Makhaita et al. (2014) study of 637 nurses working in Dammam city identified young age as the only predicting factor for

job stress in the primary healthcare sector. However, the type of working shift, working in the surgical department, being female, being Saudi, and being married were found to be statistically significant predictors of job stress in the secondary healthcare sector (Al-Makhaita et al., 2014).

Conclusions

The results of the current study generally indicated a moderate level of job stress among the nurses of the emergency department at King Fahd Specialist Hospital in Buraidah City.

The findings from the 80 nurses who participated in the study indicate that the highest job stress levels were associated with having too much work to do under unreasonable deadlines in the clinical setting, while the lowest job stress levels were associated with receiving appropriate recognition or rewards for good performance, followed by having the ability to express opinions and feelings about the work conditions to their managers and supervisors.

There was a significant difference in the level of job stress among the participating nurses based on their length of experience; however, no significant difference was detected in the level of job stress based on age, nationality, gender, marital status, position, or educational level.

Recommendations

This research can provide a guideline for implementing more robust studies that focus on identifying the predictors and factors of stress among emergency nurses in Saudi hospitals. Utilizing appropriate strategies in healthcare organizations to investigate stress management is highly recommended. Moreover, hospitals should develop interventional programs to identify and relieve the sources and consequences of stress on emergency nurses, which should include additional training in time and stress management, enhanced social and psychological support, and improved work conditions for nurses in the emergency department.

Limitations

The recruitment of a small sample using a non-random technique (convenience sampling) posed one of the most significant challenges and limitations for the study. Additionally, the use of a cross-sectional study design renders it less possible to generalize the results.

It is recommended to conduct further study of job stress among emergency nurses utilizing a more in-depth longitudinal study, taking a larger sample size by random sampling technique, with the inclusion of more hospitals from the kingdom of Saudi Arabia.

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References

1. Adeb-Saeedi, J. (2002). Stress amongst emergency nurses. Australian Emergency Nursing Journal, 5(2), 19-24. https://doi.org/10.1016/S1328-2743(02)80015-3
2. Aedh, A. I., Elfaki, N. K., & Mohamed, I. A. (2015). Factors associated with stress among nursing students (Najran University-Saudi Arabia). IOSR Journal of Nursing and Health Science (IOSR-JNHS), 4(6), 33-38. https://doi.org/10.9790/1959-04663338
3. Al-Makhaita, H. M., Sabra, A. A., & Hafez, A. S. (2014). Predictors of work-related stress among nurses working in primary and secondary health care levels in Dammam, Eastern Saudi Arabia. Journal of family & community medicine, 21(2), 79–84. https://pubmed.ncbi.nlm.nih.gov/24987275/
4. Al-Omar, B. A. (2003). Sources of work-stress among hospital-staff at the Saudi MOH. Economics and Administration, 17(1), 3-16. https://www.kau.edu.sa/Files/320/Researches/51686_21821.pdf
5. Al Wutayd, O., Siddiqui, A., Al-Jasser, F., Alkathlan, M., Almasaud, W., Alsalamah, R., Alotaibi, O., Alkhalaf, K., Alotaibi, M., & Alharbi, G. (2018). Influenza Vaccination Hesitancy among Health Care Workers at the Tertiary Care Hospital, Buraydah, Qassim, Saudi Arabia. Aljouf Uni Med J, 5(3), 33-39. https://www.ju.edu.sa/fileadmin/Vice_Rector_for_Gradute_Student_and_Scientific_Research/4-IVH-FinalProof.pdf
6. Alenezi, A. M., Aboshaiqah, A., & Baker, O. (2018). Work-related stress among nursing staff working in government hospitals and primary health care centres. International journal of nursing practice, 24(5), e12676. https://doi.org/10.1111/ijn.12676
7. Alharbi, H., & Alshehry, A. (2019). Perceived stress and coping strategies among ICU nurses in government tertiary hospitals in Saudi Arabia: a cross-sectional study. Annals of Saudi medicine, 39(1), 48-55. https://doi.org/10.5144/0256-4947.2019.48
8. Almajwal, A. M. (2016). Stress, shift duty, and eating behavior among nurses in Central Saudi Arabia. Saudi medical journal, 37(2), 191-198.

https://doi.org/10.15537/smj.2016.2.13060
9. AlMutairi, M. N., & Mahalli, A. A. E. (2020). Burnout and coping methods among emergency medical services professionals. Journal of multidisciplinary healthcare, 13, 271–279. https://doi.org/10.2147/JMDH.S244303
10. Alrasheedi, M. A., Alrashaidi, F. M., & Shahin, M. A. H. (2022). Leadership styles and job satisfaction among nurses of medical-surgical departments in the Qassim region hospitals in Saudi Arabia. Medical Science, 26(123), ms199e2281. https://doi.org/10.54905/disssi/v26i123/ms199e2281
11. American Institute of Stress. (2020). Workplace Stress. Are you experiencing workplace stress? https://www.stress.org/workplace-stress
12. Bassam, S. E. A., & Al Hosis, K. F. (2021). Nurses' Knowledge, Trends, and Infection Control Practices toward COVID-19. International Journal of Innovation, Creativity and Change, 15(5), 235-246. https://www.ijicc.net/images/Vol_15/Iss_5/15527_Arabia_2021_E1_R1.pdf
13. Dos Santos, L. M. (2020). Stress, burnout, and low self-efficacy of nursing professionals: A qualitative inquiry. Healthcare, 8(4), 424. https://doi.org/10.3390/healthcare8040424
14. El Shikieri, A. B., & Musa, H. A. (2012). Factors associated with occupational stress and their effects on organizational performance in a Sudanese University. Creative Education, 3(1), 134-144. https://doi.org/10.4236/ce.2012.31022
15. Elmannan, A. A. A., AlHindi, H. A., AlBaltan, R. I., AlSaif, M. S., AlMazyad, N. S., AlZurayer, R. K., & AlRumayh, S. S. (2020). Non-Specific Low Back Pain among Nurses in Qassim, Saudi Arabia: A Cross-Sectional Study. Cureus, 13(11), e19594. https://doi.org/10.7759/cureus.19594
16. Eltarhuni, A. (2016). Job stress sources among doctors and nurses working in emergency departments in public hospitals. IOSR Journal of Nursing and Health Science, 5(6), 84-88. https://doi.org/10.9790/1959-0506068488
17. Healy, S., & Tyrrell, M. (2011). Stress in emergency departments: experiences of nurses and doctors. Emergency nurse, 19(4), 31-37. https://doi.org/10.7748/en2011.07.19.4.31.c8611
18. Jennings, B. M. (2008). Work stress and burnout among nurses: Role of the work environment and working conditions. In Patient safety and quality: An evidence-based handbook for nurses. Agency for Healthcare Research and Quality. https://www.ncbi.nlm.nih.gov/books/NBK2668/
19. Kivimäki, M., & Kawachi, I. (2015). Work stress as a risk factor for cardiovascular disease. Current cardiology reports, 17(9), 74. https://doi.org/10.1007/s11886-015-0630-8
20. McGrath, A., Reid, N., & Boore, J. (2003). Occupational stress in

nursing. International journal of nursing studies, 40(5), 555-565. https://doi.org/10.1016/S0020-7489(03)00058-0

21. McVicar, A. (2003). Workplace stress in nursing: a literature review. Journal of advanced nursing, 44(6), 633-642. https://doi.org/10.1046/j.0309-2402.2003.02853.x
22. Ratrout, H. F., & Hamdan-Mansour, A. M. (2020). Secondary traumatic stress among emergency nurses: Prevalence, predictors, and consequences. International journal of nursing practice, 26(1), e12767. https://doi.org/10.1111/ijn.12767
23. Saquib, N., Zaghloul, M. S., Saquib, J., Alhomaidan, H. T., Al-Mohaimeed, A., & Al-Mazrou, A. (2019). Association of cumulative job dissatisfaction with depression, anxiety and stress among expatriate nurses in Saudi Arabia. Journal of nursing management, 27(4), 740-748. https://doi.org/10.1111/jonm.12762
24. Schneiderman, N., Ironson, G., & Siegel, S. D. (2005). Stress and health: psychological, behavioral, and biological determinants. Annu Rev Clin Psychol, 1, 607-628. https://doi.org/10.1146/annurev.clinpsy.1.102803.144141
25. Shahin, M. A. H. (2019). Critical Care Nurses' Perceptions about the Continuing Nursing Education at Saudi Hospitals: Educational Needs and Universities' Role. Merit Research Journal of Medicine and Medical Sciences, 7(4), 155-165. https://doi.org/10.5281/zenodo.2649307
26. Shahin, M. A. H., Alshammari, R. K., & Alabed, H. H. (2020). Quality of Care and Patients' Safety Awareness and Compliance among Critical Care Nurses at Qassim National Hospital: Adopting IPSGs. IOSR Journal of Nursing and Health Science, 9(3), 1-11. https://doi.org/10.9790/1959-0903080111
27. Singh, G. P. (2013). Job stress among emergency nursing staff: A preliminary study. Indian journal of psychiatry, 55(4), 407-408. https://doi.org/10.4103/0019-5545.120574
28. Sumeriya, N. K., Saini, H. K., & Saini, H. (2019). A Study to Assess Effects of Selected Interventions on Student Nurse Stress in Clinical Learning. Journal of Advanced Medical and Dental Sciences Research, 7(2), 136-138. https://doi.org/10.21276/jamdsr
29. Tavakoli, N., Shaker, S. H., Soltani, S., Abbasi, M., Amini, M., Tahmasebi, A., & Kasnavieh, S. M. H. (2018). Job burnout, stress, and satisfaction among emergency nursing staff after health system transformation plan in Iran. Emergency, 6(1), e41. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6289161/