

Job burnout among critical care nurses in the eastern province of Saudi Arabia



Original article

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Abstract: **Objectives:** Nurses working in critical care units may encounter substantial work-related strain, and elevated levels of stress can lead to burnout, ultimately impacting both the quality of nursing care and their overall working experience. This study aimed to assess job burnout and determine the factors that contribute to it among critical care nurses in the Eastern Province of Saudi Arabia.

Methods: This study employed a descriptive, exploratory, cross-sectional research design. A total of 220 nurses employed in the critical care units of 5 private hospitals in the eastern region were selected for participation in this study using a convenience sample method. An electronic survey was distributed to critical care nurses in the Eastern Province who satisfied the specified inclusion criteria. The job burnout questionnaire utilized in this study was derived from previously conducted research, which has been established as a reliable and valid survey instrument. The process of data analysis was conducted utilizing the SPSS program. The scientific research conducted on human subjects adhered rigorously to all ethical considerations.

Results: The highest percentage of nurses at the critical care units reported experiencing moderate levels of job burnout. Nurses exhibiting greater levels of professional experience demonstrated a statistically significant reduction in overall burnout scores when compared to their less experienced counterparts. Furthermore, within the realm of sociodemographic factors, it was found that the only significant independent predictor for job burnout was the level of experience among critical care nurses.

Conclusions: The prevalence of burnout among nurses in critical care settings was found to be significant, with most participants reporting moderate levels of burnout which can yield significant ramifications for nurses and healthcare professionals. Consequently, healthcare organizations must accord primacy to the welfare of their staff and adopt proactive strategies to mitigate job burnout.

Keywords: *critical care • eastern province • job burnout • nurses • predictors • Saudi Arabia*

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1. Introduction

The critical care unit is a dynamic and intricate professional environment. The provision of treatment for critically ill patients in this particular context is characterized by a multidisciplinary approach, wherein the expertise, abilities, and practical know-how of several specialized healthcare practitioners, such as nurses, respiratory

therapists, paramedics, medical professionals, and physicians, are integrated.¹

Admission to the critical care units is characterized by an unplanned and emergent nature since patients requiring critical care treatment typically experience unforeseen and accidental medical emergencies. In

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such instances, the highly specialized healthcare professionals within the critical care units are tasked with promptly addressing intricate clinical scenarios that possess a significant degree of ambiguity and uncertainty, often leading to critical outcomes. The team of specialists immersed themselves in a complicated setting characterized by high stress and deep emotions as they undertook a medical emergency alongside the patient and his family. This notion is further substantiated by the progressively intricate professional milieu, whereby the demand for proficiencies is developing in the realm of advanced life-sustaining therapies.

The phenomenon of job burnout has been extensively examined in healthcare literature as a psychological construct. The concept of burnout lacks a universally accepted definition; however, scholars commonly characterize burnout as emotional burnout syndrome, encompassing a decline in personal well-being and diminished professional efficacy experienced by individuals engaged in interpersonal work.^{2,3}

Burnout is a concept employed to characterize the state of enduring fatigue and persistent disinterest experienced by individuals in the workforce over an extended period. Burnout encompasses a broader scope than mere stress. The effects associated with burnout have an impact on both healthcare providers and the individuals receiving care. According to Del Grosso and Boyd,⁴ there is a correlation between heightened levels of burnout and several undesirable outcomes such as increased absenteeism, illness, emotional disturbances, diminished job performance, and unfavorable attitudes toward healthcare professionals as a whole.

Nurses working in critical care units may encounter substantial work-related strain, and elevated levels of stress can lead to burnout, ultimately impacting both the quality of nursing care and the overall working conditions for nurses. Various aspects have been identified as potential contributors to nurse burnout, including self-control or autonomy, occupational stress, and nurse-physician cooperation. These factors have been found to be associated with mental breakdowns and an increase in the number of nursing staff in critical care units.²

Nurses encounter ethical dilemmas as a result of the specific circumstances and responsibilities inherent in their professional domain. Numerous reasons can contribute to the ethical anguish and job burnout experienced by nurses in their everyday professional responsibilities. Irrespective of the prevailing nursing shortage, the primary factors contributing to the development of mental health issues among critical care nurses encompass the provision of intense client care, exposure to mortality risks, inadequate and insufficient employee support, imbalanced power dynamics

among colleagues, and a dearth of organizational backing.⁵ In his study, Corley⁶ examined the ethical factors that contribute to distress and burnout among nurses. These factors included the pain and suffering caused by invasive diagnostic and therapeutic procedures, the prioritization of organizational needs over patient care, extended periods of downtime without the consent of patients and their families, and financial challenges.

The field of critical care is a specialized area of medical services that focuses on the management and treatment of patients with life-threatening conditions. Nurses encounter ethical predicaments, and the factors contributing to moral distress and burnout are multifaceted. These factors encompass the refusal or evasion of providing care to critically ill patients due to misdiagnosis or ineffective treatment, reliance on sophisticated technology, exorbitant hospitalization expenses, the potential for sudden demise, incongruity between organizational loyalty and dedication to patients, and conflicts between physicians and nurses.⁷

The impact of burnout on nurses' personal and professional practice, acknowledging the significance of mental anguish, encompasses several negative outcomes such as diminished overall well-being, compromised quality of care delivered, increased rates of absenteeism, and heightened financial burden. The inability of nurses to effectively manage emotional stress in the workplace, coupled with excessive utilization of energy and resources, contributes to experiences of perceived failure and burnout, emotional instability, depressive symptoms, and a diminished sense of professional fulfillment.

Growing demand for nurses as a result of shortages in the workforce, restricted resources, and a growing client base has the potential to contribute to burnout and attrition among healthcare providers. Given the potential impact of mental strain and weariness on nurses and the quality of nursing care, it is imperative to incorporate these issues into future study endeavors. Professional burnout can lead to a decline in the quality of treatment received by healthcare recipients and hinder effective communication with healthcare professionals.

There is a paucity of research on job burnout among nurses in Saudi Arabia, especially in the critical care units in the eastern province; therefore, this study aimed to identify the level of job burnout among critical care nurses and the burnout predictors in the eastern province of Saudi Arabia. Moreover, this research may help to develop strategies to reduce job burnout and improve the work environment in the critical care setting. The identification of factors that significantly contribute to the heightened social environment inside the workplace and increased workload holds considerable importance.

Enhancing the caliber of workplace interactions, mitigating conflicts with patients, fostering improved relationships with doctors and nurses, and establishing a correlation between labor shortages and burnout are all crucial factors in the realm of nursing staff retention and burnout reduction in critical care settings.

1.1. Research questions

What is the extent of job burnout among critical care nurses in the Eastern Province of Saudi Arabia?

What factors predict burnout among critical care nurses in the Eastern Province of Saudi Arabia?

2. Methods

2.1. Design

A descriptive, exploratory, cross-sectional design was employed to evaluate nurses' burnout. The cross-sectional research design proves suitable for assessing job burnout, offering a snapshot of the present situation among critical care nurses. Given the intricate and multifaceted nature of job burnout, the exploratory design facilitates the investigation of diverse factors contributing to burnout within this healthcare cohort. Furthermore, the descriptive design permits the researcher to furnish a comprehensive account of the current burnout status within the specific population.

2.2. Setting and sample

The setting of this study was the critical care units of 5 private hospitals in the eastern province of Saudi Arabia. Convenience sampling was utilized to include a sample from the critical care settings. Convenience sampling is practical, swift, and uncomplicated, facilitating access to participants who are readily available or easily reachable, thereby saving time, effort, money, and resources. Furthermore, this approach allows researchers to access a diverse array of settings and participants.

The sample was selected regardless of gender or nationality. The sample size required to conduct the study was estimated to be at least 218 nurses from the critical care units to achieve a 95% confidence level. The sample size calculation in this study relied on the utilization of Open Epi, a freely available software tool. This software enables the determination of the required sample size, taking into consideration the target population size, which in this case consisted of around 500 critical care nurses from 5 distinct institutions. The responses were received from 220 nurses and the sample was enough to start data analysis.

2.2.1. Inclusion criteria

Nurses who work in the critical care unit in the eastern province of Saudi Arabia.

Nurses who had >6 months of experience.

Nurses who expressed willingness to participate in the study.

2.2.2. Exclusion criteria

Nurses who declined to participate in the research.

Junior nurses with fewer than 6 months of professional experience.

2.3. Instrument

In this study, the researchers utilized a self-administered structured questionnaire as a means of data collection from the selected population. The survey consisted of two sections: the first segment gathered information about the sociodemographic characteristics of the participants, while the second component aimed to evaluate occupational burnout by utilizing a series of items.

The initial section consisted of a sociodemographic data sheet encompassing variables such as gender, marital status, educational attainment, age, years of experience, and occupational role. The second section comprised a set of 15 questions presented in the Likert scale format, ranging from 1 to 5. This Likert scale was derived from the Maslach burnout assessment tool, as developed by ⁸ Maslach et al.⁹

The participants' burnout total score was categorized according to the provided cut scores. The categories encompassed in the study are as follows: "Absence of job burnout" (score range: 15–18), "Mild job burnout" (score range: 19–32), "Moderate job burnout" (score range: 33–49), "Severe job burnout" (score range: 50–59), and "Extremely severe job burnout" (score range: 60–75).

The utilization of this particular instrument proved to be appropriate for the present investigation conducted in Saudi Arabia, as it facilitated the evaluation of burnout levels among nurses working in critical care environments. The instrument employed in this study was utilized without any alterations, therefore obviating the necessity to assess the content validity or reliability of the tool, given its extensive testing in prior rigorous research investigations.^{10–15}

In a prior pilot study conducted in the eastern region of Saudi Arabia, a cohort of 16 participants was enlisted to evaluate the reliability and validity of the Maslach job burnout questionnaire. The study sought to establish Cronbach's alpha coefficient for the standardized items, indicative of internal consistency. The findings from

the pilot study disclosed a Cronbach's alpha value of 0.874, signifying a noteworthy level of reliability for the questionnaire.¹⁶

2.4. Ethical consideration

Prior to their participation in the study, each nurse provided informed consent after receiving a comprehensive explanation of the study's objectives and methodology. The nurses who agreed to take part in the study were required to endorse the terms and conditions of their participation. All participants were informed that their involvement in this research was voluntary, ensuring anonymity and confidentiality. Additionally, their data were safeguarded through the assignment of a unique code number for each questionnaire. Furthermore, it is important to note that no invasive procedures were employed in the course of this investigation. The research proposal was formally submitted to the Institutional Review Board (IRB) of a private medical institution located in the eastern region and belongs to the hospitals included in the study. Following the submission, the project underwent a rigorous evaluation process by the IRB, which ultimately granted approval for the study to proceed with collecting data (Ethical Approval No. SRU/IRB/14-04/23).

2.5. Procedure

The nursing personnel who met the specified requirements were provided with an electronic cover letter accompanying the questionnaire, which outlined the study's objectives and sought their consent to partake in the research. The nursing staff provided comprehensive explanations and demonstrations of all the tools required for completion.

The data collection process involved the dissemination of electronic questionnaires to a convenience sample of critical care nurses via several social media platforms, including Emails, WhatsApp, and other technological tools. The data-gathering portion of this study was conducted in May of 2023.

2.6. Data analysis

The data collected was organized into tables, assigned scores, and subjected to analysis. The study employed both descriptive and inferential statistics. The data that was gathered was subjected to analysis using the statistical package for social sciences software (SPSS Version 26, IBM Corporation, Armonk, New York, United States) in order to determine the extent of job burnout experienced by nurses. The study provided sociodemographic characteristics of the participants in the form of frequency tables, presenting both

the frequencies and percentages. Additionally, descriptive statistics such as means and standard deviations (SDs) were used to describe the data. Parametric tests, specifically ANOVA with Scheffe post hoc test, were employed to compare the total burnout scores based on work experience categories. The significance level for determining differences was set at $P \leq 0.05$. Furthermore, the utilization of linear regression was employed to investigate the independent predictors of nurses' job burnout, taking into account their sociodemographic attributes.

3. Results

For the sociodemographic characteristics of the participants, the findings in Table 1 revealed that more

Sociodemographic data	n	%
<i>Gender</i>		
Male	120	54.5
Female	100	45.5
<i>Marital status</i>		
Single	60	27.3
Married	160	72.7
<i>Level of education</i>		
Diploma	49	22.3
Bachelor	129	58.6
Postgraduate Education	42	19.1
<i>Age (years)</i>		
≤25	0	0.0
26–30	60	27.3
31–35	92	41.8
36–40	41	18.6
41–45	18	8.2
≥46	9	4.1
<i>Experience (years)</i>		
0.5–2	17	7.7
2–5	34	15.5
5–10	56	25.5
10–15	67	30.5
15–20	32	14.5
≥20	14	6.4
<i>Work position</i>		
Director of nursing	5	2.3
Head nurse/coordinator	47	21.4
Charge nurse	37	16.8
Nurse specialist	110	50.0
Assistant nurse	21	9.5

Table 1. Sociodemographic characteristics of the participants (N = 220).

than half of the nurses were male (54.5%) and married (72.7%). Most of the nurses held a bachelor's degree (58.6%) and were between 31 years and 35 years of age (41.8%). In terms of work experience, the highest proportion of nurses had >10–15 years of experience (30.5%). The largest proportion of nurses worked as nurse specialists (50%), followed by head nurses/coordinators (21.4%).

Table 2 depicts the burnout items of 220 participant nurses. The table shows the frequency and percentage of responses for each item on a 5-point Likert scale ranging from “not at all” to “very often.” The mean and SD were reported for each item.

The most commonly reported burnout symptoms were feeling run down and drained of physical or

emotional energy, having negative thoughts about the job, feeling misunderstood or unappreciated by coworkers, feeling that there is more work to do than practically possible, and feeling that one does not have time to do many important things.

The least commonly reported burnout symptoms were feeling that one has no one to talk to and feeling that one is achieving less than one should.

The total burnout scale shows that 30% of the nurses reported “not at all,” 25% reported “rarely,” 27% reported “sometimes,” 10% reported “often,” and 7% reported “very often” experiencing burnout. The mean score for the total burnout scale was 36.02, which indicates moderate levels of burnout among the participant nurses. The SD of 13.16 suggests that the responses

Burnout scale	Not at all		Rarely		Sometimes		Often		Very often		Mean	SD
	n	%	n	%	n	%	n	%	n	%		
1. I feel run down and drained of physical or emotional energy.	30	13.6	39	17.7	77	35.0	53	24.1	21	9.5	2.98	1.16
2. I have negative thoughts about my job.	63	28.6	40	18.2	88	40.0	12	5.5	17	7.7	2.45	1.18
3. I am harder and less sympathetic with people than perhaps they deserve.	83	37.7	63	28.6	61	27.7	7	3.2	6	2.7	2.05	1.01
4. I am easily irritated by small problems, or by my coworkers and team.	69	31.4	60	27.3	69	31.4	6	2.7	16	7.3	2.27	1.15
5. I feel misunderstood or unappreciated by my coworkers	87	39.5	62	28.2	50	22.7	8	3.6	13	5.9	2.08	1.14
6. I feel that I have no one to talk to.	99	45.0	53	24.1	53	24.1	6	2.7	9	4.1	1.97	1.08
7. I feel that I am achieving less than I should.	91	41.4	55	25.0	53	24.1	10	4.5	11	5.0	2.07	1.13
8. I feel under an unpleasant level of pressure to succeed.	46	20.9	64	29.1	60	27.3	39	17.7	11	5.0	2.57	1.15
9. I feel that I am not getting what I want out of my job.	55	25.0	50	22.7	53	24.1	24	10.9	38	17.3	2.73	1.40
10. I feel that I am in the wrong organization or the wrong profession.	100	45.5	49	22.3	34	15.5	24	10.9	13	5.9	2.10	1.26
11. I am frustrated with parts of my job.	64	29.1	66	30.0	44	20.0	24	10.9	22	10.0	2.43	1.29
12. I feel that organizational politics or bureaucracy frustrate my ability to do a good job.	58	26.4	34	15.5	72	32.7	42	19.1	14	6.4	2.64	1.24
13. I feel that there is more work to do than I practically have the ability to do.	52	23.6	63	28.6	64	29.1	26	11.8	15	6.8	2.50	1.17
14. I feel that I do not have time to do many of the things that are important to do a good quality job.	46	20.9	59	26.8	67	30.5	28	12.7	20	9.1	2.62	1.21
15. I find that I do not have time to plan as much as I would like to.	45	20.5	71	32.3	56	25.5	29	13.2	19	8.6	2.57	1.20
Total Burnout Scale	988	30	828	25	901	27	338	10	245	7	36.02	13.16

Note: SD, standard deviation.

Table 2. Description of the burnout items of the participant nurses (N = 220).

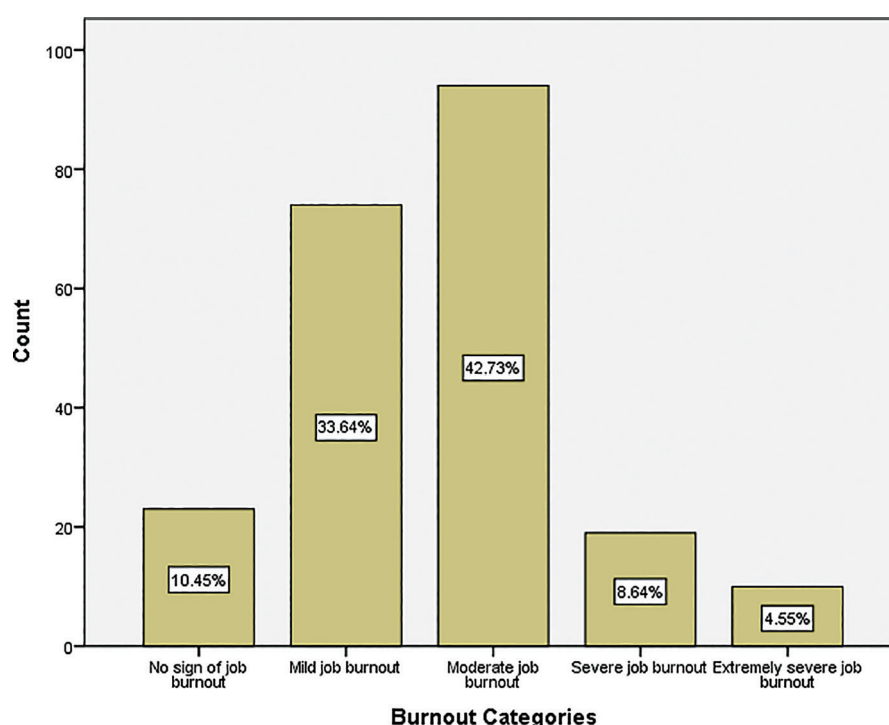


Figure 1. Distribution of the nurses based on the job burnout categories.

Regression model	Unstandardized coefficients		Standardized coefficients	t	Sig.
	B	Std. error	Beta		
(Constant)	48.797	7.049		6.922	0.000
Gender	-2.395	1.823	-0.091	-1.313	0.191
Marital status	0.886	2.366	0.030	0.375	0.708
Level of education	0.683	1.422	0.033	0.480	0.632
Age (years)	0.992	1.224	0.080	0.811	0.418
Experience	-3.172	1.075	-0.315	-2.950	0.004
Work position	-1.257	0.930	-0.096	-1.352	0.178

Note: Dependent variable: Burnout total score.

Table 3. The independent predictors of nurses' job burnout from the sociodemographic characteristics.

were spread out, indicating variability in the degree of burnout experienced by the nurses.

Figure 1 shows the distribution of nurses based on their burnout categories. The table indicates that 10.45% of the nurses reported no sign of job burnout, while the majority of the nurses (89.55%) reported some level of burnout.

The largest proportion of the nurses (42.73%) reported moderate levels of job burnout, while 33.64% reported mild burnout, 8.64% reported severe burnout, and 4.55% reported extremely severe burnout.

These findings suggest that job burnout is a prevalent issue among critical care nurses, with a significant

proportion of the nurses experiencing varying degrees of burnout.

Table 3 displays the results of a regression analysis examining the independent predictors of nurses' job burnout from their sociodemographic characteristics. The results indicate that the constant term had a coefficient of 48.797 and was statistically significant ($P < 0.001$), indicating that there was a significant positive relationship between the predictor variables and job burnout.

Among the predictor variables, only nurses' experience had a statistically significant negative relationship with job burnout ($B = -3.172$, $P = 0.004$). This suggests

Experience (years)	Mean difference (I–J)	Std. error	Sig.	95% confidence interval	
				Lower bound	Upper bound
0.5–2					
2–5	7.26471	3.74789	0.586	–5.3236	19.8530
5–10	3.99685	3.49389	0.934	–7.7383	15.7320
10–15	10.80948	3.42644	0.081	–0.6991	22.3181
15–20	8.13971	3.78673	0.466	–4.5790	20.8584
≥20	17.76471*	4.55363	0.011	2.4701	33.0593
2–5					
0.5–2	–7.26471	3.74789	0.586	–19.853	5.3236
5–10	–3.26786	2.74318	0.922	–12.4815	5.9458
10–15	3.54478	2.65674	0.878	–5.3786	12.4681
15–20	0.87500	3.10759	1	–9.5626	11.3126
≥20	10.50000	4.00666	0.235	–2.9574	23.9574
5–10					
0.5–2	–3.99685	3.49389	0.934	–15.732	7.7383
2–5	3.26786	2.74318	0.922	–5.9458	12.4815
10–15	6.81263	2.28448	0.118	–0.8604	14.4856
15–20	4.14286	2.79601	0.821	–5.2483	13.534
≥20	13.76786*	3.77013	0.023	1.1049	26.4308
10–15					
0.5–2	–10.80948	3.42644	0.081	–22.3181	0.6991
2–5	–3.54478	2.65674	0.878	–12.4681	5.3786
5–10	–6.81263	2.28448	0.118	–14.4856	0.8604
15–20	–2.66978	2.71126	0.965	–11.7762	6.4367
≥20	6.95522	3.70772	0.621	–5.4981	19.4086
15–20					
0.5–2	–8.13971	3.78673	0.466	–20.8584	4.5790
2–5	–0.87500	3.10759	1	–11.3126	9.5626
5–10	–4.14286	2.79601	0.821	–13.5340	5.2483
10–15	2.66978	2.71126	0.965	–6.4367	11.7762
≥20	9.62500	4.04302	0.344	–3.9545	23.2045
≥20					
0.5–2	–17.76471*	4.55363	0.011	–33.0593	–2.4701
2–5	–10.50000	4.00666	0.235	–23.9574	2.9574
5–10	–13.76786*	3.77013	0.023	–26.4308	–1.1049
10–15	–6.95522	3.70772	0.621	–19.4086	5.4981
15–20	–9.62500	4.04302	0.344	–23.2045	3.9545

Note: *The mean difference is significant at the 0.05 level.

Table 4. Discrepancy in the job burnout level based on the nurses' years of experience.

that as nurses gain more experience in their profession, they may be less likely to experience job burnout. The other predictor variables, including gender, marital status, level of education, age, and work position, were not statistically significant predictors of job burnout.

Overall, these findings suggest that experience was a significant predictor of job burnout among nurses,

while other sociodemographic characteristics, including gender, marital status, level of education, age, and work position, did not appear to significantly predict job burnout among nurses.

The values of job burnout among nurses followed the normality as indicated by the Kolmogorov–Smirnov test and Shapiro–Wilk test; therefore, parametric

measures were used to test the discrepancy of burnout values based on the sociodemographic data.

Table 4 represents the discrepancy in the job burnout level based on the nurses' years of experience using ANOVA. The table suggests that there are significant differences in job burnout levels among nurses with different years of experience. Nurses with >20 years of experience had lower levels of job burnout than those with fewer years of experience, and the level of job satisfaction was significantly lower for nurses with >20 years of experience than for those with 6 months to 2 years of experience (mean difference = -17.76471 , $P = 0.011$) and nurses with >5–10 years of experience (mean difference = -13.76786 , $P = 0.023$).

Overall, these findings suggest that nurses with over 20 years of experience are at a lower risk of experiencing job burnout. Moreover, as nurses gain more experience in their profession, they may be less likely to experience job burnout.

4. Discussion

The findings of the study revealed that burnout is a widespread concern among critical care nurses in the eastern region of Saudi Arabia, as a considerable proportion of participants reported experiencing symptoms associated with burnout. The prevailing symptoms frequently reported encompassed a sense of fatigue and depletion in both physical and emotional capacities, harboring pessimistic thoughts regarding one's occupation, experiencing a sense of being misunderstood or undervalued by colleagues, perceiving an overwhelming workload that exceeds practical feasibility, and feeling a lack of time to attend to numerous significant tasks.

The data presented aligns with recent research results from a comprehensive review by Gualano et al.,¹⁷ which have emphasized the significant occurrence of burnout among healthcare personnel, particularly within the framework of the COVID-19 pandemic. Burnout can yield significant ramifications for healthcare practitioners, encompassing heightened susceptibility to medical errors, diminished job satisfaction, and compromised patient care quality. It is imperative for healthcare organizations and institutions to place a high level of importance on the overall welfare of their staff and implement proactive strategies to address the issue of burnout among nurses.¹⁷

The results of this study indicated that burnout is a prevalent concern among nurses working in critical care environments since a significant proportion of participants reported experiencing moderate degrees of burnout. The findings indicated a positive trend, as 10.45% of participants exhibited no indications of job

burnout. However, it is disconcerting that a considerable fraction of nurses reported feeling burnout to varying degrees.

The aforementioned results align with previous studies that have emphasized the elevated occurrence of burnout among the healthcare workforce, specifically among individuals employed in demanding settings like critical care. The phenomenon of burnout can yield significant ramifications for nurses, encompassing diminished levels of job satisfaction, heightened rates of nurse attrition, elevated likelihood of medical errors, and compromised quality of patient care.¹⁸

In a study conducted on 354 healthcare professionals employed in the critical care departments of two prominent tertiary care hospitals in the Makkah region during the Hajj season, the findings indicated a noteworthy prevalence of moderate to severe burnout. Notably, nurses exhibited a significantly higher likelihood of experiencing burnout compared to physicians.¹⁹ In a separate study aimed at gauging the prevalence of burnout among healthcare workers in the Eastern Province of Saudi Arabia, the results disclosed elevated percentages of job burnout among 402 healthcare professionals.¹⁶

However, there exists a body of contrasting data that posits the notion that burnout may not be as pervasive as previously perceived within the nursing and healthcare professions. As an illustration, a comprehensive analysis of existing literature indicated that burnout, although a matter of concern among nurses, was not as widespread as indicated by certain prior investigations. According to Ghahramani et al.,²⁰ a study revealed a significant proportion of nurses, namely slightly less than 25%, reported experiencing elevated levels of emotional exhaustion and depersonalization. These factors are recognized as fundamental elements contributing to the phenomenon of burnout.

A prior study conducted by Guntupalli et al.,²¹ revealed that nurses employed in clinical settings characterized by elevated levels of stress, such as critical care units, exhibit a greater susceptibility to experiencing burnout in comparison to their counterparts working in clinical environments with lower stress levels. According to a recent study conducted in Saudi Arabia, it was found that nurses working in critical care units are experiencing varying degrees of burnout, ranging from moderate to high levels, while their levels of job satisfaction were found to be moderate.²²

Nevertheless, there exists a body of research that presents contradicting findings for this particular subject matter. An illustrative instance can be observed in a recent study published in the Journal of BMC Family Practice, whereby it was discovered that the degrees of burnout exhibited by nurses were comparable across

different hospital settings. According to Monsalve-Reyes et al.,²³ the findings of that study indicated that burnout could potentially be a prevalent issue among nurses in various healthcare settings, rather than being restricted to specific types of contexts. That study emphasized the significance of managing burnout among nurses, specifically those employed in clinical settings characterized by high levels of stress.

The results of the present investigation indicated that nurses who possess over two decades of professional experience exhibited the lowest levels of burnout, whereas individuals with fewer years of experience demonstrated higher levels of burnout. This assertion is substantiated by prior studies that have indicated that nurses with greater tenure may have cultivated adaptive mechanisms and proficient approaches for handling stress, potentially safeguarding themselves against burnout.²⁴

A similar study on critical care healthcare professionals of two prominent tertiary care hospitals in the Makkah region identified several independent predictors of moderate or severe burnout, including younger ages of <40 years, female gender, dissatisfaction with salary, and employment in the cardiac critical care unit.¹⁹

Nevertheless, it is important to acknowledge that there exist contrasting research findings regarding this particular subject matter. As an illustration, a scholarly publication in the *Journal of Advanced Nursing* revealed that there existed comparable levels of burnout among nurses with varying levels of professional expertise. Additionally, the study indicated that factors such as age and years of experience did not possess significant predictive value to burnout. The aforementioned study posited that burnout might potentially be a matter of worry for nurses, irrespective of their degree of experience. Additionally, it was claimed that elements such as workload, job demands, and workplace culture might exert a more significant influence on the development of burnout.²⁵

Another investigation conducted in Saudi Arabia sought to identify factors associated with burnout levels among healthcare workers in the Eastern Province. The study found that the only significant statistical differences in burnout factors were associated with their gender, educational level, break time, and work-life balance.¹⁶

The results of this study suggest that a reduction in the number of years of professional experience could significantly influence and increase the levels of burnout observed among nurses. When formulating interventions and support programs for nurses, particularly those in the early stages of their careers, healthcare institutions and management should consider this aspect.

In brief, job burnout can yield significant ramifications for healthcare practitioners, encompassing heightened susceptibility to medical errors, diminished job satisfaction, and compromised quality of patient care. Hence, healthcare organizations must give utmost importance to the welfare of their employees and adopt proactive strategies to address burnout.

5. Conclusions

Job burnout is a prevalent concern observed among critical care nurses in the eastern province since a substantial proportion of participants have reported experiencing symptoms indicative of job burnout. This study highlights the need to address the issue of burnout among nurses, particularly those employed in high-stress clinical environments such as critical care units. The implementation of comprehensive training initiatives, mentorship programs, and the provision of support from seasoned colleagues have the potential to mitigate job burnout among critical care nurses who possess limited professional experience or are in the early stages of their careers.

Healthcare institutions should adopt proactive measures to effectively address burnout among their workforce, with a particular focus on critical care units, by offering tools and assistance to assist nurses in managing and preventing burnout. Healthcare organizations can enhance worker satisfaction, and patient care, and foster a healthier and more supportive workplace culture by proactively addressing burnout among their nursing staff.

5.1. Recommendations

It is advisable for healthcare institutions to give precedence to the welfare of their critical care nurses and to proactively implement measures to mitigate burnout within this group. This may encompass the provision of resources and support for nurses, the implementation of interventions aimed at reducing workload and enhancing work-life balance, the provision of time off and vacation with flexible work arrangements, the establishment of explicit job expectations, the provision of psychological counseling as required, the offering of training and development opportunities, and the promotion of a culture characterized by openness and support for individuals experiencing job burnout. Additionally, healthcare institutions have to prioritize detecting and managing the issue of job burnout when developing interventions and support initiatives for critical care nurses, specifically targeting those who are in the early stages of their careers.

It is also recommended to expand the sample size of nurses in Saudi Arabia by employing a random sampling technique and adopting a longitudinal research design. This approach will facilitate the attainment of robust and definitive findings.

5.2. Suggestions and ideas for future research

It is suggested to conduct future research to investigate specific organizational strategies that can effectively address burnout in critical care units, such as restructuring workloads, implementing flexible scheduling, and creating a supportive workplace culture. Additionally, extending the research to encompass cross-cultural perspectives is recommended, involving a comparative analysis of burnout experiences and coping mechanisms among critical care nurses in diverse regions or countries.

5.3. Limitations

While this study makes substantial contributions to the comprehension of job burnout among nurses in critical care units in the eastern region of Saudi Arabia, it is imperative to acknowledge certain limitations within this research. The utilization of self-reported data introduces the possibility of biases or inaccuracies. Additionally, the study's exclusive focus on the Eastern Province restricts the generalizability of findings to other regions within

the Kingdom of Saudi Arabia. The reliance on a cross-sectional research design and a convenience sampling method for nurse selection adds another layer of susceptibility to significant limitations in the current research.

Author contribution

MAS is the corresponding author of the study, who implemented, analyzed, conceived, and designed the study.

Availability of data and materials

The datasets of this study are available from the corresponding author upon reasonable request.

Ethical approval

This research was approved by the IRB committee at Mohammed Al-Mana College for Medical Sciences (Ethical Approval No. SRU/IRB/14-04/23) on April 16th, 2023, and the electronic survey required the approval of the participants on the terms and conditions of being a part of the study as a consent form before starting to fill up the questionnaire.

Conflicts of interest

All contributing authors declare no conflicts of interest.

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