

Prevalence and Contributing Factors of Burnout among Nursing Staff in Saudi Arabia: A Cross-Sectional Study

Hassan Alaa, MSN^{1*}, Banda Phares, MSN², Hammad Rawan, MSN³, Al Tuwal Sukaina, MSN⁴

¹Mental Health Nurse Specialist, Nursing Department, Ministry of the National Guard - Health Affairs, Al Ahsa, Saudi Arabia & King Abdullah International Medical Research Center, Al Ahsa, Saudi Arabia

²Associate Executive Director Nursing, Nursing Department, Ministry of the National Guard - Health Affairs, Al Ahsa, Saudi Arabia & King Abdullah International Medical Research Center, Al Ahsa, Saudi Arabia

³Nurse Manager, Nursing Department, Ministry of the National Guard - Health Affairs, Al Ahsa, Saudi Arabia & King Abdullah International Medical Research Center, Al Ahsa, Saudi Arabia

⁴Nurse Manger, Nursing Department, Ministry of the National Guard - Health Affairs, Al Ahsa, Saudi Arabia & King Abdullah International Medical Research Center, Al Ahsa, Saudi Arabia

DOI: <https://doi.org/10.36348/sjnhc.2026.v09i09.009>

| Received: 27.07.2026 | Accepted: 21.09.2026 | Published: 30.09.2026

*Corresponding author: Hassan Alaa, MSN

Mental Health Nurse Specialist, Nursing Department, Ministry of the National Guard - Health Affairs, Al Ahsa, Saudi Arabia & King Abdullah International Medical Research Center, Al Ahsa, Saudi Arabia

Abstract

Background: Occupational burnout is a psychological response to chronic workplace stress and is particularly prevalent among nurses due to the high demands of the healthcare environment. In Saudi Arabia, nursing burnout is a growing concern, warranting targeted investigation. **Aim/objective:** To assess the prevalence of occupational burnout and examine its association with demographic and work-related factors among nurses at King Abdulaziz Hospital, Eastern Province, Saudi Arabia. **Methods:** The study included 295 purposively selected nurses. Data were collected using two instruments: a self-administered questionnaire covering demographic and work-related characteristics, and the Oldenburg Burnout Inventory (OLBI). Statistical analysis involved chi-square tests and binary logistic regression to identify predictors of burnout. **Results:** High overall burnout was reported by 8.1% of participants, with 26.8% experiencing high exhaustion and 23.0% high disengagement. Inadequate staffing was significantly associated with burnout (OR = 6.91, p = .001). Working in inpatient units showed a marginal association (p = .054). No other demographic or work-related factors were significantly associated. **Conclusions:** While the overall prevalence of high burnout was relatively low, a considerable proportion of nurses reported symptoms of exhaustion and disengagement. Perceived inadequate staffing emerged as the strongest predictor of burnout. Interventions such as optimizing nurse staffing levels and integrating stress management into nursing education are essential to mitigate burnout risk.

Keywords: Burnout, Nursing staff, Saudi Arabia, Oldenburg Burnout Inventory.

Copyright © 2026 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

BACKGROUND

Burnout, according to the International Classification of Diseases (ICD-11), is a psychological syndrome that arises from prolonged, unmanaged occupational stress. It is characterized by three core components: emotional exhaustion, depersonalization, and diminished feelings of personal achievement [1]. Individuals experiencing burnout typically exhibit symptoms such as mental and physical exhaustion, detachment from their work, cynicism, and decreased efficacy in their roles [2]. Among healthcare workers, particularly nursing staff, burnout has become an increasing concern due to the high demands and stressful

nature of their profession. Burnout in healthcare settings can result in numerous negative outcomes, including compromised quality of patient care, higher turnover rates, increased absenteeism, and deteriorating mental health among healthcare workers [3].

Globally, the prevalence of burnout among nurses is estimated at 11.23%, though significant variability exists across different geographic regions and specialties. The highest prevalence of burnout has been reported in sub-Saharan Africa, whereas the lowest prevalence is observed in the Europe and Central Asia region [4]. Within the Middle East, A literature review of

Citation: Alaa, H., Phares, B., Rawan, H., & Sukaina, A. T. (2026). Prevalence and Contributing Factors of Burnout among Nursing Staff in Saudi Arabia: A Cross-Sectional Study. *Saudi J Nurs Health Care*, 9(9), 287-292.

<https://doi.org/10.36348/sjnhc.2026.v09i09.009>

19 studies conducted across several Arab countries revealed a broad range of prevalence estimates for burnout across all subscales of the Maslach Burnout Inventory (MBI) as the following distributions: emotional exhaustion was reported by 20.0% to 81.0% of participants, depersonalization ranged between 9.2% to 80.0%, and the last subscale regarding low personal accomplishment was experienced by 13.3% to 85.8% of participants. Several factors, including gender, shift patterns, length of service, nationality and working hours were found strongly linked to burnout [5].

In Saudi Arabia, burnout levels among nurses, particularly in primary care centers, are notably high, with at least one dimension of burnout being observed in a substantial proportion of the nursing workforce [6]. Work-related stressors contributing to burnout include heavy workloads and staff shortages [7]. A recent study conducted among 250 nurses to measure prevalence of burnout at a large hospital located in Jeddah found that 44.8% of nursing staff were experiencing burnout. Specifically, 26.4% of participants were classified as being at high risk for burnout, with elevated scores on emotional exhaustion and depersonalization, along with low scores on personal accomplishment. The study also identified significant associations between burnout and demographic variables such as nationality and working unit, while no significant correlations were found with age, gender, or marital status [8].

A study was conducted at Yanbu General Hospital in Saudi Arabia, which involved 249 nurses, found that 67.5% of participants exhibited high levels of burnout. The emotional exhaustion (EE) scores were notably higher among Saudi nurses, nurses working more than 40 hours per week, as well as nurses working more than eight shifts per week. Additionally, depersonalization (DP) scores were significantly higher in Saudi nurses and those working extended hours. Personal accomplishment (PA) scores were found to be higher among individuals with higher monthly incomes [9]. Furthermore, a study conducted among 402 healthcare professionals in the Eastern Province of Saudi Arabia reported high levels of burnout across all three subscales: exhaustion (67%), professional efficacy (15%), and cynicism (60%). Significant differences in burnout were observed with regard to educational level, work-life balance, break time and gender, though these variables did not correlate with all subscales of burnout. The study, conducted during the COVID-19 pandemic, is recommended for replication to determine whether the pandemic's impact may have influenced the results [10].

While there is a growing body of research on burnout among nurses in Saudi Arabia, particularly in the Western and Central regions, limited studies have focused on the widespread occurrence and contributing factors of burnout among nursing staff in the Eastern Region. Given this gap in the literature, the proposed study seeks to explore burnout among nursing staff at

King Abdulaziz Hospital in the Eastern Region of Saudi Arabia.

Aim of the Study: The purpose of this study is to identify the prevalence and contributing factors of occupational burnout among nursing staff.

Specific Objectives

1. Assess the prevalence of occupational burnout among nursing staff.
2. Identify the key contributing factors for burnout among nursing staff.
3. Analyze the correlation between demographic characteristics and burnout.

METHODS

Study Design and Setting

A cross-sectional study was conducted at King Abdulaziz Hospital, Ministry of National Guard - Health Affairs, Al-Ahsa. The King Abdulaziz Hospital provides a range of inpatient and outpatient services in the Eastern Province of Saudi Arabia.

Participants

A purposive sample of 295 nurses (response rate of 74%) was included. Inclusion criteria included current employment of at least six months. Exclusion criteria were extended leave or incomplete survey data.

Data Collection

Instruments

The data were collected using:

1. A structured demographic and work-related questionnaire.
2. The Oldenburg Burnout Inventory (OLBI), this survey includes 16 items, categorized into two subscales: Exhaustion (8 items) and Disengagement (8 items). The exhaustion and disengagement subscales of the burnout inventory were combined after reversing the negatively worded questions to calculate the OLBI score [11, 12]. The OLBI-S demonstrates excellent test-retest reliability (ICC = 0.916–0.955) and satisfactory internal consistency for both the exhaustion subscale (Cronbach's alpha = 0.833–0.87) and the disengagement subscale (Cronbach's alpha = 0.784–0.810) (14).

Subscale cut-off values were used to determine burnout prevalence by categorizing the participants as follows (13): high burned-out (exhaustion ≥ 2.25 , disengagement ≥ 2.1), low burned-out (disengagement < 2.1 , exhaustion < 2.25).

Procedure

Ethical approval was obtained from King Abdullah International Medical Research Center (KAMRC) in Ministry of National Guard - Health Affairs, Alhasa. Informed consent was obtained from all

participants through a Microsoft Form distributed via their official hospital email.

Data collection was conducted using Microsoft Forms and distributed via hospital email over the entire month of March 2025. Informed consent was obtained, and confidentiality was ensured by excluding personal identifiers (such as names, badge numbers, or email).

Statistical Analysis

Chi-square tests assessed associations between burnout and categorical variables. Binary logistic

regression identified significant predictors of high burnout.

RESULTS

Participant Characteristics

Most participants were female (94.6%) and aged between 31–50 years. The majority were non-Saudi (80.0%), married (62.4%), and worked in inpatient units (66.8%) under rotating shift schedules (76.6%). Nurses reported having schedule flexibility (47.8%), while 39.0% believed staffing levels in their units were inadequate.

Table 1: Sociodemographic and work-related characteristics of survey participants (N = 295)

Variable	Frequency (%)
Age	
≤ 30	24 (8.1%)
31-40	130 (44.1%)
41-50	99 (33.6%)
51-60	42 (14.2%)
Gender	
Male	16 (5.4%)
Female	279 (94.6%)
Classification	
Staff Nurse level 1	146 (49.5%)
Staff Nurse Level 2	120 (40.7%)
Other	29 (9.8%)
Nationality	
Non-Saudi	236 (80%)
Saudi	59 (20%)
Marital Status	
Single	81 (27.5%)
Married	184 (62.4%)
Divorced	25 (8.5%)
Widowed	5 (1.7%)
Year of experience	
< 5 years	61 (20.7%)
5-10 years	171 (58%)
> 10 years	63 (21.4%)
Shift Pattern	
Rotating shift	226 (76.6%)
Fixed day shift	69 (23.4%)
Fixed night shift	0 (0%)
Work setting	
Inpatient	197 (66.8%)
Outpatient	83 (28.1%)
Non-clinical	15 (5.1%)
Schedule Flexibility	
No	154 (52.2%)
Yes	141 (47.8%)
Adequate staffing	
Yes	180 (61%)
No	115 (39%)
Management Support	
Good	270 (91.5%)
Poor	25 (8.5%)
Mental Health Support	
Available (≥1 resource)	268 (90.8%)
Not available	27 (9.2%)

Table 2: Burnout, Exhaustion and Disengagement prevalence and mean scores (N = 295)

OLBI Outcomes	Survey Participants		
	Yes	No	Mean
	n (%)	n (%)	
<i>Burnout</i>	24 (8.1%)	271 (91.9%)	1.86
<i>Exhaustion</i>	79 (26.8 %)	216 (73.2%)	1.90
<i>Disengagement</i>	68 (23%)	227 (77%)	1.81

OLBI: The Oldenburg Burnout Inventory

Table 2 presents the prevalence rates and mean scores for burnout, exhaustion, and disengagement among the surveyed nursing staff (N = 295) using the Oldenburg Burnout Inventory (OLBI). Overall, 8.1% (n = 24) of participants met the criteria for burnout, while the majority (91.9%) did not. The mean burnout score across the sample was 1.86. Exhaustion was reported by 26.8% (n = 79) of participants, with a mean exhaustion score of 1.90, indicating it was the most prevalent burnout dimension in this cohort. Disengagement was observed in 23% (n = 68) of the participants, with a mean score of 1.81.

A series of Chi-square tests of independence were conducted to examine the relationship between demographic variables and burnout level (categorized as low or high). Among all demographic factors analyzed, only work setting and adequacy of staffing showed statistically significant associations with burnout level.

The association between work setting and burnout level was statistically significant, $\chi^2(2, N = 295) = 7.39$, $p = 0.025$. Participants working in inpatient settings were more likely to report high burnout levels compared to those in outpatient or non-clinical roles.

Additionally, the Chi-square test revealed a significant association between adequacy of staffing and burnout level, $\chi^2(1, N = 295) = 14.24$, $p = 0.00$. Those who reported that the staffing level not adequate had significantly higher levels of burnout than those who perceived staffing as adequate.

No significant associations were found between burnout and other demographic variables such as age, gender, marital status, shift pattern, or management support ($p > 0.05$).

Table 3: Significant Predictors of High Burnout Among Healthcare Workers (Binary Logistic Regression, N = 295)

Predictor	B	SE	Wald	p	OR (95% CI)
Sufficient Staffing (No vs. Yes)	1.933	0.596	10.52	.001	6.91 (2.13–22.46)
Inpatient Unit vs. Outpatient	1.543	0.799	3.73	.054	4.68 (0.98–22.34)

Note: Only predictors with $p < .10$ are shown. OR = Odds Ratio; CI = Confidence Interval. Bold values indicate statistical significance ($p < .05$).

A binary logistic regression analysis was conducted to examine the association between selected demographic and work-related factors and the likelihood of experiencing high occupational burnout among nursing staff. The logistic regression model was statistically significant, $\chi^2(19) = 33.45$, $p = .021$, indicating that the model was able to distinguish between nurses with high and low burnout levels. The model explained 24.9% of the variance in burnout (Nagelkerke $R^2 = .249$) and correctly classified 91.9% of cases. However, classification accuracy for high burnout cases remained low (4.2%), suggesting potential class imbalance in the outcome distribution.

Among all predictors included in the model, only perceived adequacy of nurse staffing emerged as a statistically significant predictor of high burnout ($p = .001$). Nurses who perceived staffing levels in their units as inadequate were 6.91 times more likely to report high burnout compared to those who believed staffing was sufficient (OR = 6.91, 95% CI not reported in output). This strong association highlights the critical role of institutional resource allocation and workforce support in mitigating burnout.

Although not statistically significant at the conventional alpha level ($p = .05$), working in an inpatient unit was associated with higher odds of experiencing high burnout compared to working in outpatient units ($p = .054$). Specifically, healthcare workers in inpatient settings were nearly 4.7 times more likely to report high burnout (OR = 4.68, 95% CI [0.98, 22.34]). This suggests a meaningful trend that may warrant further investigation with a larger sample or in future studies.

Other variables such as classification, gender, age group, marital status, work setting, shift pattern, schedule flexibility, manager support, mental health support, and years of experience were not statistically significant predictors ($p > .05$).

DISCUSSION

This study highlights that while the overall prevalence of high burnout was relatively low (8.1%), a considerable proportion of nurses experienced high exhaustion (26.8%) and disengagement (23%). These findings are consistent with national and regional studies

that report high emotional and physical demands among Saudi nursing staff [6-10].

Among all examined variables, perceived adequacy of staffing was the most significant predictor of burnout. Nurses who perceived their units as understaffed were nearly seven times more likely to report high burnout. This finding aligns with previous research that highlights workload and staffing shortages as primary contributors to emotional exhaustion and job dissatisfaction [6, 7].

Additionally, working in inpatient settings showed a strong trend toward higher burnout, which is logical given the acuity and complexity of inpatient care. While not statistically significant at the .05 level, the magnitude of the odds ratio (OR = 4.68) suggests practical significance and merits further exploration.

Notably, variables such as age, gender, marital status, shift pattern, schedule flexibility, and management support did not show significant associations with burnout in this population. While contrasting earlier studies, this discrepancy may be attributed to the relatively homogeneous work environment or cultural context in the current sample.

Strengths and Limitations

Strengths: This study benefits from a robust sample size (295 nurses), the use of a validated tool (OLBI), and a relatively high response rate (74%).

Limitations: Cross-sectional design limits causal inferences, Potential self-report bias due to online survey method and the one institution design may limit the generalizability of the findings to other hospital settings.

Recommendations

Workforce Optimization: Address staffing shortages via evidence-based nurse-to-patient ratios, implement flexible scheduling to mitigate exhaustion.

Nursing Education: Establish routine burnout assessments using OLBI or similar tools and provide mental health educational in-services. Implement stress management and resilience-building programs targeted toward high-risk units.

Future research should explore longitudinal data and replicate the study across multiple hospitals for generalizability.

CONCLUSION

Burnout remains a pressing concern among nursing staff at King Abdulaziz Hospital, particularly among those working in inpatient settings and perceiving staffing as inadequate. Although the overall prevalence of high burnout was modest, the substantial levels of exhaustion and disengagement underscore the need for targeted institutional interventions. Improving staffing

adequacy and providing targeted interventions may significantly reduce burnout and enhance nurse well-being.

REFERENCES

1. World Health Organization. Burn-out an "occupational phenomenon": International classification of diseases [Internet]. Geneva: World Health Organization; 2019 May 28 [cited 2025 Jan 15]. Available from: <https://www.who.int/news/item/28-05-2019-burn-out-an-occupational-phenomenon-international-classification-of-diseases>
2. Rudman A, Arborelius L, Dahlgren A, Finnes A, Gustavsson P. Consequences of early career nurse burnout: A prospective long-term follow-up on cognitive functions, depressive symptoms, and insomnia. *EclinicalMedicine*. 2020;100258. <https://doi.org/10.1016/j.eclinm.2020.100258>
3. Maslach C, Leiter MP. Understanding the burnout experience: Recent research and its implications for psychiatry. *World Psychiatry*. 2016;15(2):103–11.
4. Woo T, Ho R, Tang A, Tam W. Global prevalence of burnout symptoms among nurses: A systematic review and meta-analysis. *J Psychiatr Res*. 2020;123:9–20. <https://doi.org/10.1016/j.jpsychiatres.2020.01.006>
5. Elbarazi I, Loney T, Yousef S, Elias A. Prevalence of and factors associated with burnout among healthcare professionals in Arab countries: A systematic review. *BMC Health Serv Res*. 2017;17:491. <https://doi.org/10.1186/s12913-017-2443-9>
6. Shahin MA, Al-Dubai SAR, Abdoh DS, Alahmadi AS, Ali AK, Hifnawy T, et al. Burnout among nurses working in the primary health care centers in Saudi Arabia: A multicenter study. *AIMS Public Health*. 2020;7(4):844–53. <https://doi.org/10.3934/publichealth.2020065>
7. Wazqar DY. Oncology nurses' perceptions of work stress and its sources in a university-teaching hospital: A qualitative study. *Nurs Open*. 2018;6:100–8. <https://doi.org/10.1002/nop2.192>
8. Qedair JT, Balubaid R, Almadani R, Ezzi S, Qumosani T, Zahid R, Alfayea T. Prevalence and factors associated with burnout among nurses in Jeddah: A single-institution cross-sectional study. *BMC Nurs*. 2022;21:287. <https://doi.org/10.1186/s12912-022-01070-2>
9. Alhafithi M, et al. Prevalence and associated factors of burnout among nurses in a general hospital in Yanbu, Saudi Arabia. *World Fam Med*. 2022;20(1):30–9. <https://doi.org/10.5742/MEWFM.2022.95204>
10. Al Owa KR, Valentine A, Bakare A, Akanmu IY, Adeboye A. Prevalence and factors of burnout among healthcare workers in Eastern Province, Saudi Arabia. *Open J Soc Sci*. 2021;9(10):255–70. <https://doi.org/10.4236/jss.2021.910022>

11. Demerouti E, Bakker AB, Vardakou I, Kantas A. The convergent validity of two burnout instruments: A multitrait-multimethod analysis. *Eur J Psychol Assess.* 2003;19:12–23.
12. Halbesleben JRB, Demerouti E. The construct validity of an alternative measure of burnout: Investigating the English translation of the Oldenburg Burnout Inventory. *Work Stress.* 2005;19(3):208–20. <https://doi.org/10.1080/02678370500340728>
13. Peterson U, Demerouti E, Bergström G, Åsberg M, Nygren Å. Work characteristics and sickness absence in burnout and nonburnout groups: A study of Swedish health care workers. *Int J Stress Manag.* 2008;15(2):153–72. <https://doi.org/10.1037/1072-5245.15.2.153>
14. Smith A, Ellison J, Bogardus J, Gleeson P. Reliability and validity of the student version of the Oldenburg burnout inventory in physical therapist students. *J Phys Ther Educ.* 2022;36(3):205–9. <https://doi.org/10.1097/jte.0000000000000222>.