

DETERMINANTS OF BURNOUT SYNDROME AMONG NURSES AT DELIA GENERAL HOSPITAL, LANGKAT

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Abstract

Burnout syndrome is characterized by gradual physical and mental exhaustion, marked by cynicism, emotional detachment, negative attitudes toward work, and decreased professional performance due to prolonged job-related stress. Nurses are among the most vulnerable healthcare professionals to burnout, which can adversely affect both service quality and their personal health. This study aimed to analyze the influence of internal and external factors on burnout syndrome among nurses at Delia General Hospital, Langkat. This study employed a quantitative analytic correlation design with a cross-sectional approach. The research was conducted at Delia General Hospital, Langkat. The population consisted of all nurses working at the hospital, totaling 86 respondents. Data were analyzed using the chi-square test and multiple logistic regression. The results showed that coworker support ($p = 0.040$) and family support had a significant influence on burnout syndrome among nurses at Delia General Hospital, Langkat. In contrast, age, gender, years of service, and supervisor support were not significantly associated with burnout syndrome. This study highlights the importance of strengthening social support in the workplace and developing effective stress management strategies to prevent burnout among nurses. The findings are expected to serve as a reference for hospital management in designing occupational health protection programs and improving the well-being of nursing staff.

Keyword : Burnout Syndrome, Nurses, Social Support, Occupational Stress, Hospital, Cross-Sectional Study

Introduction

Nurses play a critical role as frontline healthcare providers who deliver direct, continuous, and comprehensive care to patients. The demanding nature of nursing work, including high workloads, complex responsibilities, and intensive interactions with patients and their families, places nurses at considerable risk of occupational stress. Prolonged exposure to such stress may lead to burnout syndrome, a condition characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment (Woo et al., 2020).

Burnout syndrome has been widely recognized as a major occupational health problem among healthcare workers globally. The World Health Organization classifies burnout as an occupational phenomenon resulting from chronic workplace stress that has not been successfully managed (WHO, 2020). This condition is associated with decreased work performance, increased absenteeism, and reduced quality of healthcare services, particularly among nurses who are exposed to continuous emotional and physical demands (Dall'Ora et al., 2020).

Recent global evidence shows that burnout among nurses remains high. A systematic review and meta-analysis reported that approximately 11% to 30% of nurses experience burnout, with more than 30% reporting emotional exhaustion and low personal accomplishment, and around 25% experiencing

depersonalization (Woo et al., 2020)). Furthermore, studies in developed countries indicate that more than half of nurses experience burnout symptoms due to high workloads, long working hours, and workforce shortages (Shah et al., 2021)). In developing countries, burnout is often linked to limited healthcare resources, high patient-to-nurse ratios, and lack of organizational support (Pradas-Hernández et al., 2021).

In Indonesia, burnout among nurses has also shown an increasing trend. A national study reported that approximately 33.5% of nurses experienced burnout syndrome, with significant levels of emotional exhaustion and decreased professional achievement (Kemenkes RI, 2022). Additionally, recent findings indicate that a large proportion of healthcare workers in Indonesia experience moderate to severe burnout, highlighting the urgency of addressing occupational stress in healthcare settings (Suryavanshi et al., 2020; Khasanah et al., 2023).

Hospitals are complex healthcare organizations that rely heavily on nurses as the largest workforce component. Nursing services play a strategic role in ensuring patient safety and improving healthcare quality. However, increasing job demands, including clinical responsibilities and emotional support for patients, contribute significantly to burnout. Factors influencing burnout can generally be categorized into internal factors (such as age, gender, and years of service) and external factors (including workload, organizational climate, and social support) (Montgomery et al., 2021).

Burnout not only affects nurses' well-being but also has broader organizational consequences. It has been associated with decreased job performance, increased turnover intention, absenteeism, and reduced patient satisfaction. Moreover, burnout is linked to various physical and mental health problems, including depression, anxiety, sleep disturbances, and cardiovascular diseases (Leo et al., 2021).

Delia General Hospital in Langkat employs 86 nurses who are responsible for inpatient care, many of whom work in high-intensity units such as intensive care and emergency departments. The hospital's bed occupancy rate (BOR) of 65.33% indicates a consistently high workload. Preliminary observations and interviews revealed that nurses frequently experience emotional exhaustion, depersonalization, and reduced personal accomplishment due to workload, shift systems, and emotional demands. These findings suggest a significant risk of burnout among nurses in this setting.

Therefore, this study aims to analyze the internal and external factors influencing burnout syndrome among nurses at Delia General Hospital, Langkat. The results are expected to provide evidence-based recommendations for hospital management in developing strategies to reduce burnout and improve nurses' well-being and performance.

Methods

This study employed a quantitative analytic design with a cross-sectional approach to examine the association between internal and external factors and burnout syndrome among nurses. Cross-sectional studies are widely used to assess relationships between variables at a single point in time without manipulating study conditions (Setia, 2020).

The study was conducted at Delia General Hospital, Langkat, North Sumatra, Indonesia, from September 2025 to February 2026. The study population consisted of all inpatient nurses working at the hospital, totaling 86 individuals. A total sampling technique was applied, in which all eligible nurses who met the inclusion criteria were included in the study. Inclusion criteria were nurses actively working, involved in direct patient care, with a minimum of six months of work experience, and willing to participate by providing informed consent. Nurses on leave, in managerial positions, or with incomplete responses were excluded.

Data were collected using structured questionnaires measuring internal factors (age, gender, years of service), external factors (supervisor support, coworker support, and family support), and

burnout syndrome. Burnout was assessed based on three dimensions: emotional exhaustion, depersonalization, and reduced personal accomplishment. The instruments used in this study were tested for validity and reliability prior to data collection. Reliability testing showed acceptable internal consistency, with Cronbach’s alpha values ranging from 0.784 to 0.836, indicating good reliability (Taber, 2018; Hair et al., 2021).

Data analysis was conducted using statistical software. Univariable analysis was performed to describe the frequency distribution of each variable. Bivariable analysis using the chi-square test was applied to examine the association between independent and dependent variables, with a significance level of $p < 0.05$. Variables with significant associations were further analyzed using multivariable logistic regression to identify the dominant factors influencing burnout syndrome among nurses (Stoltzfus, 2021).

Result

1. Univariate Analysis

A total of 86 nurses participated in this study. The majority of respondents were aged <40 years (70.9%) and female (65.1%).

Table 1. Characteristics of Respondents

Variable	n	%
Age		
< 40 years	61	70.9
≥ 40 years	25	29.1
Gender		
Male	30	34.9
Female	56	65.1

Most nurses had ≥5 years of experience. More than half perceived poor supervisor support. The majority experienced moderate burnout (72.1%), indicating a substantial occupational health concern.

Table 2. Distribution of Study Variables

Variable	Category	n	%
Years of Service	< 5 years	34	39.5
	≥ 5 years	52	60.5
Supervisor Support	Poor	46	53.5
	Good	40	46.5
Family Support	Poor	34	39.5
	Good	52	60.5
Burnout Syndrome	Moderate	62	72.1
	Mild	24	27.9

2. Bivariate Analysis

There was no significant association between age, gender, years of service, and supervisor support with burnout syndrome ($p > 0.05$). However, coworker support ($p = 0.002$) and family support ($p = 0.014$) were significantly associated with burnout syndrome. Nurses with poor social support were more likely to experience moderate burnout..

Table 3. Association Between Independent Variables and Burnout Syndrome

Variable	Category	Moderate n (%)	Mild n (%)	p-value
Age	<40	45 (52.3)	16 (18.6)	0.782
	≥ 40	17 (19.8)	8 (9.3)	
Gender	Male	23 (26.7)	7 (8.1)	0.660
	Female	39 (45.3)	17 (19.8)	
Years of Service	<5	22 (25.6)	12 (14.0)	0.323
	≥ 5	40 (46.5)	12 (14.0)	
Supervisor Support	Poor	36 (41.9)	10 (11.6)	0.260
	Good	26 (30.2)	14 (16.3)	
Coworker Support	Poor	38 (44.2)	5 (5.8)	0.002
	Good	24 (27.9)	19 (22.1)	
Family Support	Poor	30 (34.9)	4 (4.7)	0.014
	Good	32 (37.2)	20 (23.3)	

3. Multivariate Analysis

Variables with $p < 0.25$ were included in logistic regression analysis. The final model identified coworker support as the dominant factor. Coworker support was significantly associated with burnout syndrome ($p = 0.040$). Nurses who reported poor coworker support had 3.6 times higher risk of experiencing burnout compared to those with good support.

Table 4. Logistic Regression Analysis (Final Model)

Variable	B	P-value	Exp(B)	95% CI
Coworker Support	1.277	0.040	3.586	1.060 – 12.125
Constant	-3.406			

Discussion

The findings of this study indicate that the majority of nurses at Delia General Hospital, Langkat, experienced moderate burnout syndrome (72.1%), highlighting that burnout remains a significant occupational health issue among nurses. This result is consistent with global evidence showing that burnout prevalence among nurses remains high due to increasing job demands, emotional strain, and organizational pressures (Woo et al., 2020; Leo et al., 2021). Burnout among nurses is often associated with prolonged exposure to stressors such as workload, shift systems, and continuous patient interaction, which may lead to emotional exhaustion and decreased professional performance.

In this study, age, gender, and years of service were not significantly associated with burnout syndrome. These findings align with previous research suggesting that demographic characteristics may not be strong predictors of burnout compared to psychosocial and organizational factors (Montgomery et al., 2021). Although younger nurses are often assumed to be more vulnerable due to limited experience, recent studies indicate that burnout can affect nurses across all age groups depending on workplace conditions rather than personal characteristics alone (Khasanah et al., 2023).

Similarly, supervisor support was not significantly associated with burnout syndrome in this study. This finding contrasts with several previous studies that identified leadership support as an important protective factor against burnout (Boamah et al., 2022). However, it is possible that the perceived support from supervisors in this setting was not strong enough to influence burnout outcomes significantly, or that peer-level interactions play a more immediate role in daily nursing activities compared to managerial support.

On the other hand, this study found that coworker support and family support were significantly associated with burnout syndrome. Nurses who reported poor coworker support were more likely to experience higher levels of burnout. This finding is consistent with previous studies emphasizing the importance of social support in reducing work-related stress and burnout among healthcare workers (Pradas-Hernández et al., 2021; Wang et al., 2022). Support from colleagues can enhance teamwork, improve communication, and provide emotional coping mechanisms, which are essential in high-pressure healthcare environments.

Furthermore, family support also showed a significant relationship with burnout syndrome, indicating that external support systems play an important role in buffering occupational stress. Nurses who receive adequate emotional and psychological support from their families tend to have better coping mechanisms and resilience against burnout (Søvold et al., 2021). This finding reinforces the concept that burnout is influenced not only by workplace factors but also by broader psychosocial environments.

The multivariate analysis revealed that coworker support was the most dominant factor influencing burnout syndrome, with nurses lacking coworker support having a 3.6 times higher risk of experiencing burnout. This finding underscores the critical role of interpersonal relationships within the workplace. In line with the Job Demands-Resources (JD-R) model, social support is considered an important job resource that can buffer the negative effects of job demands and reduce burnout (Bakker & Demerouti, 2020). When nurses perceive strong support from colleagues, they are more likely to feel valued, supported, and capable of handling job-related stress effectively.

The high probability of burnout (81.77%) among nurses with poor coworker support further emphasizes the importance of fostering a supportive work environment. Hospitals should prioritize strategies that strengthen teamwork, communication, and peer support systems. Interventions such as team-building programs, peer support groups, and stress management training may help reduce burnout levels among nurses.

Overall, the findings of this study suggest that organizational and social support factors play a more significant role than individual characteristics in influencing burnout syndrome. Therefore,

healthcare institutions should focus on improving the work environment, particularly by enhancing social support mechanisms, to promote nurse well-being and maintain the quality of patient care.

Conclusion

This study demonstrates that burnout syndrome among nurses at Delia General Hospital, Langkat, is relatively high, with the majority experiencing moderate levels of burnout. The findings indicate that individual characteristics such as age, gender, and years of service are not significantly associated with burnout syndrome. Similarly, supervisor support was not found to have a significant relationship with burnout.

In contrast, social support factors, particularly coworker support and family support, were significantly associated with burnout syndrome. Among these, coworker support emerged as the most dominant factor influencing burnout. Nurses who perceived inadequate support from their colleagues were at a significantly higher risk of experiencing burnout compared to those with good peer support.

These results highlight that burnout among nurses is more strongly influenced by psychosocial and organizational factors rather than demographic characteristics. Therefore, strengthening workplace social support systems, especially peer support, is essential in reducing burnout and improving nurses' well-being and performance.

Overall, this study emphasizes the need for healthcare institutions to develop strategies focused on enhancing teamwork, fostering supportive work environments, and implementing stress management interventions to mitigate burnout among nurses and ensure the quality of healthcare services.

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