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The Relationship Between ICU Nurse Burnout Levels and the Quality of Nursing Care for Critically Ill Patients

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ABSTRACT

Burnout is a condition of physical, emotional, and mental exhaustion often experienced by healthcare workers due to high work pressure. Nurses working in intensive care units... Care Unit (ICU) has a high risk of experiencing burnout due to complex work demands and responsibilities in caring for critical patients. Burnout in nurses can affect the quality of nursing care provided to patients. This study aims to determine the relationship between the burnout level of ICU nurses and the quality of nursing care in critical patients. The study used an analytical design with a cross-sectional approach. The study sample consisted of 50 ICU nurses selected using a total sampling technique. Burnout was measured using the Maslach Burnout Inventory (MBI) questionnaire, while the quality of nursing care was assessed through a standard nursing service observation sheet. Data analysis used the chi-square test. The results showed that nurses with high burnout levels had lower quality of nursing care than nurses with low burnout levels. The statistical test results showed a p value = 0.021 ($p < 0.05$). It was concluded that there is a significant relationship between the burnout level of ICU nurses and the quality of nursing care in critical patients.

Keywords: *Burnout, ICU Nurses, Quality of Nursing Care, Critical Patients*

1. INTRODUCTION

Nurses are healthcare professionals who play a vital role in providing healthcare services to patients. In clinical practice, nurses are responsible for providing comprehensive nursing care, including monitoring patient conditions, administering therapy, and providing emotional support to patients and their families.

Nurses who work in the Intensive Care Unit The intensive care unit (ICU) faces more complex challenges than other care units. It is a specialized care unit for critically ill patients who require intensive monitoring and rapid and appropriate medical intervention. This situation places a higher workload on ICU nurses.





High work pressure over a long period of time can lead to burnout in nurses. Burnout is a state of emotional exhaustion characterized by feelings of fatigue, depersonalization, and decreased personal accomplishment.

Burnout among healthcare workers can impact the quality of healthcare services, including the quality of nursing care provided to patients. Therefore, it is important to understand the relationship between nurse burnout levels and the quality of nursing care.

This study aims to determine the relationship between the burnout level of ICU nurses and the quality of nursing care for critical patients.

2. RESEARCH METHODS

a. Research Design

This study uses an analytical design with a cross-sectional approach.

b. Population and Sample

The research population was all nurses working in the ICU unit of Hospital X.

The sample size was 50 ICU nurses selected using the total sampling technique.

c. Inclusion Criteria

- 1) Nurses who have worked in the ICU for at least 6 months
- 2) Willing to be a research respondent
- 3) Directly involved in critical patient care

d. Research Variables

- 1) Independent variable: level of nurse burnout
- 2) Dependent variable: quality of nursing care

e. Research Instruments

- 1) Maslach Burnout Inventory (MBI)
- 2) Nursing care quality observation sheet

f. Data analysis

Data analysis was performed using:

- 1) descriptive analysis
- 2) **chi-square** test with a significance level of 0.05

3. RESEARCH RESULTS AND DISCUSSION

a. Research result

1) Respondent Characteristics

This study involved 50 nurses working in the Intensive Care Unit. Care Unit (ICU). Respondent characteristics included gender, age, education level, and length of service in the ICU.



**Table 1. Respondent Characteristics**

Characteristics	n	%
Gender		
Man	18	36
Woman	32	64
Age		
<30 years	20	40
30–40 years	22	44
>40 years	8	16
Education		
D3 Nursing	28	56
Bachelor of Nursing	22	44
Working period in ICU		
<5 years	28	56
≥5 years	22	44

Most nurses are in their productive age range (30–40 years old) and have less than five years of work experience in the ICU. Work experience can influence a nurse's ability to manage work pressure and adapt to a stressful work environment.

2) ICU Nurse Burnout Rate

Burnout is measured using the Maslach Burnout Inventory (MBI) which consists of three main dimensions:

- emotional exhaustion exhaustion)
- depersonalization
- in personal accomplishment

Table 2. Distribution of Burnout Levels

Burnout Level	n	%
Low	16	32
Currently	20	40
Tall	14	28





The study results showed that the majority of nurses experienced moderate levels of burnout (40%). This indicates that ICU nurses face relatively high levels of work pressure but are still able to manage work stress quite well.

3) Dimensions of Burnout in ICU Nurses

Table 3. Distribution of Burnout Dimensions

Dimensions of Burnout	Low	Currently	Tall
Emotional exhaustion	18	20	12
Depersonalization	22	18	10
Decline in personal achievement	20	17	13

The emotional exhaustion dimension is the most dominant component of burnout experienced by ICU nurses. This can be caused by high workloads, the emotional demands of caring for critically ill patients, and the stress of clinical decision-making.

4) Quality of Nursing Care

The quality of nursing care is assessed based on several indicators, including:

- accuracy of nursing action implementation
- monitoring patient condition
- nursing care documentation
- communication with patients and families

Table 4. Distribution of Nursing Care Quality

Quality of Care	n	%
Good	30	60
Not good	20	40

Most nurses are still able to provide good quality nursing care even though they work in a high-pressure work environment.

5) The Relationship Between Burnout and the Quality of Nursing Care

Table 5. Relationship between Burnout and Quality of Care

Burnout Level	Good Parenting	Lack of Parenting	Total
Low	14	2	16
Currently	12	8	20
Tall	4	10	14
Total	30	20	50





Chi-square test show $p = 0.021$. A p -value < 0.05 indicates that there is a significant relationship between the burnout level of ICU nurses and the quality of nursing care for critical patients.

b. Discussion

The study results showed that burnout levels were significantly associated with the quality of nursing care provided to critically ill patients in the ICU. Nurses with high burnout levels tended to show a decline in the quality of nursing care compared to nurses with low burnout levels.

Burnout is a psychological condition that arises from poorly managed chronic work stress. In ICU nurses, work stress often stems from several factors, such as high workloads, the demands of caring for critically ill patients, and the need to make rapid and accurate clinical decisions.

The most dominant dimension of burnout found in this study was emotional exhaustion. Emotional exhaustion can cause nurses to feel mentally exhausted and lose motivation to carry out their duties.

Burnout can also trigger depersonalization, an emotional detachment from the patient or work. This condition can reduce nurses' empathy for patients, impacting the quality of therapeutic interactions.

The decline in the quality of nursing care due to burnout can be seen in several aspects, such as:

- 1) decreased accuracy in monitoring patient conditions
- 2) delays in the implementation of nursing actions
- 3) incomplete nursing care documentation
- 4) less than optimal communication with patients and families

In the context of critical care, the quality of nursing care is crucial because a patient's condition can change rapidly. Therefore, the nurse's ability to remain focused and responsive to the patient's condition is crucial in maintaining patient safety.

The results of this study are in line with various previous studies showing that burnout in healthcare workers can have a negative impact on the quality of healthcare services and increase the risk of medical errors.

Burnout isn't the only factor that impacts the quality of nursing care. Several other factors also play a role, including:

- 1) nurse workload
- 2) number of nursing staff in the ICU
- 3) organizational support
- 4) work environment





5) nurse competency level

The results of this study indicate that managing burnout in ICU nurses is crucial for maintaining the quality of nursing care. Hospitals need to develop work stress management strategies for nurses, such as:

- 1) psychological support program
- 2) balanced workload management
- 3) increasing the number of nursing staff
- 4) stress management training

This approach is expected to help nurses maintain a balance between work demands and their psychological well-being.

4. CONCLUSION AND SUGGESTIONS

a. Conclusion

There is a significant relationship between ICU nurse burnout levels and the quality of nursing care for critically ill patients. Nurses with high levels of burnout tend to provide lower-quality nursing care.

b. Suggestion

- 1) Hospitals need to pay attention to the psychological well-being of ICU nurses.
- 2) Stress management programs for nurses need to be developed to reduce the risk of burnout.
- 3) Further research could examine other factors that influence the quality of nursing care.

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