

The Relationship Between Nurse Burnout and Patient Safety Culture with The Quality of Nursing Care in Type B Hospitals in Central Sulawesi

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ABSTRACT

The hospital provides health services such as inpatient, outpatient, and emergency departments. The quality of nursing care is crucial as patients rely on nurses to address their complaints. This study aims to determine the relationship between nurse burnout and patient safety culture with the quality of nursing care. An analytical observational design with a cross-sectional study approach was conducted in two Type B Hospitals in Central Sulawesi Province with 235 nurse respondents in the inpatient room, using purposive sampling. Data analysis included the Pearson product-moment test and multivariate modeling. Results indicated a significant relationship between nurse burnout and nursing care quality (p -value < 0.05), as well as between patient safety culture and nursing care quality. The dominant variable related to the quality of nursing care was patient safety culture ($\beta = 0.723$). The study highlights that nurse burnout negatively impacts the quality of nursing care, whereas a strong patient safety culture improves it. Theoretically, this research expands the understanding of the interplay between nurse burnout, patient safety culture, and nursing care quality, emphasizing the need for organizational support and effective communication. Practically, it suggests that hospital administrators should implement strategies to reduce nurse burnout and foster a positive patient safety culture, such as stress management programs and a supportive work environment, to enhance nursing care quality and improve patient outcomes.

Keywords: nurse burnout, patient safety culture, quality nursing care.

INTRODUCTION

Prevalence data in South Africa shows that 11 – 73% of nurses have poor-quality nursing services in various hospitals. The average quality of nursing services in Ethiopia shows that 64% are dissatisfied or still poor. In Indonesia, the results of a survey conducted in 2016 obtained a level of patient satisfaction with nursing services in inpatient care of 79.22%, and there are good criteria for the quality of nursing services that have not reached $> 90\%$. The poor quality of nursing care can be assessed by the level of patient satisfaction, and this is evidenced by patient satisfaction data at one of the South Sulawesi Provincial Hospitals in 2021 as much as 70.83%, and Southeast Sulawesi in 2020 as much as 75.97%; The quality of nursing care in Indonesia is still considered unsatisfactory due to nurses who do not meet patient needs, nurses are less

responsive in handling patient complaints, pay less attention to therapeutic attitudes to patients in hospitals and are fast and responsive to patient services (Camala et al., 2022; Elfina et al., 2022; Zulkhulaifah et al., 2022).

The impact of poor quality nursing care can cause patient satisfaction and comfort with nurse services to be less than optimal. This is in line with the results of the study, which state that poor-quality nursing care can have an impact on satisfaction, patient perception, and an uncomfortable atmosphere among patients, revealing that the quality of good nursing care has an impact on the level of patient satisfaction, so it really needs attention. Patient satisfaction influences the assessment dimension of nursing care in hospitals. Patient satisfaction is critical to hospital continuity, and dissatisfied customers are less likely to recommend such facilities to their family, friends, and colleagues. (Kadir et al., 2023; Lestari et al., 2020; Sureskiarti et al., 2021).

The issue of patient safety in hospitals has become very important due to the high rate of medical errors that occur in many countries. , reported patient safety incidents where medical errors were experienced by 8-12% of hospitalized patients, while 23% of Europeans experienced serious medical errors in hospitals, and 11% of them reported having been prescribed the wrong medication. The prevalence of patient safety incidents is found in almost all provinces in Indonesia. From patient safety incident reporting data, it is recorded that the ranking order that occupies the highest position is DKI Jakarta at 37.5% and the second position followed by Central Java at 15.9%, and other provinces (D.I.Yogyakarta 13.8%, East Java at 11.7%, South Sumatra 6.9%, West Java 2.8%, Bali 1.4%, Aceh 0.7%, and South Sulawesi 0.7%). A patient safety culture is the result of individual and group values, attitudes, perceptions, skills, and behaviors that determine a hospital's commitment, style, and capacity for patient safety programs (Kuraesin et al., 2023; World Health Organization, 2020).

Some factors related to the role of nurses in improving patient safety culture include knowledge, attitude, length of work, motivation, supervision, and training. (Astuti, 2023; Galleryzki et al., 2023). Awareness of nurses' knowledge and attitudes about patient safety culture can improve patient safety and improve the quality of nursing care services. This is very important for nurses to participate in creative service production that improves patient safety (N. Y. Kim & Jeong, 2021). Nurses are the first care providers and have the most time to care for patients compared to other health workers.

Burnout has become a major problem in the nursing profession. High burnout due to their higher job pressure than other health professionals. Burnout can interfere with nurses' ability to provide safe, high-quality care, and providing high-quality care should remain a top priority of the care system. Among health workers, nurses have reported a higher prevalence of burnout. The frontline caring role that nurses play to patients at the most vulnerable times makes nurses particularly vulnerable to burnout, the unrelenting physical and psychological stress derived from holistic patient care. Nurse burnout occurs when excessive workloads are compounded by entrenched systemic problems such as irregular working hours, voluntary overtime, shift changes, and staff shortages. The mismatch between expectations and the reality of nursing as a profession increases the tendency to experience burnout (Denning et al., 2020).

Studies conducted describing the phenomenon of nurse burnout in several

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European countries show that 22 - 34% of nurses experience burnout in providing primary care. The prevalence of nurse burnout is estimated to range from 19% – (Monsalve C et al., 2018) to 76%. (Woo et al., 2020) According to RW, about 22% of nurses in the United States, 27% of nurses in the United Kingdom, 20% of nurses in Germany, and about 22% - 32% of nurses in Italy have experienced burnout. Research in Indonesia shows that 27.2% of nurses experience emotional fatigue, and 31.5% experience burnout. Based on research data in one hospital of Southeast Sulawesi Province, there were 15.7% of nurses experienced burnout, and the survey results of 10 nurses showed there were nurses who experienced burnout syndrome in the emotional fatigue dimension as much as 0.3% in the depersonalization dimension as much as 0.2% and in the low dimension of personal achievement as much as 0.3%. The highest incidence with the province of mental-emotional disorders or stress is in Central Sulawesi at 11.6%, and the lowest is found in Lampung at 1.2%. Residents of North Sulawesi who experience mental and emotional disorders or stress at 10.3%. This figure is above the national data (9.8%) (Lusiyana et al., 2021; Owuor et al., 2020; Singal et al., 2021; Sujannah et al., 2021)

Burnout is a serious problem among nursing staff, and it has a negative impact on the quality of care and patient safety (Kakemam et al., 2021). If a nurse has burnout syndrome, then the quality of nursing care provided to the patient will be affected. This condition has a significant impact on the condition and performance of nurses in providing care services in hospitals. Therefore, it is important to manage burnout syndrome well to ensure nurses are still able to provide optimal care to patients. In fact, nurse burnout not only impacts their own condition and health but also affects the quality of patient care (Mahmoudi et al., 2020; Putra et al., 2021).

Some of the factors of burnout are demographic factors (gender, age, education, length of work), personal factors (work stress, workload, and personality type), and organizational factors (working conditions and social support). It states that nurse burnout and patient safety culture relate to patient-perceived nursing care quality outcomes, such as increased reporting of poor quality of care, patient falls, medication errors, and infections. The study explained that greater nurse burnout was associated with poorer quality of care and reduced patient safety among hospital providers.

Based on the results of a preliminary study conducted through questionnaires and interviews with 20 nurses at Type B hospitals in Central Sulawesi Province, namely UPT RSUD UNDATA Central Sulawesi Province and Anuntaloko Parigi Hospital, 12 nurses stated that they felt drained of energy because of the roles carried out in their work, as many as six nurses stated feeling very bored and emotionally tired in their work, ten nurses said the lack of providing education and health promotion to patients was due to the many practice actions and other supporting nurse duties, eight nurses felt tired when they woke up in the morning and had to face new work indicated by delays in coming to official shifts. Based on the results of interviews with the head of the room, it was found that there were three nurses who did not report patient safety unless there was an unexpected incident. The observation found that nurses were not involved in decision-making, conflict management, and teamwork, which had not been well coordinated.

The hospital provides essential health services such as inpatient, outpatient, and emergency care. Nursing care quality is paramount as patients depend on nurses to

address their complaints and provide comprehensive care. Recent trends indicate an increasing concern over nurse burnout, which adversely affects patient safety and care quality (Hetherington et al., 2024; Lee et al., 2024). This study investigates the relationship between nurse burnout, patient safety culture, and the quality of nursing care. Research has shown that a robust patient safety culture can mitigate the adverse effects of burnout, leading to improved patient outcomes (Hughes et al., 2024). Furthermore, studies like those by Kim et al. (2024) emphasize the importance of organizational support in enhancing nursing care quality. This research aims to build on these findings by exploring the dynamics in two Type B Hospitals in Central Sulawesi Province.

Recent literature highlights the increasing stress and workload faced by nurses, exacerbated by the COVID-19 pandemic, further justifying the need for this study (Brewer et al., 2023). By analyzing data from 235 nurse respondents, this study provides current insights into the interplay between nurse burnout and patient safety culture, offering actionable recommendations for healthcare administrators. In summary, this research is timely and relevant, addressing critical issues in nursing care. It aims to provide a theoretical foundation and practical strategies for improving nursing care quality by focusing on reducing nurse burnout and enhancing patient safety culture.

The high workload of nurses creates pressure on work, making nurses experience burnout. Nurses will experience physical and psychological disorders that can cause negligence or even neglect of nursing actions that should be given to patients. This is important because the patient safety culture is a step toward improving the quality of hospital services and providing quality nursing care services. Based on this phenomenon, researchers are interested in conducting research related to the relationship between nurse burnout and patient safety culture with the quality of nursing care in Type B Hospitals in Central Sulawesi Province.

RESEARCH METHODS

This study used an analytical observational method with a cross-sectional approach to evaluate the relationship between nurse burnout and patient safety culture and the quality of nursing care in the Type B Hospital of Central Sulawesi Province. It involved a population of nurses in the inpatient room, with a total of 450 nurses, 250 at UPT RSUD UNDATA Central Sulawesi Province and 200 at RSUD Anuntaloko Parigi.

The minimum sample required was calculated using the Slovin formula, which yielded 212 respondents. To anticipate the possibility of respondents dropping out, the sample was added by 10%, bringing the total sample to 235 respondents. The sampling technique used is purposive sampling, where samples are selected based on predetermined inclusion and exclusion criteria.

Data was collected through questionnaires that included variables of nurse burnout, patient safety culture, and quality of nursing care. The instruments used are the Maslach Burnout Inventory-Human Services Survey (MBI-HSS) to measure burnout, the Safety Attitudes Questionnaire (SAQ-INA) to measure patient safety culture, and the *Escala de Percepção das Atividades de Enfermagem que Contribuem para a qualidade do Cuidado (EPAECQC)* to measure the quality of nursing care.

Validity and reliability tests were conducted on 30 respondents with the same

characteristics as the study population. The test results show that all three instruments are valid and reliable. Data was collected over three months, from August to October 2023, at the two hospitals. Data analysis was conducted to evaluate the relationship between nurse burnout variables and patient safety culture with the quality of nursing care. This study aims to provide a better understanding of the factors that influence the quality of nursing care in hospitals.

This study employed an analytical observational design with a cross-sectional study approach to investigate the relationship between nurse burnout, patient safety culture, and the quality of nursing care. The research was conducted in two Type B Hospitals in Central Sulawesi Province, involving 235 nurse respondents from inpatient rooms. The sampling technique used was purposive sampling to ensure a representative sample of nurses providing direct patient care.

Data were collected using standardized questionnaires that measured nurse burnout, patient safety culture, and the quality of nursing care. The nurse burnout was assessed using the Maslach Burnout Inventory (MBI), while the patient safety culture was evaluated using the Hospital Survey on Patient Safety Culture (HSOPSC).

For data analysis, the Pearson product-moment correlation test was used to examine the relationships between variables. Additionally, multivariate modeling was employed to identify the dominant factors influencing nursing care quality. The results were considered statistically significant if the p-value was less than 0.05. The analysis revealed significant relationships between nurse burnout and nursing care quality and between patient safety culture and nursing care quality, with patient safety culture emerging as the dominant factor ($\beta = 0.723$).

RESULTS AND DISCUSSION

Univariate Analysis

Independent Variables

Table 1. Distribution of Respondents Based on Nurse Burnout, Patient Safety Culture in Type B Hospitals in Central Sulawesi Province (n=235)

Variable	Mean±SD	CI 95%
Nurse Burnout	57.79±8.299	56.72-58.85
Patient Safety Culture	156.63±15.302	154.67-158.60

Based on the table obtained, data in type B hospitals in Central Sulawesi Province related to nurse burnout shows that the value is (mean) 57.79 and standard deviation 8.299, with a 95% CI confidence interval between 56.72-58.85. The patient safety culture obtained a mean value of 156.63 and a standard deviation of 15.302, with a 95% CI confidence interval between 154.67-158.60.

Table 2. Distribution of Respondents Based on the Nurse Burnout Dimension in Type B Hospitals of Central Sulawesi Province (n = 235)

Dimension	Mean±SD	CI 95%
Emotional Exhaustion	12.39 ±7.188	11.47-13.32
Depersonalization	4.26±4.167	3.73-4.80

Personal Accomplishment	41.12±7.188	40.20-42,04
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Based on the table obtained data in type B hospitals of Central Sulawesi Province related to the dimensions of nurse burnout in the Emotional Exhaustion domain showed that the mean value was 12.39, the standard value of revision was 7.188, with a 95% CI of 11.47-13.32. Depersonalization obtained a mean value of 4.26, a standard value of revision of 4.167, with a 95% CI of 3.73-4.80. Personal Accomplishment obtained a mean value of 41.12, a standard value of revision 7.188, with a 95% CI of 40.20-42.04.

Table 3. Distribution of Respondents Based on the Dimension of Patient Safety Culture in Type B Hospitals of Central Sulawesi Province (n = 235)

Dimension	Mean±SD	CI 95%
Teamwork Climate	23.65±2.417	23.34-23,94
Safety climate	32.00±4.430	31.43-32,57
Job Satisfaction	22.59±2.852	22.22-22,95
Introduction to Stress	10.88±3.344	10.45-11,31
Perception of Ward Management	6.24±3.240	17.83-18,66
Perception of Hospital Management	17.84±3.615	17.37-18.30
Working Conditions	31.43±4.420	30.86-32,00

Based on the table above, data obtained in type B hospitals in Central Sulawesi Province related to the dimensions of patient safety culture in the work climate domain showed that the mean value was 23.65, the standard value of revision was 2.417, with a 95% CI of 23.34-23.94. The patient safety climate obtained a mean value of 32.00, a standard value of 4.430 division, with a 95% CI of 31.43-32.57. Job satisfaction obtained a mean value of 22.59, a standard value of 2.852, with a 95% CI of 22.22-22.95. The introduction of stress obtained a mean value of 10.88, a standard value of division of 3.344, with a 95% CI of 10.45-11.31. The perception of ward management obtained a mean value of 18.24, a standard value of division of 3,240, with a 95% CI of 17.83-18.66. The perception of hospital management obtained a mean value of 17.84, a standard value of revision of 3.615, with a 95% CI of 17.37-18.30. Working conditions obtained a mean value of 31.43, a standard value of revision of 4.420, with a 95% CI of 30.86-32.00.

Dependent Variables

Table 4. Distribution of respondents based on the quality of nursing care in Type B hospitals in Central Sulawesi Province (n = 235)

Variable	Mean±SD	CI 95%
Quality of Nursing Care	83.99±4.022	83.47-84.50

Based on the table, it is known that the quality of nursing care in Type B Hospitals in Central Sulawesi Province shows a value of 83.99 and a smaller standard deviation of 4,022 with a 95% CI confidence interval between 83.47-84.50.

Table 5. Distribution of Respondents Based on the Quality Dimension of Nursing Care in Type B Hospitals of Central Sulawesi Province (n = 235)

Dimension	Mean±SD	CI 95%
Patient Satisfaction	10.62±1.416	10.44-10,80
Health Promotion	9.58±1.546	9.38-9,78
Prevention of Complications	10.51±1.141	10.36-10,66
Wellbeing &; Self-Care	13.83±1.442	13.66-14.02
Functional Adaptations	13.84±1.319	13.67-14.01
Askep Organization	13.74±0.980	13.62-13,87
Responsibility & Thoroughness	11.84±1.746	11.62-12,07

Based on the table above, data obtained in type B hospitals in Central Sulawesi Province related to the quality dimension of nursing care in the patient satisfaction domain showed that the average or mean value was 10.61, the standard value of revision was 1.416. with a 95% CI of 10.44-10.80. Health promotion obtained a mean value of 9.58 and a standard value of revision of 1.546. with a 95% CI of 9.38-9.78. Prevention of complications obtained a mean value of 10.51 and a standard value of revision of 1.141. with a 95% CI of 10.36-10.66. Well-being and self-care obtained a mean value of 13.83, a standard value of revision 1.1442. with a 95% CI of 13.66-14.02. Functional adaptation obtained a mean value of 13.84 and a standard value of revision 1.319. with a 95% CI of 13.67-14.01. Nursing care organizations obtained a mean value of 13.74 and a standard value of revision 0.980. with a 95% CI of 13.62-13.87. Responsibility and accuracy obtained a mean value of 11.84, which is a standard value of revision of 1.746. with a 95% CI of 11.62-12.07.

Bivariate Analysis

Table 6. The Relationship of Nurse Burnout and Patient Safety Culture to the Quality of Nursing Care (n=235)

Variable	Quality of Nursing Care	
	p	r
Nurse Burnout	0,000*	-0,377
Patient Safety Culture	0,000*	0,716

*significant at p-value < 0.05

Based on the table, statistical test results obtained a significant value in nurse burnout of 0.000 (p-value < 0.05), then H1 is accepted, meaning there is a significant relationship between nurse burnout and the quality of nursing care. The result of the correlation coefficient (r count) -0.377 means that the correlation strength of the two variables is weak.

The results of statistical tests obtained a significant value of 0.000 (p-value < 0.05), then H1 is accepted, meaning there is a meaningful relationship between patient safety

culture and the quality of nursing care. The result of the correlation coefficient (r count) of 0.716 means that the correlation strength of both variables is strong.

Analysis Multivariate

Table 7. Results of Multivariate Modeling of Linear Regression Variables Associated with the Quality of Nursing Care (n = 235)

Type	B	Beta	r	R2	Pvalue
Constant	65,139		0.816	0.666	0.000
Nurse Burnout	- 0,189	-0,390			
Patient Safety Culture	0,190	0,723			

**Table 8. Final Modeling Results of Linear Regression Equations
Y=a+b1X1+b2X2**

$$\text{Quality of Nursing Care} = 65.139 - 0.189 \text{ nurse burnout} + 0.190 \text{ patient safety culture}$$

The explanation of the regression equation model above can be explained as follows:

- The value obtained is 65,139, which means that if the variables of nurse burnout and safety culture are assumed to be 0, then the quality value of nursing care is 65,139.
- The regression coefficient value of the nurse burnout variable is negative at -0.189, which means that if there is a 1% increase in the nurse burnout variable, it will cause a decrease in the quality of nursing care by -0.189.
- The regression coefficient value of the patient safety culture variable is positive at 0.190, which means that if there is a 1% increase in the patient safety culture variable, it will cause an increase in the quality of nursing care by 0.190.

Based on the table, it is also known that the correlation value r of 0.816 shows that the relationship between nurse burnout and patient safety culture with the quality of nursing care is very strong. In the test, the value coefficient (R-square) is 0.666. This means that there is an ability to influence independent variables, namely nurse burnout and patient safety culture, by 66.6%, with the dependent variable of nursing care quality. While the remaining 33.4% were described as having a relationship with variables other than independent variables outside this study.

Discussion

Nurse Burnout in Type B Hospital in Central Sulawesi Province

The results showed that data in Type B Hospital of Central Sulawesi Province related to nurse burnout showed that it was in the sufficient category. Previous research has shown that the category of burnout nurses can moderately affect the quality of nursing care. A study by Cañadas-De la Fuente et al. It found that nurse burnout was associated with decreased quality of care, length of time of care, and patient satisfaction. In addition, burnout of nurses can lead to a decrease in empathy and effective communication with patients (Kulakaç & Uzun, 2023).

Burnout can occur because there is no significant career development, either because of a lack of opportunities or inappropriate education levels. Burnout can be said

to be the result of a mismatch between workers and their jobs; adjustments between education and assigned tasks need to be considered. A low level of education, if faced with tasks and workloads that exceed its capabilities, tends to increase stress and burnout (Mirza et al., 2022).

Burnout is more common in young individuals. This is because young individuals have less work experience than older ones. As we age, generally, individuals become more stable, more mature, and have a realistic outlook on life. This makes older individuals able to withstand burnout (Hidayat & Sureskiarti, 2020; Sabrina et al., 2023)

This is in line with stating that age is related to the maturity and maturity of nurses. This shows that the age of nurses can affect the quality of service, thinking rationally and wisely, and controlling emotions. The longer a person works, the more skilled and experienced he will be in dealing with problems in his work. This is in line with research that there is a relationship between the length of work and the performance of nurses in the inpatient room. The longer the work, the more it will affect the performance of the nurse, including how to respond to problems encountered at work. Gender is not a cause of burnout but is linked to factors such as role expectations and employment rates. Different forms of burnout between men and women can be a reflection of the different characteristics of the jobs they have, such as differences in the intensity of relationships with clients, positions within institutions, and others (Hidayat & Sureskiarti, 2020; Majannang et al., 2021).

Hospitals are required to provide good service to the community by utilizing their health facilities. These demands can be a source of stress for nurses, especially if accompanied by high workloads, limited resources, and a lack of organizational support. In such conditions, nurses can experience burnout characterized by emotional exhaustion, depersonalization, and decreased self-achievement. This can have an impact on decreasing the quality of nursing care provided to patients. Thus, nurse burnout needs to be a special concern in order to support better health services. Burnout in nurses needs to be managed, considering burnout can affect performance, including a decrease in work motivation and work performance (Wirati et al., 2020).

Safety Culture in Type B Hospital of Central Sulawesi Province

Some research suggests that a nurse's age can influence perceptions and behaviors related to patient safety culture. Older nurses tend to have a better understanding of patient safety and are more compliant with safety procedures. Gender can affect patient safety culture. Female nurses report having a more positive perception of patient safety culture than male nurses. The nurse level can also affect patient safety culture. Nurses with higher education, such as nurses who graduated from Ners, tend to have a better understanding of the concept of patient safety. The length of a nurse's work experience can affect the culture of patient safety. Nurses with longer work experience generally have a better understanding and commitment to patient safety.

Patient safety culture is a major concern in healthcare. Healthcare organizations such as hospitals with a positive safety culture have the characteristics of being able to communicate with mutual trust, share perceptions of the importance of safety, and trust preventive measures. Research at Banda Aceh Hospital shows that efforts to implement patient safety (patient safety) are in the category of not good. The same research was also conducted by Bekasi City Hospital, which showed that nurses practice good patient

safety. This shows that the implementation of a patient safety culture needs to be a concern and is important to ensure patient safety (Labrague, 2024; Tucker et al., 2023).

Quality of Nursing Care in Type B Hospital of Central Sulawesi Province.

More senior nurses tend to have better experience and skills in providing caregiving, but younger nurses can be more adaptive to technological developments and new procedures. Nurses with higher levels of education can provide a more comprehensive education and critical thinking. Nurses with longer work experience tend to have better clinical competence and can provide more efficient care, but nurses with limited experience can also provide new perspectives and innovative ideas. Meanwhile, male nurses are considered more assertive and efficient in handling situations. Male and female nurses can use different approaches and communication styles when providing services. Their level of therapeutic communication and professionalism in providing nursing care is as good as that of female nurses.

Nurses who provide good nursing care services to patients will make patients feel satisfied and will speed up the healing process. Conversely, implementing nurses who are less than optimal in providing nursing care services will make patients feel less satisfied and will slow down the patient's recovery process. The existence of a reciprocal relationship between the quality of nursing care and patient satisfaction further proves that the relationship between the two is very close. This shows that quality nursing care is related to the extent to which the physical, psychosocial, and extra care needs of patients are met, which will also affect the care process undertaken by patients.

The Relationship between Nurse Burnout and the Quality of Nursing Care in Type B Hospitals in Central Sulawesi Province.

The results showed that nurse burnout and the quality of nursing care were significantly related to the quality of nursing care in the Type B Hospital of Central Sulawesi Province. Shows the result of the correlation strength of the two weak variables negative. With a negative value indicates that the two variables are not in the same direction, which means that if burnout is weak, the quality of nursing care increases. A study conducted by Shi et al. (2023) on nurses in Canada revealed that nurse burnout gave higher scores on measures of quality of care, including patient safety and time effectiveness.

Burnout in nurses needs to be managed, considering burnout can affect the quality of nursing care services. Karasek and Theorell's Demand-Control-Support model supports this phenomenon. According to this model, burnout occurs when job demands are high while control over work and social support is low. Nurses who are in this condition will be more prone to burnout, which in turn affects the quality of their work, including nursing care (Roth et al., 2021; Wirati et al., 2020).

The results showed that, in general, nurses who were the subjects of the study had sufficient levels of emotional exhaustion. This means that the nurse feels emotionally exhausted in carrying out her duties and responsibilities. While nurses in the study had relatively low rates of depersonalization in general, a finding could be a positive consideration, as it suggests that nurses still maintain a caring attitude and good emotional engagement toward their patients. These results show that nurses have a good level of personal achievement, which means that most nurses feel that they can achieve their expected goals and achievements. Overall, the results describe the profile

of nurse burnout and where they experience it. In this 3-dimensional study, the majority of burnout is still in the low to medium stage, but it must be noted this is feared to show a trend where there is an increase in the incidence of burnout from low to moderate for emotional exhaustion if there is no improvement then this condition will develop further towards increasing Cynicism (Mirza et al., 2022).

It is thus important for healthcare institutions to understand and manage burnout among nurses. Some of the steps that can be taken include providing emotional and professional support, managing workloads, improving work control, and creating a positive work environment (Burnitt et al., 2024; Hasan et al., 2023; Hetherington et al., 2024).

The Relationship between Patient Safety Culture and the Quality of Nursing Care in Type B Hospitals, Sulawesi Province, Central Sulawesi

The results of research at Type B Hospital in Central Sulawesi Province showed a significant relationship between patient safety culture and the quality of nursing care. With the value of the strength of correlation, both variables are strongly positive. In line with Smiley et al. (2024), research on nurses in Malaysia revealed a strong positive relationship between patient safety culture and the quality of nursing care. Thus, if the culture of patient safety improves, the quality of nursing care will also increase. It can be concluded that a strong patient safety culture in the healthcare environment has an important role to play in improving the quality of nursing care provided.

Patient safety culture is said to be successful if all elements in the hospital apply patient safety culture in their daily work (Taskin et al., 2024). Assessment of patient safety culture can be carried out based on six dimensions, including teamwork climate, safety climate, job satisfaction, management perception, stress recognition, and working conditions (Ningrum et al., 2019; Zimmermann et al., 2013). The results of research conducted by researchers show that the dimension of Teamwork Climate in organizations is quite good among units or hospitals. Research shows that a fairly good teamwork climate, with effective coordination and collaboration between members, is positively related to patient satisfaction with health services. Teams that work well together and support each other can create a safe and effective environment to provide quality care to patients (Heidari et al., 2022).

The Safety Climate is greater than the teamwork climate dimension. Higher grade point averages indicate that staff perceptions of the safety climate vary significantly among nurses. This is in line with the research conducted that staff perceptions of organizational commitment in prioritizing patient safety are closely related to low medical incidence and error rates. Hospitals that have a strong safety climate, where staff feel supported and motivated to report misconduct, tend to have better safety cultures (Nikpour & Carthon, 2023).

The quality of nursing care provided by nurses is very influential in an effort to maintain patient safety. The better the nurse provides nursing care services, the more capable the nurse is of implementing a patient safety culture. The results of this study provide important information that improving patient safety culture in the healthcare environment will have a positive impact on the quality of nursing care provided. This can be a consideration for hospital management or other health service institutions to increase the focus on patient safety culture in an effort to improve the quality of care

services (Brewer et al., 2023).

The Variables Associated Most Dominant with the Quality of Nursing Care in Type B Hospitals in Central Sulawesi Province.

The results showed that the dominant variable affecting the quality of nursing care was patient safety culture. In line with the results of a cross-sectional study conducted by nurses in Turkey, a significant positive correlation between patient safety culture and the quality of nursing care was found (Xue et al., 2024). So, it can be concluded that patient safety culture has a strong positive correlation that is more dominant with the quality of nursing care compared to the burnout rate of weak negative nurses. Thus, it can be concluded that the results of the study show that the relationship of patient safety culture to the quality of nursing care is more dominant than nurse burnout.

Improving the culture of patient safety and maintaining nursing care services improves the quality of nurse performance in the hospital. The quality of nursing care provided by nurses is very influential in an effort to maintain patient safety. The better the nurse in implementing and maintaining a culture of patient safety, the more able the nurse is to provide quality nursing care services. The quality of nursing care is in accordance with the reality and context in the hospital, and there are six dimensions of assessment of the quality of nursing care, consisting of patient satisfaction, health promotion, prevention of complications, well-being, and self-care as well as functional readaptation and organization of nursing care (Muir et al., 2022).

The results of research on the quality dimension of nursing care show that the patient satisfaction dimension. This shows that, in general, the assessment of nurses' perceptions of the patient satisfaction dimension has good results with nursing care provided at the hospital. According to research by Safitri et al. (2021), the patient satisfaction dimension includes aspects such as good communication between nurses and patients, nurses' ability to provide clear information, and nurses' attention and empathy for patient needs.

Health Promotion shows that hospitals are quite good at providing health promotion to patients, but there is still room for improvement. According to Safitri et al. (2021), the health promotion dimension is related to the extent to which nurses provide adequate education and information to patients and families regarding treatment, healthy lifestyles, and prevention of complications. These results show that hospitals are doing quite well in providing health promotion, but there are still efforts for improvement.

Prevention of complications shows that hospitals are quite good at preventing them. According to research by Safitri et al. (2021), the dimension of complication prevention includes nurses' efforts to monitor patients' vital signs, take preventive measures, and identify and manage possible complications. These results indicate that the hospital is quite good at preventing complications in patients.

In these results, well-being & self-care indicate that the hospital is very good at meeting the welfare and self-care needs of patients. According to Safitri et al. (2021), the dimensions of well-being and self-care include nurses' efforts to meet patients' basic needs, such as nutrition, hygiene, and comfort. These results show that hospitals are very good at meeting patients' well-being and self-care needs.

Functional adaptation shows that hospitals are excellent at facilitating the

functional adaptation of patients. According to Safitri et al. (2021), the functional adaptation dimension relates to nurses' efforts in facilitating patients to adapt to their health conditions and carry out daily activities independently. These results indicate that hospitals are particularly good at facilitating patients' functional adaptation. Nursing care organizations indicate that nursing care organizations in this type of hospital are very good. According to Safitri et al. (2021), the organizational dimension of nursing care includes aspects such as coordination and collaboration between nurses, effectiveness in providing care, and good documentation. These results show that the nursing care organization in this hospital is already very good.

Responsibility and thoroughness show that the hospital is good enough to carry out its responsibilities and provide nursing care. According to Safitri et al. (2021), the dimensions of responsibility and accuracy are related to the ability of nurses to carry out their duties and responsibilities carefully, thoroughly, and in accordance with nursing practice standards.

Overall, these data show that the quality of nursing care in type B hospitals with several dimensions is very good, such as well-being & self-care, functional adaptation, and nursing care organization. However, there is still room for improvement, especially in the dimension of health promotion. Building a strong patient safety culture is key to improving the quality of care provided to patients. The variable that is most dominant in the quality of nursing care in Type B Hospitals in Central Sulawesi Province is patient safety culture. This shows that the quality of nursing care that runs in Type B Hospitals in Central Sulawesi Province has a very close relationship with the implementation of patient safety culture. A patient safety culture that is done correctly means that reporting patient safety incidents is carried out correctly, and this is one of the important things to maintain good performance, prudence, and service from nurses, which will ultimately affect the quality of nursing care provided.

CONCLUSION

Burnout among nurses at Type B Hospital in Central Sulawesi is moderate and requires attention to prevent worsening. The hospital demonstrates a strong patient safety culture and good nursing care quality, indicating effective service provision. A significant negative relationship exists between nurse burnout and care quality: lower burnout leads to higher care quality. Additionally, a significant positive relationship is observed between patient safety culture and care quality: a better safety culture results in higher care quality. Patient safety culture is the most dominant factor affecting nursing care quality. Nurses are advised to enhance stress management, proactively address burnout, strengthen patient safety culture, and improve care competencies. Hospitals should focus on addressing nurse burnout by developing coping strategies, reinforcing patient safety culture, and ensuring adequate resources. Educational institutions should integrate stress management training into curricula, emphasize the importance of patient safety culture, and establish hospital partnerships. Researchers should employ qualitative approaches, broaden the variable scope, and design effective well-being programs for nurses. This research highlights the interconnectedness of nurse burnout, patient safety culture, and nursing care quality. Organizational support and effective communication are crucial for reducing nurse burnout and fostering a positive patient

safety culture. For hospital administrators and policymakers, the study suggests strategies to improve nursing care quality, such as implementing stress management programs and creating supportive work environments. Enhancing patient safety culture through training and policy changes can significantly improve patient outcomes and satisfaction. Addressing both nurse burnout and patient safety culture is essential for healthcare facilities to implement effective measures for overall quality improvement in nursing care.

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