



Nursing Skills Impact Patient Anxiety Levels in Emergency Unit

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ABSTRACT

Anxiety within a family, especially for families with hospitalized members, is a form of emotional needs disruption due to inadequate fulfillment. This study examines the association between nurses' skills and patient anxiety levels in the Emergency Unit of Wuluhan Health Center in 2024. The research employs a cross-sectional design. A total of 55 respondents who visited the Emergency Unit of Wuluhan Health Center between September and November 2024 were included as study subjects. This study identifies the independent variable as the nursing skills in the Emergency Unit of Wuluhan Health Center, and the dependent variable is the anxiety level of patients in the same unit. Participants were chosen through purposive sampling. The study applies the Rank Spearman analysis. The research findings show a p -value of $0.000 < \alpha (0.05)$, Establishing a significant connection between nursing skills and patient anxiety outcomes in the Emergency Unit of Wuluhan Health Center. By improving nurses' skills and their relationship with patients, anxiety levels can be reduced to a lower degree. This study contributes to the existing literature by highlighting the specific correlation between nurses' technical and interpersonal skills and patients' anxiety levels in a primary care emergency setting. Unlike previous studies, this research focuses on a primary health center, providing insights into frontline nursing practices in under-resourced emergency units.

Keywords: *Anxiety Levels, Patients, Nursing Skills, Emergency Unit*

1. INTRODUCTION

Anxiety is an emotional disorder that individuals may experience, especially when facing unstable health conditions requiring treatment in healthcare facilities. Patients admitted to hospitals, particularly in the Emergency Room (ER), commonly experience anxiety triggered by the lack of clarity about their condition, upcoming medical procedures, and the high-pressure, busy environment of the ER (Asti et al., 2020). The term "emergency care" is often associated with life-threatening conditions, which can heighten patients' fear and anxiety. Patients in the Emergency Unit frequently experience anxiety and require clear information about medical interventions and the prognosis of their condition (Lainsampetty & Wuisang, 2022; Purwacaraka et al., 2022).

Emergency department visits have been increasing globally. According to World Health Organization tahun 2022, the total number of patient visits to emergency units worldwide reached 131.3 million, with 38 million visits related to injuries and 3 million visits related to psychiatric disorders or other conditions. In Indonesia, The total visits to the ER remains relatively high. In 2017, a total of 4,402,205 patients accessed emergency room services, with 12% of these visits originating from referrals from various hospitals (Direktorat Jenderal Pelayanan Kesehatan, 2022). Meanwhile, in East

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Java, the number of patient visits to health centers reached 22.922.247, with Jember Regency ranking second highest, recording a total of 24.000 patient visits (Dinas Kesehatan Jawa Timur, 2024).

Anxiety experienced by patients in the ER represents a serious concern. Observational studies and interviews conducted at the ER of Regional General Hospital (RSUD) dr. Zainoel Abidin revealed that among 110 patients surveyed, 29 experienced severe anxiety, while 81 exhibited moderate anxiety (Hayaturrahmi & Halimuddin, 2018). Similarly, observations at the Wuluhan Health Center ER in May 2024 indicated that 15 patients displayed uncooperative behavior towards healthcare providers, exhibited symptoms of panic, resisted treatment, and frequently sought information regarding medical interventions and prognosis. These findings suggest that hospitalization at the facility contributes to increased patient anxiety.

Several factors contribute to patient anxiety in the emergency room (ER), including unstable health conditions, inadequate waiting room facilities, lack of social support, and limited access to information regarding their medical status (Telaumbanua & Sahrudi, 2022). Unmanaged anxiety can have adverse effects on the recovery process, potentially worsening the patient's condition, delaying treatment, and increasing the risk of complications (Murdiman et al., 2019; Samadbeik et al., 2024). Therefore, the nurse's role in managing patient anxiety is crucial to ensuring optimal care and improving patient outcomes.

As healthcare professionals who remain by the patient's side 24 hours a day, nurses are responsible for providing clear and effective information regarding the patient's condition, treatment procedures, and disease progression. Their communication abilities and skills in delivering easily understandable explanations play a crucial role in influencing patients' anxiety levels. A nurse's inability to effectively manage patient anxiety may result in increased restlessness, frequent questioning about recovery and discharge, and heightened signs of emotional distress (Elasari et al., 2023; Murdiman et al., 2019).

Recent studies have explored various factors contributing to patient anxiety in emergency departments, including communication styles, environmental stressors, and waiting times (Fadila et al., 2024; Huzaifah & Iswara, 2023; Setiyanto, 2023). However, limited studies have examined this issue in primary care emergency units in rural settings. This study aims to fill this gap by focusing on Wuluhan Health Center, offering a unique perspective on how nurses' skill levels impact anxiety in such contexts.

Based on the explanation above, this study aims to analyze the relationship between nursing skills and patient anxiety levels in the Emergency Unit of Wuluhan Health Center. The findings of this study are expected to serve as a foundation for improving the quality of nursing care to reduce patient anxiety during treatment in the emergency unit.

2. METHODS

This study employed a quantitative analytic approach with a cross-sectional design, aiming to examine the relationship between nurses' skills and patients' anxiety levels in the Emergency Unit of Wuluhan Health Center.

The population in this study comprised all patients who visited the Emergency Unit from September to November 2024. Based on the estimated average number of monthly visits (approximately 60 patients), a total of 55 respondents were selected using purposive sampling. This method was chosen to ensure that participants met specific inclusion criteria, namely: being conscious, cooperative, and willing to participate.

The sample size was calculated using Slovin's Formula:

$$n = \frac{N}{1 + Ne^2} \quad (1)$$

where:

n = sample size

N = population (estimated average monthly ER patients = ±60)

e = margin of error (0.05 or 5%)

Thus, with an estimated N of 60:

$$n = \frac{60}{1 + 60(0,05)^2} = \frac{60}{1,15} \approx 52,17 \rightarrow 55$$

To measure anxiety levels, the study employed the Hamilton Anxiety Rating Scale (HARS), consisting of 14 items scored on a scale from 0 to 4. The instrument has been proven valid (r count = 0.712) and reliable (Cronbach's alpha = 0.86), indicating a high level of internal consistency.

Nursing skills were assessed using a researcher-developed checklist that evaluated two domains: technical skills (e.g., intravenous insertion, wound care, CPR) and interpersonal skills (e.g., communication, empathy, and clarity of explanation). The instrument was validated by expert judgment and achieved a Content Validity Index (CVI) greater than 0.80, indicating good content validity.

The research procedure began with obtaining ethical approval from the Health Research Ethics Committee of STIKES Banyuwangi. Respondents were recruited after stabilization in the Emergency Unit and were asked to provide informed consent prior to participation. The data collection process was conducted by administering questionnaires directly to the participants after they had received treatment. All collected data were tabulated and analyzed accordingly.

Statistical analysis was performed using the Spearman Rank correlation test to examine the relationship between nurses' skills and patients' anxiety levels, with a significance level set at $\alpha = 0.05$.

This research was approved by the Health Research Ethics Commission of STIKES Banyuwangi under letter number: **No. 015/01/KEPK-STIKESBWI/VIII/2024-2025**.

3. RESULT AND DISCUSSION

RESULTS

The frequency distribution of respondents is presented in Figures 1–3, providing a clear overview of their demographic characteristics. The data illustrated in [Figure 1](#) show that nearly half of the respondents were aged 45–59 years (44%), while [Figure 2](#) indicates that the majority were female (58%). Furthermore, [Figure 3](#) demonstrates that a considerable proportion of respondents had a higher education background (33%), suggesting that the sample is predominantly composed of middle-aged female respondents with relatively higher educational attainment.

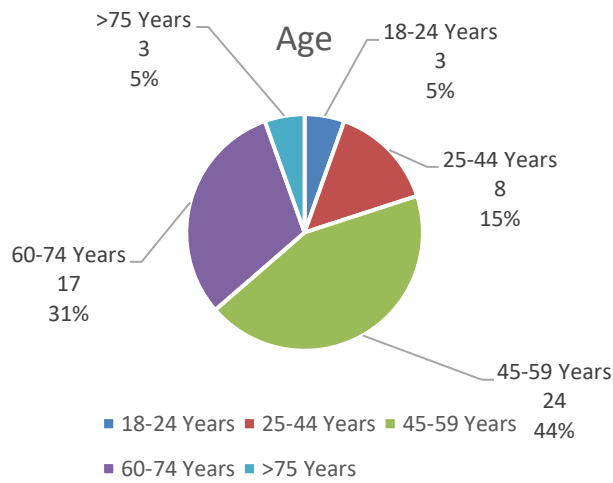


Fig. 1. Frequency Distribution of Respondent Frequency by Age

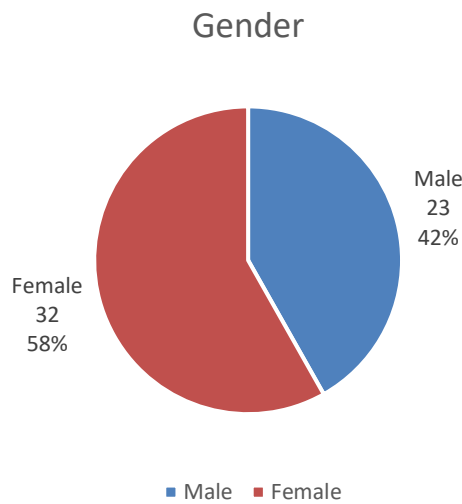


Fig. 2. Frequency Distribution of Respondent Frequency by Gender

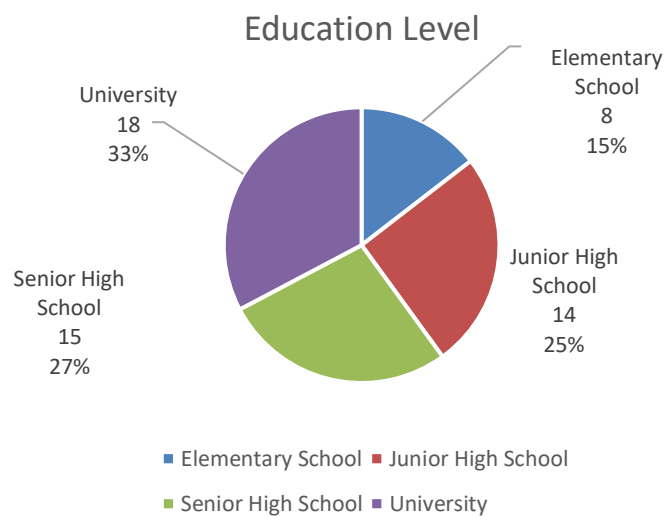


Fig. 3. Frequency Distribution of Respondent Frequency by Education

Table 1. Distribution of Respondents by Levels of Patient Anxiety and Nurses' Skills

Variable	f	%
Patient Anxiety Levels		
Mild Anxiety	4	7,3
Moderate Anxiety	25	45,5
Moderate-Severe Anxiety	20	36,4
Severe Anxiety	6	10,9
Total	55	100,0
Nurses' Skills		
Highly Skilled	17	30,9
Moderately Skilled	31	56,4
Less Skilled	7	12,7
Total	55	100,0

Based on the information in [Table 1](#) above, nearly half of the respondents (45.5%) experienced moderate anxiety during their examination in the Emergency Unit of Wuluh Health Center, Jember. The majority of nurses in the Emergency Unit were categorized as moderately skilled, accounting for 56.4%.

Table 2. Relationship Analysis Between Nurses' Skills and Anxiety Levels Among Patients in the Emergency Unit

Variable	n	r	p-value
Nurses' Skills × Patient Anxiety Levels	55	-0,475	0.000

The analysis using the Spearman Rank test, as presented in [Table 2](#), shows a p-value of 0.000, which is smaller than the 0.05 cutoff for significance. Thus, it is concluded that there is a meaningful relationship between nursing competencies and patient anxiety in ER of Wuluh Health Center, Jember. The data also indicate a correlation coefficient of -0.475, This reflects a moderate inverse relationship, meaning that higher nursing skills are associated with lower patient anxiety.

DISCUSSION

Nurses stationed in the ER are instrumental in ensuring effective, timely, and accurate interventions for acute cases. The findings of this study indicate that the majority of nurses in the ER of Wuluh Health Center, Jember, are moderately skilled (56.4%). In the nursing profession, skills encompass not only clinical competencies, such as basic medical procedures, but also communication and psychosocial aspects that enhance patient comfort during treatment ([Dewi & Suryono, 2024](#); [Susianta, 2021](#)).

According to [Nusdin et al \(2020\)](#), nursing skills require continuous training to develop and become more effective in patient care. This aligns with the study conducted by [Nurbianto et al \(2021\)](#), which found that at Tangerang City General Hospital, 44% of nurses were highly skilled in triage implementation, while 16% were categorized as moderately skilled. These findings reinforce the notion that higher nursing skills correlate with better quality of care provided to patients.

As frontline medical professionals, emergency unit nurses must possess strong technical skills, including proficiency in Basic Life Support (BLS), intravenous infusion administration, medication delivery, and resuscitation procedures. In addition to these technical competencies, nurses must also have effective therapeutic communication skills to build trust with patients and their families. These communication skills play a crucial role in alleviating patient anxiety, particularly in high-pressure and uncertain emergency situations.

This study also found that nearly half of the respondents (45.5%) experienced moderate anxiety, while 36.4% experienced severe anxiety during their examination in the Emergency Unit of Wuluh Health Center, Jember. Anxiety is a common psychological reaction among emergency unit patients,

primarily due to uncertainty, pain, or concerns about their health condition (Fadila et al., 2024; Huzaifah & Iswara, 2023).

Patient anxiety levels can be influenced by various factors, both intrinsic (internal factors) and extrinsic (external factors). Internal factors include age, gender, education level, and previous experiences with medical care (Karno & Thalib, 2023; Setiyanto, 2023). The majority of respondents treated in the Emergency Department (ED) are in the 45–59-year age range (44%). The dominance of the age group 45–59 years in the ED may be due to the high prevalence of chronic diseases and metabolic complications (such as hypertension, diabetes, and heart disease) that become apparent at this age, as well as a decrease in immune function that increases the need for emergency services. In this age group, the level of anxiety experienced tends to vary from moderate to severe. Middle age is often associated with increased awareness of health risks, family responsibilities, and concerns about disease prognosis, which can potentially increase anxiety during emergency care (Demirtaş et al., 2020). 58% of respondents in the emergency department are female, and this group tends to show a higher level of anxiety compared to males. Psychologically, women are known to have greater emotional vulnerability to stressful situations, including medical emergencies. Hormonal factors, dual roles in the family, and a tendency to be more expressive in conveying fears also contribute to the high levels of anxiety in female patients (Chen et al., 2022). The results of the study show that 33% of respondents in the Emergency Unit had a higher education level (university degree). A higher level of education does not necessarily correlate with lower anxiety. In fact, individuals with advanced education often possess greater health awareness, higher expectations of care, and a stronger demand for comprehensive information. When medical explanations are perceived as insufficient or unclear, these individuals may experience heightened anxiety due to unmet cognitive needs (Samadbeik et al., 2024). External factors include disease diagnosis, emergency unit environment, healthcare professionals' skills, and the way nurses provide care and communicate information to patients (Kim et al., 2023). High levels of anxiety can have adverse effects on patients, such as increased blood pressure and heart rate, as well as impaired physiological responses to treatment. Therefore, managing patient anxiety is a crucial aspect of nursing care in the emergency unit.

The Spearman Rank test results indicate a significant relationship between nurses' skills and patient anxiety levels, with a p-value of 0.000, which is lower than the significance level of 0.05. Additionally, the correlation coefficient (r) = -0.475, indicating a moderate and negative relationship. This implies an inverse relationship, where greater nursing competence corresponds with reduced patient anxiety. Conversely, lower nursing skills are associated with higher patient anxiety levels. These findings are consistent with the study conducted by Novita et al (2020), which also demonstrated a significant relationship between nurses' therapeutic communication and patient anxiety levels in the Emergency Unit of Tamanan Health Center, Bondowoso, with a p-value of 0.000. The same results were also found in a study conducted by Kim (2021). That study emphasized that nurses' skills can help reduce patient anxiety.

In practice, nursing interventions in the emergency unit often begin the moment a patient arrives and continue through the anamnesis process, during which patients tend to express their complaints and fears about their condition. If nurses can provide companionship, assistance, and motivation, patients will feel more comfortable, and their anxiety may decrease. However, if nurses appear indifferent, patients may become more reserved and reluctant to fully disclose their concerns. Therefore, nurses' communication skills play a crucial role in establishing a strong and effective relationship with patients.

Thus, enhancing nurses' skills, both in technical and communication aspects, contributes to reducing patient anxiety levels in the emergency unit. Highly skilled nurses can not only provide swift and accurate medical care but also foster a supportive and calming environment for patients, ultimately lowering or even eliminating their anxiety.

CONCLUSION

A statistically significant moderate negative relationship between nurses' skills and patient anxiety levels in the Emergency Unit of Wuluhan Health Center was identified ($p = 0.000$; $r = -0.475$). Higher levels of nursing competence, encompassing both technical and interpersonal skills, were associated with lower levels of patient anxiety. The role of nurses as providers of both clinical care and psychological support in emergency settings was emphasized in this study. Continuous improvement of nursing competencies, particularly in communication and patient-centered care, is therefore required to enhance the quality of services and to reduce patient anxiety in emergency units.

ADVISE

In nursing practice, it is essential for nurses to continuously develop their technical and communication skills to deliver optimal and humane care. With well-developed skills, nurses can create a more supportive emergency unit environment, ensuring that patients receive not only prompt and accurate medical care but also feel safer and more at ease during treatment. Future studies could explore intervention-based approaches such as nurse communication training or anxiety-reducing assistive technologies (e.g., mobile applications, guided audio) in the ER setting.

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