Self-efficacy and Anxiety of Nursing Students in Performing Medical-Surgical Nursing Practices in Hospitals

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Abstract- *Currently, the transition from laboratory learning to a real clinical environment often causes psychological stress, such as anxiety, especially among students who lack mental preparedness and optimal adaptability. One factor that can influence anxiety is self-efficacy, which is an individual's belief in their ability to complete clinical tasks. This study aims to identify the relationship between self-efficacy and anxiety among nursing students at Klabat University during their nursing practice in hospital. The study employs a quantitative method with a descriptive correlational design using a cross-sectional approach. The sample consists of 87 respondents, and data collection techniques utilize total sampling. Data were analyzed using frequency distribution and percentages, as well as the Spearman Rank correlation test. The results showed that students had high self-efficacy (52.9%), while anxiety was in the moderate category (64.4%). Statistical analysis revealed a significant relationship between self-efficacy and anxiety (p-value = 0.001 and r = -0.563). Conclusion: There is a significant relationship between self-efficacy and anxiety among nursing students in performing nursing practice. Recommendations: Nursing students are advised to improve their self-efficacy by preparing themselves as well as possible, reviewing medical-surgical nursing material, and maintaining a positive mindset during clinical practice. Educational institutions are advised to conduct an evaluation of basic skills prior to clinical practice. Further research is recommended to investigate other factors influencing student anxiety, such as social support, previous practice experience, and academic workload, using a qualitative approach.*

Keywords: Self-efficacy, Anxiety, Nursing Students, Nursing Practice.

I. INTRODUCTION

Clinical practice is an important stage in nursing education because students are required to integrate theory with practical skills in hospitals. However, this phase often causes anxiety due to the heavy responsibility, clinical skill requirements, and direct interaction with patients (Sugiharno et al., 2022; Sun, 2024). Anxiety in students can have a negative impact on concentration, memory, learning ability, and even the quality of nursing care (Wahyuni & Amalia, 2022).

Based on research in the journal Ramadhania and Imamah (2023), the 17-25 age group is most vulnerable to anxiety, which also often arises during the clinical practice of nursing students. This anxiety can range from moderate to panic and affects the learning process.

Factors contributing to nursing students' anxiety include high pressure, uncertainty about their abilities, fear of making mistakes, lack of experience, and difficulties communicating with patients (Fitri & Rizky, 2024). This anxiety can lead to confusion and distorted perceptions, which negatively impact learning, such as reduced concentration, memory, and the ability to connect information. As a result, the effectiveness of clinical learning decreases (Wahyuni & Amalia, 2022).

Onieva-Zafra et al., (2020) mention that nursing students with more experience actually show higher levels of anxiety than those with less experience because they feel that lecturers and nurses have higher expectations of them, so they feel they must appear more competent. These levels of stress and anxiety are also influenced by the location of clinical practice. First-year students are typically placed in general care units with basic responsibilities, while senior students are assigned to more specialized units requiring higher clinical skills. As a result, more experienced students face greater pressure in clinical practice, making them more vulnerable to stress and anxiety.

Research conducted at two universities in Egypt and Saudi Arabia shows that fourth-year nursing students experience higher levels of severe anxiety during clinical training in hospitals than in laboratories (Ahmed et al., 2023; Zafra et al., 2020). These symptoms of anxiety include psychological and physical complaints that can interfere with clinical performance. This anxiety not only affects students' performance but also has a negative impact on the quality of nursing care provided to patients during clinical practice in hospitals. Therefore, it is important for nursing students to overcome anxiety during hospital practice so that it does not interfere with the quality of patient care (Saman, 2022). One way to overcome anxiety is to increase self-efficacy. Students with high self-efficacy feel more confident and are better able to overcome challenges. Strong self-efficacy can help reduce anxiety, improve performance, and facilitate effective interactions with patients (Panyuwa, 2024; Wang et al., 2021).

Research conducted in Canada shows that nursing students with high levels of self-efficacy are able to effectively care for patients. This indicates a positive relationship between students' confidence in their clinical skills and their success in the field (Arribas-Marín et al., 2024). Similar findings were reported in a study in Korea, emphasizing that self-efficacy is a key factor influencing the success of clinical practice (Choi et al., 2023; Marín et al., 2024). Research by Harefa (2023) shows that provinces in Indonesia with the highest prevalence of self-efficacy with anxiety are Java (23.7%), Nusa Tenggara (18.6%), Sumatra (17.3%), Kalimantan (14.6%), Sulawesi (13.6%), Papua (6.5%), and the lowest in Maluku (5.6%) (Sugiharno et al., 2022).

Unlike previous studies on self-efficacy and anxiety among nursing students facing laboratory practical exams, this study fills that gap by focusing on students practicing in hospitals, thereby providing a more realistic picture of students' self-efficacy and anxiety in facing real clinical situations. The research questions in this study are to examine the self-efficacy of nursing students at Klabat University, the anxiety levels of nursing students at Klabat University, and whether there is a relationship between self-efficacy and anxiety among nursing students at Klabat University in performing nursing practices. The purpose of this study

was to identify the relationship between self-efficacy and anxiety among nursing students at Klabat University during their hospital practice.

II.   LITERATURE REVIEW

Anxiety

Anxiety is an emotional state characterized by excessive fear or worry about situations that are perceived as threatening (Krisnawardhani & Noviekayati, 2021). Symptoms of anxiety can be psychological (worry, nervousness, difficulty concentrating) or physical (heart palpitations, trembling, shortness of breath) (Mnusefer et al., 2023; Wu et al., 2021). Anxiety levels are classified as mild, moderate, severe, and panic. Factors causing anxiety in nursing students include uncertainty about their abilities, academic pressure, interactions with patients, supervision, the hospital environment, lack of experience, personal factors, and mental health stigma (Manurung et al., 2024; Syahputra & Putri, 2017). Anxiety aspects include emotional, cognitive, and physical dimensions (Tukatman et al., 2023).

Self efficacy

Self-efficacy is an individual's belief in their ability to complete tasks and overcome challenges (Arsanti et al., 2022). This concept encompasses the dimensions of magnitude (level of difficulty that can be faced), generality (scope of the field), and strength (strength of conviction) (Bandura in Erlina, 2020). Self-efficacy levels are divided into low, moderate, high, and very high, which affect motivation, resilience, and individual performance in clinical practice (Elisabhet et al., 2023; Wijaya, 2024). Factors that influence self-efficacy include direct experience, vicarious experience, verbal persuasion, physiological-emotional conditions, work environment, and education and training (Dianti, 2017; Fitriyah et al., 2019).

Clinical practice in hospitals causes anxiety among students, but high self-efficacy acts as a protective factor by increasing self-confidence, adaptability, and stress management (Sanger & Bernic, 2024). Research by Morales and Marmol (2019) shows that nursing students with high self-efficacy are better prepared to face clinical tasks than those with low self-efficacy.

Interacting with patients is often a source of anxiety, especially in emotional or crisis situations (Leite, 2017). Expressing discomfort in communicating with patients can increase anxiety, especially when students have to manage complex patient feelings or needs, which can be very challenging. According to Syahputra and Putri (2017), nursing students often feel uncertain about their skills and worry that they will not be able to handle complex clinical situations. This uncertainty often stems from feelings of unpreparedness and fear of failure when faced with real health problems in hospitals. Students also face academic pressure from the demands to meet standards in both theory and clinical practice. Rohmah and Mahrus

(2024) state that these demands can cause significant stress, especially for students who find it difficult to balance theory with reality in the field.

III.   MATERIALS AND METHODS

The Materials and Methods section describes how the research was conducted and provides sufficient detail to enable replication or critical assessment. This section serves as a blueprint for the research, ensuring transparency and academic rigor. It should be written clearly, logically, and concisely. To guide authors in presenting this section effectively, the methodology should address the following core components in a logical and organized manner:

1. **Research Desain**

   This study used a quantitative approach with a descriptive correlational analytical design and cross-sectional method. The purpose of this design was to describe the characteristics of the variables and analyze the relationship between self-efficacy and anxiety among nursing students without manipulating the variables.

2. **Participants/Data   sources**

   The study population consisted of fourth-year nursing students in their seventh semester at the Faculty of Nursing, Klabat University, who participated in medical-surgical nursing practice during the 2024/2025 academic year. The researcher collected data using total sampling technique, and obtained 87 respondents who met the inclusion criteria. The inclusion criteria included students who were registered in medical-surgical nursing practice and were willing to participate as respondents; the exclusion criteria included students who were sick, absent, and unwilling to participate in the study.

3. **Instrument**

   To measure anxiety, researchers used a questionnaire adapted from Marhamad et al. (2022) consisting of 36 questions comprising favorable (positive) and unfavorable (negative) questions using a Likert scale. For favorable questions, very agree was given a value of 4, agree was given a value of 3, disagree was given a value of 2, and strongly disagree was given a value of 1. Meanwhile, for unfavorable questions, very agree was given a value of 1, agree was given a value of 2, disagree was given a value of 3, and strongly disagree was given a value of 4. The anxiety categories were mild, moderate, severe, and panic anxiety. The anxiety questionnaire had been tested for reliability and validity, and the results showed a Cronbach's alpha value of 0.872. Meanwhile, to measure self-efficacy, a questionnaire adopted from Marhamad et al. (2022) was used, consisting of 40 questions comprising favorable and unfavorable questions, using a Likert scale. For favorable questions, very agree was given a value of 4, agree was given a value of 3, disagree was given a value of 2, and strongly disagree was given a value of 1. Meanwhile, for unfavorable questions, very Agree was given a value of 1, agree was given a value of 2, disagree was given a value of 3, and strongly disagree was given a value of 4. The categories of self-efficacy are mild, moderate, severe, and

excessive self-efficacy. The self-efficacy questionnaire has been tested for reliability and validity, and the results show a Cronbach's alpha value of 0.909.

4. Procedures

Researchers collected data in classrooms and, before respondents began filling out the questionnaire, provided them with an informed consent form. After all consent forms were signed, the researchers guided the students in understanding how to fill out the questionnaire, provided brief examples of how to answer the statements in the questionnaire, and explained that if there were any obstacles or questions during the filling process, the students could immediately ask for help. During the filling process, the researchers circulated to monitor and ensure that all respondents filled out the questionnaire properly. If any respondents were found to be hesitant or facing difficulties, the researcher provided individual guidance to ensure that the respondents felt comfortable and confident with their answers. In collecting data, the researcher applied research ethics, namely autonomy, beneficence, justice, non-maleficence, veracity, fidelity, and confidentiality.

5. Analysis   Techniques

The research design used in this study was quantitative, using a descriptive correlative analytical method through a cross-sectional approach. For the first and second problems concerning the description of self-efficacy and anxiety among nursing students in performing nursing practices, the frequency and percentage formulas were used. Meanwhile, to answer the third problem with Ha regarding the relationship between self-efficacy and anxiety among nursing students in nursing practice, the researcher used the Spearman Rank formula because the data distribution was not normal. The normality test used Kolmogorov-Smirnov because the sample size was > 50. After analysis, the results showed a sig. value of 0.000 for self-efficacy and a sig. value of 0.000 for the anxiety variable, which indicated a value < 0.05, thus assuming that the distribution of the variable data was not normal.

IV. RESULTS AND DISCUSSION

In Table 1, the results show that the majority of students have high self-efficacy (52.9%) and very high self-efficacy (39.1%), while only a small proportion are in the moderate category (8.0%). This confirms that most students believe in their ability to face clinical practice challenges. These findings are in line with research Elisabhet et al. (2023) and Rodríguez & Mármol, (2019) which emphasizes that high self-efficacy is related to readiness, motivation, and resilience in facing academic pressure.

Self efficacy category	*Frequency*	*Percent*
Moderate self efficacy	7	8.0

High self efficacy	46	52.9
Very High self efficacy	34	39.1
Total	87	100.0

Table 1. Self efficacy description

Table 2 shows that most students' anxiety levels were in the moderate category (64.4%), followed by severe (26.4%) and mild (9.2%). This condition indicates that clinical practice remains a significant source of stress. Factors influencing anxiety include lack of preparedness, pressure from supervisors, interaction with patients, and the demands of the hospital environment (Amadea, 2022; Manurung et al., 2024). Although moderate anxiety can motivate students to focus more, severe anxiety can potentially hinder performance and learning experiences.

Table 2. Description Anxiety

Category Anxiety	*Frequency*	*Percent*
Mild anxiety	8	9.2
Moderate anxiety	56	64.4
Severe anxiety	24	26.4
Total	87	100.0

Table 3 shows the results of the Spearman correlation test, which indicates a significant negative relationship between self-efficacy and anxiety (r = -0.563; p = 0.001), meaning that the higher the self-efficacy, the lower the anxiety level. These results support the findings Marhamad et al. (2022) and (Panyuwa, 2024) which states that self-efficacy acts as a protective factor against anxiety. Thus, increasing self-efficacy through simulation, supportive guidance, and emotional support from clinical supervisors is very important to help students face nursing practice with more confidence.

Table 3. The relationship between self efficacy and anxiety

Variable	*Correlation Coefficient*	Sig. (2-tailed)	Interpretation
Self efficacy with anxiety	-0,563	0,001	Significant

V. CONCLUSION

This study shows that most nursing students have high self-efficacy, while the anxiety experienced during practice is in the moderate category. There is a significant relationship between self-efficacy and anxiety, where the higher the students' confidence in their abilities, the lower the anxiety felt during clinical practice. These findings underscore the importance of efforts to enhance self-efficacy through academic preparation, clinical simulations that mimic real-world conditions, and institutional support. Further research is recommended to explore other factors influencing students' anxiety, while employing qualitative approaches to gain a deeper understanding of their experiences in addressing the challenges of nursing practice.

AUTHOR'S CONTRIBUTION

The first researcher designed the study, collected data, analyzed data, conducted a literature review, assisted in the development of instruments, and interpreted the results, while the second researcher refined the methodology, performed validation, and provided supervision. All authors contributed to the writing, revision, and approval of the final manuscript.

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