The Effect of Self-Efficacy Training on Nursing Students' Anxiety in Facing The National Objective Structured Clinical Examination (Osce) in Medan City

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Abstract

The National Objective Structured Clinical Examination (OSCE) is a key graduation requirement for nursing students, but its implementation often triggers anxiety. This anxiety can lower self-confidence, harm academic performance, and in severe cases, even lead to depression. One effective way to address this challenge is through self-efficacy training, helping students build belief in their ability to complete tasks successfully. Strong self-efficacy fosters motivation, effort, and perseverance, which are essential when preparing for OSCE. This study used a quasi-experimental, one-group pretest–posttest design. Training was delivered in eight sessions, each lasting 60 minutes. The population included all nursing students at Prima Indonesia University, Medan, and a sample of 40 students was selected using total sampling. Anxiety levels were measured with the Hamilton Anxiety Rating Scale (HARS), and data were analyzed using a paired sample T-test. The results showed that self-efficacy training significantly reduced students' anxiety in facing the national OSCE (p = 0.001)

Keywords: Self-efficacy, Anxiety, Nursing Students, National OSCE

INTRODUCTION

Nursing students are future professional nurses who must pass the Objective Structured Clinical Examination (OSCE) before graduation. This exam is designed to comprehensively assess clinical competence(The Association of Indonesian Nurse Education Center, 2025). However, the strict supervision during OSCE often creates psychological pressure, as students feel intensely observed and fear making even the smallest mistake.

This anxiety not only disrupts mental calm but also reduces readiness and concentration, leaving many students less prepared due to excessive worry and fear of failure(Raka et al., 2023). Anxiety has been defined as a subjective emotional state marked by fear, tension, and worry (Stinson et al., 2020). Exam anxiety, in particular, involves physical, cognitive, and behavioral changes before, during, and after assessments, and is often described as "intense stress." Such anxiety can lower academic achievement and increase dropout rates (Jarso et al., 2023).

Research consistently shows that final-year nursing students experience higher anxiety levels compared to juniors, with stress increasing significantly in the last semesters (Vo et al.,

2023;Onieva-Zafra et al., 2020) High anxiety negatively impacts both academic success and overall well-being (Cornine, 2020).

Excessive anxiety can lead to depression, reduced self-confidence, and sleep disturbances (Indrayani et al., 2023). Studies confirm that the national OSCE is a major source of stress, often causing symptoms such as depression, anxiety, and even physical discomfort like back pain during preparation (Yükselmiş & Dönmezdil, 2022; Chen et al., 2022).

One promising strategy to reduce anxiety is strengthening internal potential, particularly self-confidence and self-efficacy. Students with high self-confidence view exams as challenges to be conquered and adapt better to stressful situations (Mitropoulou et al., 2024). Self-efficacy, defined as belief in one's ability to manage tasks and challenges, empowers students to use cognitive skills, persevere, and transform obstacles into opportunities for success (Bhati & Sethy, 2022).

Students with high self-efficacy are generally better at controlling emotions and rarely experience debilitating anxiety. In contrast, those with low self-efficacy often perceive exams as threats, leading to fear, avoidance, and poor performance (Ningsih & Jayanti, 2022). Low self-efficacy is associated with underestimating abilities, lack of preparation, and weak performance goals, while high self-efficacy fosters persistence, resilience, and reduced emotional distress.

Self-efficacy is therefore a key determinant of future performance. It helps students manage demands, reduce anxiety, and develop motivation and learning strategies. Building self-efficacy is crucial for nursing students to face OSCE challenges with confidence. Yuliati et al. Yuliati et al. (2024) emphasize that self-efficacy improves performance, encourages self-regulation, strengthens resilience, and enhances well-being.

A preliminary survey of 15 final-year students revealed that all experienced anxiety when thinking about the OSCE. Six reported moderate anxiety (tension, worry, difficulty concentrating, mild sleep disturbances), while nine reported severe anxiety (palpitations, insomnia, loss of appetite, nausea, stomach pain). Common concerns included lack of confidence, fear of mistakes, fear of failure, and intrusive thoughts about the exam. Importantly, no self-efficacy training had yet been provided to these students.

Based on these findings and prior research, self-efficacy training emerges as a promising intervention to reduce OSCE-related anxiety. Therefore, this study, "The Effect of Self-Efficacy Training on Nursing Students' Anxiety in Facing the OSCE", aims to test whether eight sessions (480 minutes) of self-efficacy training can significantly reduce anxiety

levels, as measured by the Hamilton Anxiety Rating Scale (HARS), among final-year nursing students preparing for the national OSCE.

METHODS

This study employed a quasi-experimental, one-group pretest–posttest design to examine the effect of self-efficacy training on nursing students' anxiety in facing the National OSCE. The research was conducted with final-year nursing students at the Faculty of Nursing and Midwifery, Prima Indonesia University, Medan, Indonesia.

The intervention consisted of eight training sessions, each lasting 60 minutes. Every session was divided into two parts: First 30 minutes: focused on positive self-talk, helping students calm themselves during stress or panic, replace negative thoughts with positive affirmations, and improve focus and performance during the OSCE; Second 30 minutes: emphasized verbal persuasion, providing encouragement and reinforcing confidence that effort and persistence can lead to success; The study population included all sixth-semester nursing students in the regular stream, while students from the special stream were excluded. Using total sampling, a final sample of 40 students was obtained.

Two validated instruments were used: The Self-Efficacy Questionnaire to measure students' confidence in their abilities; The Hamilton Rating Scale for Anxiety (HARS) to assess anxiety levels based on observable symptoms.

Before conducting bivariate analysis, a Shapiro–Wilk test was performed, yielding a value of 0.220, which indicated normal data distribution. Therefore, the analysis proceeded using a paired t-test. Ethical approval was obtained from the Research Ethics Committee (No. 117/KEPK/UNPRI/IV/2025). Ethical considerations included maintaining the confidentiality of all collected data and ensuring that each participant provided written informed consent before joining the study.

RESULT

Table 1 presents the frequency distribution and percentage of respondent characteristics based on age and anxiety levels before and after the intervention in the 40 respondents studied.

Based on the table, A total of 40 respondents were in the young adult age range, with the largest proportion aged 24–25 years. Before the intervention, all respondents experienced clinical anxiety (50% moderate and 50% severe). After the intervention, the majority of respondents were no longer anxious (60%) or only mildly anxious (35%), with no cases of severe anxiety, indicating a significant decrease in anxiety levels.

Table 1. Respondent Characteristics (F=40)

Characteristics	Frequency (f)	Percentage (%)
Age		
23 years old	9	22.5
24 years old	17	42.5
25 years old	14	35.0
Pretest Anxiety		
No anxiety	0	0.0
Mild anxiety	0	0.0
Moderate anxiety	20	50.0
Severe anxiety	20	50.0
Posttest Anxiety		
No anxiety	24	60.0
Mild anxiety	14	35.0
Moderate anxiety	2	5.0
Severe anxiety	0	0.0
Total	**40**	**100.0**

Based on the Shapiro-Wilk test, the p-value was 0.367, indicating a normal distribution of the data. Therefore, the statistical test used the Paired Samples T-Test, as shown in the following table:

Table 2. Mean, Std. Deviation and Correlation between Pretest and Posttest

	Mean	Std. Deviation	Correlation
Preetest	72.7500	8.912	0,699
Posttest	42.8000	8.234	

Table 2 shows the mean pretest 72.7500 and posttest 42.800, standard deviation 8.912 and 8.234 with a correlation of 0.699.

Table 3. Mean, Std. Deviation, and Correlation Pretest-Posttest

	Mean	Std. Deviation	95% CI		t	P value
Preetest-posttest			Lower	Upper		
	29.950	6.679	27.814	32.087	28.359	0.001

Table 3 shows that in the pretest-posttest there was a mean increase of 29.95, 95% CI: 27.814-32.087, t = 28.359, and p 0.001. From the description, it shows that there was a decrease in the pretest-posttest mean of 29.95, 95% CI (the actual mean difference was between 27.814 to 32.097), a very high t value indicates that the difference between the scores before and after the treatment was very strong and did not occur by chance. P 0.001 indicates that there is an effect of self-efficacy training on student anxiety in facing OSCE in Medan City

DISCUSSION

The results showed that before the intervention, 50% of respondents experienced severe anxiety, while after the intervention, 60% reported no anxiety. This finding supports the view of Swastiratu & Izzaty (2022) , who noted that low self-efficacy often triggers anxiety before individuals face challenges. Self-efficacy reflects a student's belief in their ability to perform tasks, achieve goals, and overcome obstacles in learning. It influences task choice, effort, persistence, and achievement (Sucitno et al., 2020). Higher self-efficacy and positive thinking are consistently linked to reduced anxiety, including in public speaking contexts (Nurhasanah, 2021; Jendra & Sugiyo, 2020).

In general, students with strong self-efficacy are more critical thinkers, generate more ideas, make braver decisions, and can explain solutions to problems more confidently (Sukma & Priatna, 2021). Self-efficacy can be strengthened by recognizing one's abilities, setting goals, planning, and conducting regular self-evaluations, rather than comparing oneself to others (Anggoro Saputro, 2021; (Hanafi et al., 2021).

Statistical analysis using a paired samples t-test showed a p-value of 0.001, with mean pretest anxiety scores of 72.75 and posttest scores of 42.80, indicating a significant reduction. These results confirm that self-efficacy training effectively reduced moderate to severe anxiety, allowing most participants to face the OSCE without severe symptoms. This finding is consistent with Meiliana & Rachmaniah (2024), who reported that nursing students with higher self-efficacy experienced lower anxiety during competency exams. Anxiety, if left unmanaged, can negatively affect both physical and mental health, especially under conditions of high academic pressure and competition (Kurnia et al., 2025).

Further evidence supports this link. Croy et al., (2020) found that self-efficacy training simulations significantly reduced anxiety levels, while Albikawi & Abuadas (2025) confirmed that higher self-efficacy consistently predicted lower anxiety. Self-efficacy is also recognized as a promising predictor of psychological well-being, helping individuals manage stress, reduce anxiety and depression, and build resilience (Melo et al., 2021). One of the roles of self-efficacy is the affective process, where the perception of self-efficacy regarding one's ability to control sources of stress plays an important role in the emergence of anxiety (Sari et al., 2024).

Theoretically, these results align with Lazarus's Cognitive Emotion Theory(1991), which explains that anxiety arises from an appraisal of situations perceived as threatening. Self-efficacy-enhancing practices help reframe these appraisals, encouraging individuals to face challenges openly and reduce emotional stress responses.

They also reflect Bandura's Self-Efficacy Theory (Badura 1997) which identifies four key sources of self-efficacy: Successful experiences (e.g., completing a simulated OSCE builds confidence); Vicarious experiences (observing peers succeed fosters belief in one's own ability); Verbal persuasion (encouragement and positive feedback from lecturers and peers). And Physiological and emotional states (managing anxiety, maintaining emotional stability, and physical fitness). These mechanisms explain why self-efficacy training significantly reduced anxiety among nursing students preparing for the OSCE.

This study was conducted using a single-group design without a control group. While this limits the ability to compare outcomes across different groups, the study was still able to demonstrate significant improvements between pre- and post-intervention conditions. For future research, it is recommended to adopt a true experimental design that includes a control group, a larger sample size, and careful consideration of external variables that may influence the results. These steps will strengthen the validity of findings and provide a more comprehensive understanding of the effectiveness of self-efficacy training in reducing anxiety among nursing students

CONCLUSION

The results of this study confirmed that self-efficacy training significantly reduced anxiety levels among nursing students preparing for the National OSCE ($p = 0.000$). Based on these findings, it is recommended that self-efficacy training be implemented routinely at the end of learning sessions, particularly for final-year students. Regular training can help strengthen mental preparedness and self-confidence, ensuring students are better equipped to face the challenges of the National OSCE.

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