



## NURSING STUDENTS' ANXIETY AND SELF-CONFIDENCE IN CLINICAL DECISION-MAKING

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### Abstract

**Background:** Anxiety and Self-Confidence in Clinical Decision-Making" revolves around the challenges and importance of clinical decision-making in the education and training of nursing students.

**Objective:** This study aims to explore nursing students' anxiety and self-confidence in clinical decision-making.

**Methodology:** This cross-sectional analytical study was conducted in a private nursing institute in Peshawar, Pakistan, from June to August 2023. A total of 80 nursing students from year one and year 2 were recruited through a convenient sampling technique.

**Result:** Study findings show that (56.3%) have high levels of self-confidence, (41.3%) moderate self-confidence and (2.5%) low self-confidence. Similarly, (41.3%) had low, (40.0%) moderate and (18.8%) high anxiety. However, the analysis revealed a weak negative correlation between self-confidence and anxiety p-value of 0.224.

**Conclusion:** The study revealed significant proportions of high and moderate self-confidence and few with low self-confidence. Moreover, low anxiety levels (41.3%) and moderate (40.0%). Despite a weak, statistically insignificant negative correlation between self-confidence and anxiety, these results emphasize the intricate interplay among nursing students, suggesting the need for further exploration. Implementing simulated scenarios, mentorship, and stress management workshops could enhance self-confidence and decrease anxiety in clinical education.

**Keywords:** Nursing Students, Anxiety, Self-Confidence, Clinical Decision-Making

## **Introduction**

Students use a physical context known as a clinical placement to apply their theoretical understanding to practical practice (1). Nursing students are also equipped to think critically, communicate clearly, and apply theoretical knowledge to patient care through significant clinical practice experience. Additionally, clinical practice experience improves nursing students' ethical reasoning, caring and cultural competencies, and decision-making ability (2). Moreover, clinical decision-making is fundamental in nursing, critically evaluating patient information and selecting appropriate interventions. It is a complex procedure that calls for synthesizing sound judgment, experience, and clinical understanding (3). It is a multifaceted process that requires a synthesis of clinical knowledge, experience, and sound judgment. Nursing students go through a transformational process from the theoretical classroom setting to the dynamic and unpredictable clinical context (4). Clinical decision-making demands integrating critical and reflective thinking and clinical reasoning abilities. This decision-making process considers the justification for taking a particular course of action, the accessibility of resources, and the evaluation of potential risks (5).

Many elements, including information, practice, experience, and communication with healthcare professionals and patients, shape nursing students' proficiency in clinical decision-making. Self-confidence and anxiety are the main factors that play an important and significant impact on nursing students' ability to make clinical decisions (6)). Developing students' self-confidence is one of the main objectives for nursing students, mainly while practicing on actual patients. A key component of clinical nursing practice is self-confidence (7).

Anxiety in nursing students during clinical decision-making is a pervasive concern that has garnered attention from educators, researchers, and practitioners alike. The clinical environment exposes students to the complexities of real-world patient care, where they must navigate uncertain situations, manage time constraints, collaborate with interdisciplinary teams, and uphold ethical standards (8). Conversely, self-confidence is pivotal in shaping nursing students' approach to clinical decision-making. Self-confidence empowers students to trust their judgments, draw upon their knowledge base, and apply theoretical concepts to real-life scenarios. Confident students are more likely to embrace challenges, engage in active problem-solving, and communicate assertively with colleagues, vital components of effective clinical decision-making (5).

The interplay between anxiety and self-confidence in this context remains a subject of considerable interest and investigation. This study explores the complex link between clinical decision-making, self-confidence, and anxiety in nursing students.

## **Methodology**

A cross-sectional analytical study design was used to examine the Nursing Students' Anxiety and Self-Confidence in Clinical Decision-Making among nursing students in Pakistan. A quantitative approach was used to collect and analyze data from the Khyber Institute of Nursing and Health Sciences Peshawar nursing students from June to August 2023. Participants were selected through a convenient sampling. First-year and second-year BS nursing students were approached for data. Participants eligible for this study are those currently enrolled as first-year or second-year BS nursing students at Khyber Institute of Nursing and Health Sciences, Peshawar, and willing to participate. Questionnaires not fully completed as part of the data collection process are excluded from the analysis. Students who express unwillingness to take part in the study are also excluded. The structured questionnaire "Nursing Anxiety and Self-Confidence with Clinical Decision Making (NASC-CDM)" was adopted by (White, 2014) (9) to measure the self-confidence and anxiety among nursing students during clinical decision-making.

The questionnaire consisted of three sections. The first section was about the participants' demographic data, the second was about measuring self-confidence, and the third was about anxiety among nursing students during clinical decision-making. Using a Likert-style scale, participants were asked to score their agreement with each statement. The scales' internal consistency reliability

was assessed using Cronbach's alpha reliability coefficient. Alpha coefficients for the final version were: self-confidence subscale,  $\alpha = .97$ , and anxiety subscale,  $\alpha = 0.96$  (9). The total anxiety score was 240, and self-confidence was 180. The score range was divided as Low Anxiety: Scores 6-80, Moderate Anxiety: Scores 81-160 and High Anxiety: Scores 161-240. Furthermore, the self-confidence tool score was divided into three categories' Self-Confidence, Scores 6-60; moderate Self-Confidence, Scores 61-120; and High Self-Confidence, Scores 121-180.

The sample size was collected using open EPI, with a confidence interval 95 with a total population of 80. The obtained sample size is 80. Before beginning the study, the researchers requested approval from the administration of the study site. Every participant provided informed consent after receiving a clear explanation of the study's objectives, the voluntary nature of their participation, and the confidentiality assured for their responses. Participants were asked to sign an informed consent before participating in the study. The researchers took care to keep the identity of every participant private. No specific participant was identified in published publications or findings, and data were securely stored. For statistical analysis, data were entered into SPSS version 26. Frequency percentages were calculated for the demographic variables and the levels of anxiety and self-confidence. The Pearson correlation test was also applied to explore the correlation between anxiety and self-confidence.

## Results

Table 1 shows the overview of three demographic variables: Gender, Age, and Cast. For Gender, there are 48 male students (60%) and 32 females (40%). In terms of Age, 26 participants (32.5%) are between 18-20, 49 (61.3%) fall in the 21-23 range, 4 (5%) are 24-26, and only 1 (1.3%) are older than 27. Regarding Cast, 49 people (61.3%) are Pashtoon, 20 (25%) are Punjabi, 1 (1.3%) are Sindhi, and 10 (12.5%) are Balochi.

**Table 1 Demographic information of the participants n=80**

Variables	Frequency	Percent
<b>Gender</b>		
Male	48	60.0
Female	32	40.0
<b>Age</b>		
18-20	26	32.5
21-23	49	61.3
24-26	4	5.0
Above 27	1	1.3
<b>Cast</b>		
Pashtoon	49	61.3
Punjabi	20	25.0
Sindhi	1	1.3
Balochi	10	12.5

Table 2 shows the levels of self-confidence in which most participants have high self-confidence (56.3%), followed by moderate self-confidence (41.3%), and a small number have low self-confidence (2.5%).

**Table 2 Levels of Self-confidence**

Levels of Self-confidence	Frequency	Percent
Low Self-Confidence	2	2.5
Moderate Self-Confidence	33	41.3
High Self-Confidence	45	56.3

Table 3 shows the results of the levels of anxiety. The majority of participants have either low (41.3%) or moderate (40.0%) anxiety levels, while a smaller portion experience high anxiety (18.8%).

**Table 3 Levels of Anxiety**

Anxiety Level	Frequency	Percent
Low Anxiety	33	41.3
Moderate Anxiety	32	40.0
High Anxiety	15	18.8

Table 4 shows a weak negative correlation between self-confidence and anxiety, and this correlation is not statistically significant at the conventional significance level of 0.05.

**Table 4 Correlations between self-confidence and anxiety**

Correlations			
	Frequency	Pearson Correlations	p-value
Total self-confidence	80	-.138	0.224
Total anxiety			

Pearson correlation test has been applied.

## Discussion

Clinical decision-making is essential for all healthcare workers, including nurses, to develop engagement in every nursing process step (10). However, organizing and transferring learning into practice causes anxiety and undermines students' self-confidence in nursing education (6). Psychological barriers, low self-confidence, and high anxiety impact clinical decision-making (11). Clinical decision-making is critical for nursing students as it directly impacts patient care outcomes (12). Nursing students' ability to make effective and confident clinical decisions is essential for their future roles as competent healthcare providers (13). Therefore, measuring anxiety and self-confidence in the decision-making process is crucial for enhancing nursing education and ensuring that students are well-prepared for their professional responsibilities.

Present findings show that 40% were female. In contrast, another study found that 76.3% were female (6). Present findings revealed that 60.3% were between the ages of 21-23. Another study found a mean age of 20.73 (14).

The present findings show the levels of anxiety. The majority of participants have either low (41.3%) or moderate (40.0%) anxiety levels, while 18.8% have high anxiety. Another study found almost the same result, showing that 66% had low anxiety, 23 had moderate, and 11% had high anxiety (5). Students' anxiety levels in clinical decision-making have decreased, as indicated by a decline in their anxiety scores (15). Using the same scale, Sürücü et al.'s study found that students' overall anxiety score during clinical decision-making was  $73.03 \pm 24.66$ . It was stated that when nursing students had to make clinical decisions, their anxiety levels rose (16).

Present findings show the levels of self-confidence in which most participants have high self-confidence (56.3%), followed by moderate self-confidence (41.3%), and a small number have low self-confidence (2.5%). A rise in self-confidence scores suggests students have higher confidence levels when making clinical decisions. According to a study, students' clinical decision-making self-confidence score was  $92.97 \pm 27.67$ . It was discovered that students' trust in their ability to make clinical decisions decreased (16).

However, another study revealed that 31% had moderate confidence and 69% had high levels (5). On the other hand, a different study discovered low means of anxiousness and self-confidence in clinical judgments. Anxiety and self-confidence had mean values of  $2.64 \pm 0.86$  and  $3.80 \pm 1.00$ , respectively (17). Another study found moderate self-confidence and anxiety scores in clinical

decision-making; the anxiety total score of the last class of nursing students was 73.03, and the total self-confidence score was 92.97 (18).

In this regard, a study suggested that 12 and 17.8% of the changes in anxiety and self-confidence were attributable to the web-based training program. Consequently, the online training program assisted nursing students in feeling more confident and less anxious when making clinical decisions (14). According to the study, stress negatively impacts how clinical decision-making develops. Sometimes, the stress brought on by anxiety was too much to handle, which left one demotivated, with a bad attitude at work, and with a low opinion of oneself professionally, all of which affected one's judgment and ability to make decisions (19).

Present findings show a weak negative correlation between self-confidence and anxiety, and this correlation is not statistically significant, with a value of 0.224. The population of nursing students under study appears to have a minor negative association between slightly lower anxiety and higher self-confidence levels and vice versa. This study highlights the complexity of the link between these two psychological elements. Although it seems sense that greater self-confidence would result in less anxiety, the lack of statistical significance suggests that this link may not be clear-cut and may be impacted by other factors not considered during the study. In contrast, another study found that nursing students' levels of anxiety and self-confidence are correlated ( $p = 0.040$ ) (20).

### Conclusion

The study found significant proportions of participants with high (56.3%) and moderate (41.3%) self-confidence, while a small minority reported low self-confidence (2.5%). Anxiety levels were distributed as follows: low (41.3%), moderate (40.0%), and high (18.8%). However, a weak, statistically insignificant negative correlation between self-confidence and anxiety was observed. These results highlight the complex interplay between these factors among nursing students, warranting further exploration. Targeted interventions involving simulated scenarios, mentorship, and stress management workshops could enhance self-confidence and address anxiety in clinical education.

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