

Studying the Psychology of Nursing Students

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Received: July 22, 2025; Accepted: July 29, 2025; Published: August 06, 2025

ABSTRACT

Compared to students in other fields, medical students exhibit a higher prevalence of anxiety symptoms, which negatively affect their quality of life and academic performance. To investigate anxiety and negative emotional states among nursing students at the School of Nursing, Mongolian National University of Medical Sciences, we conducted a cross-sectional analytical study with a random sample of 150 bachelor's and diploma students from years I to IV. We utilized the 20 item Spielberger State-Trait Anxiety Inventory (Hanin & Spielberger) and a 20 item Negative Emotional States Scale, with data processed using SPSS 23.0.

In our sample, 94.0 % were female (n=141) and 6.0 % male (n=9), distributed as follows: I-year 38.0 % (n=57), II-year 19.3 % (n=29), III-year 27.3 % (n=41), IV-year 15.3 % (n=23); mean age was 20.69 ± 3.57 years. The mean negative emotion score was 49.69 ± 4.48 (range 36.00–62.00). Older students showed significantly lower negative emotion scores ($r = -0.243$, $p = 0.003$), while anxiety levels were not age-dependent ($p = 0.624$). Anxiety assessment placed 37.3 % (n=56) in the low category, 62.0 % (n=93) medium, and 0.7 % (n=1) high. Negative emotional states were moderate in 82.7 % (n=124), and high in 17.3 % (n=26); none scored low.

The findings indicate that negative emotional states decrease with age, whereas anxiety remains constant across ages.

Keywords: Nursing Student, Anxiety, Negative Emotions, Influencing Factors

Objectives

1. To assess anxiety and negative emotional states among nursing students.
2. To compare anxiety and negative emotions across sociodemographic variables.

Rationale

Globally, one in three medical students' experiences anxiety—higher than the general population. Medical education demands high academic and emotional effort; moderate stress can boost motivation and persistence, whereas high stress contributes to depression, burnout, and compromised health and academic outcomes [1,2]. Nursing students in particular report elevated levels of anxiety and depression, partly due to infection fears and clinical exposure, underscoring the need for targeted psychological support [3]. Multi-national studies link depressive and anxious symptoms to poor quality of life (QOL), with high

stress and anxiety common among Asian medical students [4]. The prevalence of insomnia, anxiety, and social dysfunction is notably high among nursing students [5]. Such psychological distress persists into professional careers, suggesting sustained support is required [6,7]. In Mongolia, a study at BIS dormitories showed 76 % of students experienced moderate anxiety [8]. Thus, context-specific research and recommendations for Mongolian nursing students are both necessary and timely.

Innovation

This study not only identifies anxiety-prone individuals but also initiates strategies for improving mental health among nursing students. Early identification enables timely referrals to counselling and clinical care, which may preserve academic performance and quality of life.

Methods

A cross-sectional analytical design was implemented in early 2024. Sample size (n=150) was calculated using Yamanne's formula. Bachelor's and diploma students from years I–IV

participated after giving consent and meeting inclusion criteria. Anxiety was measured via the official Mongolian translation of the Spielberger–Hanin State/Trait Anxiety Inventory, categorized into state anxiety (RT) and trait anxiety (LT) subscales. Each subscale contained 20 items, with a 4-point Likert response format. Translation validity and reliability were confirmed in a pilot (n=20), with Cronbach's $\alpha \geq 0.8$. Scores were calculated using:

$$RT = \Sigma_1 - \Sigma_2 + 35 \text{ and } LT = \Sigma_1 - \Sigma_2 + 35,$$

where Σ_1 and Σ_2 correspond to specified item sums. Descriptive statistics, chi-square tests, and t-tests were conducted, with $p < 0.05$ indicating statistical significance. Values are presented as means \pm standard deviation.

Results

- Participants: 94.0 % female (n=141), 6.0 % male (n=9); 56.7 % diploma, 43.3 % bachelor's; 96.7 % had no leave, 3.3 % had taken leave.
- Anxiety means: 31.47 ± 6.31 ; Negative emotions mean: 49.69 ± 4.48 .
- Anxiety was independent of gender ($p=0.229$), education level ($p=0.463$), and leave status ($p=0.205$).

Table 1 shows the distribution of anxiety and negative emotion levels:

- o Low anxiety: 37.3 % (n=56)
- o Medium anxiety: 62.0 % (n=93)
- o High anxiety: 0.7 % (n=1)
- o Moderate negative emotion: 82.7 % (n=124)
- o High negative emotion: 17.3 % (n=26)

Table 2 shows correlations: negative emotion significantly decreased with age ($r=-0.243$, $p=0.003$); anxiety was unrelated to age ($r=-0.040$, $p=0.624$).

Discussion

Similar to studies in South Africa, Iran, Brazil, Turkey, Israel, Japan, and China, we observed substantial levels of anxiety among nursing students [9]. Fourth-year students were found to be at greater risk (x3) than third-year peers, likely due to increased clinical workload. Moderate-to-high anxiety was diagnosed in 55.2 % of students, with 19.5 % showing severe symptoms. Factors include older age, year of study, and exposure to stressors which persist into professional life [9,10].

Conclusion

Negative emotions decrease with age, while anxiety remains consistent. Most nursing students experience moderate-to-high negative emotional states and moderate anxiety, indicating the need for early mental health interventions in nursing education.

Ethical Approval

This study was approved by the Research Ethics Review Committee of the Mongolian National University of Medical Sciences, based on the decision made during its meeting held on June 14, 2024 (Meeting Record No. 24-3/06).

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