

# PERCEIVED LEVEL OF EXAMINATION ANXIETY AMONG FIRST-YEAR UNDERGRADUATE NURSING STUDENTS: A DESCRIPTIVE STUDY

Seethalakshmi S.<sup>1\*</sup>, Vijayalakshmi G<sup>2</sup>, Jeya Beulah D<sup>3</sup>, Powsiya M<sup>4</sup>

<sup>1</sup>PhD Scholar, Saveetha College of Nursing, Saveetha Institute of Medical and Technical Sciences (SIMATS), Chennai, Tamil Nadu, India, seethasaravanaraj@gmail.com

<sup>2</sup>PhD Scholar, Madhya Pradesh, Indore. Professor, IQ City Institute Nursing Sciences, Durgapur. West Bengal, India, babuviji515@gmail.com

<sup>3</sup>Professor cum HOD, Community Health Nursing Dept, SCPM College of Nursing and Paramedical Sciences, Gonda, Uttar Pradesh, India, jeya.beulah09@gmail.com

<sup>4</sup>PhD Scholar, Malwanchal University, Madhya Pradesh, Asso. Professor, Royal College of Nursing, Madukkarai. Tamil Nadu. India, powsiya1988@gmail.com

## ABSTRACT

**Background:** Examination anxiety is a widely reported concern among nursing students, arising from the demanding nature of the nursing curriculum, competitive assessment structures, and clinical performance expectations. Persistent or severe examination anxiety can impair concentration, recall, and overall academic performance, making its early identification essential for effective student support.

**Objective:** To assess the perceived level of examination anxiety among first-year undergraduate (B.Sc.) nursing students and to determine its association with selected demographic variables.

**Methods:** A descriptive, cross-sectional design was adopted among 50 first-year B.Sc. Nursing students at a nursing college in Coimbatore, India, selected through simple random (lottery) sampling. Data were collected using a demographic proforma and the Westside Test Anxiety Scale, a validated 10-item, 5-point rating instrument. Descriptive statistics (frequency, percentage) and the chi-square test were used for data analysis.

**Results:** Of the 50 participants, 34% experienced moderately high anxiety, 28% slight anxiety, 26% high anxiety, 10% no anxiety, and 2% extreme anxiety. No statistically significant association was found between examination anxiety and demographic variables such as age, gender, medium of instruction, prior academic marks, or note-preparation habits ( $p>0.05$ ), except for parental/teacher support, which showed a significant association ( $\chi^2=50.00$ ,  $p<0.05$ ).

**Conclusion:** A substantial proportion of first-year nursing students experience moderate-to-high examination anxiety. Structured psychosocial support from parents and teachers, alongside institution-led self-study skill-building programmes, may help mitigate examination-related anxiety in this population.

**KEYWORDS:** examination anxiety; nursing students; Westside Test Anxiety Scale; descriptive study; academic stress

## 1. INTRODUCTION

Examinations form an integral component of nursing education, serving as a principal means of evaluating theoretical knowledge and clinical competence. While a mild degree of pre-examination stress can heighten alertness and motivate preparation, excessive examination anxiety impairs concentration, recall, and overall test performance [1,2]. Nursing students are particularly vulnerable to this phenomenon because they must simultaneously manage a rigorous academic curriculum, clinical placements, and high-stakes licensure-oriented assessments [1,3].

Examination anxiety has been described as a situation-specific trait characterised by phenomenological, physiological, and behavioural responses—ranging from headache, sweating, and tachycardia to difficulty recalling information and persistent negative self-talk during testing [2,4]. Because such reactions can distract students during examinations and compromise both academic outcomes and, ultimately, clinical safety and patient communication during placement, understanding the burden of examination anxiety among nursing students has become a recognised priority in nursing education research [5,6].

International evidence indicates that a considerable proportion of nursing and allied health students experience moderate-to-severe examination anxiety. Cross-sectional surveys among medical and nursing cohorts in the Middle East and South Asia have reported that between half and over three-quarters of students exhibit measurable test anxiety, with female students and those in later years of study often reporting higher levels [7,8]. Similar patterns have been documented among undergraduate nursing students in India, where a facility-based study using the DASS-21 scale found elevated stress, anxiety, and depression scores, particularly among senior-year students [9]. Comparable descriptive studies employing the Westside Test Anxiety Scale among nursing and health-science students have reported that the majority experience mild-to-moderate anxiety, with a smaller but clinically important subgroup reporting severe anxiety [10–13].

Several studies have also examined correlates of examination anxiety, including academic procrastination, gender, year of study, and social support. A quantitative correlational study among nursing students in Pennsylvania found that higher

examination anxiety was significantly associated with greater academic procrastination, particularly for routine assignments such as weekly reading [14]. Other investigations have reported significant gender differences, with female students generally reporting higher anxiety than male students [8,15], although not all studies have found this association to be significant [11].

Despite this body of evidence, comparatively little research has focused specifically on first-year B.Sc. Nursing students transitioning into the demands of a professional health-science curriculum—a period during which coping strategies and support systems may not yet be well established. Understanding the level and correlates of examination anxiety in this specific group is essential to inform the design of targeted, low-cost interventions such as informational self-study pamphlets. The present study was therefore undertaken to assess the perceived level of examination anxiety among first-year undergraduate nursing students of a selected nursing college in Coimbatore, India, and to examine its association with selected demographic variables, with the broader aim of informing an evidence-based informational pamphlet on effective self-study strategies.

### **1.1 Objectives**

- To assess the perceived level of examination anxiety among first-year undergraduate nursing students.
- To identify the strategies used by undergraduate nursing students to overcome examination anxiety.
- To determine the association between the level of examination anxiety and selected demographic variables.
- To develop an informational pamphlet to help students cope with examination anxiety.

## **2. MATERIALS AND METHODS**

### **2.1 Study Design and Setting**

A quantitative, descriptive, cross-sectional design was adopted. The study was conducted among first-year B.Sc. Nursing students at PSG College of Nursing, Coimbatore, Tamil Nadu, India—an institution offering both B.Sc. and M.Sc. Nursing programmes, with an annual first-year intake of approximately 100 students out of 400 students enrolled across the B.Sc. Nursing programme.

### **2.2 Population, Sample, and Sampling Technique**

The target population comprised first-year B.Sc. Nursing students. A sample of 50 students was recruited using a probability (simple random/lottery) sampling technique. The sample size was derived using Mahajan's formula:  $n = 4pq/L^2$ , where  $p$  is the estimated target-population percentage (25%),  $q = 100 - p$  (75%), and  $L$  is the allowable error (12); this yielded a calculated minimum sample size of approximately 52, rounded to an achieved sample of 50.

### **2.3 Inclusion and Exclusion Criteria**

Inclusion criteria: students enrolled in the B.Sc. Nursing first year who were accessible at the time of data collection and eligible to appear for the university examination for the first time. Exclusion criteria: students who were unwell, on long leave/absence, or unwilling to participate.

### **2.4 Instrument**

Data were collected using a two-part tool. Section A recorded demographic variables (age, gender, medium of instruction, marks obtained in Grades X and XII, onset of examination preparation, note-preparation habits, and perceived parental/teacher support). Section B comprised the Westside Test Anxiety Scale, a 10-item, 5-point rating scale (1 = No anxiety to 5 = Extreme anxiety), with a maximum possible score of 50. Scores were interpreted as: 10–19 = no anxiety; 20–25 = slight anxiety; 26–29 = moderately high anxiety; 30–39 = high anxiety; and 40–50 = extreme anxiety.

### **2.5 Data Collection Procedure**

Following institutional approval, eligible students were selected using the lottery method. The investigator introduced the study to participants, obtained informed consent, and administered the tool. Completed responses were collected and scored using the Westside Test Anxiety Scale.

### **2.6 Ethical Considerations**

The study proposal was reviewed and approved by the Institutional Human Ethics Committee (IHEC), PSG Institute of Medical Sciences and Research. Administrative permission was obtained from the Principal of the college prior to data collection. All participants were informed about the purpose and procedure of the study, and voluntary informed consent was obtained before enrolment.

### **2.7 Statistical Analysis**

Data were analysed using descriptive statistics (frequency and percentage) to summarise demographic characteristics and levels of examination anxiety. The chi-square test was used to determine the association between the level of examination anxiety and selected demographic variables, with  $p < 0.05$  considered statistically significant.

## **3. RESULTS**

### **3.1 Demographic Characteristics**

Of the 50 participants, the majority (86%) were 19 years of age, and 92% were female. Most students (84%) had completed schooling in the English medium. Regarding prior academic performance, 40% had scored 80–90% in Grade X and 40% had scored 70–80% in Grade XII. With respect to examination preparation, 44% began studying one week before

examinations, 60% prepared notes in advance, and an overwhelming 98% reported receiving positive support from parents or teachers before examinations (Table 1).

**Table 1. Frequency and percentage distribution of study participants based on demographic variables (N=50)**

| S.No | Demographic Variable                                                                       | Frequency (f) | Percentage (%) |
|------|--------------------------------------------------------------------------------------------|---------------|----------------|
| 1    | Age (years) 19 20 21 22                                                                    | 43 4 2 1      | 86 8 4 2       |
| 2    | Gender Female Male                                                                         | 46 4          | 92 8           |
| 3    | Medium of higher studies Tamil English                                                     | 8 42          | 16 84          |
| 4    | Marks obtained in X standard 60–70%<br>70–80% 80–90% 90–100%                               | 5 13 20 12    | 10 26 40 24    |
| 5    | Marks obtained in XII standard 60–70%<br>70–80% 80–90% 90–100%                             | 4 17 20 9     | 8 34 40 18     |
| 6    | Onset of exam preparation Before 4<br>weeks Before 2 weeks Before 1 week<br>Before 10 days | 4 14 22 10    | 8 28 44 20     |
| 7    | Preparation of notes before examination<br>Yes No                                          | 30 20         | 60 40          |
| 8    | Positive support from parents/teachers<br>Yes No                                           | 49 1          | 98 2           |

### 3.2 Level of Examination Anxiety

The majority of participants, 17 (34%), reported moderately high examination anxiety, followed by 14 (28%) with slight anxiety and 13 (26%) with high anxiety. Only 5 students (10%) reported no anxiety, while 1 student (2%) reported extreme anxiety towards examinations (Table 2). Collectively, 62% of participants reported moderately high-to-extreme levels of examination anxiety.

**Table 2. Frequency and percentage distribution of the level of examination anxiety among first-year B.Sc. Nursing students (N=50)**

| S.No | Level of Test Anxiety (Score)   | Frequency (f) | Percentage (%) |
|------|---------------------------------|---------------|----------------|
| 1    | No anxiety (10–19)              | 5             | 10             |
| 2    | Slight anxiety (20–25)          | 14            | 28             |
| 3    | Moderately high anxiety (26–29) | 17            | 34             |
| 4    | High anxiety (30–39)            | 13            | 26             |
| 5    | Extreme anxiety (40–50)         | 1             | 2              |

### 3.3 Association between Examination Anxiety and Demographic Variables

Chi-square analysis revealed no statistically significant association between the level of examination anxiety and age, gender, medium of instruction, marks obtained in Grades X or XII, onset of examination preparation, or note-preparation habits ( $p > 0.05$  for all). A statistically significant association was found between examination anxiety and perceived positive support from parents or teachers ( $\chi^2 = 50.00$ ,  $df = 4$ , table value = 9.49,  $p < 0.05$ ) (Table 3).

**Table 3. Association between the perceived level of examination anxiety and selected demographic variables (N=50)**

| Demographic Variable                    | $\chi^2$ value | df | Table value | Inference |
|-----------------------------------------|----------------|----|-------------|-----------|
| Age (years)                             | 9.17           | 12 | 21.03       | NS        |
| Gender                                  | 1.51           | 4  | 9.49        | NS        |
| Medium of higher studies                | 2.31           | 4  | 9.49        | NS        |
| Marks in X standard                     | 12.35          | 12 | 21.03       | NS        |
| Marks in XII standard                   | 20.72          | 12 | 21.03       | NS        |
| Onset of exam preparation               | 11.62          | 12 | 21.03       | NS        |
| Preparation of notes before examination | 5.55           | 4  | 9.49        | NS        |

| Demographic Variable                   | $\chi^2$ value | df | Table value | Inference |
|----------------------------------------|----------------|----|-------------|-----------|
| Positive support from parents/teachers | 50.00          | 4  | 9.49        | S*        |

\*p<0.05, Significant; NS = Not Significant

#### 4. DISCUSSION

The present study found that 34% of first-year nursing students experienced moderately high examination anxiety, and a cumulative 62% reported moderate-to-extreme anxiety levels. This finding is broadly consistent with earlier work using the Westside Test Anxiety Scale among university and health-science student cohorts, which similarly reported that a substantial proportion of students experienced normal-to-moderately-high test anxiety, with a smaller subgroup reporting severe anxiety [11,12]. The proportion of students reporting little-to-no anxiety in the present sample (10%) was also comparable to figures reported among first-year nursing cohorts elsewhere [16].

Unlike several previous studies that reported significantly higher examination anxiety among female students compared with male students [8,15], the present study found no statistically significant gender difference, although the predominantly female composition of the sample (92%) limits the power of this comparison. This is consistent with at least one prior study among nursing students that likewise found no significant gender-based association [11].

Notably, the present study identified a significant association between examination anxiety and perceived support from parents or teachers, echoing findings from broader stress-and-anxiety literature in nursing education, which consistently emphasise the protective role of social and institutional support systems during high-stakes academic periods [6,9]. This finding underscores that psychosocial support—rather than purely academic factors such as prior marks or preparation timing—may be a more meaningful correlate of examination anxiety in early-stage nursing students.

The absence of a significant association between examination anxiety and prior academic performance (Grade X/XII marks) or preparation timing suggests that examination anxiety in this cohort may be driven more by dispositional or situational factors than by demonstrated academic ability, consistent with the conceptualisation of examination anxiety as a situation-specific trait rather than a direct consequence of competence [4,17].

#### 5. CONCLUSION

A considerable proportion of first-year undergraduate nursing students in this study experienced moderate-to-high levels of examination anxiety, while a significant association was observed only with parental/teacher support. These findings highlight the need for early, structured psychosocial and academic support—such as informational pamphlets on effective self-study strategies—to help first-year nursing students manage examination-related anxiety.

#### 6. IMPLICATIONS FOR NURSING

##### 6.1 Nursing Education

- Nurse educators should routinely screen for examination anxiety among first-year students and provide targeted guidance to help them manage it.
- Structured education on effective self-study strategies should be incorporated into orientation programmes for incoming nursing students.

##### 6.2 Nursing Practice

- Nursing faculty and mentors should possess adequate knowledge of examination anxiety to identify and support affected students.
- Health education on self-study strategies should be integrated into routine student mentoring.

##### 6.3 Nursing Administration

- Nursing administrators should collaborate with faculty to address examination anxiety at an institutional level.
- Administrators should facilitate the distribution of informational pamphlets on effective self-study strategies across cohorts.

##### 6.4 Nursing Research

- Findings should be disseminated to participating institutions to support early identification of at-risk students.
- These results provide a basis for further studies, including intervention trials evaluating self-study skills programmes on examination anxiety.

#### 7. LIMITATIONS AND RECOMMENDATIONS

This study was limited to a single cohort of first-year B.Sc. Nursing students at one institution, and the relatively small sample size (n=50) restricts the generalisability of the findings. Future studies should replicate this work with larger, multi-centre samples and should evaluate the effectiveness of structured self-study-strategy interventions in reducing examination anxiety among nursing students.

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## CONFLICT OF INTEREST

The author declares no conflict of interest.

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