

## A Study to Evaluate the Effectiveness of Mindfulness Training on Anxiety Levels among Nursing Students

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### Abstract

**Background:** Anxiety is a prevalent issue among nursing students due to academic pressure, clinical responsibilities, and adjustment to hospital environments. Mindfulness-based interventions have been shown to improve emotional regulation and reduce stress levels among health science students<sup>1</sup>.

**Materials and Methods:** A pre-experimental one-group pre-test post-test design was adopted. Sixty nursing students were selected through convenient sampling from a selected nursing college. Data were collected using the *State-Trait Anxiety Inventory (STAI)*. A structured eight-session mindfulness training program was administered. Pre- and post-test anxiety scores were compared using descriptive and inferential statistics.

**Results:** The mean pre-test anxiety score was 56.72 (SD  $\pm$  8.34) and post-test score was 42.13 (SD  $\pm$  6.95). The calculated paired 't' value ( $t = 9.87$ ,  $p < 0.001$ ) indicated a statistically significant reduction in anxiety levels after mindfulness training.

**Conclusion:** Mindfulness training was found to be effective in significantly reducing anxiety levels among nursing students. Integrating mindfulness sessions into the nursing curriculum may enhance students' psychological well-being and academic performance.

**Keywords:** Mindfulness, Anxiety, Nursing students, Stress management, Mental health

### Introduction

Anxiety is a common psychological condition that affects cognitive, emotional, and physical functioning, often manifesting as tension, restlessness, and apprehension<sup>2</sup>. Among nursing students, anxiety is

particularly prevalent due to high academic expectations, clinical responsibilities, and exposure to stressful patient care situations<sup>3</sup>. Chronic anxiety can interfere with concentration, learning, and overall professional competence<sup>4</sup>.

Mindfulness, defined as the process of consciously focusing on the present moment with non-judgmental awareness, has emerged as an effective intervention for managing anxiety and stress<sup>5</sup>. Regular mindfulness practice promotes self-awareness, emotional regulation, and resilience, leading to improved psychological well-being<sup>6</sup>.

Previous studies have reported that mindfulness-based training reduces anxiety, depression, and burnout among healthcare students and professionals<sup>7</sup>. However, limited research has been conducted in the Indian nursing education context, particularly evaluating its direct impact on anxiety levels. Therefore, this study aims to evaluate the effectiveness of mindfulness training on anxiety levels among nursing students.

## Objectives

1. To assess the pre-test anxiety levels among nursing students.
2. To administer mindfulness training to nursing students.
3. To assess the post-test anxiety levels after mindfulness training.
4. To evaluate the effectiveness of mindfulness training on anxiety levels.

## Hypothesis

- **H<sub>0</sub> (Null Hypothesis):** There is no significant difference between pre-test and post-test anxiety levels among nursing students after mindfulness training.
- **H<sub>1</sub> (Research Hypothesis):** There is a significant reduction in post-test anxiety levels among nursing students after mindfulness training.

## Materials and Methods

### Research Design:

A pre-experimental one-group pre-test post-test design was adopted.

## Results

**Table 1: Distribution of Nursing Students According to Pre-Test and Post-Test Anxiety Levels (n = 60)**

| Anxiety Level    | Score Range | Pre-test f (%)   | Post-test f (%)  |
|------------------|-------------|------------------|------------------|
| Mild Anxiety     | 20–39       | 6 (10%)          | 22 (36.67%)      |
| Moderate Anxiety | 40–59       | 38 (63.33%)      | 30 (50%)         |
| Severe Anxiety   | 60–80       | 16 (26.67%)      | 8 (13.33%)       |
| <b>Total</b>     | —           | <b>60 (100%)</b> | <b>60 (100%)</b> |

## Setting:

The study was conducted at a selected Nursing College in Jaipur, Rajasthan.

## Population and Sample:

The target population comprised B.Sc. Nursing students. A total of **60 students** were selected using **convenient sampling** technique.

## Inclusion Criteria:

- Nursing students willing to participate.
- Students present during data collection.

## Exclusion Criteria:

- Students already practicing meditation or yoga.
- Those who were absent during intervention sessions.

## Tool for Data Collection:

The **State-Trait Anxiety Inventory (STAI)** standardized tool was used to assess anxiety levels. It consists of 40 items rated on a 4-point Likert scale.

## Intervention:

A structured **Mindfulness Training Program** was conducted for eight sessions (30 minutes each) over two weeks. The sessions included breathing awareness, body scanning, mindful walking, and guided meditation.

## Data Collection Procedure:

- **Pre-test:** Administered the STAI tool to assess baseline anxiety levels.
- **Intervention:** Mindfulness training was delivered to the participants.
- **Post-test:** Conducted after one week using the same tool.

## Data Analysis:

Data were analyzed using SPSS software. Descriptive statistics (mean, SD, percentage) and inferential statistics (paired 't' test) were used to test the hypothesis at 0.05 level of significance.

**Table 2: Comparison of Mean Pre-Test and Post-Test Anxiety Scores (n = 60)**

| Parameter               | Mean $\pm$ SD    | 't' Value   | p-Value          | Interpretation        |
|-------------------------|------------------|-------------|------------------|-----------------------|
| Pre-test Anxiety Score  | 56.72 $\pm$ 8.34 |             |                  |                       |
| Post-test Anxiety Score | 42.13 $\pm$ 6.95 | <b>9.87</b> | <b>&lt;0.001</b> | Significant Reduction |

**Interpretation:**

The calculated 't' value ( $t = 9.87$ ,  $p < 0.001$ ) is greater than the table value at 0.05 level of significance, indicating that mindfulness training significantly reduced anxiety levels among nursing students.

**Discussion**

The findings of this study reveal that mindfulness training had a substantial positive impact on reducing anxiety levels among nursing students. The mean post-test anxiety score (42.13) was significantly lower than the pre-test score (56.72). These results are consistent with prior studies demonstrating the effectiveness of mindfulness in reducing anxiety among students and healthcare professionals<sup>8,9</sup>.

Similar findings were reported by Sharma et al.<sup>10</sup>, who found that a four-week mindfulness program led to significant decreases in perceived stress and anxiety among nursing students. Furthermore, mindfulness practice fosters self-awareness and enhances emotional resilience, which are crucial skills in clinical training environments<sup>11</sup>.

The results underscore the importance of integrating mindfulness-based training within nursing curricula to promote mental health and improve coping mechanisms.

**Conclusion**

Mindfulness training was found to be an effective strategy in reducing anxiety levels among nursing students. The study suggests that regular mindfulness practice can help nursing students manage academic and clinical stress more effectively, leading to better psychological well-being and learning outcomes.

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