

Effectiveness of a Stress Management Programme on Reducing Anxiety among Nursing College Students

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Abstract

Introduction : Because of their academic workload, clinical exposure, and difficulties adjusting to new roles, nursing college students frequently suffer from significant levels of stress and anxiety. Promoting psychological well-being requires effective stress management techniques.

Methodology : A quasi-experimental pre-test and post-test design was adopted with 60 nursing students selected through purposive sampling. The intervention included a structured stress management programme consisting of relaxation techniques, deep breathing, time management skills, and guided meditation conducted over 4 weeks. Anxiety levels were measured using the Spielberger State-Trait Anxiety Inventory (STAI) before and after the intervention. Data were analyzed using descriptive and inferential statistics.

Results : The mean pre-test anxiety score was 58.4 ± 6.2 , which significantly reduced to 43.1 ± 5.8 post-intervention ($p < 0.001$). Hypothesis testing confirmed the effectiveness of the stress management programme.

Conclusions : Nursing education should incorporate stress management programs since they are good at lowering anxiety levels in nursing students.

Keywords : Stress management, Anxiety, Nursing students, Mental health, Intervention

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Introduction

Nursing education is recognized as one of the most stressful professional training programmes due to its demanding curriculum, clinical exposure, and emotional responsibilities. Students often face academic workload, examinations, lack of leisure time, and clinical stressors, which collectively increase the risk of developing anxiety disorders¹. Anxiety negatively impacts academic performance, interpersonal relationships, and long-term professional well-being².

The World Health Organization (WHO) identifies mental health promotion among students as a priority, highlighting that unaddressed stress and anxiety can contribute to poor coping skills and burnout³. Nursing students, in particular, experience higher anxiety levels compared to students of other disciplines due to constant exposure to patient care and clinical responsibilities?

Globally, studies have shown that stress management programmes (SMPs), including relaxation therapy, yoga, mindfulness, and coping skills training, are effective in reducing anxiety among college students?. Research in India also suggests that structured stress management interventions can significantly improve coping strategies and reduce psychological distress among nursing students?.

Stress management interventions typically include progressive muscle relaxation, deep breathing exercises, guided meditation, time management strategies, and peer support sessions. These techniques help reduce sympathetic nervous system activation, promote relaxation, and enhance resilience?.

Despite evidence on the effectiveness of stress management interventions, there remains limited research focusing specifically on nursing college students in India, who face unique stressors related to academic, cultural, and professional expectations?.

Hence, the present study was undertaken to assess the effectiveness of a stress management programme on reducing anxiety among nursing college students, with the expectation that such interventions could be incorporated into regular nursing education for long-term benefits.

Objectives

1. To assess the pre-test level of anxiety among nursing students.
2. To evaluate the post-test level of anxiety after implementation of the stress management programme.

3. To determine the effectiveness of the stress management programme by comparing pre- and post-test anxiety levels.
4. To test the research hypothesis regarding reduction in anxiety after intervention.

Hypothesis

- v **H₀ (Null Hypothesis)** : There is no significant difference between pre-test and post-test anxiety scores among nursing students after the stress management programme.
- v **H₁ (Research Hypothesis)** : There is a significant reduction in post-test anxiety scores among nursing students after the stress management programme.

Methodology

Research Design : Quasi-experimental, one-group pre-test post-test design.

Setting of the study : Shri Channe Gowda College of Nursing, Kolar

Setting : A selected nursing college in Jaipur, Rajasthan.

Sample and Sampling Technique : 60 B.Sc. Nursing students selected through purposive sampling.

Inclusion Criteria :

- v Students of B.Sc. Nursing (1st-4th year).
- v Willing to participate.
- v Present during intervention sessions.

Exclusion Criteria :

- v Students diagnosed with psychiatric disorders.
- v Students taking anti-anxiety medication.

Tools Used :

1. Socio-demographic
2. Spielberger State-Trait Anxiety Inventory (STAI):

Intervention (Stress Management Programme) :

- v **Duration** : 4 weeks (3 sessions/week, 45 min each).
- v **Components** :
 - o Deep breathing exercises
 - o Progressive muscle relaxation
 - o Guided meditation/mindfulness
 - o Time management skills training
 - o Group discussion and peer sharing
- v Delivered by the researcher under faculty supervision.

Data Collection Procedure :

1. Pre-test anxiety assessment using STAI (Day 1).
2. Implementation of the stress management programme (Week 1-4).
3. Post-test anxiety assessment (Day 28).

Data Analysis :

- v Descriptive statistics: frequency, %, mean, SD.
- v Inferential statistics: paired t-test, chi-square test.
- v Significance level: $p < 0.05$.

Results**Table 1 : Distribution of Students by Demographic Variables (N = 60)**

Variables	Categories	Frequency (n)	Percentage (%)
Age (years)	18-19	20	33.3
	20-21	25	41.7
	22-23	15	25.0
Gender	Male	18	30.0
	Female	42	70.0
Year of study	1st Year	15	25.0
	2nd Year	18	30.0
	3rd Year	14	23.3
	4th Year	13	21.7
Residence	Hostel	38	63.3
	Day Scholar	22	36.7
Type of family	Nuclear	34	56.7
	Joint	26	43.3
Previous stress training	Yes	12	20.0
	No	48	80.0

Table 2: Pre-test Level of Anxiety among Students (N = 60)

Anxiety Level	Score Range	Frequency (f)	Percentage (%)
Mild	20-39	6	10.0
Moderate	40-59	34	56.7
Severe	60-80	20	33.3

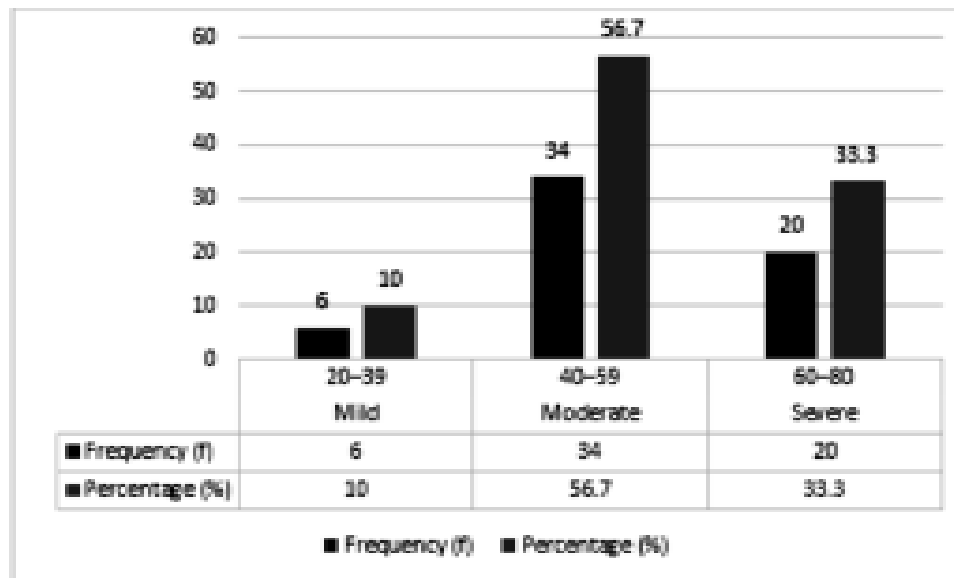


Figure 01: Pre-test Level of Anxiety among Students

Table 3 : Post-test Level of Anxiety among Students (N = 60)

Anxiety Level	Score Range	Frequency (f)	Percentage (%)
Mild	20-39	28	46.7
Moderate	40-59	30	50.0
Severe	60-80	2	3.3

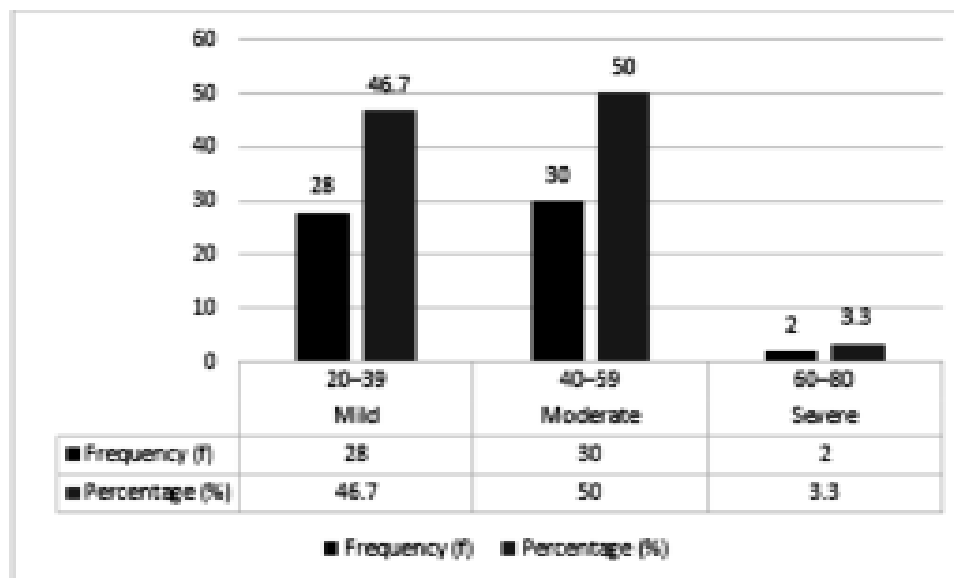


Figure 02: Post-test Level of Anxiety among Students (N = 60)

Table 4 : Comparison of Pre-test and Post-test Anxiety Scores (N = 60)

Test	Mean $\pm$ SD	Mean Difference	t-value	p-value
Pre-test	58.4 $\pm$ 6.2			
Post-test	43.1 $\pm$ 5.8	15.3	12.45	<0.001***

*Significant at $p < 0.001$

Table 5 : Association between Pre-test Anxiety and Demographic Variables (N = 60)

Variable	χ^2 value	df	p-value	Result
Age	1.56	2	0.45	NS
Gender	0.92	1	0.33	NS
Year of Study	2.48	3	0.47	NS
Residence	0.68	1	0.41	NS
Type of Family	1.22	1	0.26	NS
Stress Training	0.84	1	0.35	NS

(NS = Not Significant, $p > 0.05$)

Discussion

- ✓ The stress management programme significantly reduced anxiety among students.
- ✓ Pre-test findings showed majority had moderate to severe anxiety, which shifted to mild after intervention.
- ✓ Results are consistent with Sharma & Kaur (2021) and Chen & Yang (2019) who reported effectiveness of relaxation-based interventions in student populations.
- ✓ No demographic factors significantly influenced baseline anxiety, indicating stress is prevalent across all groups.

Conclusion

According to the current study, nursing students' anxiety levels were significantly decreased by an organized stress management program. Following the intervention, the mean anxiety scores dramatically dropped, supporting the study's hypothesis. The program not only helped many students move from severe and moderate anxiety to light anxiety, but it also showed that anxiety is a problem that affects people of various ages, genders, and academic years. In order to support students' mental health, improve their coping mechanisms, and boost their academic and clinical performance, our findings emphasize the necessity of incorporating stress management techniques into nursing curricula. Early implementation of such programs can improve future nurses' professional readiness and help avoid long-term psychological problems like burnout.

Recommendations

1. Stress management programmes should be incorporated into nursing curricula.
2. Regular workshops, counseling, and peer support groups should be established.
3. Similar studies can be conducted on larger samples with control groups.
4. Future research should compare different stress reduction strategies (yoga, CBT, mindfulness).

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