

Effectiveness of Guided Imagery (GI) on Examination Anxiety among Adolescents

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Abstract

Background: Examination anxiety is highly prevalent among adolescents and negatively affects academic performance and psychological well-being. Guided Imagery (GI) is a simple, non-pharmacological relaxation technique shown to reduce Examination anxiety. **Aim:** To evaluate the effectiveness of Guided Imagery on examination anxiety among adolescents in selected schools at Chennai. **Methods:** A quantitative quasi-experimental pre-test and post-test control group design was adopted. One hundred adolescents studying 9th standard were selected using non-probability purposive sampling (Study group = 50; Control group = 50). Examination anxiety was assessed using the Modified Westside Test Anxiety Scale. The study group received Guided Imagery sessions for 15–20 minutes/day, five days a week for four weeks, while the control group received routine school activities. **Results:** The mean pre-test anxiety score in the study group was 26.4 ± 2.7 , which significantly reduced to 13.2 ± 2.6 in the post-test ($t = 27.8$, $p < 0.001$). No significant reduction was observed in the control group. Post-test comparison between groups showed a statistically significant difference ($t = 20.7$, $p < 0.001$). **Conclusion:** Guided Imagery is an effective, economical, and feasible intervention for reducing examination anxiety among adolescents and can be incorporated into school mental health programs.

Keywords: Guided imagery, Examination anxiety, Adolescents.

Introduction

Adolescence is a critical developmental period characterized by rapid physical, emotional, and cognitive changes. Academic pressure and examination-related stress are major contributors to anxiety among adolescents. Examination anxiety can impair memory, concentration, academic performance, and may lead to emotional disturbances such as fear, irritability, and low self-esteem. If left unaddressed, it may result in long-term psychological problems.

Guided Imagery is a mind-body technique that involves visualizing calming and positive images to reduce stress and anxiety. It activates the relaxation response and enhances emotional regulation. Despite its proven benefits, limited school-based intervention studies are available in the Indian context. Hence, this study was undertaken to assess the effectiveness of Guided Imagery on examination anxiety among adolescents.

Need for the Study

Increasing academic competition, parental expectations, and fear of failure contribute to high levels of examination anxiety among school-going adolescents. Many students experience psychological distress during examinations,

affecting their academic achievement and mental health. Pharmacological management is not always appropriate for adolescents, emphasizing the need for safe, non-invasive interventions. Guided Imagery is cost-effective, easy to administer, and suitable for school settings. Therefore, this study aims to provide evidence-based support for integrating Guided Imagery into school mental health nursing practice.

Statement of the Problem

A Quasi-Experimental Study to Assess the Effectiveness of Guided Imagery on Examination Anxiety among Adolescents in Selected Schools at Chennai

Objectives

1. To assess the level of examination anxiety among adolescents in the study and control groups.
2. To evaluate the effectiveness of Guided Imagery on examination anxiety among adolescents.
3. To associate post-test examination anxiety levels with selected demographic variables.

Hypotheses

H₁: There is a significant difference between pre-test and post-test examination anxiety scores within the study group.

H₂: There is a significant difference in post-test examination anxiety scores between the study and control groups.

H₃: There is a significant association between post-test examination anxiety levels and selected demographic variables.

Review of Literature

Galinha et al. (2025) conducted a randomized controlled trial among adolescents and found that relaxation techniques including guided imagery significantly reduced anxiety levels and improved emotional regulation. The study concluded that guided imagery is an effective school-based intervention for managing examination-related anxiety.

Xiang and Li (2025) studied test anxiety among secondary school students and reported that structured psychological interventions such as relaxation and mindfulness techniques led to a significant reduction in examination anxiety and improved coping abilities.

Rajan and Sandhu (2025) evaluated an integrative psychological intervention incorporating guided imagery among students and observed a statistically significant reduction in examination anxiety. The authors highlighted guided imagery as a simple and effective mental health nursing intervention.

Materials & Methods

A quantitative research approach was adopted with a quasi-experimental pre-test and post-test control group design. The study was conducted in selected higher secondary schools at Chennai, where one school was assigned to the study group and another to the control group to avoid contamination of the intervention. The population comprised adolescents studying in the 9th standard. A total of 100 adolescents were selected, including 50 in the study group and 50 in the control group, based on feasibility and previous similar studies. Non-probability purposive sampling technique was used to select the participants.

Tool for Data Collection

Section A – Demographic Variables Proforma

It included age, gender, type of family, parental education, and other relevant background variables.

Section B – Modified Westside Test Anxiety Scale

The level of examination anxiety was measured using a modified version of the Westside Test Anxiety Scale developed by Richard Driscoll, Ph.D. (American Test Anxiety Association). The instrument consists of 10 items rated on a five-point Likert scale, with response options ranging from 1 (“not at all/never true”) to 5 (“extremely/always true”). The total score ranges from 10 to 50, with higher scores indicating higher levels of examination anxiety. For interpretation, scores were categorized into five levels: 1–10 (no examination anxiety), 11–20 (mild examination anxiety), 21–30 (moderate examination anxiety), 31–40 (severe examination anxiety), and 41–50 (extreme examination anxiety). It demonstrates acceptable reliability and validity. The original scale reports good internal consistency (Cronbach’s $\alpha \approx 0.78$). It also shows adequate construct validity through correlations with related measures of test anxiety and academic performance, along with good face and content validity for assessing examination-related worry and impairment.

Guided Imagery Intervention

The Guided Imagery intervention was administered for 15–20 minutes per session over 15 consecutive days in a quiet classroom or counseling room. The sessions were facilitated by the researcher trained in guided imagery techniques. Each session included brief relaxation with deep breathing, followed by guided visualization using standardized imagery scripts focusing on safe place imagery, body relaxation, concentration, confidence in the examination hall, positive self-talk, coping with difficult questions, and tension release, and concluded with gradual reorientation. Guided imagery has been reported as an effective non-pharmacological intervention for reducing anxiety and improving emotional regulation among adolescents (*Galinha et al., 2025; Xiang & Li, 2025*).

Data Collection Procedure

After obtaining formal permission from school authorities and ethical clearance from the Institutional Ethics Committee, informed consent was obtained from parents and assent from adolescents. Pre-test assessment of examination anxiety was conducted for both study and control groups using the Modified Westside Test Anxiety Scale. Guided Imagery intervention was then administered to the study group. Post-test assessment was carried out after four weeks using the same tool.

Ethical Considerations

Ethical approval was obtained from the Institutional Ethics Committee. Permission was obtained from school authorities. Confidentiality and anonymity of the participants were maintained throughout the study, and participants were informed of their right to withdraw at any time.

Plan for Data Analysis

The collected data were analyzed using descriptive and inferential statistics. Frequency and percentage were used to analyze demographic variables. Mean and standard deviation were used to assess anxiety levels. Paired and unpaired t-tests were used to determine the effectiveness of Guided Imagery, and chi-square test was used to find the association between examination anxiety and selected demographic variables.

Results

Table 1: Frequency and percentage distribution of demographic variables of Adolescents in the Study and control group

N = 100(50+50)

Demographic Variables	Study Group		Control Group	
	f	%	f	%
Age in years				
14 years	12	24	10	20
15 years	25	50	23	46
16 and above	13	26	17	34
Gender				
Male	17	34.0	23	46.0
Female	33	66.0	27	54.0
Family monthly income				
25,000 – 30,000	12	24.0	15	30.0
30,000 – 50,000	19	38.0	18	36.0
50,001 – 1,00,000	19	38.0	17	34.0
Type of family				
Nuclear family	37	74.0	39	78.0
Joint family	10	20.0	10	20.0
Extended family	3	6.0	1	2.0
Educational status of parents				
Graduate	47	94.0	47	94.0
Higher secondary	2	4.0	2	4.0
Middle	1	2.0	1	2.0
Academic performance in school				
Very good	25	50.0	25	50.0
Good	20	40.0	20	40.0
Average	5	10.0	5	10.0
Study timing				
Early morning	14	28.0	14	28.0
Evening	36	72.0	36	72.0
Extracurricular activities				
Singing	22	44.0	22	44.0
Dancing	13	26.0	13	26.0
Arts	8	16.0	8	16.0
Drama	5	10.0	5	10.0
Others (specify)	2	4.0	2	4.0

Table 1 shows The majority of adolescents in both the study and control groups were aged 15 years (50% and 46%, respectively). Female students constituted a higher proportion in the study group (66%), whereas males were slightly higher in the control group (46%). Most participants belonged to families with a monthly income between ₹30,000 and ₹1,00,000. A large proportion of adolescents in both groups belonged to nuclear families. The majority of parents in both groups were graduates (94%). Half of the adolescents in both groups demonstrated very good academic performance, and most preferred evening study time (72%). Overall, the demographic characteristics of the study and control groups were comparable.

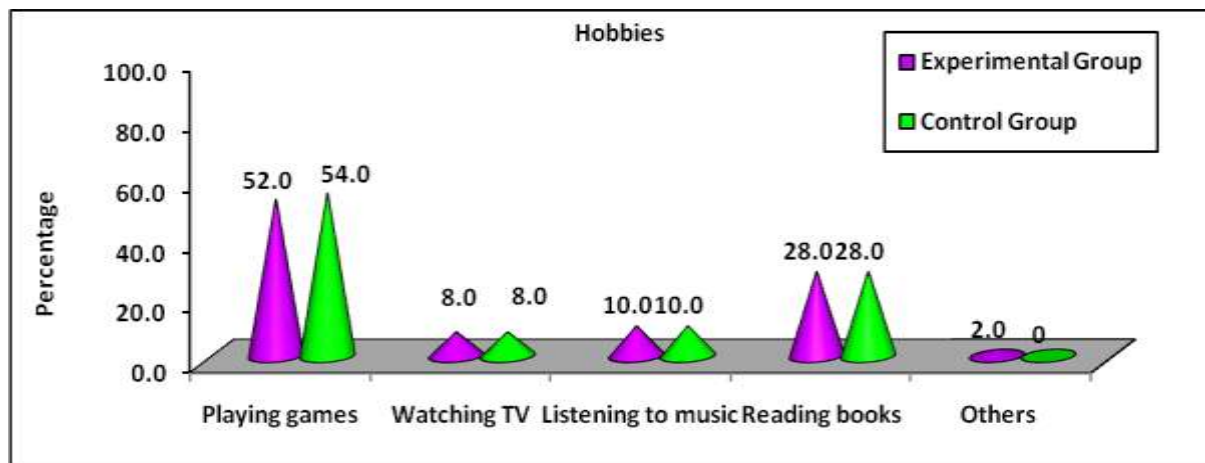


Fig.1 Percentage distribution of hobbies among the Adolescents in the Study and control group

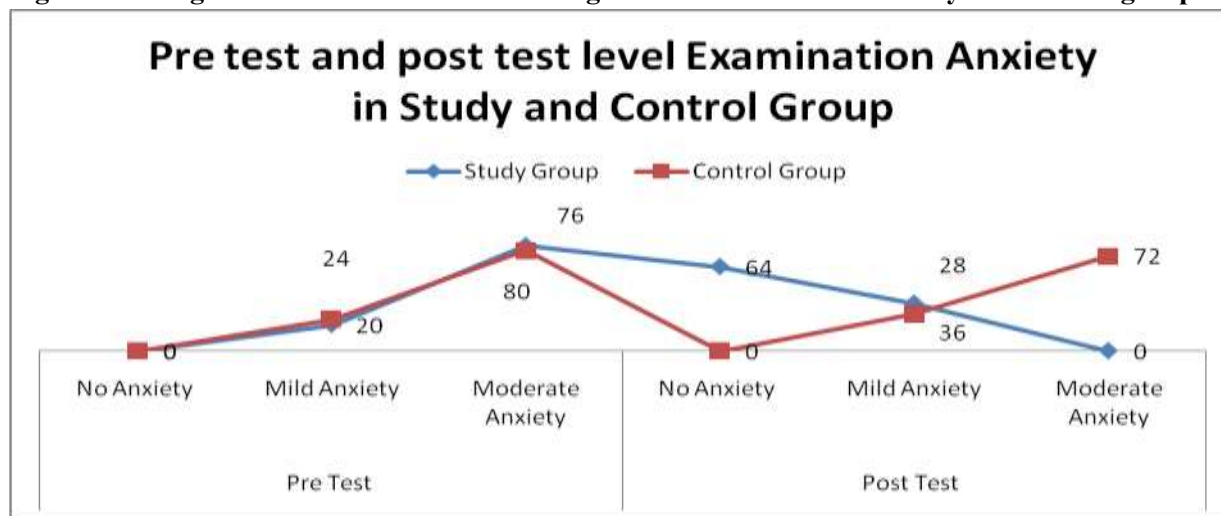


Fig 2: Percentage Distribution of Pre and post test level of Examination Anxiety in Study and Control Group.

Table 3: Effectiveness of Guided Imagery on Examination Anxiety among Adolescents within Study and control group
N = 50

Group	Examination Anxiety	Median	Mean	S.D	Mean Score	Diff.	Paired 't' Test value
Study Group	Pretest	26.0	26.4	2.7	13.2		t = 27.8 p <0.001, S***
	Post Test	13.0	13.2	2.6			
Control Group	Pretest	26.0	25.8	2.7	1.2		t = 2.13 p = <0.01, N.S
	Post Test	25.0	24.6	2.95			

Table 3 shows that the study group showed a statistically significant reduction in examination anxiety following the Guided Imagery intervention, with the mean score decreasing from 26.4 to 13.2 ($t = 27.8$, $p < 0.001$). In contrast, the control group demonstrated only a minimal and statistically non-significant change in Examination anxiety levels ($t = 2.13$). These findings confirm the effectiveness of Guided Imagery in reducing examination anxiety among adolescents.

Table 4: Comparison of pretest and post test Examination Anxiety scores among Adolescents between the Study and control group.
N = 100(50+50)

Group	Test	Median	Mean	S.D	Mean Score	Diff.	Student Independent 't' Test value
Pretest	Study	26.0	26.4	2.7	0.6		t = 1.03 p = <0.30, N.S
	Control	26.0	25.8	2.7			
Post Test	Study	13.0	13.2	2.6	11.4		t = 20.7 p = <0.001, S***
	Control	25.0	24.6	2.95			

Table 4 shows that there was no statistically significant difference in pre-test examination anxiety scores between the study and control groups ($t = 1.03$, $p > 0.05$), indicating baseline comparability. In the post-test, the study group demonstrated a significantly lower mean anxiety score compared to the control group ($t = 20.7$, $p < 0.001$), confirming the effectiveness of the Guided Imagery intervention in reducing examination anxiety among adolescents.

Table 5: Association of post test level of Anxiety scores among Adolescents in the Study group with their selected demographic variables.

N= 50

S. No	Demographic Data	Frequency	No Examination Anxiety	Mild Examination Anxiety	Moderate Examination Anxiety	Chi-Square Test	P-Value
1	Academic performance in school					$\chi^2=10.02$	p=0.04* S
	Very good	25	20	5	0		
	Good	20	10	10	0		
	Average	5	2	3	0		
2	Type of Play					$\chi^2=9.56$	p=0.028* S*
	a) Indoor games	26	14	12	0		
	b) Outdoor games	12	9	3	0		
	c) Digital games	12	3	9	0		
3	Extracurricular activities					$\chi^2=12.10$	p=0.02* S*
	Singing	22	15	7	0		
	Dancing	13	8	5	0		
	Arts	8	5	3	0		
	Drama	7	4	3	0		

Table 5 showed that Post-test examination anxiety levels in the study group showed a significant association with academic performance, type of play, and participation in extracurricular activities ($p < 0.05$). Adolescents with better academic performance, involvement in indoor or outdoor games, and active participation in extracurricular activities exhibited lower levels of examination anxiety.

Discussion

The present study assessed nursing students' perceptions of clinical teacher behavior in the clinical learning environment. The overall mean score (187.56 ± 69.26) indicated that students perceived their clinical teachers positively, particularly in the domains of Teaching Ability and Nursing Competence. This finding supports Jiang et al. (2023), who reported that clear instruction, constructive feedback, and professional expertise significantly enhance clinical learning. Similarly, Mohammadi et al. (2021) emphasized that teachers who serve as effective role models foster motivation and professional growth among nursing students.

The domain of Evaluation (mean = 31.28 ± 11.44) revealed that constructive and fair feedback was highly valued. Al-Mahmoud et al. (2024) also found that regular feedback and supportive evaluation improved students' satisfaction and clinical confidence. In the areas of Interpersonal Relations and Personality, students appreciated teachers who demonstrated empathy, approachability, and enthusiasm. Kumar and George (2022) noted that positive interpersonal behavior by instructors fosters a comfortable and motivating learning atmosphere.

A significant association was observed between medium of instruction and perception levels, suggesting that language proficiency influences learning effectiveness. Saraswathi and Nandhini (2023) similarly found that English-medium learners showed greater confidence and understanding in clinical contexts. Overall, these findings affirm that effective

communication, professional competence, constructive feedback, and supportive teacher-student relationships are crucial in enhancing the quality of clinical education.

Recommendations

- Conduct faculty development programs to strengthen teaching and evaluation skills among clinical instructors.
- Encourage reflective teaching practices that emphasize empathy, role modeling, and effective communication.
- Provide language proficiency and support workshops to improve students' comprehension and confidence in clinical settings.
- Implement regular feedback systems to identify and address gaps in teaching effectiveness

Conclusion

Overall, the study underscores that effective clinical teaching behaviors and supportive instructor-student relationships are essential for enhancing the quality of clinical education and preparing competent future nurses.

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