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FIVE FINGER ZEN ON EXAMINATION ANXIETY AMONG STUDENTS

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ABSTRACT

Background: Examination anxiety negatively impacts academic performance and well-being among nursing students. The Five Finger Relaxation Technique (FFRT) is a simple, cost- effective relaxation method. **Aim**: To assess the effectiveness of FFRT on examination anxiety among first-year B.Sc. Nursing students. **Methods**: A quasi-experimental one-group pre- and post-test design was used. A total of 100 first-year nursing students at PPG College of Nursing, Coimbatore were selected via purposive sampling. Anxiety was measured using the Modified Examination Anxiety Scale (EAS) before and after a four-week FFRT intervention. Descriptive statistics, paired t-test, and McNemar's test were applied. **Results**: Mean anxiety scores decreased significantly from 60.32 (SD=8.68) to 45.04 (SD=9.22) (t=13.60, p=0.001). Pre-test, 74% of students showed average anxiety and 26% low anxiety. Post-test, 63 % showed low anxiety and 37% average. Significant improvements were observed across bodily, cognitive, emotional, and behavioural domains. **Conclusion**: FFRT effectively reduces examination anxiety among nursing students. Integration of FFRT into student wellness programs is recommended.

KEYWORDS: Anxiety, intense, disruptive, five finger relaxation, tactile and Parasympathetic nervous system.

INTRODUCTION

Smile, breathe and go slowly - Thich Nhat Hnh (2022).

The academic achievements of the students play a pivotal role in their overall development. The educational system of the country has revamped a lot during the once many generations, where rather of smoothing a child's growth and progress, the concentrated focus remains on performance in the examinations. It's also been discerned that the growing prospects of parents along with scholastic and peer pressure has led to increased strain situations in today's scholars. Numerous literatures have set up that these anxiety and pressure to attain academic distinction are directing them sensitive to severe recession and suicidal ways.[1]

A lot of studies have depicted the relation of anxiety and exam performance and they have demonstrated that there is a significance negative correlation between anxiety and the achievement of grades obtained by students. This finding is at a par with what has been discovered by who stated that low academic achievement is attributed to high level of anxiety which undermines. Students are pressured to do well on all academic tests because their grades are the primary indicator of their achievement. There is evidence to suggest that anxiety is more prevalent among students; especially those who are studying in the lower grades, who experience failure or poor grades.[2]

Test anxiety has emerged as a major issue affecting learners across all levels of education. Many students undergo extreme psychological pressure during examinations, which may manifest as restlessness, trouble focusing, sleep problems and even physical symptoms. Five finger relaxation technique has shown consistently better outcomes, especially in post graduate students, as it promotes mental relaxation and helps control physical response to stress. Despite its benefits, this method is often overlooked and many students continue to endure anxiety without appropriate support due to limited awareness or across to such interventions. So, for graduate students relaxation therapy proved to be more successful in the previous studies.

Objectives

- To assess the pre and post-test level of anxiety among students.
- To evaluate the effect of five finger relaxation technique on level of anxiety among students.
- To associate between anxiety and selected socio demographic variables.

1.4 Operational Definition Effectiveness

It is the anxiety level of nursing students towards exam after the intervention of practicing five finger relaxation technique. It will be assessed by Modified Examination Anxiety Scale (EAS).

Five finger relaxation technique

It involves focused attention on fingers and deep breathing exercise so as to stimulate the Para sympathetic nervous system inducing relaxation. It's going to start with the closing eyes and attempting to block out any outside sounds or noises. Touch one finger at a time to the thumbs with the right or left hands (or both). Dwell for 30-60 seconds in each thought, combined with these foundation instructions, practiced 10-15 min, once in a daily basis for four weeks.

Anxiety

Anxiety refers to a feeling of fear, tension, nervousness and dread associated with an examination. It was measured using Modified Examination Anxiety Scale (EAS).

Students

It pertains to studying I year BSc (N) in selected college, Coimbatore.

1.5 Hypotheses

H1 - There is a significant difference in the level of anxiety between pre-test and post- test among students.

H2 - There is a statistically significant relationship between anxiety and selected socio demographic variables among students.

1.6 Assumption

- Anxiety may lead to low academic scores in exam performance.
- Five finger relaxation technique (FFRT) may be an effective method in reducing the exam anxiety.
- FFRT enhance the confidence level and concentration among students.

1.7 Delimitation

The study is delimited to

- Sample size was 100.
- Duration of intervention was four weeks
- B.Sc (N) – I year students of selected college.

Conceptual framework

General System Theory (GST) was used for the current study, it consisted of a nursing intervention (Five Finger Relaxation Technique), students (experiencing examination anxiety), and the educational environment surrounding it. **Input**: Socio demographic variables, identification of students with examination anxiety using the Modified Examination Anxiety Scale. **Throughput**: implementation of the FFRT over a four-week period. **Output**: Reduction of anxiety, **Feedback**: compared the pre and post test anxiety level to understand the effectiveness of FFRT.

Literature Review

Researchers investigated the continuing problem of test anxiety and coping strategies used by nursing students. The goal of this study was to establish the proportion of students with test anxiety, and to explore which coping strategies are most commonly applied. A descriptive exploratory study design was adopted with 120 students who were selected purposively to form the sample. No intervention was included. Data were elicited by the Examination Anxiety Questionnaire and a Coping Checklist. Frequency distribution and chi-square testing were used for statistical analysis. Findings indicated that 66% of students reported moderate to severe anxiety while key coping strategies included procrastination and isolating. The researchers highlighted the importance of peer support groups and motivational counselling to encourage more positive ways of coping.[3]

Researchers examined the relationship between exam anxiety, burnout, and academic performance, recognizing that examination stress remains a key factor contributing to academic burnout in nursing students. A correlational study design was used with 140 students selected through systematic random sampling. There was no intervention. Research tools included the Test Anxiety Inventory, Burnout Scale, and academic score records. Pearson correlation and multiple regressions were applied to assess the relationships among variables. Findings indicated a strong positive correlation between exam anxiety and burnout, which was also linked to a decline in academic performance. The study advocated

for institutional resilience-building programs as an essential component of nursing education.[4]

A randomized controlled trial design done to determine whether the Five Finger Relaxation Technique (FFRT) is useful in decreasing anxiety and stress in nursing students during their clinical practice. One hundred nursing students were included in the experiment, and they performed FFRT for 15 minutes daily over four weeks. Anxiety levels were assessed using the State and Trait anxiety Inventory (STAI) and the Beck Anxiety Inventory (BAI) before and after intervention. The analysis expressed that obviously reduce on increase stress ($p < 0.05$). The results suggest that FFRT is an efficient technique to decrease anxiety and stress in a clinic that can increase mental health among nursing students.[5]

Researchers assessed the benefits of Five Finger Relaxation Technique in decreasing anxiety in nursing students during their clinical practice was examined in this study using a randomized controlled trial design. 100 nursing students participated in the experiment and carried out FFRT exercises over a period of 4 weeks (15 min per day). The individual levels of anxiety were measured by the State and Trait anxiety Inventory (STAI) and the Beck Anxiety Inventory (BAI) before and after intervention. The profile revealed that clearly decrease upon increase stress ($p < 0.05$). It indicated that FFRT is an effective method to reduce anxiety and stress in a hospital among nursing students.[6]

METHODOLOGY

Design: A quasi-experimental one-group pre- and post-test design was employed.

Setting and Population: Conducted at PPG College of Nursing, Coimbatore, among 100 first-year B.Sc. Nursing students.

Sampling: Non-probability purposive sampling was used.

Intervention: Students practiced FFRT daily for 10–15 minutes over four weeks under investigator supervision.

Instruments: The tool comprises of three components, such as section A, section B, and section C.

Section A: **Socio demographic variables:** It includes the socio demographic variables such as age, sex, religion, course, mother tongue, medium of instruction of higher secondary classes, board of higher secondary education, percentage of marks obtained in higher education, type of family, father and mother's occupation, monthly family income, no of siblings, grandparents at home, personal habits,– sleeping hours/night, study method during study hours, previous practice of yoga previous history of chronic illness, any ayurvedic treatment for the chronic illness.

Section B: Checklist for anxiety symptoms: It includes check list for measuring anxiety symptoms. The student will place a check mark on "YES" if they have any of the listed symptoms on the checklist and "NO" if they do not have the symptom. Sum of 30 symptoms which are anxious mood, G.I symptoms, Respiratory symptoms, Insomnia, Intellectual, Depressed mood, Somatic muscular symptoms, Autonomic symptoms, Somatic sensory symptoms, Cardio vascular symptoms, Behavioural symptoms, Genito urinary symptoms, Tension.

Section C: Modified Examination Scale: The examination anxiety scale (EAS) was composed of 40 items (it was adapted as 21 items). As there were two items regarding the same idea, the researcher changed it to 20 items. There are four subscales: physio- logical symptoms (items 2,6,10,11,19), cognitive responses (items 1,3,8,16,18), emotional responses (items 4,7,9,12,14) and behavioural responses (items 5,13,15,17,20). The scale is a 5-point Likert scale. The five choices available are strongly agree, agree, undecided, disagree and strongly disagree. The Modified Examination Anxiety Scale consists of 14 positive and 6 negative items. For the positive items scoring was (5- strongly agree, 4- agree, 3- undecided, 2- disagree, 1- strongly disagree) and the reverse was for the negative items.

Table No. 1: Scoring interpretation of level of anxiety.

Range of raw score	Level of examination anxiety
Below 50	Low examination anxiety
51-74	Average examination anxiety
Above 74	High examination anxiety

Content validity

The instrument was checked for face and content validity by subject experts, yoga therapist and Medical guide.

Reliability

The reliability of the Modified Examination Anxiety Scale (EAS) was evaluated by test - retest method. High reliability was demonstrated by the Pearson's correlation co efficient of $r = 0.801 (p < 0.01)$,

Ethical consideration

The ethical committee has given a written consent to precede the study. Each student was explained about the study and oral and written consent were obtained. Anonymity of responses was guaranteed.

Procedure for data collection

The researcher conducted pretest to assess anxiety level and got filled the checklist of symptoms of anxiety and collected socio demographic variables. Then demonstrate FFRT. After four weeks of intervention, post test was conducted by using Modified examination anxiety scale.

The steps in doing five finger relaxation technique[7] as follows: Begin by closing eyes and trying to shut out any external sounds or noises. Using either right or left hands (or both), touch one finger at a time to thumb. Spend 30 to 60 seconds on each thought, using these basis instructions:

1. **Index Finger: Physical Fatigue or Tiredness**

While touching the index finger to thumb, go back in time. Think about:

- A time when you had just engaged in some type of exhilarating physical activity.
- Remember how it felt to have spent so much energy while not overdoing it.
- Breathe deeply, remember how your muscles felt tired and the sense of accomplishment of having done something rewarding and exhausting.

2. **Middle Finger | Love or Positive Emotion**

While touching middle finger to thumb, think of:

- A time when you felt a strong closeness to someone else.
- When you had a warm or loving embrace.
- The look in the eye of the other person in that moment.

3. **Ring Finger | Compliment**

Touch ring finger to thumb and think back to a time when:

- Received a sincere and meaningful compliment.
- Worked extra hard to do something nice for someone else and they recognized what had done and were sincerely grateful.

4. Little Finger | Nature and Beauty

Using little finger, touch thumb and think about a time when:

- You were in a beautiful outdoor place and were looking at the majesty of the skies, the mountains, the fields, the desert, or another place that you have been that was beautiful.
- Contemplate the smells and the sounds of the day with the colors, the breeze, the sounds, the textures, and the light.

Open eyes and return the focus to the task at hand remembering the many amazing things that you have already accomplished in life.

RESULTS

Table No. 2: Frequency and distribution of socio demographic variables.

S.no	Socio demographic variables		f	%
1	Age	17 years	16	16
		18 years	58	58
		19 years	26	26
2	Gender	Male	27	27
		Female	73	73
3	Religion	Hindu	52	52
		Muslim	5	5
		Christian	43	43
4	Course	Nursing	100	100
		Others	0	0
5	Mother Tongue	Tamil	66	66
		English	0	0
		Others	34	34
6	Medium of instruction in Higher Secondary Education	Tamil	16	16
		English	84	84
		Others	0	0
7	Board of education of Higher Secondary Education	State board	95	95
		CBSE	5	5
		ICSE	0	0
8	Percentage of marks obtained in Higher Education	50% -59%	3	3
		60 %-80%	64	64
		>80%	33	33
9	Type of family	Nuclear family	74	74
		Joint family	26	26
10	Father's Occupation	Self employed	40	40
		Government job	9	9
		Private job	22	22
		Business	11	11
		Farmer	18	18
11	Mother's Occupation	Self employed	0	0
		Government job	8	8
		Private job	21	21
		Business	3	3
		Homemaker	68	68
12	Monthly family income	<Rs.15000	31	31
		Rs.15001-25000	34	34
		Rs.25001-50000	23	23
		>Rs.50000	12	12
13	No of sibling	One	64	64
		Two	24	24
		>Two	8	8
		None	4	4
14	Grandparents at home	Yes	48	48

		No	52	52
15	Personal habits	Alcohol, smoking	0	0
		Tobacco	0	0
		Both A and B	3	3
		None	97	97
16	Sleeping hours/ night	Less than 5 hours	7	7
		6 to 8 hours	87	87
		More than 8 hours	6	6
17	Study method during study hours	Alone	77	77
		Group	23	23
18	No. of days studying per week	Everyday	46	46
		One to three days	38	38
		Before a week of exam	16	16
19	Average No. of hours spent for study time	<1 hour	7	7
		2-3 hour	54	54
		3-4 hour	33	33
		>4 hour	6	6
20	Part time job during college days	Yes	2	2
		No	98	98
21	Extra-curricular activity during higher education	Gym	5	5
		Music and dance	17	17
		Swimming	2	2
		Others	32	32
		None	44	44
22	Previous practice of Yoga	Yes	17	17
		No	83	83
23	Screen time / day	<1 hour	14	14
		2-3 hour	43	43
		3-4 hour	25	25
		>4 hour	18	18
24	Previous history of chronic illness	Yes	8	8
		No	92	92
25	Ayurvedic treatment for chronic illness	Yes	3	3
		No	97	97

Analysis: Descriptive statistics summarized demographics and anxiety scores. Paired t-test and McNemar's test assessed the intervention's effectiveness. Chi-square examined associations between socio-demographic variables and anxiety.

Table No. 3: Comparison between pre test and post test level of anxiety among students.

Level of anxiety Score	Assessments				McNemar's test
	Pretest		Posttest		
	n	%	n	%	
Low (Below 50)	26	26	63	63	$\chi 2=25.83$ p=0.001*** **(S)**
Average (51-74)	74	74	37	37	
High (Above 74)	0	0	0	0	

Table No. 4: Association between post test level of anxiety and socio demographic variables.

S. No.	Demographic variables		Post test Level of Anxiety score				n	Chi square test
			Low		Moderate			
			n	%	n	%		
1	Age	17 years	14	87.50	2	12.50	16	$\chi 2=6.17$ P=0.05* **(S)**
		18 years	37	63.79	21	36.21	58	
		19 years	13	50.00	13	50.00	26	
2	Sleeping hours/night	Less than 5 hours	1	14.28	6	85.72	7	$\chi 2=9.42$ P=0.05* **(S)**
		6 to 8 hours	59	67.81	28	32.19	87	
		More than 8hours	3	50.00	3	50.00	6	

DISCUSSION

Table No.1 shows about Socio demographic variables of the students. It depicts that the majority of students were 18 years old 58 (58%)**,** and female 73 (73%), reflecting the typical nursing student demographic. A significant proportion of the students were 52 (52%) Hindus. Tamil was reported as the mother tongue by most of the students 66 (66%). Most students 84 (84%) had English as their medium of instruction and 95(95%) were from the state education board.

The majority of students 64 (64%) obtained between 60%-80% in their higher secondary education. Nuclear families were the predominant family type among the students 74 (74%).

A large proportion of students 64 (64%) reported having one sibling. In terms of occupation, 40 (40%) of the fathers were self – employment. A significant majority of the mothers 68 (68%) were home makers. Approximately 34 (34%) of the families reported a monthly income between Rs.15001- 25000.The vast majority of students 97 (97%) reported no substance use. In terms of sleep duration, most students 87 (87%) reported sleeping between 6 and 8 hours each day. A large proportion of students 77 (77%) preferred studying alone. In terms of average daily study time, the most commonly 54 (54%) reported duration was 2 to 3 hours per day. Only 2 (2%) of students had a part time job, while the remaining 98(98%) did not. A vast majority 83 (83%) of students had never practiced yoga before. Screen time data showed that 43(43%) of students spent 2-3 hours per day. In the study[8] supporting these findings, structured relaxation, and breathing techniques significantly upgraded the quality of sleep in students with anxiety, Table No. 2 illustrates the comparison between pre and post test. In the pre test 74 **(**74%) of students exhibited moderate anxiety**,** and 26 **(**26%) showed low anxiety**.** No students reported high levels of anxiety. In the post test: 63 **(**63%) of students had low anxiety**,** and 37 **(**37%) had moderate anxiety**.** A significant reduction in anxiety scores was observed post-intervention. The overall anxiety score reduced from 60.32% (pretest) to 45.04% (posttest)**,** indicating a 15.28% reduction in anxiety levels**.** McNemar's test confirmed a statistically significant (p= 0.001) difference between pretest and posttest anxiety levels.

Table No.3 depicts the association between post test and selected socio demographic variables. Chi-square analysis revealed that age and sleeping hours were significantly associated with post test anxiety levels **(**p = 0.05**).** The same conclusion was drawn in a similar report [9] discovered in college students that the duration of sleep had a significant influence on stress and anxiety among the presentations.

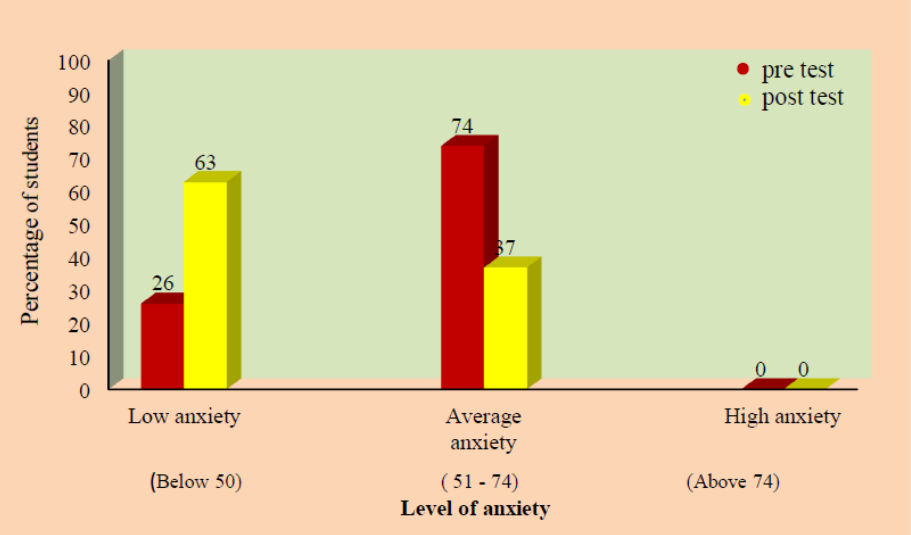

Fig. 1: Comparison between pre and post-test level of anxiety among students.

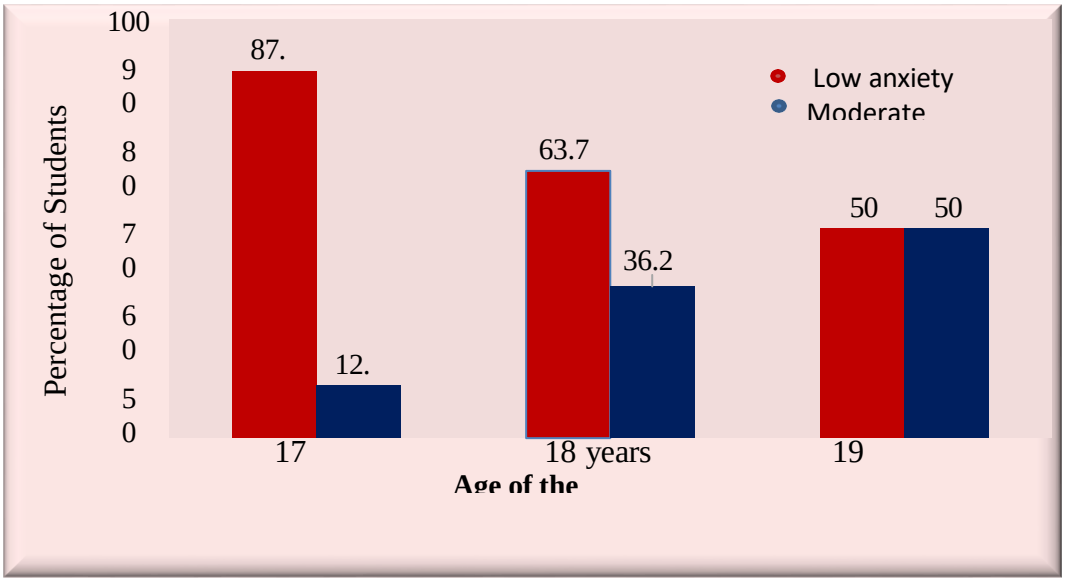

Fig. No 4. 4.1: Association between post-test level of anxiety score and their age.

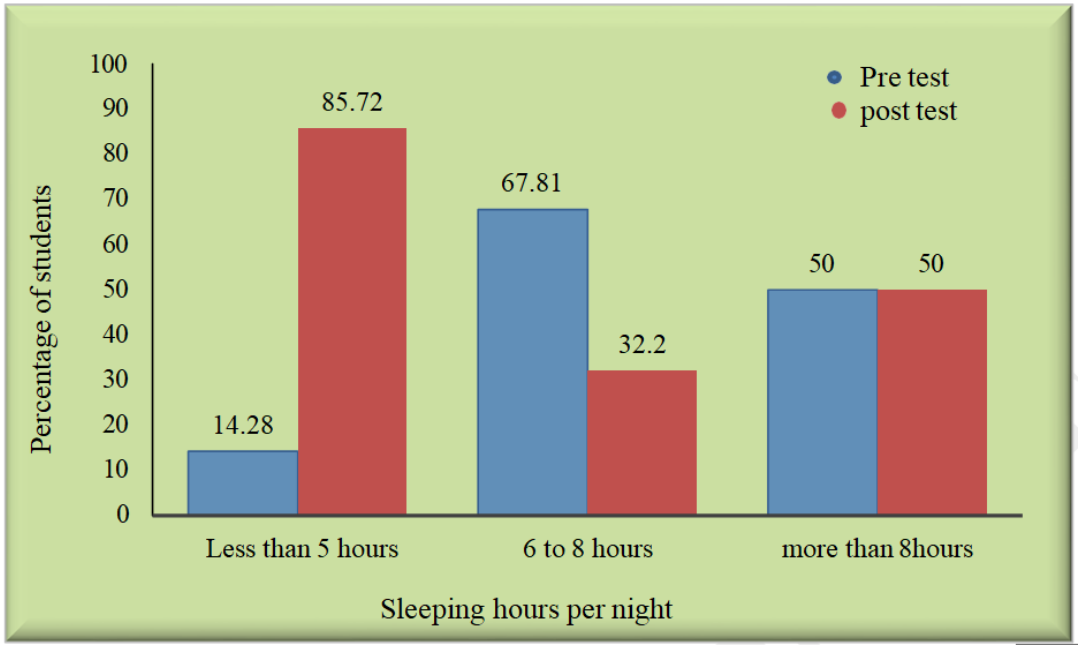

Fig. No 4. 4.2: Association between post-test level of anxiety score and sleeping hours.

Limitation

- Limitation of only one group designed study, no control group tested.
- Non-probability sampling was used in the sample selection, and the study results may not be generalizable.

Recommendations for further study

- The five finger relaxation technique works well for breast cancer patients – or anyone with any illness that causes anxiety.
- It works in both clinical and community environments.
- Comparative study can be done to explore the efficacy of five finger relaxation technique among the school children.

- The research can be reproduced with abundant samples to make the findings more universal.
- Long term follow up may be done to evaluate long sustained benefit.

Nursing Implication

Nursing Education

In the current study FFRT was tried and it proved that it can easily reduce the level of the anxiety among students. Relaxation methods such as FFRT, can also be included in nursing education to assist with coping of stress and anxiety.

Nursing Practice

The technique(FFRT) can be used in clinical settings for patients experiencing anxiety. Nurses should acquire adequate knowledge, skills and critical thinking in practicing Five Finger Relaxation Technique.

Nursing Administration

Nurse administrators should support the inclusion of mental health interventions like relaxation techniques in both academic and hospital settings.

Nursing Research

Longitudinal research will help to establish whether this intervention affects academic achievement and emotional well-being in the long-term.

CONCLUSION

The FFRT is an effective in reducing examination-related anxiety is a simple and effective method for achieving deep relaxation and reducing anxiety through mindful breathing and gentle finger touches. The technique led to a noticeable reduction in physiological, cognitive, emotional, and behavioural symptoms of anxiety. Given the high levels of stress experienced by nursing students, this intervention offers cost-effective and non-invasive method that can be easily integrated into nursing education and practice settings to promote mental well-being and academic performance. This multisensory approach helps calm the mind and body, making it an excellent tool for managing anxiety.

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Nil

Conflicts of interest

There are no conflicts of interest.

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