

Effect of Tensing Toe Relaxation Technique on Test Anxiety among B.Sc Nursing 1st Year Students in Selected Colleges, Bhubaneswar, Odisha

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Abstract

Background: Test anxiety is a psychological condition that causes extreme stress and anxiety in exam situations. Students feel stress and anxiety before exams. It can disrupt their learning and lead to poor performance. Relaxation techniques, like tensing toe relaxation, are the most effective non-pharmacological techniques for reducing stress because they affect mental and physical states like depression, mood, anxiety, and self-blaming.

Objective: To evaluate the effect of the tensing toe relaxation technique on test anxiety among first-year B.S. nursing students and the association of the level of test anxiety with their selected demographic variables.

Methods: The Quasi-experimental research study was conducted in two selected colleges in Bhubaneswar, Odisha, among B. Sc. Nursing 1st year students. Thirty-four (34) students were selected for each Experimental and Control group by using the Purposive sampling technique. Nist, Diehl A test anxiety scale and a self-structured socio-demographic tool were used for collecting the data through the questioning method. After demonstrating the tensing toe relaxation technique to the experimental group, they were asked to practice for 2 weeks. The post-test was conducted at the end of two weeks.

Results: Study findings show a reduction of test anxiety with ($t = 6.02$) ($p = 0.000$), which is highly significant at $p < 0.001$, and also the unpaired t-test post-test values show a significant change at $p < 0.001$. Furthermore, there is a significant association between the level of test anxiety and selected demographic variables at $p < 0.05$.

Conclusion: The Tensing toe relaxation technique is an effective intervention to reduce test anxiety.

Keywords: Test anxiety, Tensing Toe relaxation technique, stress, and anxiety

Introduction

Anxiety is an emotion that includes feelings of anxiety over an impending event as well as an

unpleasant state of inner conflict. Anxiety disorders are situations where anxiety persists and have the potential to worsen over time. Daily tasks

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including job performance, academic progress, and interpersonal relationships might be hampered by symptoms.

In the US, anxiety disorders are a more prevalent mental illness, affecting 40 million adults (18.1% of the population) each year. Anxiety disorders are curable; globally, 36.9% of people with anxiety disorders receive therapy each year under ideal therapeutic conditions.

The total cost of all mental health issues to the worldwide economy by 2030 may reach \$16 trillion. The World Economic Forum's Annual Meeting 2019 in Davos focused on how the world deals with mental health issues, which are a financial burden and a blight on an increasing number of people's lives.

Test anxiety is actually a type of performance anxiety. It's an emotion someone might feel in a situation where performance really matters, or when there's a lot of pressure to do well. Some people experience performance anxiety right before they stand on the floor, step onto the platform in a show-jumping competition or leave for an important interview. Test anxiety can cause butterflies, stomachaches, or headaches may feel shivering, sweaty hands, and a rapid heartbeat.

Health care education has an great impact on the development of countries and student academic performance plays an important role in this regard. Test anxiety can affect a student's academic performance. According to the American Test Anxieties Association, about 16 to 20 percent of students have high test anxiety, with another 18 percent troubled by moderately high test anxiety.

Nursing education comprised of using knowledge and skills both in academics and clinical settings. Students must be a critical thinker in emergency situation, if they feel anxiety at that situation that will hamper their clinical work as well as skills. To get rid from this relaxation technique can be used. Because stress influences mental and physical problems, depression, mood, anxiety, and self-blame, relaxation is considered one of the most effective non-pharmacological techniques for relieving stress. The

tensing toe method is a form of progressive muscle relaxation. In progressive muscle relaxation, certain muscle groups alternately tighten and relax. Toe flexion is a great way to relax after a long day and can also be done in bed right before bed.

Methodology

Study design and Sample

The Quantitative Quasi-experimental research study was conducted in two selected colleges of Bhubaneswar, Odisha among BSc Nursing 1st year students who were willing to take part in the study i.e. Kalinga Institute of Nursing Sciences and Vivekananda College of Nursing. Participant with optical and hearing impairments and who were having anxiety disorders and taking prescribed anti-anxiety drugs were excluded from the study.

Sample size & Sampling technique

According to the literature, the sample size is derived by applying the compliance value and 68 samples were chosen. Considering the effect size 0.07 at 95% level of significance, 80% power the minimum required sample size is 34 for each group i.e. the total number of samples is 68.

Purposive Sampling Technique was used to select experimental and control group from the population.

Data collection tools and technique

Data were collected by using Nist and Diehl test anxiety questionnaire and self-structured demographic variables. Test anxiety questionnaire consisted of Ten (10) statements. If the score is Less than 20 then it is considered as mild anxiety, 20-35 moderate anxiety and more than 35 is severe anxiety. Data were collected by using questionnaire.

Ethical consideration

This study was ethically approved by IEC after commencement of required discussions at its board meeting. Approval was obtained from selected college authorities for conduction of study in those selected institutions. Informed consent was obtained from students. Confidentiality and anonymity was maintained in recording and storage of data throughout the study.

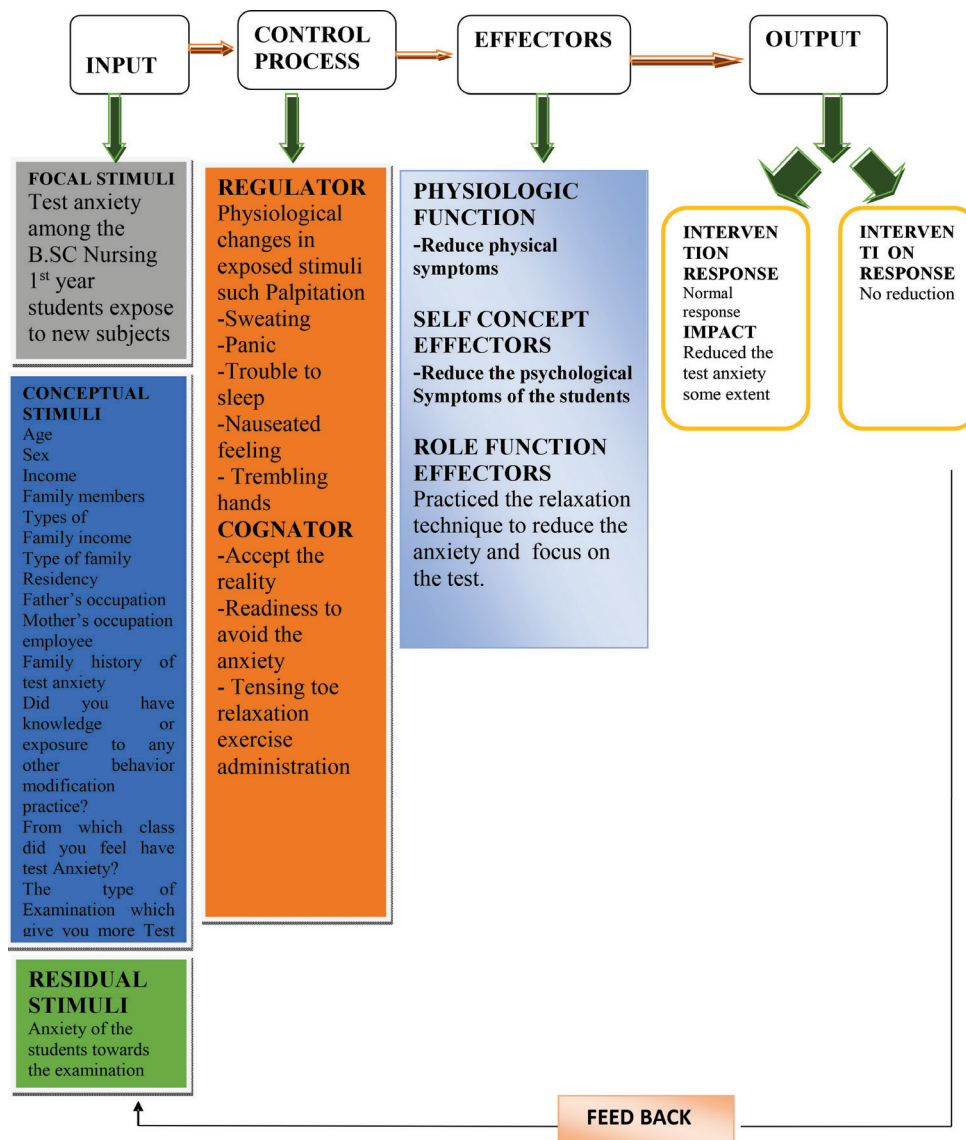


Figure 1: Demonstrate the conceptual presentation of study by using Roy's Adaptation Mode

Results

A total of 68 participants were selected, 34 participants were included in both experimental and control group. Regarding the age of the participants in experimental group 25 (73.5%) and control group 18 (53.94%) majority of them were in the age between 17-18 years. Gender of the participants, in the experimental group 27 (79.4%) and control group 22 (64.7 %) depict that majority were females. With regard to the level of test anxiety among experimental group participants, during pre-test, majority 32 (94.11 %) were having severe test anxiety while among post-test 15(44.11%) were having moderate

anxiety. With regard to the level of test anxiety among control group participants, during pre-test, majority 32 (94.11 %) were having severe test anxiety while among post-test 29(85.29%) were having severe anxiety. The analysis showed using paired t-test that there is significant change ($p < 0.001$) in the experimental group after administering tensing toe relaxation technique with mean difference (9.17). The inferential analysis showed from unpaired t-test that there is significant change ($p < 0.001$) in the post test values of experimental and control group. There is no significant association between association between test anxiety and selected demographic variables.

Table 1: Frequency and Percentage Distribution According to Level of Test Anxiety Among Participants in Experimental Group(n1=34)

S. No	Level of Test Anxiety	Pre Test		Post Test	
		Frequency	Percentage	Frequency	Percentage
1.	Mild Test Anxiety	0	0.00	7	20.58
2.	Moderate Test Anxiety	2	5.88	15	44.11
3.	Severe Test Anxiety	32	94.11	12	35.29

Table 2: Frequency and Percentage Distribution of Subjects According to Level of Test Anxiety Among Participants in Control Group (n2 = 34)

S. No	Level of Test Anxiety	Pre Test		Post Test	
		Frequency	Percentage	Frequency	Percentage
1.	Mild Test Anxiety	0	0.00	0	0.00
2.	Moderate Test Anxiety	2	5.88	5	14.70
3.	Severe Test Anxiety	32	94.11	29	85.29

Table 3: Paired t test analysis to assess the pre test and post test level of anxiety among participants of experimental and control group

Experimental Group	Mean	Mean Difference	Standard Deviation	Paired 't' Test	P value
Pre-Test	39.29	9.17	2.43	6.02 (df =33)	0.000*
Post-Test	30.11		8.51		

Table 4: Mean, Mean Difference, Standard Deviation and Paired 't' test level of Test Anxiety among participants in Control Group

Control Group	Mean	Mean Difference	Standard Deviation	Paired 't' test	P value
Pre-Test	39.85	1.23	3.06	1.94 (df = 33)	0.06
Post-Test	38.79		4.11		

Table 5: Unpaired t test analysis assesses the pre and post test level of test anxiety among participants of Experimental and Control group

Table - 5(i)

Pre test	Mean	Mean Different	SD	Unpaired "t" test	P Value
Experimental group	39.29	0.56	2.43	0.8 (df = 66)	0.40
Control Group	39.85		3.06		

Table - 5 (ii)

Post test	Mean	Mean Different	SD	Unpaired "t" test	P Value
Experimental group	30.11	8.5	8.51	5.24 (df = 66)	0.000*
Control Group	38.61		4.44		

Discussion

The Quantitative Quasi-experimental research study was conducted in two selected colleges of Bhubaneswar, Odisha among BSc Nursing 1st year students. A total of 68 participants were selected where 34 participants were included in both experimental and control group.

This study was corroborated by a related article in which the researcher carried out quantitative pre-experimental one group pretest posttest research to see how well the tensing toe relaxation technique reduced test anxiety in adolescents in a particular school. According to the study's findings, test anxiety significantly decreased in teens that used the tensing toe relaxation technique. This demonstrates that there is a need to practice the tensing-toe relaxation technique at various developmental stages.

Regarding age of the participants in experimental group 25 (73.5%) and control group 18 (53.94%) majority of them were in the age between 17-18 years. Gender of the participants, in the experimental group 27 (79.4%) and control group 22 (64.7%) depict that majority were females. With regard to family monthly income in experimental group 20(58.8%) and control group 21(61.76%) participants were coming under the range of Rs 30,831 above. In experimental group 23(67.64%) and control group 21(61.76%) participants were from joint family. With regard to residency in experimental group 30(88.23%) and control group 21(61.76%) were staying in the hostel. In experimental group 16(47.05%) and control group 16(47.05%) participant's father working as private employee. In experimental group 18(52.94%) and control group 22(64.7%) participant's mothers were housewife. Regarding family history of test anxiety in experimental group 31(91.17%) and control group 25(73.52%) were not having family history of test anxiety. In experimental group 29(85.29%) and control group 26(76.47%) participants were not exposing to any other behaviour modification practice. In experimental group 16(47.05%) and control group 15(44.11%) participants felt test anxiety from class 1-5. In the experimental group 17(50%) participants felt more test anxiety during summative exam and control group 13(38.23%) participants felt more test anxiety during formative

exam. In experimental group 21(61.74%) and control group 20(58.82%) participants felt more anxiety during Anatomy and Physiology exam. Practical examination makes the participants to get more fear where majority of the participants in experimental group were 14(41.17%) and in control group were 16(47.05%). In experimental group 28(82.35%) and control group 19(55.88%) participants were average students. Regarding the level of test anxiety among experimental group participants, during pre-test, the majority 32 (94.11%) were having severe test anxiety while among post-test 15(44.11%) were having moderate anxiety. With regard to the level of test anxiety among control group participants, during pre-test, the majority 32 (94.11%) were having severe test anxiety while among post-test 29(85.29%) were having severe anxiety. The analysis showed using paired t-test that there is significant change ($p < 0.001$) in the experimental group after administering tensing toe relaxation technique with mean difference (9.17). The inferential analysis showed from unpaired t-test that there is significant change ($p < 0.001$) in the post test values of experimental and control group. There is no significant association between test anxiety and selected demographic variables.

Conclusion

The results of this study proved that BSc nursing students' test anxiety can be reduced by using the Tensing toe relaxing technique. In order to reduce anxiety, it was recommended that nursing students be taught relaxation techniques like this one before beginning clinical practice.

Recommendation

- The study can be replicated by using larger samples.
- A study could be undertaken in different settings like Government colleges, private colleges and other sectors also.
- A mixed-method study can be conducted to know the experiences of students.

Conflict of Interest: Nil

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