

## **The Effect Of Psychological Interventions On Exam Performance In 10+2 Students**

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### **ABSTRACT**

Adolescence is an age of stress and strain. Exam Anxiety has negative impact on the students' performance and wellbeing. Fear of examinations, Lack of confidence, absence of coping strategies, poor study habits are some of the reasons for examination stress. Effective psychological interventions help them to cope and learn new strategies to face the examinations with less stress. This article aims at finding the impact of certain psychological interventions on exam performance. 220 students of 10+2 class have been chosen for the study, of which 40 students have shown high anxiety. Psychological interventions like Muscular relaxation therapy, deep breathing, CBT, study habits training provided to the students in experimental group. The results found that the anxiety levels of the students have come down to normal and better study habits developed.

Key words: exam anxiety, cognitive factors, coping strategies, study habits.

### **Introduction**

The most of the difficulties of the adolescents are due to exam stress and the conflicts in the personality formation. Examinations constitute a major part of their studies. Students worry about examination performance. Some students go to the extreme that If they do not perform well in examinations, find no meaning in life and commit suicide. Student suicides are alarming. The students of 10+2 (Intermediate education) are more vulnerable. As it is an important stage for career building, parents and teachers pay excessive focus on studies. Admissions into professional courses like medicine, engineering, agriculture and others are made on the basis of merit of marks and in the entrance examinations conducted at state and at national level. This further adds more stress.

Students from well to do families, and educated background mostly go to corporate colleges in cities. Students from middle and low class remain in towns. For the choice of selecting the course and the college, students depend on their parents and teachers. Sometimes their wishes are against the wishes of their parents. In some cases, students do not have a preference; they do not know which career they want to go. And some dare not enough to tell the parent that they are not good in the subjects they choose. These often lead to stress and the student will leave the studies in the middle. Some students have no good foundation in the subjects, hence understanding the subject becomes difficult. They underestimate themselves that they can't perform well. These preconceived notions, cognitive distortions make the students more vulnerable to stress.

We live in a test-conscious, test giving culture in which the lives of people are in part determined by their test performance (Sarason et al.1960). Test anxiety has become a

pervasive problem in the current society. Test anxiety is commonly used to refer to the anxiety and its accompanying impairment (Hembree, 1988). The review of test anxiety literature reveals that worry and emotionality are the two major components of test anxiety (Libert et al, 1967). Worry is about the consequence of failure and it is a cognitive concern. Emotionality often refers to heightened feelings of physiological arousal. It is worry that that undermines the performance of the individuals.

According to Wine J D, "the high test anxious person responds to evaluate condition with ruminative, self evaluative worry and thus, can't direct adequate attention to task relevant variables." Test anxiety is a negative emotional experience accompanied by predictable biological, physiological, cognitive, behavioural changes that are directed either toward altering the stressful event or accommodating to its effects. A student under anxiety experience the physical symptoms like perspiration, sweaty palms, headache, muscle pains, upset stomach, indigestion, diarrhoea, fast or irregular heartbeat, overeating or lack of appetite, disturbed sleeping patterns etc. In addition, one experience intellectual symptoms like difficulty in remembering & recalling, understanding simple instructions, inability to choose between two options and difficulty in concentrating during the exam. Students will experience emotional symptoms like feelings of panic, feeling inadequate, with negative thoughts. Thoughts of punishment and, feelings of pessimism and hopelessness about the outcome of the exam are common.

Zeidner (1998) spoke about three components of test anxiety as cognitive, affective, behavioural. Cognitive component speaks about the negative thought and self depreciating statements. Physiological state of the individual is affective and poor study skills, procrastination etc are behavioural things. (Putwain, D.W., 2008).

Cognitive therapy helps people to check and correct distorted and useless thoughts, causing emotional distress and turmoil (Beck et al, 1979). Relaxation therapies combined with cognitive therapy shown as effective interventions in treating test anxiety. Study habits play an important role as these enable the students to prepare well before the examinations, and they can take examinations with manageable stress. Thus, it is conceived in the present study to use these three psychological interventions relaxation therapy, CBT, study skills training in treating test anxiety.

## **Hypotheses:**

It is hypothesized that test anxiety is undermining the exam performance of the students. Psychological interventions might be effective in treating high anxiety. The Independent variables in the study are study habits, anxiety and the dependent variable is exam performance.

## **Methodology:**

**Participants:** A total of 220 students studying 10+2 in junior colleges were screened. 146 were male and 74 were female. 40 students who need interventions were chosen for the study.

**Tools used:**

**Westside Test Anxiety scale (WTAS)** The Westside test anxiety scale is a widely used screening inventory as it's a brief and can be easily administered besides being a more reliable and valid measure. Scale validity is calculated as .44. The scale is comprised of 10 items and it takes 5 to 8 minutes for administration. It has 6 items assessing impairment and 4 on worry and dread. Cognitive items are involved but not psychological over arousal items. The participant has to give answer from 1 to 5 on the scale ('Not at all or never true' to 'extremely or always true'). The sum of the score be divided by 10, thus, the test score is obtained. The score of 2.0—2.5 is considered normal or average test anxiety. The scores from 2.5—2.9 is considered as High normal test anxiety and the score from 3.0—3.4 is moderately high and the scores from 3.5—3.9 is high test anxiety. The scores from 4.0—5.0 is extremely high anxiety.

**Palsane and Sharma Study Habits Inventory (P S S H I):** This inventory is used to assess the study habits of the students. It is simple, easy to understand for the students. It is easy to administer also. It has 45 statements measuring the areas of budgeting time, physical condition, note taking, reading ability, study motivation, memory and health. There are three alternatives (a) Always or mostly (b) sometimes, (c) Rarely or never. The students are asked to give answers honestly and carefully. There is no time limit but however advised them to complete in 20 minutes. Scoring is awarded as 2, 1, 0 for 'Always', 'sometimes' and 'rarely' except to the questions 6, 9, 13, 15, 24, 26, 34, 36, 37, 41 & 42. The scoring is reversed and it is as 0, 1 and 2 for 'always', sometimes and 'never' responses respectively. The maximum obtainable score is 90. Higher score indicates good study habits. The reliability coefficient of the inventory is .88 and proves to be an efficient tool.

**Procedure:**

The present study was conducted in a town area. The students of 4 junior colleges (10+2) were selected for the study. Among which there are two Government colleges and two private junior colleges. 55 students from each college were selected for the study. A total of 220 students were selected for screening. After taking permission from the principals and briefing them about the purpose, students were administered Westside Test Anxiety Scale to know their anxiety levels. Instructions were given to students. The questions were explained to relieve doubts in understanding them. Thus, data was collected.

The data was analyzed and found that 11 students showed high anxiety and 23 Students showed moderate anxiety and 6 students show high normal anxiety.

Table 1: Prevalence of test anxiety among participants:

| Anxiety level         | Number of students | percentage |
|-----------------------|--------------------|------------|
| High anxiety          | 11                 | 5          |
| Moderate high anxiety | 23                 | 10.45      |
| High normal anxiety   | 06                 | 2.72       |
| No Anxiety            | 180                | 81.81      |
|                       | 220                | 100        |

These 40 students (n=40) who show normal high anxiety to high anxiety were selected for further study. Since, study habits also play an important role in exam performance; the students were administered **Palsane and Sharma** Study Habits Inventory (P S S H I).

Table 2: Study habit scores of students

| Study habits | Number of students | percentage |
|--------------|--------------------|------------|
| Poor         | 13                 | 32.5       |
| Average      | 25                 | 62.5       |
| Good         | 02                 | 5          |
|              | 40                 | 100        |

These 40 students were randomly divided into Experimental group (n=20) and the control group (n=20) using random assignment method. The control group students were given a brief psycho-education and told that they were put in wait list to receive interventions in future.

The experimental group was given a brief psycho education, muscular relaxation therapy, deep breathing, and cognitive behaviour therapy. The total of 12 sessions was conducted in 6 weeks before their final tests in their colleges. The psycho education dealt with the examination anxiety and its effect on physical, cognitive, behavioural changes in students. A short version muscular relaxation training was given for 4 sessions to relieve their physical symptoms. Students were asked to practice on their own at home using guided audio. Deep breathing training was also given.

The Cognitive Behaviour Therapy (CBT) was used to take care of cognitive part. The basic concepts of situations that trigger anxiety and depression feelings were made to understand. The basic idea is that they learn to identify thoughts behind the feelings. Ineffective thoughts are put to debate and replaced with more realistic thoughts. Their Cognitive distortions like 'catastrophizing', 'jumping to conclusions' etc were subjected to scrutiny. Therapy was given in 5 sessions. Interventions were aimed at developing coping strategies.

### Results:

While selecting the sample for study, 220 students of 10+2 were screened. Of which 180 students (81.8%) did not show test anxiety and only 11 students (5%) showed high test anxiety. However, 29 students (13.18%) high normal, moderate high test anxiety. (Table 1)

Table.3 shows that the mean of test anxiety of the experimental group is 3.35. In the post assessment the mean came down to 2.25. That means, after the interventions, the test anxiety of the students was drastically reduced from moderate high anxiety to normal anxiety. There is a significant difference between the scores of the students on post assessment of test anxiety found  $p=0.000$  ( $p < 0.001$ ). The Pearson correlation found as 0.75. There is no significant difference found in between the scores of pre-assessment and post assessment in control group.

In addition to the main objective of the effect of test anxiety on exam performance, study habits intervention was also conducted. Table 2 shows that out of 40 (n=40) taken for the study, 13 students (32.5%) have poor study habits and great majority of students (n=25) showed average study habits. After the intervention, their study habits were much improved and in post assessment their mean came up to 70.4 (i.e., good study habits). The intervention helped

the students in experimental group helped them to cultivate good study habits. The Pearson correlation was found as 0.83. The pre-assessment and post assessment means of the control group show no improvement.

Table 3: Differences in test anxiety scores between experimental and control group

| Test Anxiety    | Experimental group |      | Control group |      |
|-----------------|--------------------|------|---------------|------|
|                 | Mean               | SD   | Mean          | SD   |
| Pre-assessment  | 3.355              | 0.22 | 3.195         | 0.27 |
| Post-assessment | 2.255              | 0.31 | 3.145         | 0.17 |

Table 4: Differences in study habits scores in experimental and control group

| Study habits    | Experimental group |      | Control group |      |
|-----------------|--------------------|------|---------------|------|
|                 | Mean               | SD   | Mean          | SD   |
| Pre-assessment  | 53.05              | 6.63 | 51.6          | 6.5  |
| Post-assessment | 70.4               | 7.7  | 51.9          | 4.89 |

### Discussion:

The present study used cognitive behaviour therapy and relaxation therapy interventions to relieve test anxiety showed significant effect in reducing the anxiety of experimental group. The study habits training has also proved effective in the current study. Combination of these interventions have taken care of relieving physical, Cognitive and behavioural aspects of the participants and shown good results in treating test anxiety and exam performance.

Most of the students are not aware that they have anxiety and wrong thinking patterns before they were screened for the study. The interventions helped them to identify the causes and also learnt the ways to cope with them. Students in control group, who did not receive interventions, exhibited the same higher levels of test anxiety in the post assessment when compared to the students of experimental group.

Limitations of the study includes that the 10+2 students selected are from a semi urban area, so the results cannot represent the whole 10+2 students. Urban students and students studying in corporate colleges and those who are making serious efforts may have high test anxiety. The students taken for study are day scholars and the results may not applicable to the residential students. Moreover the competition level of the students taken for the study is not too high.

### Conclusion:

The psychological interventions used for the study proved effective in treating, reducing anxiety in the students and improving the exam performance. Simple deep breathing exercise, short version of muscular relaxation, CBT, teaching study habits prove to be effective interventions to treat test anxiety and improving the performance in the examinations. If the teachers are equipped with this knowledge, they can identify the students suffering from anxiety at an early stage and offer interventions. These interventions are brief, easy to administer and have good effect on the students.

**References:**

- Beck, A. T.& Rush, A. J.& Shaw, B. F. and E mery, G. (1979) Cognitive Therapy of Depression. New York: Guilford.
- Hembree, R. (1988). Causes, effects, and treatment of test anxiety. *Review of Educational Research*, 58p.
- Libert, R, M, & Morris, I.W (1967).cognitive and emotional components of Test anxiety: A distinction and some initial data. *Psychological Reports*, 20, 975-978.
- Putwain, Dave. (2008). Examination stress and test anxiety. *Psychologist*. 21. 1026-1029.
- Sarason, S.B., Davidson, K.S., Lighthall, F.F. et al. (1960). *Anxiety in elementary school children*. New York: Wiley.(P.26)
- Wine, J D, "Test Anxiety and direction for attention" *Psychological Bulletin*.vol.76 pp 92-104.