

Study the Effect of Treatment Through Stress Reduction Model, Gender, Intelligence and their Various Interactions on Examination Stress and Anxiety

Abstract

Many researchers have been conducted related to various Relaxation Therapies. Various researches show that different Relaxation Techniques are effective in reducing Stress, Anxiety, Hyperactivity and Inattentiveness and enhance Self-esteem, Self-awareness and Self-actualization. In present study researcher was tried to find out the effect of Treatment through stress reduction model, Gender, Intelligence and their various interactions on Examination Stress

Keywords: Stress Reduction Model, Anxiety, Intelligence

Introduction

Examination Stress and anxiety is the result of many causes. Students emotions combined with their thought and several other factors can create high level of Examination Stress and anxiety. The most common factors are competitions, Negative Thinking and low Self-confidence.

The simplest way of Coping with Stress is to modify or remove its sources. But this is not always possible. There are other Techniques to reduce the Stress level successful. Coping with Stress depends upon many factors. Person's perception of control of the Situation, his or her personality makeup, availability of support from family and social network are some factors which play important role in moderation of Stress. Some persons are Stress tolerant and optimistic when some are less Stress tolerant and pessimistic. Because of individual differences the level of tolerance varies.

First Response of many people, as they begin to experience Stress, is to light cigarette, eat gutka, drink tea, drink alcohol or take drugs. Some others may turn out to be workaholic, work harder and longer, have no fun or leisure and also find themselves Stressed. In reality, they do nothing to solve the cause of Stress rather bring a superficial sense of relief and calmness that too for short duration. Thus, smoking, drinking alcohol, taking drugs, etc. are not the correct ways of Coping with Stress. Therefore, one should opt for correct Coping Strategies. In choosing specific Strategies for treating Stress, several factors should be considered.

In present study researcher was tried to find out the effect of Treatment through stress reduction model, Gender, Intelligence and their various interactions on Examination Stress.

Statement of Problem

Study the effect of Treatment through stress reduction model, Gender, Intelligence and their various interactions on Examination Stress and anxiety by considering Pre-Examination Stress and anxiety as covariate respectively.

Objective of the Study

1. To study the effect of Treatment, Gender, Intelligence and their various interactions on Examination Stress by considering Pre-Examination Stress as covariate.
2. To study the effect of Treatment, Gender, Intelligence and their various interactions on Anxiety by considering Pre-Anxiety as covariate.



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Hypothesis

There is no significant effect of Treatment, Gender, Intelligence and their various interactions on Examination Stress by considering Pre-Examination Stress as covariate.

There is no significant effect of Treatment, Gender, Intelligence and their various interactions on Anxiety by considering Pre-Anxiety as covariate.

While conducting the study some of the specific restrictions with respect to sample, duration, variables etc. were made.

Delimitations

While conducting the study some of the specific restrictions with respect to sample, duration, variables etc. were made. Thus, the delimitations were:

1. The study was confined to class X students.
2. The Treatment continued for three months before the Board Examination at the rate of 35 min per day.
3. The sample was taken from Sultanpur City

Review of Related Literature

Gender-wise Relaxation Therapies have been studied by Wolpe (1958), Cautela (1966), Hosford (1969), Jain (1990), Border (2004), Camoor (2004), and Leo (2004).

Wolpe (1958) described three cases successfully treated with Assertive Training. The first case involved a socially insecure salesman who received treatment relevant to business and social contacts, as well as his wife's infidelity. The second dealt with female who was overly dependent and submissive, especially with lovers (who ultimately rejected her). The third case was a male stutterer who typically withheld anger until he experienced an emotional outburst. For the second and third cases, follow-ups of 2 and 2 ½ years are reported.

Cautela (1966) described treatment with three cases of pervasive Anxiety. The first case involved a young girl fearful of people; the second, a female doctoral candidate who reported having difficulties with her parents, and who had problems related to criticism and sex. The third case was a middle-aged man dominated by his wife and sexually impotent. Each of the three clients received Assertive Training, as well as other modes of Treatment, and all showed marked and lasting improvement.

Hosford (1969) treated a sixth-grade girl fearful of speaking in a classroom situation. Treatment consisted of her practicing successive approximations to classroom, speaking within the therapist's office as well as in the classroom itself. By the end of the school year, the client volunteered to give an oral classroom presentation. Varenhorst (1999) reported a rather similar case involving a school girl who was able to achieve her primary goal of participating in an art seminar which had been especially threatening because students regularly criticized each other's work.

Jain (1990) compared study of Progressive Muscle Relaxation and the Cognitive Method in the treatment of dysmenorrheal and found that all methods (CM and CM+ PMR) produced a significant effect. However Progressive Muscle Relaxation was most effective in reducing the symptoms, and led to the lowest change.

Border (2004) reported the positive effect a Meditation on Pregnant females and Leo (2004) also reported positive effect of Meditation & Sahaj Yoga on Pregnant woman and relief in pregnancy pain. Camoor (2004) reported positive relationship between Meditation, Yoga and normal delivery.

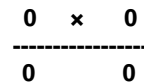
Methodology

Sample

The schools from Sultanpur District of Uttar Pradesh having secondary classes were selected through the use of Stratified Random Sampling Technique. The stratification was done on the basis of Gender and intelligence. the sample consisted of 277 students of class X. Out of 277, 182 were Males and 95 Females. Thus the Gender was represented in the sample.

Experimental Design

The present study was Experimental in nature. The Non-equivalent Control Group Design was followed. According to Campbell and Stenly (1963), the layout of Non – equivalent Control Group Design is as follows:



There were two groups. One Group was designated as Experimental Group and the other as Control Group. The students in both the groups were as existed in the field. Both the groups were pre-tested by administering Examination Stress Scale developed and standardized by researcher and Sinha's Comprehensive Anxiety Test. The Treatment was given to the Experimental Group for 35 minutes per day. The total Treatment duration was four months at the rate of 35 minutes per working day before the Board Examination. On the other hand, the Control Group continued with routine activities. During experimentation Intelligence was assessed with the help of Verbal Intelligence test.

Tools

In this study variables related to which data collected were Examination Stress, Anxiety Intelligence. The tools used in respect of each one of them are described in separate captions in the following.

Examination Stress

For assessing Examination Stress, there is no tool available. So Examination Stress Scale was developed and standardized by researcher.

Anxiety

In the present study the age of students ranged from 13-16 years. For this age group the tool available for assessing Anxiety was Sinha's Comprehensive Anxiety Scale developed by Sinha and Sinha. By keeping in mind the reliability, the age and the availability of the tool, Sinha Comprehensive Anxiety Scale was selected.

Intelligence

The intelligence test developed by R. K. Ohja & K. Ray Chowdhary was selected for the present study by keeping in mind the age, the reliability, the language and the availability.

Procedure of Data Collection

The present study was Experimental in nature. There were two groups. One was designated

as Experimental Group and the other as control Group. The data were collected from both the groups in respect of Examination Stress, Anxiety and Intelligence. The data in respect of above mentioned variables were collected on different days. To start with, Examination Stress Scale developed by Investigator was administered. Students were asked to read the instructions given in the scale and in case of doubt, they were allowed to ask questions. Further, they were also requested not to leave any statement unanswered. On the second day, Sinha's

Comprehensive Anxiety Scale developed by Sinha and Sinha was administered. After this, Experimental Group was treated through Stress Reduction Model. The Hindi translation of transcript of Stress Reduction Model was presented in the form of audio taped instructions. The treatment continued for four months at the rate of 35 min. per working day-before Board Examination. On the other hand, the Control Group continued with routine activities. During Experimentation, Verbal Intelligence Test Developed by R.K. Ojha & K. Ray Chaudhary was administered. At the end of the treatment both the groups were post-tested on the same variables using same tools as did at pre-testing stage.

Data Analysis

1. In order to study the effect of Treatment, Gender, Intelligence and their various interactions on Examination Stress by considering Pre-Examination Stress as covariate, the data were analyzed with the help of three ways ANCOVA.
2. In order to study the effect of Treatment, Gender, Intelligence and their various interactions on Anxiety by

Considering Pre-Anxiety as covariate the data were analyzed with the help of three ways Ancova.

Results and Interpretation

Effect of Treatment, Gender, Intelligence And Their Various Interactions On Examination Stress By Taking Pre-Examination Stress As Covariate

The first Objective was to study the effect of Treatment, Gender, Intelligence and their various interactions on Examination Stress by considering Pre Examination Stress as Covariate. Examination Stress was assessed both before and after the treatment of students belonging to Stress Reduction Model and Traditional Method Groups. There were two levels of Gender, namely, Males and Females. High and Low were the two Levels of Intelligence. Thus the data were analyzed with the help of 2x2x2 Factorial Design Ancova. The results are given in Table 1.

Table 1

Summary of 2x2x2 Factorial Design ANCOVA for Examination Stress by considering Pre-Examination Stress as covariate

| Source of Variation | df | SSy.x | MSS y.x | Fy.x |
|---------------------|----|----------|----------|-----------|
| Treatment (A) | 1 | 40796.34 | 40796.34 | 407.01 ** |
| Gender (B) | 1 | 41.92 | 41.92 | 0.42 |
| Intelligence (C) | 1 | 3.70 | 3.70 | 0.04 |
| A x B | 1 | 58.75 | 58.75 | 0.59 |
| A x C | 1 | 0.23 | 0.23 | 0.002 |
| B x C | 1 | 22.37 | 22.37 | 0.22 |

| A x B x C | 1 | 26.65 | 26.65 | 0.27 |
|-----------|-----|----------|--------|------|
| Error | 268 | 26863.06 | 100.24 | |
| Total | 276 | | | |

**Significant at 0.01 level

Effect Of Treatment On Examination Stress By Taking Pre-Examination Stress As Covariate

From Table 1 it is evident that the adjusted F-value is 407.01 which is significant at .01 level with df =1/268. It indicates that the adjusted mean scores of Examination Stress of Stress Reduction Model (SRM) Group differs significantly from Traditional Method group when Pre-Examination Stress was taken as covariate. In this context the null hypothesis that there is no significant difference between adjusted mean scores of Examination Stress of Stress Reduction Model and Traditional Method Groups by considering Pre-Examination Stress as covariate is rejected.. It may, therefore, be said that Stress Reduction Model was found to be significantly superior to Traditional Method in decreasing Examination Stress of students when Pre-Examination Stress was taken as covariate.

Effect of Gender on Examination Stress by Taking Pre-Examination Stress as Covariate

From Table 1 it can be observed that the adjusted F-value for Gender is 0.42 which is not significant. It shows that the adjusted mean scores of Examination Stress of Males and Females do not differ significantly when Pre-Examination Stress was taken as Covariate. So Gender did not affect differentially Examination Stress of students when Pre-Examination Stress was taken as Covariate. Thus the null hypothesis that there is no significant effect of Gender on Examination Stress of students by taking Pre- Examination Stress as covariate is not rejected. It may, therefore, be said that Examination Stress was found to be independent of Gender when Pre-Examination Stress was taken as Covariate.

Effect of Intelligence on Examination Stress by taking Pre- Examination Stress as Covariate

From Table 1 it can be observed that the adjusted F-Value for Intelligence is 0.04 which is not significant. It shows that the adjusted mean scores of Examination Stress of students with above and Below Average Intelligence do not differ significantly when groups were matched in respect of Intelligence. So Intelligence did not produce differential effect on Examination Stress of students when Pre-Examination Stress was taken as Covariate. Thus, the null hypothesis that there is no significant effect of Intelligence on Examination Stress of students by taking Pre-Examination Stress as Covariate is not rejected. It may, therefore, be said that Examination Stress was found to be independent of Intelligence when Pre- Examination Stress was taken as Covariate.

Effect of Interaction between Treatment and Gender on Examination Stress by Taking Pre-Examination Stress as Covariate

From Table 1 it may be observed that the adjusted F-value for interaction between Treatment and Gender is 0.59 which is not significant. It indicates that the interaction between Treatment and Gender did not affect significantly Examination Stress of students

when Pre-Examination Stress was taken as Covariate. Therefore, the null hypothesis that there is no significant effect of interaction between Treatment and Gender on Examination Stress of students by taking Pre-Examination Stress as Covariate is not rejected. It may, therefore, be said that Examination Stress was found to be independent of interaction between Treatment and Gender when Pre-Examination Stress was taken as covariate.

Effect the Interaction between Treatment and Intelligence on Examination Stress by Talking Pre-Examination Stress as Covariate

From Table 1 it may be observed that the adjusted F- value for interaction between Treatment and Intelligence is 0.002 which is not significant. It indicates that there was no significant effect of the interaction between Treatment and Intelligence on Examination Stress when Pre- Examination Stress was taken as Covariate. Thus, the null hypothesis that there is no significant effect of interaction between Treatment and Intelligence on Examination Stress of students by taking Pre-Examination as Covariate is not rejected. It may, therefore, be said that Examination Stress was found to be independent of interaction between Treatment and Intelligence when Pre-Examination Stress was taken as covariate.

Effect of Interaction between Gender and Intelligence on Examination Stress by taking Pre-Examination Stress as Covariate

From Table 1 it may be observed that the adjusted F-value for interaction between Gender and Intelligence is 0.22 which is not significant. It indicates that there was no significant effect of the interaction between Gender and Intelligence on Examination Stress of students when Pre-Examination Stress was taken as Covariate. Thus, the null hypothesis that there is no significant effect of interaction between Gender and Intelligence on Examination Stress of students by taking Pre-Examination Stress as Covariate is not rejected. It may, therefore, be said that Examination Stress was found to be independent of interaction between Gender and Intelligence when Pre-Examination Stress was taken as covariate.

Effect of Interaction among Treatment, Gender and Intelligence on Examination Stress by taking Pre-Examination Stress as covariate

Table 1 shows that the adjusted F-value for interaction among Treatment, Gender and Intelligence is 0.27 which in not significant. It indicates that there was no significant effect of interaction among Treatment, Gender and Intelligence on Examination Stress of students when Pre- Examination Stress was taken as Covariate. So, the null hypothesis that there is no significant effect of interaction among Treatment, Gender and Intelligence on Examination Stress by taking Pre-Examination Stress as Covariate is not rejected.. It may, therefore, be said that Examination Stress was found to be independent of interaction among Treatment, Gender and Intelligence when Pre-Examination Stress taken as covariate.

Effect Of Treatment, Gender, Intelligenceand Their Various Interactions On Anxietyby Taking Pre-Anxiety As Covariate

The second Objective was to study the effect of Treatment, Gender, Intelligence and their various interactions on Anxiety by considering Pre-Anxiety as

covariate. Anxiety of students was assessed before and after the Treatment of students belonging to Stress Reduction Model and Traditional Method Groups. Males and Females were the two levels of Gender. Above Average and Below Average were the two Levels of Intelligence. Thus the data were analyzed with the help of 2x2x2 Factorial Design Ancova. The results are given in Table 2.

Table 2:

Summary of 2x2x2 Factorial Design Ancova of Anxiety by Considering Pre-Anxiety as Covariate

| Source of Variation | df | SSy.x | MSS y.x | Fy.x |
|---------------------|-----|----------|----------|----------|
| Treatment (A) | 1 | 23286.50 | 23286.50 | 433.60** |
| Gender (B) | 1 | 8.93 | 8.93 | 0.17 |
| Intelligence(C) | 1 | 7.81 | 7.81 | 0.15 |
| A x B | 1 | 19.10 | 19.10 | 0.36 |
| A x C | 1 | 74.98 | 74.98 | 1.40 |
| B x C | 1 | 0.003 | 0.003 | 0.00 |
| A x B x C | 1 | 305.45 | 305.45 | 5.69* |
| Error | 268 | 14392.99 | 53.71 | |
| Total | 276 | | | |

** Significant at 0.01 level

* Significant at 0.05 level

Effect of Treatment on Anxiety by Taking Pre-Anxiety as Covariate

From Table 2 it is evident that the adjusted F-value is 433.60 which is significant at 0.01 level with df = 1/268. It indicates that the adjusted mean scores of Anxiety of Stress Reduction Model Group differ significantly from Traditional Method Group when Pre-Anxiety was taken as covariate. In this context, the null hypothesis that there is no significant difference between adjusted mean scores of Anxiety of Stress Reduction Model and Traditional Method Groups by considering Pre-Anxiety as covariate is rejected. It may, therefore, be said that Stress Reduction Model was found to be significantly superior to Traditional Method in reducing Anxiety of students when Pre-Anxiety was taken as covariate.

Effect of Gender on Anxiety by Taking Pre-Anxiety as Covariate

From Table 2 it can be observed that the adjusted F-value for Gender is 0.17 which is not significant. It shows that the adjusted mean scores of Anxiety of Males and Females did not differ significantly when Pre-Anxiety was taken as covariate. So Gender did not produce differential effect on Anxiety of students when Pre-Anxiety was taken as Covariate. Thus, the null hypothesis that there is no significant effect of Gender on Anxiety of students by taking Pre-Anxiety as covariate is not rejected. It may, therefore, be said that Anxiety was found to be independent of Gender when Pre-Anxiety was taken as covariate.

Effect of Intelligence on Anxiety by Taking Pre-Anxiety as Covariate

From Table 2 it can be observed that the adjusted F-Value for Intelligence is 0.15 which is not significant. It shows that the adjusted mean scores of Anxiety of Above and Below Average Intelligence students did not differ significantly when groups were matched in respect of Pre-Intelligence. So Intelligence did not significantly differentially affect Anxiety of students when Pre-Anxiety was taken as covariate. Thus, the null hypothesis that there is no significant

effect of Intelligence on Anxiety of students when Pre-Anxiety was a covariate is not rejected. It may, therefore, be said that Anxiety was found to be independent of Intelligence when Pre-Anxiety was taken as Covariate.

Effect of Interaction between Treatment and Gender on Anxiety by Taking Pre Anxiety as Covariate

From Table 2 it may be observed that the adjusted F-value for interaction between Treatment and Gender is 0.36 which is not significant. It indicates that the interaction between Treatment and Gender did not affect significantly Anxiety of students when Pre-Anxiety was taken as Covariate. Therefore, the null hypothesis that there is no significant effect of interaction between Treatment and Gender on Anxiety of students by taking Pre- Anxiety as Covariate is not rejected. It may, therefore, be said that Anxiety was found to be independent of Interaction between Treatment and Gender when Pre-Anxiety was taken as covariate.

Effect the Interaction between Treatment and Intelligence on Anxiety by taking Pre-Anxiety as covariate

From table 2 it may be observed that the adjusted F- value for interaction between Treatment and Intelligence is 1.40 which is not significant. It indicates that there was no significant effect of the interaction between Treatment and Intelligence on Anxiety when Pre-Anxiety was taken as covariate. Thus, the null hypothesis that there is no significant effect of interaction between Treatment and Intelligence on Anxiety when Pre- Anxiety was taken as Covariate is not rejected. It may, therefore, be said that Anxiety was found to be independent of Interaction between Treatment and Intelligence when Pre-Anxiety was taken as covariate.

Effect of Interaction between Gender and Intelligence on Anxiety By taking Pre-Anxiety as Covariate

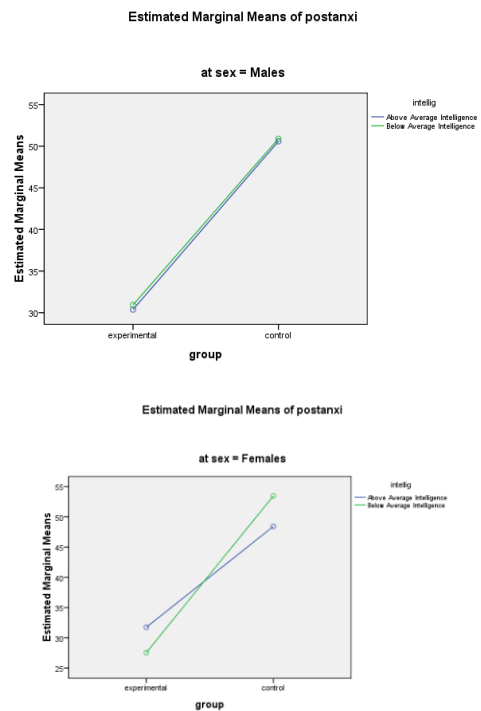
From Table 2 it may be observed that the adjusted F-value for interaction between Gender and Intelligence is 0.00 which is not significant. It indicates that there was no significant effect of the interaction between Gender and Intelligence on Anxiety of students when Pre-Anxiety was taken as Covariate. Thus the null hypothesis that there is no significant effect of interaction between Gender and Intelligence on Anxiety when Pre-Anxiety was taken as covariate is not rejected. It may, therefore, be said that Males and Females belonging to different levels of Intelligence were found to possess Anxiety to the same extent when Pre-Anxiety was considered as Covariate.

2G.Effect of Interaction among Treatment, Gender and Intelligence on Anxiety by Taking Pre-Anxiety as covariate

Table 2 it shows that the adjusted F-value for interaction among Treatment, Gender and Intelligence is 5.69 which is significant at 0.05 level with df =1/268. It indicates that there was a significant effect of interaction among Treatment, Gender and Intelligence on Anxiety of students when Pre- Anxiety was taken as covariate. So the null hypothesis that there is no significant effect of interaction Among Treatment,

Gender and Intelligence on Anxiety by taking Pre-Anxiety as covariate is rejected. In order to know which students belonging to which Level of Intelligence benefited more from the Treatment, Graph 1 has been plotted. From Graph 1, it is evident that in case of Males, Above Average as well as Below Average Intelligent students treated through Stress Reduction Model was found to have significantly lower Anxiety in comparison to their counterparts of Traditional Method Group. On the other hand, Below Average Intelligence Females benefited more from Stress Reduction Model than Above Average Intelligence Females.

Graph 1: Effect of interaction among Treatment, Gender and Intelligence on Anxiety by taking Pre-Anxiety as covariate



Findings and Conclusion

1. Examination Stress was found to be independent of Intelligence when Pre-Examination Stress was taken as covariate.
1. 2. Anxiety was found to be independent of Intelligence when Pre-Anxiety was taken as covariate.
2. Examination Stress and Anxiety were found to be independent of interaction between Treatment and Gender when each of these variables separately was taken as covariate.
3. Examination Stress and Anxiety were found to be independent of interaction between Treatment and Intelligence when Pre-Examination Stress, Anxiety were taken as covariate.
4. Examination Stress and Anxiety were found to be independent of interaction between Gender and Intelligence when Pre-Examination Stress and Anxiety were taken as covariate.

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