

# Innovative Behavioral Techniques to Reduce Stress Among VII Grade Learners

Deepa Sikand Kauts, Puneet Kapatia

**Abstract:** Today the digitalization of world has changed the scenario of education system. The system has become so fast, most of the students, teachers & stakeholders feel unsaid stress. No two individuals are alike not even twins. Hence, all has unique ways to handle the stress. The article aims at studying the effect of innovative behavioral techniques as a stress reduction technique on the stress of VII grade students. Innovative Behavioral Technique schedule used consisted of three-phased modules for management of stress i.e. cognitive preparation, skill acquisition and application & practice of stress management techniques while observation schedule studies the factors responsible for stress, under four aspects i.e. factors responsible for academic stress, situations showing presence of stress, traits showing presence of good habits and factors showing social acceptance or rejection. By using descriptive statistics, raw data obtained was analyzed and further relevant means, SDs and 2x2x2 ANOVA were computed to draw the conclusion. The findings revealed that innovative behavioral techniques reduce the stress to a greater extent as compared to conventional behavioral techniques; students suffer from stress when the teacher suddenly asks a question whose answer is not known to students; students do not suffer from home work stress and examination stress.

**Index Terms:** Innovative behavioral technique, stress

## I. INTRODUCTION

Every person in the modern world experiences stress. Stress is an inescapable part of student life; as it takes a toll on student's performance, health, academic performance & general lifestyle. Stress can be stated as biological & emotional reaction to particular situation when an individual identifies himself, not able to cope with present demand efficiently. Keenan (1998) observed that people tend to experience stress when pressure around them becomes excessive [8]. Richlin-Klonsky (2003) reported that "stress has declined academic performance, obstruct with a pupil's ability to involve in campus life, and increase the chance of destructive behaviours [17]." Stress is the body's natural response to challenges we face in our daily life. When a pupil experiences high stressful condition, it can affect their memorization ability, affect their academic performance as well as their wellbeing also. Many researches shown that the pressure on students to achieve

well in their academics creates stressful situation. While other researches have consistently indicated that academic stress is related with negative emotions like depression and anxiety (Schraml, Perski, Grossi, & Simonsson-Sarnecki, 2011; Wilks, 2008). Vamadevappa (2009) stated that there exists a positive relation between parental involvement and academic stress among the higher secondary students [18][24][25]. Joshith & Prakash (2010) found that teaching performance is highly related to stress. Anvita (2011) indicated that emotional intelligence helps in dealing with occupational stress [2]. Jye & Zawawi (2012) found academic stress as major stressor among school going students [27]. It was also studied that most of students use active problem coping strategy for stress management. Xiao (2013) indicated that students' test anxiety was positively interrelated to academic stress and negatively related to their academic test performance [26]. Bartwal & Raj (2014) showed that almost same amount of academic stress is experienced by male and female students and social intelligence play important role in reducing academic stress [3][4]. Jun and Choi (2015) revealed that adolescents experiencing high academic stress might be at risk for Internet addiction, mainly when accompanied by negative emotions. Subramani and Kadiravan (2017) found that students from private school experienced higher academic stress as compare to government school students [22]. They have also revealed the significant correlation between educational stress and well-being of high school students. Aafreen, priya & gayathri (2018) found that learners from science background had more pressure as compare to learners studying in other streams [1]. Stress causes anxiety among students and further leads to their low academic achievement. Pratiksha & Souza (2018) found educational stress was negatively correlated to academic performance & it was not mediated by gender. Shukla, Ahmad, Singh, Shukla, Shukla (2019) found that depression was significantly higher among school-going adolescent girls specifically those living in rural areas & whose parents were educated up to primary or up to intercollege level [14][19].

Stress management includes the ways through which we can change or decrease the stress generating sources that helps us to manage our emotions, enable us to think constructively, show the flexible behavior for different situations. A number of techniques have been used to manage stress. Few important techniques of managing stress are Yoga, Aromatherapy, Meditation, Biofeedback, emotional freedom technique and Innovative behavioral techniques. All of these techniques are beneficial for the

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management of stress. Specific activities are used in each technique. Out of these techniques, the investigator has selected innovative behavioral techniques to manage stress of VII grade students. Innovative behavioral techniques are the techniques which help to substitute undesirable responses and behavior patterns with the desirable ones. Innovative behavioral techniques include those behaviors which reduces crisis of the event and reduce resultant stress that are culminating in the mind of a person. It involves the inculcation of rational and logical thoughts. They are called innovative as they help to manage stress in a novel way. It includes 3 phases:

### Phase I: Cognitive preparation

The aim of this phase is to introduce students to the concept of stress and the effects of stress on the performance of an individual. It develops rational thinking and logical analysis. Under this phase subjects were made aware by using such examples in which situation can be handled in two ways- one way which will not cause any stress due to modification of behavior and the other way that will cause stress due to stubborn behavior.

### Phase II: Skill Acquisition

Under this phase, techniques are applied on the students. The various techniques used are:

Systematic Desensitization (It is based on the counter conditioning of anxiety with relaxation techniques. For example take deep breaths, recitation of 'Om', count backwards, dance etc.)

Cognitive Therapy (It focus on the inculcation of positive thinking in students like by recalling some stories that show optimism.)

Behavior Modification (to motivate students to modify their behavior according to the circumstances)

### Phase III: Application and practice of stress management techniques

Under this phase, students are motivated to apply the techniques learnt in everyday life. Some of the other ways in which a teacher can help the students to manage stress:

- Help them to understand stress.
- Identify kinds and sources of stress in school, college and other academic situations.
- Rethink and re-plan evaluation programs.
- Change or modify the stressful situation (depending upon the student's ability to cope with the stress).
- Help to ease the symptoms(eg. Relaxation training).
- Provide support and reassurance.
- Reduce or minimize physical stressors such as temperature, lighting, noise etc.
- Help them to develop effective coping skills to manage stress.

These techniques give such stimulus to the students that give them right direction to modify their behavior. Whether the learner is able to manage the stress successfully, depends on number of factors like study skills, knowledge of subject etc. Therefore, stress and its management in academic situation has become of paramount importance. The most effective means of dealing with this maladaptive stress would be to understand the problem fully and then to develop the coping skills that will enable one to reduce the threat. Stress is a function of how a problem or situation is handled. According to Kochenderfer, Ladd and Skinner

(2002); Stansbury and Harris (2000) found that if the children face the similar problem again and again & use same coping strategy to solve that particular problem then they will become habitual to use same strategy by ignoring other effective strategies[9]. Hampel, Meier, Kummel and Ursula (2008) found the universal preventive stress management training program as an effective strategy for early and middle adolescents[6]. Agolla (2009) found that getting injured on duty time and use of force when their work demands are the work stressors that the police have to face. They also identified physical exercise, entertaining, healthy eating or diets, career planning and employee training as coping strategies to deal with stress. Treven, Treven & Zizek (2011), have found that stress among workers affects their work efficiency in the organization. So effective ways to prevent stress among workers include good work organization[23], various strategies of managing stress and good management. Satija & Khan (2013) found that employee's work attitudes & behavior is negatively affected by job stress. This study investigates the relationship between Emotional Intelligence and Occupational Stress. Potdar, Shinde (2014) found that 57% females are suffering from mild psychological problems and 78% females are using stress coping strategies to overcome these problems. It shows a significant association between the psychological problems and coping strategies. Roy, Kamath, Kamath (2015) found that the most common coping strategies used by adolescent boys are distraction and relaxation. Contrasting these features, the girls use more avoidance coping, more willing to seek support, resolving conflicts and the always openly express their emotions. With comparison to boys, girls are kept under a strict supervision and given much less freedom which makes them prone to be more stressed. Labrague, Mckenroe-petite, Gloe (2016) found moderate to high levels of stress in nursing students. The most common coping approaches used by nursing students includes Problem-solving strategies like developing objectives & adopting various plans to solve problems and finding the meaning of stressful events. Rafati, Nouhi, Sabzevari & Nayeri (2017) found three effective stress coping strategies among nursing students i.e. mastering the mind and body, active confrontation with stress and avoidance[15].

The above studies show importance of various coping strategies in effectively dealing with stress. Effective means of dealing with maladaptive stress would be to understand the problem fully and then to develop coping skills that will enable one to reduce the threat. Parents also play an important role for protecting their children from stressful conditions and helps in developing effective coping strategies. Apart from parental support to manage the stressful conditions sometimes professional assistance or counseling is also required

## II. STATEMENT OF THE PROBLEM

Innovative Behavioral Techniques To Reduce Stress Among Vii Grade Learners.



### III.OBJECTIVES

1. To compare the stress levels of VII grade students from government and private schools.
2. To compare the stress level of boys and girls from government and private schools.
3. To compare the stress level of students managed with innovative behavioral techniques and conventional behavioral techniques.
4. To compare the stress level of students from government and private schools with innovative behavioral techniques and conventional behavioral techniques.
5. To compare the stress styles of boys and girls from government and private schools with innovative behavioral techniques and conventional behavioral techniques.

### IV.HYPOTHESES

H<sub>1</sub> There exist no significant difference between stress scores of VII grade students from Government and Private Schools.

H<sub>2</sub> There exist no significant difference between stress scores of boys and girls.

H<sub>3</sub> There exist no significant difference between stress scores of students managed with innovative behavioral techniques and conventional behavioral techniques.

H<sub>4</sub> There exist no significant difference between stress scores of boys and girls from government and private schools.

H<sub>5</sub> There exist no significant difference between stress scores of boys and girls managed with innovative behavioral techniques and conventional behavioral techniques.

H<sub>6</sub> There is no significant difference between stress scores of government and private schools with innovative behavioral techniques and conventional behavioral techniques.

H<sub>7</sub> There is no significant difference between stress scores of boys and girls from government and private schools with innovative behavioral techniques and conventional behavioral techniques.

### V.METHODOLOGY

In order to conduct this study, four high schools from Sultanpur Lodhi, Kapurthala were selected. 200 students of 7<sup>th</sup> class from these four schools were taken for the investigation. The sample is divided into two intact groups, experimental group and the other control group. A pre-test of stress is administered on both the groups. One group is treated with innovative behavior techniques while the other group is treated with conventional behavioral techniques. A post-test of stress is administered on both the groups after completion of treatment. Finally scores of pre-test and post-test are compared.

### VI.DESIGN OF THE STUDY

In this study, 2x2x2 factorial design has been used on the stress loss scores which have been studied as dependent variable. Innovative behavioral techniques to manage stress

have been studied as an independent variable which has been manipulated in the group A (experimental) whereas in group B (control), there is not any kind of manipulation. Sex of students is studied as independent variable and has been used for the purpose of classification.

### VI.TOOLS

The following tools were used to collect data:-

1. Innovative Behavioral Techniques Schedule (prepared by the investigator).
2. Observation Schedule to study the factors responsible for stress among students (prepared by the investigator).
3. Adaptation of scale of academic stress from Bisht Battery of stress (1987).

### VII.STATISTICAL TECHNIQUES EMPLOYED

The following statistical techniques were used to analyze the data:

1. Descriptive statistics.
2. 2x2x2 analysis of variance was employed on stress scores.
3. Graphical representation.
- 4.

### IX.RESULTS

The data has been analyzed under the following headings:-

**Table 1.1 Showing Means Of Sub-Sample Groups On Stress Scores**

		Government	Private	
Innovative Behavioral Techniques	Boys	$M_1 = 1.64$ $N_1 = 25$	$M_2 = 2.44$ $N_2 = 25$	$M_{Boys} = 2.04$
	Girls	$M_3 = 2.32$ $N_3 = 25$	$M_4 = 1.82$ $N_4 = 25$	$M_{Girls} = 2.07$
Conventional Behavioral Techniques	Boys	$M_5 = 0$ $N_5 = 25$	$M_6 = 0$ $N_6 = 25$	$M_{Boys} = 0$
	Girls	$M_7 = 0$ $N_7 = 25$	$M_8 = 0$ $N_8 = 25$	$M_{Girls} = 0$
		$M_{Government} = 0.99$	$M_{Private} = 1.06$	$M_{Girls} = 0$

ANOVA was used to interpret the results.

TABLE 1.2 SHOWS SUMMARY OF ANOVA FOR 2x2x2 FACTORIAL DESIGNS ON STRESS SCORES

Source Of Variation	Df	Sum ff Squares	MSS	F-Ratio
Types of Institution (A)	1	0.41	0.41	0.5
Sex (B)	1	0.05	0.05	0.06
Behavioral Technique (C)	1	194.05	194.05	236.64**
Type of Institution x Sex (AxB)	1	8.40	8.40	10.24**
Sex x Behavioral Techniques (BxC)	1	0.04	0.04	0.48
Types of Institution x Behavioral Techniques (AxC)	1	0.40	0.40	0.48
Types of Institutions x Sex x Behavioral Techniques (AxBxC)	1	8.41	8.41	10.25**
WSS	192	159.2	0.82	
Total		370.96		

\*\* Significant at the 0.01 level

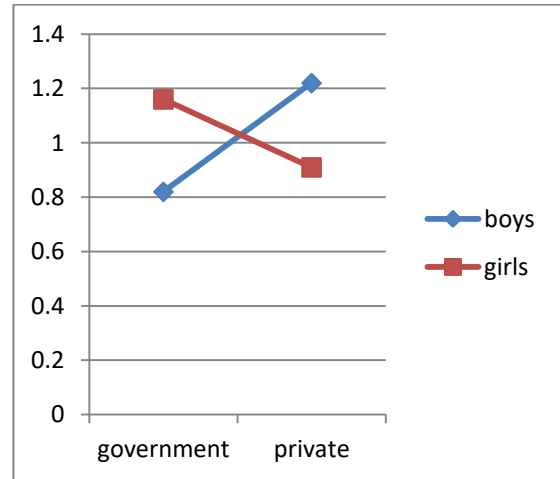
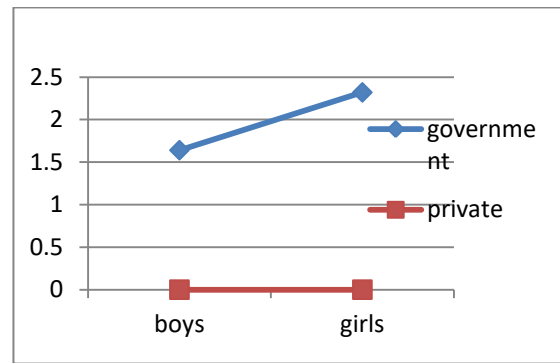
Table 1.2 revealed that F-ratio for the difference between means of stress scores of two types of institution namely, government and private schools, was 0.5 which is not significant even at 0.05 level. This shows that two types of institutions do not differ on mean stress scores significantly. It is clearly observable from table 1.2 that the mean stress scores of both the types of the institution are comparable. Thus, the result does not reject the hypothesis (1)  $H_1$  viz, "There exist no significant difference between stress scores of VII grade students from Government and Private Schools".

It may be observed that value of F for the difference between means of stress scores of two sex groups namely, boys and girls, was 0.06 which is not significant even at the 0.05 level. This specifies that two groups do not differ on mean stress scores significantly. It is clearly observable from table 1.2 that the mean stress scores of both groups are comparable. Therefore, (2)  $H_2$  viz, "There exist no significant difference between stress scores of Boys and Girls" is not rejected.

It may be observed from the table 1.2 that F-value for the difference between means of stress scores of two types of techniques namely, innovative behavioral technique and conventional techniques, was 236.64, which is significant at the 0.01. This specifies that two groups differ on mean stress scores significantly. The mean score of innovative behavior technique group is higher than the conventional technique group. Thus, the result rejects the hypothesis (3)  $H_3$  viz, "There exist no significant difference between stress scores of students managed with innovative behavioral techniques and conventional behavioral techniques".

It may be observed that F-ratio for the interaction between type of institution and sex on the stress scores was 10.24, which is significant at the 0.01 level. Hence the hypothesis " $H_4$  There is no significant difference between stress scores of boys and girls from government and private schools" is rejected.

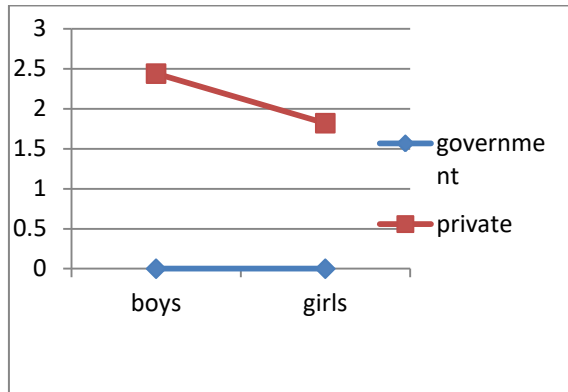
The same has been depicted through the following graph:



It may be observed that F-ratio for the interaction between sex and behavioral techniques on the stress scores was not significant at the 0.05 level. Hence, the hypothesis (5)  $H_5$  "There exist no significant difference between stress scores of boys and girls managed with innovative behavioral techniques and conventional behavioral techniques" is not rejected.

It may be observed that F-ratio for the interaction between type of institution and behavioral techniques on the stress scores was not significant at the 0.05 level. Hence, the hypothesis (6)  $H_6$  "There exist no significant difference between stress scores of government and private schools with innovative behavioral techniques and conventional behavioral techniques" is not rejected.

It may be observed that F-ratio for the interaction between type of institution, sex and behavioral techniques on the stress scores was significant at the 0.01 level. Hence, the hypothesis (7)  $H_7$  "There exist no significant difference between stress scores of boys and girls from government and private schools with innovative behavioral techniques and conventional behavioral techniques" is rejected.



### X.INTERACTION BETWEEN TYPES OF INSTITUTES AND SEX AND BEHAVIORAL TECHNIQUES (A x B x C) FINDINGS

1. There exist no significant difference between stress scores of VII grade learners in relation to the type of institutions.
2. Boys and girls do not differ significantly on stress scores.
3. There exist significant difference between stress scores of students managed with innovative behavioral techniques and conventional behavioral techniques.
4. Boys and girls do not differ significantly on stress scores in relation to the type of institutions.
5. Boys and girls not differ significantly on stress scores managed through innovative behavioral techniques and conventional behavioral techniques.
6. There exist significant difference between stress scores of government & private schools with innovative behavioral techniques and conventional behavioral techniques.
7. There exist significant difference between stress scores of boys and girls from government and private schools with innovative behavioral techniques and conventional behavioral techniques.

### XI.DISCUSSION ON FINDINGS AND EDUCATIONAL IMPLICATIONS

There exist no significant difference between stress scores of VII grade students from Government and Private Schools. While on the contrary, Husain, Kumar and Husain (2008), Ghosh (2016) indicated that private school students face more stress as compare to their counterpart. Moreover the study also reveals that government school students were more efficient to make adjustment.

Another finding indicated that boys and girls do not differ significantly on stress scores. The results are in tune with findings of Masih and Gulrez (2004); Huan, et al (2005); Mathew and Jayan (2006); Bartwal and Raj (2014), Sonali (2016) showed that male & female students do not differ significantly in academic stress and this result is also applicable for social intelligence among rural and urban adolescents [7][13]. On the contrary, James and Marice (2004) showed that boys and girls differ significantly on stress scores in relation to gender [12]. Kuruvilla (2008) revealed

that there exist a significant and positive correlation between gender and academic stress [10]. Ghosh (2016) revealed that girls experienced more academic stress as compare to their counterpart.

There exists significant difference between stress scores of students managed through innovative behavioral techniques and conventional behavioral techniques. Grou et al. (2007) found that active distraction techniques are used by both girls and boys to cope up with stress [5]. Another finding reveals that there exist significant difference between stress scores of government and private schools with innovative behavioral techniques and conventional behavioral techniques. Tomar et al. (2014) found that government school children can effectively use stress management approaches as compared to private school children. Boys and girls do not differ significantly on stress scores in relation to the type of institution (government and private schools). This finding is in tune with Reddy, Kannekanti, Hamza (2015). On the contrary Ghosh (2016) found that pupils from private schools face more stress as compare to students in government schools. Sonali (2016) also indicated significant difference with regard to type of school organization [21]. Boys and girls differ significantly on stress scores managed with innovative behavioral techniques and conventional behavioral techniques. Latha and Reddy (2006) indicated that stress handling approaches used by boys were praying, think different ways to solve the problem and on the other side females use praying, consulting relatives, friends and counselors [11][16].

The findings of study suggest that Innovative behavioral techniques are important technique which can directly and indirectly affect child stress. So, it is recommended that teacher should create an environment of love and affection and students should use innovative behavioral techniques to reduce the stress level resulting from stressful events.

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