

## **Comparative Analysis of Test Anxiety Among Male and Female Students in Science Group at 9<sup>th</sup> Grade**

### ***Abstract***

*This descriptive research is focused to check the levels (high or low) of test anxiety, and to compare test anxiety among male and female students studying in science group of 9<sup>th</sup> grade in Municipal Corporation Secondary Schools located in Rawalpindi city (MCSS). Multi stage Random sampling technique was applied to select the schools and the respondents of the study. Test anxiety scale developed by William WK Zung was used after translation into Urdu language and validation. The major conclusions of the study were that the level of test anxiety in the form of nervousness and anxiousness, something bad going to happen on test day were found in both male and females of science group. It is reflected that anxiety driven bent of mind may be the result of over emphasis of parents on marks and competitive environment of the classroom that may negatively affects the thinking process of students on a test, and consequently they may not be able to recollect, analyse and critically evaluate the problem that they have to respond on a test. It is recommended that teachers, parents and peers may play their role in developing and promoting anxiety relaxing environment for both the genders to maintain healthy level of test anxiety before, while and after a test.*

**Keywords:** *anxiety, comparison, 9<sup>th</sup> grade, science students*

### **INTRODUCTION**

Anxiety is a condition of mood in which one can organize himself/herself to contract with forthcoming troubles. It is feeling of complex fear and nervousness about future events without any logical reasons. It means that the existence of panic, pressure and tension a person feels in performance of any activity that negatively affects his or her performance (Butt & Akram, 2013). It is an emotional state in which somatic, cognitive, emotional and behavioral factors are involved, and is an amalgamation of

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visible physiological feelings of bothering, personal let down and over-excitement. According to Olatoye (2009), test anxiety is outcome of the physiological reactions that students may experience while passing through ego-threatening assessments in critical situations. It is psychological state of brain of a contestant expressed by the degree of concern, fear, uncertainty, suffering and weakness shown before, during or even after attempting an exam (Cizek & burg, 2006). It is psychological construct that refers to phenomenological, physiological, and behavioral reactions that may produce feelings of failure in examination (Ali & Mohsin, 2013). It is anticipatory, situational or evolutionary conditions that have abnormal effects on the state of mind which consequently effects performance on a test.

According to Rana and Mehmood (2004), test anxiety may effects on these points: focusing, testing, learning attention. Research studies carried out to explore the impacts of test anxiety on the performance of students' in respect to gender, race, locality, language, ethnicity, parent's socioeconomic status reveal that it is one of the major problem in achieving good grades (Ali & Awan, 2013; Stober & Pekrun, 2004). Individual differences in test anxiety also play an important role not only in their personality growth and fitness but also their self-concept, and academic development (Cizek & burg, 2006). Therefore, it was decided to conduct a study on comparative analysis of test anxiety among male and female genders studying in Science Group at 9<sup>th</sup> grade in the schools located in the ambit of Municipal Corporation. It also includes to explore the causes of test anxiety among the students studying in science group at grade 9 and to recommend some logical measures to control the test anxiety for improving the performance of the students.

## **Objectives**

The objectives of the study were:

1. To analyse test anxiety among males studying in science group at 9<sup>th</sup> grade
2. To analyse test anxiety among females studying in science group at 9<sup>th</sup> grade
3. To compare test anxiety between male and female studying in science group at 9<sup>th</sup> grade.

## **Hypotheses**

There is no significant difference in the rate of test anxiety between male and female genders studying at 9<sup>th</sup> grade in science group on the following variables on academic test:

- a. feeling nervous and anxious on test day
- b. being absent on test day by making different excuses
- c. feeling pain in stomach to forget answers of the questions on test day

- d. thinking everything is all right and nothing bad will happen on a test day
- e. feeling uneasy before attempting a test
- f. developing hot and blush face before the test
- g. usually getting sweaty and cold hands before and after the test
- h. getting the arms and legs shaking and trembling before attempting a test
- i. heart beat fastens (increase) and forgetting answers during a test
- j. feeling the need to be pampered before a test
- k. getting nervousness on a test and do not perform well
- l. performing at the best of ability under pressure conditions
- m. enjoying a difficult test more than an easy one
- n. not to enjoy eating before or after the test
- o. feeling of calmness during the test

### **Delimitation of study**

The study is delimited:

1. to the sixteen Municipal Corporation Secondary Schools located in Rawalpindi City.
2. to the male and female students studying in Science at 9<sup>th</sup> grade.

## **LITERATURE REVIEW**

### **Meanings and types of anxiety**

Twentieth century was called an era of anxiety because of the widespread wars, inflation, population raise, joblessness, immigration, and the demolition of families (Talib, Tabrizi & Yacob, 2011). These above mentioned problems are worldwide phenomenon that are passing from generation to generation and have given birth to certain psychological problems such as anxiety, stress, and coping. Nature of environmental stimuli inducing stress and anxiety feelings has altered over the years (Zeidner, 1998). Test anxiety is psychological state of mind that reflects the degree of concern, dismay, uncertainty, distress and weakness shown before and after attempting an exam (Olatoye, 2009). It has three main features: cognitive, affective and behavioral. Students who suffer with test anxiety due to cognition element are deficient in self-confidence (Sarason, 1990). According to Stöber and Pekrun (2004), students' academic achievement, life quality and internal motivation may decrease by the negative effects of test anxiety.

According to Smith, Robinson, and Segal (2013), there are six salient types of anxiety discovered by the psychologists that are: *phobia*, *panic disorder*, *possessive-compulsive disorder*, *post-traumatic stress disorder*, *societal anxiety disorder*,

*universal anxiety disorder*. Phobia is an unreasonable shock of any particular thing, activity, or situation that actually has no risk. Common phobias include fear of animals such as snakes and spiders, fear of flying, and heights. Panic disorder is fear that a student experiences about unexpected happenings. Students keep away from public places, shopping malls, different markets when they become its victim. Possessive-compulsive Disorder (PCD) is lacking capability to control or quickly manage behaviors and bothered by manias (washing hands over and over etc). Post-traumatic anxiety disorder is serious and shocking incidents takes place in it that comes in the form of flashbacks or nightmares about what had already taken place. Societal anxiety disorder is fear of such type of actions that may exist in individual, but one doesn't dare to be known by others. In this situation, the individual is always under the pressure that these actions or behavior may not be observed by others. Universal Anxiety Disorder is permanent fear of something bad going to happen. These have severe effects on the behavior of the individual at a test.

### **Stress and test anxiety**

Stress is an internal state which is caused by some unsatisfying condition, and it affects differently from person to person. It depends upon three elements: personal experience, temperament and environmental conditions. It includes negative effects of examination such as fatigue, time pressure, competition, nervousness etc. According to Sarasons (1990), excessive importance on test score may adversely affect the learning of students. Exams decide the future of students' educational growth and professional choice. A high grade achiever can get good job more easily. Parents and society assess students educational output in the form of grades. Components of test anxiety, according to Zeidner (1998) are *affective, behavioural and cognitive*. Physiological state such as 'tight muscles, shaking and tension are due to affective state. Behavioural component includes students poor study skills, escaping and delaying their work. Cognitive component includes negative thought and under estimating one's self and performance. Putwain (2008) observed that anxious students work more as compared to other students as a compensatory mechanism, but it causes more complication for them.

### **Effects of test anxiety on students and teachers**

According to Smith, Robinson, and Segal (2013), effects of test anxiety on students are the symptom of stress such as crying, aching out, verbalization, less focus on a test, poor self respect, evoke cheating, drop out from school. Students are not only one who experience the outcomes of examination and test anxiety but teachers also. We focus on the indirect effects of anxiety when a teacher takes high-stakes tests. In such scenario, teachers and other affected educators may not be the test takers, but the students' test results effects their liabilities, promotion and reputation. Some effects of test anxiety on both teachers and students are pressure, low motivation, stress, and

inappropriate test behavior. However, a key differentiation is the effect of testing and test anxiety between students and teachers are about what is taught, how it is taught.

### **Causes and symptoms of test anxiety**

According to Khalid and Hasan (2009), causes of test anxiety are *biological, phobia of failure, lack of preparation, mental disorder and poor test history etc.* Body releases hormone called adrenaline in stressful situations that helps the organism to deal with incoming situation. Low level of adrenaline rush may affect individual to deal efficiently with stressful situations. The symptoms of test anxiety such as nausea, sweating and shaking hands can really make students feel more nervous and anxious that consequently put more pressure on students. Phobia is horrified state under the pressure of exams when a student connects his/her self worth to consequence of a test. Lack of preparation results in last time anxiety and they become helpless. *Mental factors* include students' expectations and hopes of getting good grades. Underestimation of the mental capabilities and fears about poor result may affect the performance of student on a test, and failure in one exam may cause anxiety for all the next exams. In this way test anxiety can also become a horrible cycle.

According to Putwain (2008), symptoms of test anxiety are *behavioral/cognitive, emotional, and physical.* Cognitive symptoms include difficulty to concentrate on test, negative thinking about test and comparison with fellow students. It is also observed that anxious students start to use downers (alcohol and opium etc) in order to control their tensions and leave schools. Negative self-talk, trouble in concentrating on the test and racing thoughts are also common cognitive symptoms of test anxiety. Emotional symptoms include feelings of anger, helplessness, fear, despair, low-self esteem and discontent are common emotional responses to test anxiety. Students often feel helpless to change their situation, or disparage and criticize themselves about their poor test performance. Physical symptoms include nausea, headache, diarrhea, extreme sweating, and shortness of breath, rapid heartbeat, light-headedness and feeling faint. Sometime test anxiety leads to such a panic, forceful fear or embarrassment in which individuals may feel like they are unable to breathe or having a heart attack.

### **Tips for managing test anxiety**

According to Rana and Mahmood (2010), tips for managing test anxiety are: students may arrive at least 10 minutes early and try to engage themselves in reading some magazines to make their mind busy, avoid to meet test anxious students, accept a little anxiety as a motivator, be prepared for test, develop good test-taking skills, read directions carefully, answer easy questions at first and then go to difficult ones, make outlines before beginning to write, establish a consistent pre-test routine, follow some time table, focus during the test, maintain a positive attitude, be confident in their

own talent, self-worth and creativity. Student may practice anxiety relaxation techniques such as take deep, slow breaths and intentionally relaxing muscles, remember the enjoyable beautiful scenes before test, get enough sleep, take healthy food, do proper exercise, eat an ample breakfast, visit counseling center, visualize success, watch self-talk, resort thinking and crush negative ideas (I should have studied more, I must be stupid, and I have to do well), work on early warning system, palming method (close and cover their eyes using the center of the palms of their hands), put their feet flat on the floor and with their hands grip beneath the chair.

## **RESEARCH METHODOLOGY**

It was a descriptive survey type research following quantitative approach to collect the data. The variables of the study: *rate* and *comparison* of test anxiety among male and female students of science group were checked in natural setting. Test anxiety scale developed by Zung (1997) was used after translation into Urdu language and validating from the experts. The data collected from the respondents were analysed applying descriptive and inferential statistics. The rate of test anxiety was determined through the cut off scores on the test anxiety scale that was 3.5. The difference in the rate of test anxiety between male and female students of science group was determined applying t test. The detailed description about the methodology portion is as under:

### **Population and sample of the study**

The study was aimed at the comparative analysis of test anxiety among male and female students studying in science group at 9<sup>th</sup> grade. Therefore, the target population of the study was the students studying in science group at 9<sup>th</sup> grade in Municipal Corporation Secondary Schools (MCSS) located in Rawalpindi city. The total numbers of male and female MCSS are sixteen. These students belonged to middle class and lower middle class families having almost similar socio-economic status. Students in these schools follow unified curriculum, teaching hours and the evaluation system. In this respect, the population is homogenous.

Multistage random sampling technique was applied to select the schools and the respondents of the study. At first stage, five girls' secondary schools and six boys' secondary schools were selected as the sample of the study out of sixteen boys and girls secondary schools located in the ambit of Municipal Corporation (MC). In this way more than fifty percent of the schools were selected. At second stage, stratified random sampling technique was applied to select male and female students from the selected schools. The total numbers of the students selected for data collection were one hundred ten. Multistage random sampling technique was considered appropriate for this study and it helped to ensure the equal presentation to boys and girls students.

The sampling size of 10 students from each science class was considered appropriate because total number of students in each school were twenty to twenty-five. Therefore, the selection of half of the population for sample selection was considered appropriate for the generalization of the results.

### **Instrument of the study**

Test anxiety scale developed by Zung (1997) was used to collect the data of the study. It was a 20-itemed five point scale response option questionnaire, with a response format strongly agree, agree, neutral, disagree, and strongly disagree with numerical value of 5, 4, 3, 2, 1 respectively. The numerical values of the item number 13,16,17,20 were reversed as being negative statements. The major elements of the scale for measuring test anxiety were fear, tension, feeling of nervousness, feeling of up tightness on doing tests. The instrument was translated into Urdu language and modified to focus the major variable of the study. The translated version and English version of the scale were sent to three English and Urdu language experts for correction, refinement and suggestions in the vocabulary and sentence structure. The proposed changes and adjustments were discussed with the supervisor to finalize the instrument for getting opinions of test development experts. Based on their comments, some items were reconstructed, adjusted and modified.

### **Procedure of the study**

Data collected with the help of test anxiety scale was analyzed through SPSS version 16.0. Mean, standard deviation, t-test was applied to draw out the findings and conclusions of the study. To analyze the level of test anxiety; mean, standard deviation and cut off scores was calculated. To check the level of test anxiety, the average mean value was determined 3.5 as a cut off score. Mean value on the item found 3.5 or above was considered high level of anxiety and mean value on the item below 3.5 was considered low level of test anxiety. t test was applied to compare the test anxiety of the male and female students in science group.

## ANALYSIS OF DATA

Data collected with the research scale is analysed under the following tables:

**Table1:** *Analysis of Test anxiety among male and female students of the science groups*

s.no	Scale item	Gender	N	M	SD	SEM	Decision
01	Feeling nervous and anxious on a test day	Male	60	3.58	1.36	.177	HA
		Female	50	4.26	1.02	.145	HA
02	Absent on test day making different excuse	Male	60	3.28	1.50	.198	LA
		Female	50	1.84	1.26	.179	LA
03	Feeling pain in stomach on forgetting the answer	Male	60	2.88	1.32	.172	LA
		Female	50	2.56	1.48	.210	LA
04	Feeling everything is all right and nothing bad will happen on a test day	Male	60	3.85	1.35	.174	HA
		Female	50	3.62	1.24	.176	HA
05	Bothered by irritating moments on a test day	Male	60	3.52	1.35	.175	HA
		Female	50	3.10	1.24	.177	LA
06	Uneasy feelings on a test day	Male	60	3.87	1.22	.159	HA
		Female	50	3.64	1.41	.200	HA
07	Face gets hot and blushes before the test	Male	60	3.15	1.42	.184	LA
		Female	50	2.60	1.56	.221	LA
08	Before and after the test my hands are usually sweaty and cold	Male	60	3.25	1.56	.203	LA
		Female	50	3.16	1.67	.236	LA
09	Feel my arms and legs shaking and trembling before attempting a test	Male	60	3.18	1.56	.202	LA
		Female	50	3.40	1.51	.214	LA
10	Mind goes blank and I am unable to think clearly during a test	Male	60	3.48	1.46	.189	LA
		Female	50	3.10	1.52	.216	LA
11	During a test my heart beat fastens (increase) and I forget my answers	Male	60	3.53	1.46	.189	HA
		Female	50	3.54	1.44	.204	HA
12	I often feel need to be pampered before a test	Male	60	3.43	1.41	.183	LA
		Female	50	3.28	1.42	.202	LA
13	Enjoy test because it is directly connected to my future success	Male	60	2.17	1.39	1.80	LA
		Female	50	2.40	1.41	.200	LA
14	Even getting good score in a test does not seem to increase confidence	Male	60	3.20	1.38	.179	LA
		Female	50	2.94	1.53	.216	LA
15	Nervousness while attempting a test hinders (stops) me from doing well	Male	60	3.70	1.31	.170	HA
		Female	50	3.62	1.44	.204	HA
16	Perform the best of my ability when I am under pressure	Male	60	2.13	1.12	.145	LA
		Female	50	3.04	1.98	.210	LA
17	Enjoy attempting a difficult test more than an easy one	Male	60	2.03	1.20	.156	LA
		Female	50	2.56	1.32	.188	LA
18	Do not enjoy eating before or after an important test	Male	60	3.18	1.44	.186	LA
		Female	50	3.52	1.46	.207	HA
19	I eat too much before or after an important test	Male	60	3.80	1.20	.156	HA
		Female	50	2.50	1.44	.205	LA
20	I feel clam down during a test	Male	60	2.03	1.29	.161	LA
		Female	50	3.24	1.47	.209	LA

The Mean value of male students on the variable of feeling nervous and anxious on a test day was 3.58 and of female was 4.26. The std. deviation of male students was 1.36 and that of female was 1.02. Mean values of both the male and female students were above the cut off scores that was 3.5. It indicates existence of higher level of test anxiety among both of the groups. The mean value of male students on the variable of being absent on test day was 3.28 and that of female was 1.84. The std. deviation of male students was 1.508 and that of female was 1.267. There was lower level of test anxiety among male and female students. The mean value of male students on the variable of feeling pain in stomach to forget answers of the questions on test day was 2.88 and that of female was 2.56. The std. deviation value of male students was 1.329 and that of female was 1.487. There was lower level of test anxiety existing in male and female students on the basis of cut off score. The mean value of male students in science group on the variable of feeling that everything is all right and nothing bad will happen on a test day was 3.85 and that of female was 3.62. The std. deviation value of male students was 1.351 and that of female was 1.244. There was higher level of test anxiety in male and female students of science group.

The mean value of male students in science group on the variable of bothering by irritating moments on a test day was 3.52 and that of female was 3.1. The std. deviation value of male students was 1.35 and that of female was 1.24. There was higher level of test anxiety among male students of science group and lower level of test anxiety exists in female students of science group. The mean value of male students on the variable of feeling uneasy before attempting a test was 3.87 and that of female was 3.64. The std. deviation of male students was 1.22 and that of female was 1.41. There was higher level of test anxiety does exist among both of the genders of science group. The mean value of male students in science group on the variable of their face grow hot and blush before and after the test was 3.15 and that of female was 2.60. The std. deviation of male students was 1.42 and that of female was 1.56. There was lower level of test anxiety among male and female students on the basis of cut off scores. The mean value of male students on the variable that before and after the test their hands are usually sweaty and cold was 3.25 and that of female was 3.16. The std. deviation of male students was 1.56 and that of female was 1.67. There was lower level of test anxiety among male and female students of science group.

The mean value of male students in science group on the variable of arms and legs shaking and trembling before attempting a test was 3.18 and that of female was 3.40. The std. deviation of male was 1.56 and that of female was 1.51. There was lower level of test anxiety among male and female students of science group. The mean value of male students on the variable of minds go blank and unable to think clearly during a test was 3.48 and that of female was 3.10. The std. deviation of male students was 1.46 and that of female was 1.52. There was lower level of test anxiety

in male and female students of science group. The mean value of male students on the variable heart beat fasten (increase) during a test was 3.53 and that of female was 3.54. The std. deviation value of male students was 1.46 and that of female was 1.44. There was higher level of test anxiety in male and female students of science group. The mean value of male students in science group on the variable of feeling the need to be pampered before a test was 3.43 and that of female was 3.28. The std. deviation of the male students was 1.41 and that of female was 1.42. There was lower level of test anxiety in male and female students of science group.

The mean value of male students on the variable of enjoying test that is directly connected to the future success was 2.17 and that of female was 2.40. The std. deviation of the male students was 1.39 and that of female was 1.41. There was lower level of test anxiety in the male and female students of science group. The mean of male students on the variable of getting good score on a test does not seem to increase the confidence was 3.2 and that of female was 2.94. The std. deviation of male students was 1.38 and that of female was 1.53. There was lower level of test anxiety in male and female students of science group because the mean values of both the genders were found below the cut off scores. The mean value of male students on the variable of nervousness while attempting a test hinders me from doing well was 3.7 and that of female was 3.62. The std. deviation of male students was 1.31 and that of female was 1.441. There was higher level of test anxiety in male and female students of science group because the mean values of both the genders were found above the cut off scores. The mean value of male students in science group on the variable of performing at the best of ability when they are under pressure was 2.13 and that of female was 3.04. The std. deviation value of male students was 1.12 and that of female was 1.98. There was lower level of test anxiety in male and female students of science group.

The mean value of male students on the variable of enjoying to attempt a difficult test more than an easy one was 2.03 and that of female was 2.56. The std. deviation mean of male students was 1.20 and that of female was 1.32. There was lower level of test anxiety among male and female students of science group. The mean value of male students on the variable of not enjoying eating before or after the test was 3.18 and that of female was 3.52. The std. deviation of the male students was 1.44 and that of female was 1.46. There was higher level of anxiety in female students of science group and lower level of test anxiety in male students of science group. The mean value of male students in science group on the variable of eating too much before or after the test was 3.80 and that of female was 2.50. The std. deviation of male was 1.20 and that of female was 1.44. It indicates higher level anxiety in male students and there was lower level of anxiety found in female students studying in science group. The mean value of male students on the variable of feeling of calmness during

a test was 2.17 and that of female was 2.40. The std. deviation of male students was 1.32 and that of female was 1.41. There was lower level of test anxiety among male and female students of science group because the mean values of both the genders were found below the cut off scores.

**Table 2:** Significant difference of test anxiety among male and female students of science group

s.no	Scale item	Gender	N	M	SD	DF	T.V	P.V
01	Feeling nervous and anxious on a test day	Male	60	3.58	1.36	59	20.27	.000
		Female	50	4.26	1.02	49	29.34	.000
02	Absent on test day making different excuse	Male	60	3.28	1.50	59	16.86	.000
		Female	50	1.84	1.26	49	29.34	.000
03	Feeling pain in stomach on forgetting the answer	Male	60	2.88	1.32	59	16.80	.000
		Female	50	2.58	1.48	49	12.17	.000
04	Feeling everything is all right and nothing bad will happen on a test day	Male	60	3.85	1.35	59	22.07	.000
		Female	50	3.62	1.24	49	20.58	.000
05	Bothered by irritating moments on a test day	Male	60	3.52	1.35	59	20.04	.000
		Female	50	3.10	1.24	49	17.54	.000
06	Uneasy feelings on a test day	Male	60	3.87	1.22	59	24.39	.000
		Female	50	3.64	1.41	49	18.24	.000
07	Face gets hot and blushes before the test	Male	60	3.15	1.42	59	17.13	.000
		Female	50	2.60	1.56	49	11.74	.000
08	Before and after the test my hands are usually sweaty and cold	Male	60	3.25	1.56	59	16.04	.000
		Female	50	3.16	1.67	49	13.37	.000
09	Feel my arms and legs shaking and trembling before attempting a test	Male	60	3.18	1.56	59	15.73	.000
		Female	50	3.40	1.51	49	15.90	.000
10	Mind goes blank and I am unable to think clearly during a test	Male	60	3.48	1.46	59	18.39	.000
		Female	50	3.10	1.52	49	14.34	.000
11	During a test my heart beat fastens (increase) and I forget my answers	Male	60	3.53	1.46	59	18.65	.000
		Female	50	3.54	1.44	49	17.31	.000
12	I often feel need to be pampered before a test	Male	60	3.43	1.41	59	18.74	.000
		Female	50	3.28	1.42	49	16.22	.000
13	Enjoy test because it is directly connected to my future success	Male	60	2.17	1.39	59	12.05	.000
		Female	50	2.40	1.41	49	12.00	.000
14	Even getting good score in a test does not seem to increase confidence	Male	60	3.20	1.38	59	17.86	.000
		Female	50	2.94	1.53	49	13.56	.000
15	Nervousness while attempting a test hinders (stops) me from doing well	Male	60	3.70	1.31	59	21.73	.000
		Female	50	3.62	1.44	49	17.76	.000
16	Perform the best of my ability when I am under pressure	Male	60	2.13	1.12	59	14.66	.000
		Female	50	3.04	1.98	49	14.48	.000
17	Enjoy attempting a difficult test more than an easy one	Male	60	2.03	1.20	59	13.06	.000
		Female	50	2.56	1.32	49	13.63	.000
18	Do not enjoy eating before or after an important test	Male	60	3.18	1.44	59	17.07	.000
		Female	50	3.52	1.46	49	17.04	.000
19	I eat too much before or after an important test	Male	60	3.80	1.20	59	24.43	.000
		Female	50	2.50	1.44	49	12.22	.000
20	I feel clam down during a test	Male	60	2.03	1.29	59	12.61	.000
		Female	50	3.24	1.47	49	15.49	.000

There was significant difference in the means of the male and female students studying in science group about feeling nervous and anxious on a test day. The significance difference of male students was  $t(59) = 20.27, p = .000$  and the significance difference of female students was  $t(49) = 29.34, p = .000$ .  $t$  value of the female students was found greater than the male students of the science group. There was significant difference in the means of male and female students studying in science group about trying to be absent on a test day. The significance difference of male students was  $t(59) = 16.86, p = .000$  and the significance difference of female students was  $t(49) = 29.34, p = .000$ .  $t$  value of the female students was found greater than the male students of the science group. Difference in the means of male and female students studying in science group about feeling pain (nervousness) in the stomach when they forgot their answers were found significant.

The significance difference of male students was  $t(59) = 16.8, p = .000$  and the significance difference of female students was  $t(49) = 12.17, p = .000$ .  $t$  value of the male students was found greater than the female students of the science group. Difference in the means of male and female students studying in science group about feeling that everything is all right and nothing bad will happen on a test day was found significant. The significance difference of male students was  $t(59) = 22.07, p = .000$  and the significance difference of female students was  $t(49) = 20.58, p = .000$ .  $t$  value of the male students was found greater than the female students of the science group. Difference in the means of male and female students studying in science group about bothering by irritating moments on a test was found significant. The significance difference of male students was  $t(59) = 20.04, p = .000$  and the significance difference of female students was  $t(49) = 17.54, p = .000$ .  $t$  value of the male students was found greater than the female students of the science group.

Difference in the means of the male and female students studying in science group about feeling uneasy before attempting a test was found significant. The significance difference of male students was  $t(59) = 24.39, p = .000$  and the significance difference of female students was  $t(49) = 18.24, p = .000$ .  $t$  value of the male students was found greater than the female students of the science group. Difference in the means of male and female students studying in science group on the statement that face grows hot and blush before a test was found significant. The significance difference of male students was  $t(59) = 17.13, p = .000$  and the significance difference of female students was  $t(49) = 11.74, p = .000$ .  $t$  value of female students was found greater than the male students of the science group. Difference in the means of male and female students studying in science group on the statement that before and after a test my hands are usually sweaty and cold was found significant. The significant difference of male students was  $t(59) = 16.04, p = .000$  and the significance difference of female students was  $t(49) = 13.37, p = .000$ .  $t$  value of the

male students was found greater than the female students of the science group. Difference in the means of the male and female students studying in science group on the statement my arms and legs are shaking and trembling before attempting a test was calculated. The significant difference of male students was  $t(59) = 15.73$ ,  $p = .000$  and the significance difference of female students was  $t(49) = 15.90$ ,  $p = .000$ . There is minor difference of t value in the male and female students of science group.

Difference in the means of male and female students studying in science group about minds goes blank and students are unable to think clearly during a test was found significant. The significant difference of male students was  $t(59) = 18.39$ ,  $p = .000$  and the significance difference of female students was  $t(49) = 14.34$ ,  $p = .000$ . t value of the male students was found greater than the female students of the science group. Difference in the means of male and female students studying in science group that during a test their heart beat fasten (increase) and they forget their answers was found significant. The significance difference of male students was  $t(59) = 18.65$ ,  $p = .000$  and the significance difference of female students was  $t(49) = 17.31$ ,  $p = .000$ . t value of the male students was found greater than the female students of the science group. Difference in the means of male and female students studying in science group about feeling the need to be pampered before a test was found significant.

The significance difference of male students was  $t(59) = 18.74$ ,  $p = .000$  and the significance difference of female students was  $t(49) = 16.29$ ,  $p = .000$ . t value of the male students was found greater than the female students of the science group. Difference in the means of male and female students studying in science group about enjoying test that it is directly connected to the future success was not found significant. The significance difference of male students was  $t(59) = 12.05$ ,  $p = .000$  and the significance difference of female students was  $t(49) = 12.$ ,  $p = .000$ . There is minor difference in the t value of the male and female students of science group. Difference in the means of male and female students studying in science group about getting good score in a test does not seem to increase the confidence was found significant. The significance difference of male students was  $t(59) = 17.86$ ,  $p = .000$  and the significance difference of female students was  $t(49) = 13.56$ ,  $p = .000$ . t value of male students was found greater than the female students of the science group.

Difference in the means of the male and female students studying in science group about nervousness while attempting was found significant. The significance difference of male students was  $t(59) = 21.73$ ,  $p = .000$  and the significance difference of female students was  $t(49) = 17.76$ ,  $p = .000$ . t value of male students was found greater than the female students of the science group. Difference in the means of male and female students studying in science group about performing at the best of their ability when under pressure was not found significant. The significance

difference of male students was  $t(59) = 14.66, p = .000$  and the significance difference of female students was  $t(49) = 14.48, p = .000$ . There is minor difference in the  $t$  value of the male and female students of science group. Difference in the means of the male and female students studying in science group about enjoying to attempt a difficult test more than an easy one was found significant. The significance difference of male students was  $t(59) = 13.05, p = .000$  and the significance difference of female students was  $t(49) = 13.63, p = .000$ .  $t$  value of the female students was found greater than the male students of the science group.

Difference in the means of the male and female students studying in science group about not enjoy eating before or after an important test were not found significant. The significance difference of male students was  $t(59) = 7.07, p = .000$  and the significance difference of female students was  $t(49) = 17.04, p = .000$ . There is minor difference in the  $t$  value of the male and female students of science group. Difference in the means of the male and female students studying in science group about eating too much before or after an important test was found significant.  $P$  value on  $t$  test was .000 that was highly significant.  $T$  value of the male student group was 24.43 and of the female student group was 12.22. The  $t$  value of the male students was found greater than the female students of the science group. Difference in the means of the male and female students studying in science group about feeling of clam down during a test was found significant. The significance difference of male students was  $t(59) = 12.61, p = .000$  and the significance difference of female students was  $t(49) = 15.49, p = .000$ .  $t$  value of the female students was found greater than the male students of the science group.

## DISCUSSION

Level of test anxiety in the form of nervousness and anxiousness both in male and female students of science group was found high. The rate of test anxiety was found higher in female students as compared to the male students of science group. This result was verified by the study conducted by Ali & Mohsin (2013). Therefore, it is invoked that the feeling of nervousness and anxiousness may affect the performance of female and male students' on test, and that higher rate of anxiety in female students is due to the sensitive and very cautious attitude towards education as well as to the other matters of life. The perceptions that there is something bad going to happen in reference to their performance on a test may negatively affect their performance. These stressed conditions may affect performance negatively and they were not able to utilize the optimum level of their abilities. This confused and anxiety driven bent of mind may be the result of over emphasis of parents on marks and competitive environment of the classroom.

The study also revealed that students need to maintain balanced condition as far as their level of anxiety is concerned. It may positively promote their performance in case of acceptable rate of anxiety that may trigger and activate their optimum performance on a test, and consequently that may not feel their hands damp and cold before and after the test. They may be able to analyse, examine, and critically evaluate the problem that they have to respond on a test. The study conducted by Smith, Robinson, and Segal (2013) also confirmed the results of the study. The higher rate of test anxiety may have biological and physiological repercussions on functioning of human brain and body. Their heart beat work to function at increased rate that may affect the cognitive functioning of their brain. It is required that the students need to learn to face situation in cool and calm manner to make use of maximum level of their abilities on a test. The rate of test anxiety was greater in female of the science group as compared to male students on the variable of nervousness and anxiousness, everything is all right and nothing bad will happen, feeling uneasy on a test day, heart beat fastens (increases) during a test not enjoying eating before or after an important test. The study conducted by Rana and Mahmood (2010) confirmed these result whereas Study conducted by Khalid and Hassan (2009) does not agree to the results. It is invoked that the Pakistani society is male dominated and expect greater sense of responsibility on the behalf of female as compared to male. This may place greater burden on the female that may consequently raise the level of test anxiety not only in the performance of a test but also in other matters of life.

## **CONCLUSION**

It was concluded that the level of test anxiety in the form of nervousness and anxiousness both in male and female students of science group was found high. It was also concluded that the rate of test anxiety was found higher in female students as compared to the male students of science group. It is required that the teachers may guide students to practice anxiety relaxing techniques for performing on the test day to the best of their abilities. These stressed conditions may affect performance negatively and they were not able to utilize the optimum level of their abilities. It was also concluded that students need to maintain balanced condition as far as their level of anxiety is concerned. It may positively promote their performance in case of acceptable rate of anxiety that may trigger and activate their optimum performance on a test, and consequently that may not feel their hands damp and cold before and after the test. They may be able to analyse, examine, and critically evaluate the problem that they have to respond on a test. The higher rate of test anxiety may have biological and physiological repercussions on functioning of human brain and body. Their heart beat work to function at increased rate that may affect the cognitive functioning of their brain.

## **RECOMMENDATIONS**

The study has significant implications for students, parents, and teachers. In order to eradicate the student's negative attitude towards test and test anxiety, students, parents, teachers and peers group work cooperatively in the light of following recommendations:

1. Teachers may develop and promote an environment during a test in which the students may feel comfortable and perform at the higher level of their abilities. They may inform the students about the aims of tests, test techniques, and number of the questions and address any ambiguities and misperceptions of the student on a test.
2. Teachers may develop teaching strategies that help highly anxious students. Teachers may create an environment in which students do not feel threatened rather perform on the test in relaxed way.
3. Students may learn and practice behavioral techniques of anxiety relaxation such as deep breathing, progressive muscle relaxation and visualization, physiological state of relaxation that may help to overcome the rate of anxiety.
4. Classroom learning and testing may go hand in hand. They may support, facilitate and guide each other that may help to overcome the rate of anxiety.
5. Parents may support the teacher in developing collaborative learning habits in the students and do not place their wards in the ever burning fire of competition. On the other hands, parents play a vital role in shaping their children's' attitudes to overcome anxiety.

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