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EXAM ANXIETY AMONG SENIOR SECONDARY SCHOOL STUDENTS

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Abstract

The purpose of the present investigation was to assess the level of exam anxiety among senior secondary school students and to study the influence of gender, locality and their various interactions on the level of exam anxiety among senior secondary school students. The sample comprised 180 senior secondary school students selected randomly from four senior secondary schools (two from urban and from rural areas) affiliated to H.B.S.E., Bhiwani, Haryana. Data were analysed by adopting the criterion Mean ± SD and using two way ANOVA (2x 2 factorial designs) and t-test. Results indicated that (i) most of the senior secondary school students have comparatively moderate level of exam anxiety; (ii) there is significant independent effect of variables viz. gender and locality on exam anxiety among secondary school students; and (iii) there is significant two factor interactive effect of variables on the level of exam anxiety among secondary school students.

Anxiety generally is a feeling of mingled dread and nervousness about the future without specific reason for such fear, while exam anxiety is a more specific phenomenon in which a graded test is the source of fear (Oladipo & Ogungbamila). Examination anxiety is a type of performance anxiety. In such situations, sometimes student feel pressurized to perform excellent and becomes so worried whether he will be able to perform or not. Exam anxiety can also be labeled as anticipatory anxiety, situational anxiety or evaluation anxiety.Test anxiety is "the set of phenomenological, psychological, and behavioral responsesthat accompany concern about possible negative consequences or failure on an exam or similar evaluative situations" (Chapell et. al 2005). Exam anxiety is a combination of physiological over-arousal, tension and somatic symptoms, along with worry, dread, and fear of failure, that occur before or during test situations (Zeidner, 1998).Although, scholars have asserted that it is natural to feel some anxiety while preparing for a test or examination,

however, too much of it can hamper students' academic performance at school (Rafiq, Ghazal & Farooqi, 2007).Students who experience test anxiety tend to be easily distracted during a test, experience difficulty with comprehending relatively simple instructions, and have trouble organizing or recalling relevant information. Excessive anxiety can block thoughts, create a negative frame of mind, and lead to panic and potentially poor exam performance. Many students experience some level of stress while preparing for an exam. Appropriate levels of stress can enhance student's memory, attention, motivation, and can lead to improved test performance (Salend, 2011). Research has consistently shown that test anxiety is a correlate of poor academic performance (Culler & Holahan, 1980).

In highly competitive scholastic structure, students feel pressure to gain the knowledge and skills to take many highly competitive examinations as obtained grades are crucial for higher education and to have good employment. Such practices put considerable pressure on the students (Zsolnai, 2002).). Hence, the present 'do or die' competitive educational scenario persuades high levels of stress and strain in learners. So, the pressure on students to 'succeed' causes increased anxiety and subsequently affects the individual's academic, vocational and emotional state. Zoller and Ben-Chain (1990) have the opinion that "the era in which we live is a test-conscious age in which the lives of many people are not only greatly influenced, but are also determined by their test performance". Examination anxiety and stress is held to inhibit some students from reaching their academic potential. It has been found that students consistently perceive examination as a source of increase in anxiety and a situation engulfed with uncertainty/unfairness in letting them demonstrate their true achievements (Schonwetter, 1995). Such feelings among students limit their potential performance during the test situation, resulting in higher test anxiety (Hill and Wigfield, 1984) directly causing a drop in the student achievement.

The senior secondary level is a landmark in the school life of any student. During this period, the students become adolescent and face many changes physically as well as mentally and take the crucial decisions of future career selection. They are also anxious about their academic output. Parents also pressurize to attain high scores so that they may get admission in prestigious and reputed institutes. The entrance preparation and in many cases, high parental expectations enhance their anxiety and stress. A superior academic record is required to gain success in future life. So the students generally develop stress and strain during the higher secondary years and remain anxious. Even apparently well-adjusted students have

feeling of insecurity for their future due to anxiety.Research has revealed that various factors such as family socio economic status (Akinleke, 2012), school factors (Marks, Millan & Hillman, 2001) and social support (Quamma& Greenberg, 1994; Calvete & Connor-Smith, 2006) influence academic performance. Markedly, these factors greatly influence the academic performance of pupils but equally significant are certain demographic variables like gender and locality of the learners. Understanding of the areas of creating academic stress in students is needed to help them to solve their problems. It is under this background an attempt has been made to study, "Examination anxiety among senior secondary school students".

Operational Definition of the Terms

Senior secondary school students: students of XI and XII enrolled under H.B.S,E. Board during the session 2013-2014.
Examination Anxiety: Exam anxiety is the set of phenomenological, physiological and behavioral responses that accompany concern about possible negative consequences or failure on an exam or similar evaluative situation (Zeidner M.)

Objectives
1. To study the level of examination stress among senior secondary school students.
2. To study the influence of gender, locality and their various interactions on exam stress of senior secondary school students.

Hypothesis
There is no significant influence of gender, locality and their various interactions on exam stress of senior secondary school students.

Tools Used
Following tests were used to obtain reliable data:

1. Students' Examination Anxiety Test (SEAT) by Agarwal & Kaushal(2010).
2. Personal Information Schedule (PIS) developed by investigator to get the information like gender and locality.

Sample and Procedure

Data were collected in Jan- Feb 2014, when the senior secondary school students were ready to appear in their final exams. For collecting data, four senior secondary schools (two in urban and in rural areas) affiliated to H.B.S.E., Bhiwani, were selected randomly fromHaryana.

The investigator personally visited the schools one by one. After rapport formation she administered the tools to all senior secondary school students present on the day. After collecting the tools back, those cases were discarded who did not belong to moderate level of

intelligence; as review suggested intelligence is a reasonably good predictor of grades at school, performance at work, and many other aspects of success in life (Gottfredson, 2004). Then on the basis of Mean and S.D., the senior secondary school students were divided into four parallel groups — boys studying in urban locality, boys studying in rural locality, girls studying in urban locality and girls studying in rural locality. From each of these groups, 45 senior secondary students were selected randomly, that is 45 from each combination group. In thisway final sample comprised 180senior secondary school studentsas given inTable1

Distribution of Sample

Table 1

Gender (A)	**Locality (B)**	**N**
Boys (A1)	Urban (B1)	45
	Rural (B2)	45
	Total	90
Girls (A2)	Urban (B1)	45
	Rural (B2)	45
	Total	90
Total	Urban	90
	Rural	90
	Total	180

Statistical Techniques Employed

To find out the level of exam stress among senior secondary school students criterion of Mean±SD was applied to scores of exam stress. In order to study the influence of gender and locality towards exam and their various interactions on exam stress twoway ANOVA (2×2 factorial design) was employed. The first independent variable gender (A) varied in two ways — Boys (A_1) and Girls (A_2); and the second independent variable locality (B) varied in two ways — Urban (B_1) and rural (B_2). In case of significant main effects as well as interactions, theANOVA was supplemented by *t*-test.

Analysis and Interpretation

In pursuance of the objectives data were analyzed and interpreted under the following heads:

1. Level of Examination Anxiety among senior secondary school students:
   In the present investigation, 180 subjects were classified into three groups by adopting the criterionof Mean ±SD to their score exam anxiety level as follows:

Table 2
Classification of Subjects into Three Groups on the Basis of their Score in Exam Anxiety Test

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Sr. No	Level of Exam Anxiety	Range of Scores	N (%)
1	High	20 or above	40(22%)
2	Normal	13-18	111(62%)
3	Low	12 or below	29 (16%)

Results in Table 2 reveal that majority of senior secondary school students had normal (62%) followed by high exam anxiety (16%). A small percentage of subjects (22%) fell in the category of low exam anxiety.

2. Influence of gender, Locality and their various interactions on exam stress among senior secondary school students
   The summary of Two Way ANOVA (2×2) is given in Table 3

Table 3
Summary of 2×2 Two Way ANOVA of Level of Exam Anxiety

Source of Variance	Df	Sum of squares	Mean Squares	F-value	Remark
A	df_A= 1	SS_A = 473.68	MS_A= 473.68	F_A =33.99	P<.01
B	df_B= 1	SS_B= 304.2	MS_B= 304.2	F_B = 20.58	P<.01
A×B	$df_{A\times B}$=1	$SS_{A\times B}$= 273.8	$MS_{A\times B}$=273.8	$F_{A\times B}$=17.96	P<.01
Within SS	df_w= 176	SS $_w$=2683.51	MS $_w$ =15.247		
Total	179	3272			

2.1 level of Exam Anxiety by Gender
From Table 3 it can be seen that the F-value for gender is 473.68, which is significant at 0.01 with df = 1/176. It shows that gender significantly influenced the anxiety level for exams among sr. sec. school students. Thus the null hypothesis that there is no significant influence of gender on level of exam anxiety among senior secondary school students is rejected. In order to interpret this,*t*-test was applied. The results for the same have been given in Table 4.

Table 4
Gender Wise Mean, SD and *t*-value of Level of Exam Anxiety

Gender (A)	N	Mean	SD	t-value	Remark
Boys (A1)	90	15.59	4.059	2.62	P<.01
Girls (A2)	90	18.83	3.37		

From Table 4 it is evident that t-value is 2.62, which is significant at 0.01level of significance. It indicates that the mean scores of level of exam anxiety among boys and girls of senior secondary school differ significantly. Thus, the null hypothesis that there is no significant difference in mean scores of among boys and girls of senior secondary school is rejected. Further, mean scores of level of exam anxiety among girls o senior secondary school is 18.83, which is significantly higher than that of boys of senior secondary school whose mean score of exam anxiety is 15.59. It may, therefore, be said that level of exam anxiety was found to be significantly more in case of boys of senior secondary school in comparison to girls of senior secondary school.

2. 2 level of Exam Anxiety by Locality

The F-value for locality wise level of exam anxiety of senior secondary school students is 20.58 (vide Table 3), which is significant at 0.01 level. It may, therefore, be said that locality towards level of exam anxiety significantly influenced level of exam anxiety among senior secondary school students. Thus, the null hypothesis that there is no significant influence of locality on the level of exam anxiety among senior secondary school students is rejected. In order to interpret this, *t*-test was applied. The results have been given in Table 5.

Table 5
Locality Wise Mean, SD and t-value of level of exam anxiety

Locality (B)	N	Mean	SD	t-value	Remark
Urban (B1)	90	19.01	3.90	6.13	P<.01
Rural (B2)	90	16.41	3.71		

From Table 5 it is evident that *t*-value is 6.13, which is significantat 0.01 level of significance. It indicates that the mean scores of locality among senior secondary school studentsbelonging to urban and rural locality differ significantly. Thus, thenull hypothesis that there is no significant difference in mean scoresof locality among senior secondary school studentsbelonging to urban and rural locality is rejected.Further, mean scores of locality among senior secondary school studentsbelonging to urban locality is 19.01, which is significantly higher than that of belonging to rural locality whose mean score of exam anxiety 16.41. It may, therefore, be said that exam anxiety was found to be significantly more in case of urban senior secondary school students in comparison to senior secondary school studentsbelonging to rural locality.

2.3Two Factor Interaction Effect on Level of Exam anxiety

2.3.1 A x B Interaction

The F-value for the double interaction between Gender and Locality (A x B) is 17.96 (vide table 3 for df= 1/176) is significant at 0.01 level, leading to inference that the two variables interact with each other. To investigate further, the interaction between gender and locality, the t-ratios were computed. The results for the same have been given in Table 6

Table 6
Significance of Difference of Mean scores of level of exam anxiety among Different Combination Groups for Gender x Locality

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Group (Mean)	A_1B_1 (16.64)	A_1B_2 (15.55)	A_2B_1 (20.44)	A_2B_2 (16.77)
A_1B_1 (16.64)	-	1.24	4.42 *	0.16
A_1B_2 (15.55)	-	-	6.14*	1.56
A_2B_1 (20.44)	-	-	-	4.81*
A_2B_2 (16.77)	-	-	-	-

Table 6 shows that boys of senior secondary schools belonging to urban locality have lessexam anxiety (M=16.64) than girlsof senior secondary schools belonging to urban locality (M=20.44). Boys of senior secondary school belonging to urban locality are having more exam anxiety (M=16.64) ascompared to boys of senior secondary schools belonging to rural locality (M=15.55). Boys of senior secondary schools belonging to urban locality are less anxious for exams (M=16.64) as compared to girls of senior secondary schools belonging to rural locality (M=16.77). Girls of senior secondary school belonging to urban locality (M=20.44) and boys of senior secondary school belonging to rural locality (M=15.55) yield comparable mean scoreson level of exam anxiety. Girls of senior secondary schoolsbelonging to urban areahave more exam anxiety (M=20.44) than girls of senior secondary schools belonging to rural locality (M=16.77). Boys of senior secondary school belonging to rural locality are less anxious for exams (M=15.55) as compared to girls of senior secondary school belonging to rural locality (M=16.77).

Further, girls of senior secondary school belonging to urban locality havemaximum exam anxiety (M=20.44), while boys of senior secondary school belonging to rural locality have lowest level of exam anxiety (M=15.55).

Findings

1. There is significant difference in the level of exam anxiety among senior secondary school students with respect to gender.
2. There is significant difference in the level of exam anxiety among senior secondary school students with respect to locality.
3. There is significant difference in the level of exam anxiety among senior secondary school students with respect to gender and locality.

Discussion

Results of the present study indicate that only 22 per cent of the senior secondary school students belong to high level of exam anxiety. 62 per cent of them belong to normal level and 16 per cent belong to low level of exam anxiety. It means that students understand that to appear in exam is a part of educative process and to get promoted to next standard; one has to clear the exams. But some students develop fear for such situations and develop high anxiety where as few are irresponsible and develop careless attitude by having low anxiety for examinations. These findings are in line with previous study conducted by Owayed (2005) that a certain degree of anxiety is generally needed to make students efficient and striving. However, it becomes unfavorable if it rises beyond that degree. Individuals with low and moderate levels of anxiety do not worry and are able to concentrate on their studies (Drummond, 1996; Owayed, 2005) and they have been associated with significantly high test scores (Chapell et al., 2005). In contrast, individuals with high levels of anxiety tend to do worse (Goldman, 1991) and therefore focus on expectations of failure and the undesirable consequences of personal inadequacy (Smith, 1995).

Another finding of the present study is that level of exam anxiety is significantly more in case of girls of senior secondary schools as compared to boys of senior secondary schools.This is consistent with the previous researches on gender effects on exam anxiety ((Unruh & Lowe, 2010; Mousavi & Haghshenas & Alishahi, 2008; Putwain, 2007;Lashkaripour, 2006; Mehregan & Najjarian & Ahmadi, 2001). However, this difference has not been evidenced by Mwamwenda, (1993). As girls are seen more responsible than boys and this kind of expectation leads to the increase in exam anxiety levels because girls essentially are afraid to fail; each testing situation is seen as another possible chance of failure. Another possible explanation is that "males are more defensive about admitting anxiety because it might be

seen as threatening to their masculinity; they are trained to cope with anxiety by denying it or by finding ways to overcome it" (Mousavi & Haghshenas & Alishahi, 2008).

Further, the results also indicate that urban senior school students experience more anxiety as compared to senior school students belonging to rural locality. These findings are in line with previous study conducted by Mishra (1997) and Thakkar (2003) where significant difference was found among rural and urban students in academic stress where as Sridevi (2012) observed that rural students were more anxious than urban students.

Venugopal, (1999) studied academic achievement of girl's students in relation to their rural, urban background and found that IX grade rural students scored higher than urban students.

Regarding interactional effects, the joint effect of factors viz., i) gender and locality is found significant on exam anxiety. This joint effect of various interactions on level of exam anxiety may be significant due to the reason that factors like gender and locality towards exam anxiety exert significant independent contributing effect in determining the scores on exam anxiety. Another probable reason for significant various interaction effects may be due to the two different ways in which each factor is varying viz., boys and girls senior secondary school students; and urban and rural locality towards exam anxiety.

Recommendations:

In view of the findings of this study, it could be recommended that:

1. As per the results of the present investigation there is more examination anxiety in case of girls school students. It may be useful for the teachers to comprehend examination anxiety among boys and girls school students. An orientation to girl's students for reducing their examination anxiety should be provided.
2. As urban students are found more anxious so emphasis should be on such teaching learning strategies that would help students to achieve their aims and good level of achievement by reducing the effect of locality.
3. School system should give guidelines as well as should facilitate counseling sessions that help students to cope with exam stress.
4. Students should be given ample time to relax and plan for their examinations by providing them the training of time management so that last minute rush revision may be avoided.
5. Parents and teachers should develop understanding regarding physical conditions, mental status and psychological needs of the youngsters which may play positive role in dealing with exam anxiety.
6. Students should be given notes in outline form that catalog key points. Research suggests this method allows students to most likely recall and synthesize information (Rozalski, 2008

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