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## Exam Anxiety: An Analytical Study In Burdwan District In West Bengal

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### **Abstract:**

This paper attempts to analyze the nature and extent of exam anxiety of students in some selected higher secondary level schools of West Bengal. The study covers three hundred students both in urban and rural areas encompassing 150 boys and 150 girls of Burdwan district in West Bengal. The results reveal that few factors have significant positive impact in enhancing exam anxiety while some are negative impact for reducing exam anxiety of students. A binary logit analysis has been used to determine relationship *between exam anxiety and several factors associated with it. Moreover, students' 't' test* has also been used to examine the assumed hypothesis whether any variation among gender base (i.e., among boys and girls) or area base (i.e., among village and town) exists or not. Finally, it can be concluded that the extent of exam anxiety of students is significantly affected by several *socio-economic and cultural factors along with school's* infrastructural facilities.

**Introduction:**

Exam anxiety is a psychological condition in which a person experiences distress before, during or after a test or other assessment to such an extent that this anxiety causes poor performance or interferes with normal learning. Now-a-days it deserves notice due to its prevalence amongst the student populations of the world. Philosopher Soren Kierkegaard, described anxiety or dread associated with the 'dizziness of freedom' and suggested the possibility for positive resolution of anxiety through the self-conscious exercise of responsibility and choosing. Anxiety is an aversive emotional experience that motivates individuals to move away from, remove or control the source of anxiety. It is marked by subjective feelings of tensions and fear, increased psychological arousal, perceptions of danger and risk, decreased cognitive and behavioral performance and/or avoidance and escape (Felter, 2001). At low levels, anxiety may be motivating and attention focusing; at higher levels, it may become debilitating. The individual may report subjective feelings of anxiety (e.g., tension, dread, fear, nervousness, edginess). He may experience sympathetic arousal of the principle of 'fight or flight' reaction (e.g., increased heart rate, rapid breathing, and blessings). Exam anxiety is common problem present in over 40 percent of school children. It all starts with the importance we give to the percent of marks the child scores. Stress is imposed on the child in the form of pressure to excel in exams. Through pressure in itself is not harmful to a person, the fear of failure induces an extra burden in the child. This fear gradually results in a stronger emotion known as anxiety (Walker et al, 2002).

Several studies have been conducted in India and abroad to assess the nature exam anxiety of students in the secondary and higher secondary school levels (Walker et al, 2003; Hocevar, 1991; Pullin, 2005; Kartha (1970); Cassidy & Ronald (1975); Parnas et al, 2005; Spielberger, 1979). Walker et al (2003) found that female students experience higher levels of test anxiety than do males irrespective of cultural background. The study involved students from four Asian cultures. The conclusion drawn from these findings was that a major causal factor involved in the gender related differences in test anxiety among students was a greater role expectation conflict among females than among males. In another study Hocevar (1991) examined test anxiety among students in Brazil, Egypt, and the United States. The study found that the test anxiety in all the three cultures was higher among female students than among male students. Parnas et al, 2005 conducted a study that showed three common characteristics of people suffering from chronic anxiety, when he characterized as "a generalized biological vulnerability", "a

generalized psychological vulnerability”, and “a specific psychological vulnerability”. This study documented an additional fact that may result from being raised by parents suffering from chronic anxiety themselves. Pullin (2005) in their study investigated a large number of school children undergo exam related fears. Sometimes these fears are overwhelming which can cause low performance and failure in exams. As a matter of fact most of the children who are shattered by exam phobia have a good IQ and positive motivation. They show favorable performances in the classroom but when they go to the exam these students become highly stressed, have fear and they are unable to face the exam with confidence. Cassady & Ronald (1975) in their study commented that exam anxiety has some psychological factors which has feeling no control over the exam situation( rather than knowing and applying exam strategies), negative thinking and self-criticism (rather than being one’s own best friend), irrational thinking about exams and outcomes, irrational beliefs i.e., “If I don’t pass my parents will kill me”, irrational demands- “I have to get 100% or I am worthless”, Catastrophic predictions i.e., “I’ll fail no matter what I do.” Speilberger (1979) commented that an exam anxiety may be defined in terms of the intensity of the subjective feelings of tension, apprehension, nervousness and worry that are experienced by an individual at a particular moment and by heightened activity of the automatic nervous system that accompanies these feelings. He further found that students with high-test anxiety end to blame themselves for their poor performance, while low test-anxious students did not. According to Deepa Kartha (1970) it is very crucial for students to learn about how to reduce exam fear, so that they can give their examination confidently, subsequently earning good grades.

All the studies though touched up on the issue of exam anxiety, but no comprehensive attempt has yet been made to make the gender variation of nature of exam anxiety in urban and rural students. An attempt has been made in this paper to make an assessment of the nature of exam anxiety affecting male and female students both in urban and rural areas in West Bengal. For the sake of convenience, this paper is divided into four major sections: excluding the introductory & literature portion, section I deals with the objectives and hypotheses, section II explains the used data and methodology; section III includes results and discussion where as conclusion appears in section IV.

**Objectives:**

The study entails the following objectives-

- To examine the nature of exam anxiety among the rural and urban male students
- To assess the nature of exam anxiety among the rural and urban female students
- To analyse the nature of exam anxiety among the rural male and female students
- To find out the nature of exam anxiety among the urban male and female students
- To enumerate the factors which are responsible for exam anxiety among the school students

**Hypotheses:**

## Null Hypotheses

The null hypotheses are the following -

- H<sub>01</sub>: There is no variation of exam anxiety between rural and urban male students.
- H<sub>02</sub>: There is no variation of exam anxiety between rural and urban female students.
- H<sub>03</sub>: There is no variation of exam anxiety between rural male and female students.
- H<sub>04</sub>: There is no variation of exam anxiety between urban male and female students.

## Alternative Hypotheses

The alternative hypotheses are –

- H<sub>11</sub>: Urban male students have less exam anxiety than rural male students.
- H<sub>12</sub>: Urban female students have less exam anxiety than rural female students.
- H<sub>13</sub>: Rural male students have less exam anxiety than rural female students.
- H<sub>14</sub>: Urban male students have less exam anxiety than urban female students.

**Data source and Methodology:**

The study is mainly empirical in nature. The primary data has been collected during 2010-2011 from 300 Higher Secondary school students both in urban as well as in rural areas out of which 150 are boys and 150 are girls' students in Burdwan district in West Bengal. A self made structured questionnaire was prepared by considering different anxiety dimension like economic background, educational background, existing curriculum and exam difficulty (Rothbaum & Schwartz, 2002).

The following factors have been selected to analyse the effect the effect on exam anxiety: (i) Economic background of the family (ii) Educational base of the family (iii) Problems occurred before exam (iv) Participation in extracurricular activities (v) Existing curriculum (vi) Observation of the parents before exam .

A binary logit model has been used in order to analyse the effect of the above selected factors on exam anxiety of the students. Moreover, students' 't' test has been used to examine the hypotheses.

### **Results and Discussion:**

Everyone experiences anxiety from time to time. It can be mild or intense or somewhere in between. A little anxiety helps us to stay on our toes and motivates us to do our best. For example, some anxiety about the possibility of doing poorly on a test can motivate you to study a little harder. A moderate amount of anxiety helps the body and mind get prepared to cope with something stressful or frightening. Sometimes anxiety can get out of proportion and become too intense or too lasting, and it can interfere with a person's ability to do well. However, level of exam anxiety varies according to gender (either boys or girls' students) and locality ( whether school is situated either in urban or rural areas). A binary logit model has been prepared in order to explain the effect of so many factors on exam anxiety.

It was found (vide table 1) that most of the factors except educational base of the family and observation of the parents before exam, have significant impact towards exam anxiety. This means that the higher the level of economic background, participation of students in extra curricular activities and observation of parents before exam, the lower will be the level of exam anxiety and vice-versa. Again the two factors like PE (i.e., problems occurred before exam) and EC (nature of existing curriculum) play a significant role towards exam anxiety and the co-efficient of these two factors are found to be positive (Brosch et al, 2007).

$EA = a + b.EB + c.EBF + d.PE + e.PEC + f.EC + g.OP$			
Dependent Variable	Exam Anxiety		
	Coefficient	'Z' Stat.	Prob.
Constant	13.62331	6.167593	0.0000
EB	- 0.001245	- 4.487079	0.0000
EBF	- 0.241029	- 0.375440	0.7073
PE	4.428259	6.328389	0.0000
PEC	- 6.461873	- 5.230781	0.0000
EC	1.287411	4.492832	0.0000
OP	- 0.831126	-0.394561	0.784951

Table- 1: Impact of selected factors on exam anxiety in terms of binary logit model

*Source: Authors' calculation based on field level data, 2010-2011*

Note: EB = Economic background of the family, EBF = Educational base of the family, PE = Problems occurred before exam, PEC = Participation in extracurricular activities, EC = Existing curriculum, OP = Observation of the parents before exam.

This helps to draw important conclusion that the higher the predominance of problems before exam and higher standards of existing curriculum, the greater will be the level of exam anxiety.

Let us now make a comparative static analysis as per gender and area of students along with the test of significance of the predetermined hypotheses in terms of students' 't' test.

Students	N	Mean	S.D.	't' Value	Significant level	
					5 %	1%
Urban boys	75	30.56	6.52	3.16	P>0.05	P>0.01
Rural boys	75	32.36	4.13			

Table 2: Attitudes of urban boys and rural boys towards exam anxiety in terms of calculated mean, S.D., t values and level of statistical significances

*Source: Authors' calculation based on field level data, 2010-2011*

It has been found (vide table- 2) that there exists little variation among the urban and rural boys in terms of mean and S. D. The calculated value of t (i.e., 3.16) is greater than the tabulated value of t at 148 d.f. both at 5% and 1% level of significance. Therefore the null hypothesis is rejected and the alternative hypothesis is accepted. This implies that urban boys have less exam anxiety than the rural boys. This is due to the fact that most of the urban boys have no problem to purchase the valuable books to diminish their excess pressure. So they are not facing any internal or complicated problem before the exam and also found no difficulty during the exam (Iqbal, 2010).

Again it is evident from table-3 that although there exists little variation regarding mean and S.D. of urban and rural girls, but in respect of t test the calculated value of t (i.e., 2.790) is still larger than the tabulated value at 5 % and 1% level of significance. Therefore, the urban girl students have less exam anxiety than rural girls, taken into consideration all the surveyed schools in Burdwan district in West Bengal.

Students	N	Mean	S.D.	't' Value	Significant level	
					5 %	1%
Urban Female	75	27.31	5.23	2.79	P>0.05	P>0.01
Rural Female	75	25.28	4.16			

Table-3: Attitudes of urban boys and rural boys towards exam anxiety in terms of calculated mean, S.D., t values and level of statistical significances

*Source: Authors' calculation based on field level data, 2010-2011*

Again if we consider rural male and rural female students (vide table 4), then the calculated value of t is still larger than the tabulated value of t both at 5% and 1% level of significance. So, there is no doubt to say that rural female having more exam anxiety than rural male students in Burdwan district in West Bengal.

Students	N	Mean	S.D.	't' Value	Significant level	
					5 %	1%
Rural Male	75	26.72	5.10	2.12	P>0.05	P> 0.01
Rural Female	75	24.61	4.11			

Table- 4: Attitudes of urban boys and rural boys towards exam anxiety in terms of calculated mean, S.D., t values and level of statistical significances

*Source: Authors' calculation based on field level data, 2010-2011*

It is interesting to note (vide table 5) that the t value among urban male and urban female students is 2.50 which is greater than the tabulated value at 5% level of significance but it is smaller than the tabulated value of 1% level of significance. This means that the null



hypothesis is rejected at 5% but accepted at 1% level. It has been found that although rural boys and girls are coming from almost the same socio-economic and educational background but rural girls have lot of hesitations and tensions about anxiety of exam. As a result they feel excess pressure before and during exam (Berry and Arthur, 1985).

Students	N	Mean	S.D.	't' Value	Significant level	
					5 %	1%
Urban Male	75	25.13	4.89	2.50	P> 0.05	P< 0.01
Urban Female	75	23.41	4.12			

Table-5: Attitudes of urban boys and rural boys towards exam anxiety in terms of calculated mean, S.D., t values and level of statistical significance

*Source: Authors' calculation based on field level data, 2010-2011*

So, we can not always conclude that urban boys have less exam anxiety than urban female students (since value of t is significant at 1 % level but insignificant at 5 % statistical level of significance). During field survey, it has been found that most of the boys and girls having the same educational and socio-economic background of the families and guardians are too much conscious of their children about their career (Thurlow et al, 2008).

### **Conclusion:**

This paper highlights the role of factors affecting degree of exam anxiety of higher secondary level school students of Burdwan district in the state of West Bengal. The result reveals that there has been significant positive influence on exam anxiety by taking into consideration the factors – ‘pattern of existing curriculum’ and ‘problems occurred before exam’(e.g, any kinds of physical disorders) with some variation among the estimated ‘t’ values while in case of factors like ‘educational base of the family’, ‘economic background of the family’, ‘participation in extracurricular activities’ and ‘observation of parents before exam’, the estimated values of coefficients are calculated

to be negative. This means that the first two factors have the positive impact and the last four factors have negative impact on exam anxiety. It is interesting to note that the calculated values of probability are highly significant with some variation among the factors. Again there is some variation regarding the degree of exam anxiety in terms of gender ( i.e., boys or girls) and dwelling area of students(i.e., village or town).

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