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Exploratory Study of Subfactors of Test Anxiety Among School Students

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Abstract

Test anxiety is an important factor impeding student performance in India where competitive examinations are a common phenomenon. Students' worthiness in life is often decided by the marks they get leading to a lot of social pressure. AACCI conducts Multicentric Youth behaviour studies in various schools in India. also. This study was done using a validated FRIEDBEN Test Anxiety Scale to test various component of exam anxiety in 193 school children from Northern India. Of these100 were male and 93 were female students. The age of the group ranged from 13-15 years.

The scores were analysed keeping in mind some variables like age, socioeconomic status, and parental job. Students in the Gurgaon school had higher levels of exam anxiety as compared to the students from Jaipur school ($p<0.001$). Social Derogation score was consistently significantly higher ($p<0.001$) than other factor scores, i.e., Tenseness and Cognitive Blocking. Differences were found in sub score patterns across Jaipur and Gurgaon schools, with male students in Jaipur school showing higher Social Derogation scores than female students, which goes against earlier AACCI research findings, a trend explained in the Discussion. The current findings indicated culture-specific elements of test anxiety in Indian youth, including the socio-economic status and parental job associated with exam performance, and underlines to need to assess any cohort before delivering intervention.

Keywords: *Exam anxiety, School children, Test anxiety, Students, Tenseness, Congnitive blocking, Social derogation.*

Introduction

Anxiety involves three components: Anticipation of danger, Physiological arousal, and Disruption of the cognitive mechanism; mainly impacting problem solving, decision making, planning and executive functions **(**Sari et al. 84-88; Hong 431-47**)**. Examination or test anxiety refers to a set of cognitive, physiological, and behavioural responses related to concerns about possible failure or poor performance on an exam or a similar evaluative situation. Although initially conceptualized as a unitary construct, research on test anxiety now conceptualizes it as a complex, multi-dimensional, and dynamic construct **(**Spielberger, and Vagg; Zeidner**)** Anxiety can spiral over the course of time with worry leading to physiological tension and arousal, which in turn may serve to increase negative threat-related cognitions.

Another very significant aspect of anxiety pertaining to examinations and tests in the Indian context, is the concern in students' minds about what people will think of their performance, and how they will be evaluated socially. A study revealed the significance of social derogation **(**Sovani et al.**)** as measured by a factor of the FriedbenTest Anxiety Scale **(**FTAS**) (**Friedman and Bendas-Jacob 1035-46**)** Hence, in the Indian context test anxiety becomes pertinent to study as many factors may contribute to the importance placed on results of these examinations. Parental pressure **(**Bodas et al. 387-404**)**, socio-economic status, political standing, societal pressure, self-perception, and the educational system may be possible sources of evaluation.

This paper attempts to explore the various factors that seem to influence this phenomenon of examination anxiety and to suggest possible ways to relieve the latter. This shift would re-establish well-being among students, aided by life skills education.

Material and Methods

Methodology

Study design: This is a cross-sectional study.

Study duration: August 2011. The students were contacted in their school class, and all data from a single site was collected on the same day.

Sample selection: Convenience sample. The schools were chosen where the 1st and 4th Author have a rapport.

Exclusion inclusion criteria: there were no exclusion criteria.

Permissions: Permission was taken of the parents through the school principal. Written assent was included in the proformas containing the questions for FTAS.

Ethical clearance: AACCI ethical committee

Procedure: The 4th author personally supervised collection of data from school A and the 1st and 5th authors for School B. No names were asked -to encourage honest answers. Only age and gender were noted.

Statistical Analysis: SPSS 17 was used for analysis of the data.

Tools: FTAS **(**Friedman Bendas Test Anxiety Scale**)** with 23 items **(**Friedman and Bendas-Jacob 1035-46**)**

Responses were solicited in the form of two options: yes and no, one of which the respondent had to endorse. The scale gave three factors: Social derogation, Cognitive blocking, and Tenseness. This has been validated for Indian children **(**Bodas et al. 387-404**)**

Sample: The sample consisted of 193 urban children and adolescents attending school in Northern India both from English medium Co ed school. School A was from Gurgaon **(**Haryana**)** whereas, School B from Jaipur **(**Rajasthan**)**. The sample was larger for Gurgaon **(**n=146**)** as compared to Jaipur **(**n=47**)** as the number of children were participants from an AACCI awareness class conducted in this school wherein the parents mainly comprised the working-class population. The Jaipur students were participants of a Life school education workshop program conducted in the school and the parents belonged to a higher socio-economic stratum with business background.

Method:

The data was collected using the self-report method. Questionnaires were distributed to the children in the classroom, allowing them to respond in English. Authors 1 and 4 personally supervised collection of data explained procedure and answered queries and adequate time was given to them.

Results and Discussion

Results

School A The sample consisted of 146 children from IX std **(**79 males and 67 girls **)** from Gurgaon in Haryana where we conducted an AACCI awareness program. This English medium school catered to middle socio-economic status and most parents belonged to the working class.

School B The sample consisted of 47 **(**males 21 and females 26**)** from IX std from Jaipur Rajasthan who were participants of a Life skill education workshop we conducted .This was an elite English-speaking co-ed school catering to high socioeconomic section with parents belonging to business community, hence sample is smaller than school A

Total sample N=193 **(**100 male and 93 female**)** The age of the group ranged from 13 to 15 years.

Table 1 Total FTAS scores n=193

scores	School A Gurgaon N=146	School B Jaipur n=47
Tenseness	3.26	2.81
Cognitive blocking	1.69	1.79
Social derogation	4.15	3.12
Total FTAS score	**9.1**	**7.22**
P value	P<.001 *	

Total FTAS >7 is significant. School A had higher scores.
*Significant p value

Table 2 Gender comparison FTAS total score and sub-scores n=193

	School A Gurgaon N=146		School B Jaipur n=47	
FTAS	Male	Female	Male	Female
Tenseness T	3.01	3.5	3.22	2.28
Cognitive blocking CB	1.75	1.60	2.38	1.5
Social derogation SD	4.05	4.36	3.18	3.04
Total FTAS score	8.82	9.47	8.4	6.85
P values	P<.001 *		P<.001*	

FTAS total score >7 is significant.
*Significant p values
Females had higher Total scores in school A , whereas Males had higher Total scores in school B

Table 3 Comparison of girls and boys in two schools

FTAS total score and sub-scores

	School A Gurgaon	School B Jaipur	School A Gurgaon	School B Jaipur
FTAS scores	Males n=67	Males n=26	Females n=21	Females n=79
Tenseness **(**T**)**	3.01	3.22	3.5	2.28
Cognitive blocking CB	1.75	2.38	1.60	1.50
Social derogation SD	4.05	3.18	4.36	3.04
Total FTAS score	8.82	8.4	9.47	6.85
P values	P<.001*		P<.001*	

FTAS total score >7 is significant.

*Significant p values

Boys School A Gurgaon Higher total score and higher SD sub-scores

School B Jaipur Lower total score but higher T and CB sub-scores

Girls - School A Gurgaon– Higher total and sub scores than School B Jaipur

Discussion

Table 1 summarizes the data for school level differences in test anxiety. Overall, students in the Gurgaon school had higher levels of exam anxiety as compared to the students from Jaipur school **(**$p<0.001$**)**. These differences can be further explored in the light of the factors like geographical differences, socio-economic status and the subsequent pressure on the students that shapes the "schooling experience" for the students. It must be kept in mind that the parents of these students came from a working-class background, and perhaps the students experienced an overall pressure to perform, and relatively less parental support and inputs when it came to cracking competitive examinations.

The students in school B had lower scores on exam anxiety and primarily came from business class families. These findings are in line with past literature that indicates that children belonging to families with a business background had lower examination anxiety as compared to students belonging to working class families **(**Sovani et al.**)**. Many of them expect to join their parents in business ventures which are already thriving and thus there is less emphasis laid on examination performance by these families. In contrast, children of working-class parents are aware that they have to strike out on their own and stand on their own feet financially as early as possible.

These findings could thus be influenced by a lot of factors including the perceived importance of examination in such societal set-ups. A study by Bandura also suggested that parent's employment had a strong influence in the occupational choices of their children **(**Bandura 139-161**)**.

Gender-wise differences

Table 2 and Table 3 essentially presents the same data, however, there is an attempt to highlight the key gender differences in the data in Table 2 whereas Table 3 attempts to highlight the data of male and female students across the two schools, with an emphasis on school wise differences.

A t-test was computed to determine gender-wise differences between the schools on FTAS. Overall, it was observed that in the Gurgaon school, the female students had elevated test anxiety scores as compared to the males. An opposite trend was noted in the Jaipur school, wherein the male students had higher anxiety than females. Previous AACCI work has also shown that girls experience higher levels of examination anxiety as compared to boys.**(** Bhave et al**)**

Several researchers have endorsed these findings that women have a greater pressure to perform well academically, and higher fear of failure. Some studies have shown better performance by female students on competitive exams than males. The benchmark set by the predecessors led to parental and societal pressure on the successive cohorts. These internal and external pressures, along with poor adaptive styles could lead to exam anxiety **(**Jayraman; Deb et al. 26-34**)** The other reason for this difference is attributed to acceptance of anxiety which is seen as a vulnerability. Hence this bias can alter the reporting of it **(**Deb et al. 26-34**)**. Past research by Bodas suggests male students do often receive better support from families and have more involvement of parents in their academic life **(**Bodas et al. 387-404**)**.

Sub-scores comparison across school locations

Table 3 clearly shows that male students from the Jaipur school had markedly higher Tenseness and Cognitive Blocking scores, but it was the male students from Gurgaon who showed higher Social Derogation than females.

In table 3, it was interesting to note that the male students in Jaipur school endorsed overall higher Test Anxiety with higher scores across tenseness, social derogation and cognitive blocking. The male students in Jaipur had lower total scores but were higher in endorsing Tenseness and cognitive blocking. In contrast, female students from Gurgaon had higher scores on all three subfactors of FTAS,

as compared to female students from the Jaipur school. Hence, naturally their total FTAS score was also markedly and significantly higher than that of the female students from Jaipur. It appears that among the business families that made up the sample of children from Jaipur, there appears to be lower pressure to perform well in examinations since there is little expectation from females to pursue professionals lives in the future. The interesting observation made earlier of males from Jaipur school scoring higher Social Derogation factor scores than females from that school is in keeping with this explanation, since between the two genders expectation from boys to perform well at academics would be higher.

School students of IX STD in India have to face a very tough academic competition in the crucial X board examination. There is tremendous school and peer pressure on them to excel. This is compounded by the social pressure that judges a person's worth by Exam results alone. As a result, many students suffer from anxiety and can have symptoms of depression which can also manifest as somatic symptoms. WHO Life Skills Education program **(**LSE**)** gives the students the coping skills to face this tension and stress.

Conclusion

One of the main factors that affects academic performance is test anxiety. Exam anxiety studies Conducts in the past have shown the value of investigating the factors that impact or trigger it. Test anxiety is pertinent to explore since it has a long term as well as immediate impact on the students and their well-being. The study's findings are in accordance with the past literature i.e., female students experience more test anxiety than male students. This finding is important while designing interventions, since the kind of intervention required for female students might be qualitatively different. It is worth exploring the antecedents that impact test anxiety in females in India, in rural and urban areas, in the context of family's background as well as personality factors impacting test anxiety in them.

These studies could be used to plan interventions, especially for students appearing for competitive and board exams to plan remediation of anxiety. The study highlighted that the anxiety experienced by a student might be impacted by different factors like schools, geographical locations, gender, and the importance a student gives an exam. Many students suffer psychological symptoms due to intense pressure by society and parents- to do academically well. This study could be used to substantiate further research to help reduce test anxiety through collaborative and intervention-based programmes, enabling all students to reach their full potential. The following are some steps: by using surveys,

feedback from teachers and administrators, and input from students, we can better understand the context of assessment in each school. AACCI conducts such surveys in schools and shares with the management to plan intervention programs to benefit the students.

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