

INFLUENCE OF SHYNESS ON ANXIETY AND ACADEMIC ACHIEVEMENT IN HIGH SCHOOL STUDENTS[#]

Lancy D'Souza

*Department of Psychology
Maharaja's College University of Mysore
Mysore, India*

The present study reports influence of shyness on anxiety and academic achievement among high school students. A total of 160 (82 boys and 78 girls) high school students were selected through stratified random sampling from VIII, IX, and X grades, from three high schools of Mysore City, India. The students were assessed using Crozier's (1995) Shyness Questionnaire and Taylor's Manifest Anxiety Scale (Nataraj & Nataraj, 1993). Results revealed that high levels of anxiety and contradictorily shyness did not influence the academic achievement of the students. Boys and girls were found to have equal level of shyness. Remedial measures for reducing shyness have been suggested.

Shyness may be defined experientially as excessive self-focus characterized by negative self-evaluation that creates discomfort and/or inhibition in social situations and interferes with pursuing one's interpersonal or professional goals. The experience of shyness can occur at any or all of the following levels: Cognitive, affective, physiological, and behavioural, and may be triggered by a wide variety of situational cues. Among the most typical situations are interactions with authorities and strangers, one to one opposite sex interactions, and unstructured social settings. Subcategories of shyness reflect the degree (i.e., mild social awkwardness to totally inhibiting social phobia) and frequency of experienced shyness and include chronic shyness (self-labeling as shy and the experience of shyness in numerous social situations), situational shyness (the experience of shyness in specific social situations), and shy extroverts (experience anxiety and negative self-evaluation but are publicly

[#] Correspondence concerning this article should be addressed to Lancy D'Souza, Department of Psychology Maharaja's College University of Mysore, Mysore-570 005, India. <lancy@37.com & lancyd@zeenext.com>

^{##} The author wishes to thank the headmaster, teachers, management, and the respondents of the Maharaja Junior College, Seventh day Adventists High School and Vidyavardhaka High School, Mysore for their help in the data collection and providing the academic scores.

outgoing). Although similar in its overt expression, introversion is not a subcategory of shyness. Shy individuals would prefer to be with others but are restrained by the experience of shyness (Brophy, 1996). Bell et al., (1994) suggest that certain young adults high in shyness (especially those also high in defensiveness) may be among the subset of the population at increased risk for Parkinson's disease later in life.

Jasnoski, Bell, and Peterson (1994) reported that there is a structural connection between childhood shyness and adult panic attacks. Three paths were confirmed, the first path with hay fever, the second with anxiety, and the third with a combination of anxiety and anxiety sensitivity. Studies have shown that shyness though not completely but partially affects the performance in physical education students (see for example, D'Souza, Singh, & Basavarajappa, 1999). A study by D'Souza, Urs, and James (2000) revealed that students with more shyness are prone to neurotic tendency and it produces negative effects such as low academic performance, which in turn further impacts the personality of the student.

The percentage of adults in the United States (no statistics are available in Indian scenario) reporting that they are chronically shy has escalated from 40 per cent, since the 1970's and into the 1980's up to about 50 per cent within the last decade. In another study, it was found that among the respondents, 40 per cent indicated that they were shy in the past but not in the present; 15 per cent, perceived themselves as being shy in some situations, and only about 5 per cent believed they were never shy. Most clinical referrals for shyness meet the criteria for generalized social phobia and many meet criteria for avoidant personality disorder. About 13 per cent of the general population actually withdraws from daily life experiences in order to avoid the social interactions they dread (Anonymous, 2000). Extreme shyness may be indicative of concurrent problems and in the absence of any prevention or intervention, may result in subsequent disorders (Rubin, 1993).

A degree of shyness is normal whenever social expectations are new or ambiguous. Shyness begins to emerge as a problem if it becomes not merely situational but dispositional, so that the child is labeled as shy. The studies related to shyness and anxiety are very scanty in India. This study aims to explore the influence of shyness on anxiety and academic achievements of high school students. It was hypothesized that shyness influences students' level of anxiety and their academic achievements.

METHOD

Sample

The sample consisted of 160 high school students (82 boys and 78 girls) selected randomly from VIII, IX, and X grades of Maharaja, Seventh Day Adventists and Vidyavardhaka high schools, Mysore, India. The students were selected both from English and Kannada Medium classes. Stratified random sampling technique was employed to select the sample. Their age varied from 12 to 16 years.

Instruments

Shyness Questionnaire: This questionnaire was developed by Crozier (1995). It consists of 26 items and requires the subject to indicate his/her response by ticking either 'yes', 'no', or 'don't know'. The items of the questionnaire are based on situations or interactions like performing in front of the class, being made fun of, being told off, having one's photograph taken, novel situations involving teachers, school friends interaction, and so on. Of the 26 items, shyness is indicated by a 'yes' response for 21 items and a 'no' response for 5 items. Item analysis of the scale using SPSS program resulted in Cronbach's alpha coefficient of 0.82.

Taylor's Manifest Anxiety Scale: This scale measures the individual's level of anxiety. Taylor originally developed this scale in 1951, which consisted of 200 items. Later in 1953, it was reduced to 50 items. The test retest reliability of the scale was found to be 0.89. In 1993, Nataraj and Nataraj of Mysore University examined the original form of the scale and reduced it to 40 items. In the present study this version was used. The response alternatives are True or False. In this revised version, there are 30 items related to 'anxiety' and 10 items are lie items. The validity is high, and the test-retest reliability is at 0.96.

Academic Achievement: These are scores secured by the students in their final examination of the previous year, which is out of a total of 600 marks. These scores have been taken from the concerned class teachers/office records.

Procedure

A pilot study was conducted on ten students to test the suitability of the questionnaire. The instruments were found to be adequately suited for the study. After getting the permission from the respective Head Masters from the schools, the students were selected and a good rapport was established. The purpose of the study was made clear to them. The questionnaire was administered to each student in groups of 6-8 with all the necessary instructions as provided in the manual. The students were requested to complete the questionnaires with no interruptions. They were asked to indicate their responses in the respective sheets given to them. Whenever they had doubt in understanding the items, the test administrator clarified the queries in their local language.

Scoring

For the shyness questionnaire, items worded in the direction of shyness, responses were scored 2 for 'yes', 1 for 'don't know', and 0 for 'no'. Scores were reversed for the items worded in the opposite direction. High scores indicate high level of shyness and low scores indicate low level of shyness. Depending on the scores the subjects were classified into three levels of shyness-high, medium, and low.

For Taylor's Manifest Anxiety Scale, items worded in the direction of anxiety, responses were scored 1 for 'true', and 0 for 'false'. Scores were reversed for the items worded in the opposite direction. If the subject's scores exceeded 6 and above on the Lie items of the scale, then such forms were discarded. Higher scores indicated high level of anxiety.

RESULTS

The questionnaires were then scored and interpreted according to the norms. The raw data was further made into Master charts and this chart was fed into the computer using SPSS 10.05 version. Two-way analysis of variance was applied to find out the difference between boys and girls with various levels of shyness in their anxiety scores as well as their academic achievement. Also Duncan's Multiple Range Test (DMRT), as a post hoc test was applied to find out the significance of difference between means, whenever *F*-value was found to be significant.

Table 1 presents mean anxiety and academic achievement scores in relation to various levels of shyness along with their gender. Table 2 shows results of Two-way ANOVA for mean anxiety and academic achievement scores in relation to various levels of shyness along with their gender.

Table 1

Mean Anxiety and Academic achievement scores of high school students in relation to various levels of shyness

Gender	Mean Anxiety Scores							
	Low Shyness		Medium Shyness		High Shyness		Average	
	M	SD	M	SD	M	SD	M	SD
Boys	17.12	5.06	17.71	5.10	19.41	6.05	17.00	4.54
Girls	15.79	3.59	16.94	4.75	19.64	4.94	17.50	4.99
Average	16.42	4.36	17.32	4.90	19.50	5.57	17.98	5.37

Gender	Mean Academic Achievement Scores							
	Low Shyness		Medium Shyness		High Shyness		Average	
	M	SD	M	SD	M	SD	M	SD
Boys	336.81	82.23	326.69	85.37	315.86	94.58	326.99	86.26
Girls	351.48	93.41	375.60	95.54	325.00	81.01	357.55	93.09
Average	344.55	87.80	351.50	93.32	319.42	88.46	341.89	90.67

Table 2

Results of Two-way ANOVA for mean Anxiety and Academic achievement scores of high school students in relation to various levels of shyness

Factors	Source of variation	F-ratio	<i>p</i>
Anxiety	Between Groups (A)	4.201	.017
	Between Sexes (B)	.547	.450
	Interaction (A x B)	.265	.768
Academic Achievement	Between Groups (A)	1.365	.258
	Between Sexes (B)	2.656	.105
	Interaction (A x B)	.810	.447

Shyness and anxiety: Students with different levels of shyness differed significantly in their anxiety scores ($F = 4.201$; $p < .017$). The

mean values indicated that as the shyness level increased, anxiety scores also increased linearly. The respective mean values for low, medium, and high levels of shyness are 16.42, 17.32, and 19.50 as indicating in Table 1. Further, DMRT revealed that mean scores of low and medium levels of shyness did not differ significantly, only mean anxiety score of high shyness level group differed significantly from other two levels of shyness. Boys ($M = 17.00$) and girls ($M = 17.50$) did not differ significantly in their anxiety scores ($F = 0.574$; $p < .450$). The interaction effect between shyness level and gender is also found to be non significant ($F = 0.265$; $p < .768$), indicating that the pattern of anxiety is same among boys and girls irrespective of the shyness level they belong to.

Shyness and Academic Achievement: Shyness level did not influence the academic achievement of the students ($F = 1.365$; $p < .258$). The respective academic scores of the students belonging to low, medium, and high levels of shyness are 344.55, 351.50, and 319.42, which are non significant differences (see Table 1). As in the case of anxiety, boys ($M = 326.99$) and girls ($M = 357.55$) did not differ significantly in their academic achievement scores ($F = 2.656$; $p < .105$). The interaction effect between shyness level and gender is also found to be non significant ($F = 0.810$; $p < .447$), indicating that the pattern of academic achievement is same among boys and girls irrespective of the shyness level they belong to.

DISCUSSION

The results of the study shows that the high levels of shyness resulted in higher levels of anxiety and contradictorily shyness did not influence the academic achievement of the students, and the boys and girls were found to have equal level of shyness.

Studies have shown that shy students are considered less competent. Although shyness is not related to intelligence, it is assumed that shyness affects a student's overall educational experience negatively. Shyness becomes an important issue in the classroom when students are evaluated, in part, on their classroom participation. In fact, research indicates that shy students who attend college have significantly lower grade-point averages than students who do not suffer from shyness.

The results of the present study with reference to shyness and anxiety are in agreement with studies done abroad. A significant correlation between shyness and anxiety was found. In a research it was found that the correlation between shyness and anxiety is larger for the older children (Irving & Irving, 1994). Extreme shyness was found to be a consistent predictor of emotional and psychosomatic problems like allergies and gastrointestinal functioning. Shyness has been associated with depression, loneliness, fearfulness, social anxiety, neuroticism, retrospective inhibition, and low self-esteem, (Schmidt & Nathan, 1995). Schroeder (1995) explored the cognitive aspects of shyness and social anxiety with regard to interpersonal perception skills and found that socially anxious subjects had difficulty in social information processing tasks. Shyness was related to cognitive interference as well as poorer performance on the information processing tasks. For shy subjects, social anxiety could be distinguished from general anxiety. Shyness and social anxiety negatively affected the skill in decoding several areas of non verbal interaction. Shy adolescents tended to be lower in self-esteem, more introverted, and more anxious than their non shy counterparts (Lawrence & Bennett, 1992). Van-Ameringen, Mancini, and Oakman (1998) after studying 225 patients concluded that both shyness and behavioral inhibition are associated with anxiety disorders in children and adults. Higher the shyness more was the maladjustment in social and emotional adjustment of the students (D'Souza & Urs, 2001). A common observation in virtually all shyness research is that the consequences of shyness are deeply troubling. As far as the academic achievement and shyness is considered, the obtained results are quite contradictory, which requires further investigation.

Suggested Strategies for Coping with Shy or Withdrawn Students

Peer involvement: Several authors have suggested treating shyness and withdrawal through peer involvement. Such efforts might include involving shy students in cross-age tutoring programs, creating opportunities for them to play in pairs with younger children, enlisting peers as confederates to draw out withdrawn children, and involving them in small group, cooperative classroom activities.

Teacher interventions: Brophy (1996) surveyed effective teachers to find out how they responded to shy students. The most commonly mentioned responses included (1) changing the social environment (e.g., seating them among friendly classmates or assigning them to a partner or small group), (2) encouraging or shaping increased responsiveness, (3) minimizing stress or embarrassment, (4) engaging

shy students in special activities, and (5) involving them in frequent private talks. Conspicuously absent from these teachers' responses was emphasis on threat or punishment.

Other Interventions. School psychologists have suggested several techniques like, encouraging children to join volunteer groups or recreational organizations outside of school; involving them frequently in small-group, cooperative interaction with peers; using them as peer tutors; determining their peer preferences and seating them near preferred peers; leading but not forcing them to communicate; avoiding putting them in situations that would be embarrassing or frightening; and assigning them to messenger roles or other tasks that require communication. Medications like beta-blockers (Inderal), antidepressants, and selective serotonin reuptake inhibitors (Fludac and Prozac) do help in reducing shyness.

While medication, psychotherapy, and other techniques of reducing shyness can bring about dramatic changes in shy students, the idea is not to redesign student's personalities but to help them feel more comfortable with themselves and others. The therapists and mental health professionals should recognize the serious need for treatment of shy adults and children, and should develop treatment approaches to liberate the millions of people who are trapped in their silent prisons of shyness. We hope, future research into shyness at various age levels will provide greater understanding of the cause and outcome of shyness and underpin attempts to alleviate its negative consequences.

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Received: *October 28, 2002.*