Social phobia and its impact in Indian university students
P Shah, L Kataria

Citation

Abstract
Background: Social phobia even though being a common psychiatric disorder is still under recognized and under treated. We study prevalence, severity, disability and quality of life with respect to social phobia among university students in India.
Methods: A stratified sample of 380 undergraduate university students was assessed to identify the extent of social phobia, its correlates as well as resulting disability and quality of life.
Results: Social phobia was found in 19.5% of participants, in varied degrees of severity and correlated with various faculties in university, resulting in significant disability in work, social life, and family life, as well as impairment in quality of life. ‘Acting, performing or giving a talk in front of an audience’ was the most commonly feared/avoided situation. Students reported various clinical manifestations affecting academic, social and interpersonal areas.
Conclusions: High prevalence and marked impact on life demands stringent efforts to recognize and treat social phobia.

INTRODUCTION
Social phobia is the most common anxiety disorder and the third most common psychiatric disorder, after major depressive disorder and alcohol dependence. Lifetime prevalence estimates for social phobia vary greatly and range from 0.4 to 20.4 % in different studies. Among the more well know epidemiological studies, the Epidemiological Catchment Area Survey in 1991 suggests a lifetime prevalence of social phobia at 2.73%. Also, estimates of more than 8,000 individuals from the National Comorbidity Survey in 1994, suggests the lifetime prevalence of social phobia at 13.3%.

There is paucity of information on the epidemiology of this disorder in the developing world, especially among university students. A cross-sectional survey of students at the University of Ibadan (Nigeria) using the Composite International Diagnostic Interview (CIDI) revealed a prevalence of social phobia at 8.5%. Another study of 523 Swedish University students with the Social Phobia Screening Questionnaire (SPSQ) reported prevalence to be as high as 16.1%. Izgic et al. from Turkey found the prevalence of social phobia at 7.9% among a stratified random sample of 1,003 university students. In India, there has been only one study on social phobia (among high school adolescents) which mentions a prevalence of 12.8% and also an association with impairment in academic functioning.

Social phobia even though being a common psychiatric disorder, is under recognized and under treated. It is more common in youth, is associated with lower educational achievements, unstable employment, higher frequency of being absent to work, individuals are less likely to marry, more likely to get divorced, and have reduced productivity that can lead to dependence from family, state, society, and country. Disability in diverse functional areas and impaired quality of life are the two important domains of consequences of social phobia.

On the other hand, studies on mental health in general and anxiety disorders in particular, often neglect a person’s perception of his or her quality of life. Judging the impact of a mental disorder based on symptomatic distress, while ignoring one’s overall quality of life, is incomplete. Thus, as a humanistic and holistic approach to health and health care, mental health studies should consider measures of the impact of disease and impairment on daily activities and behavior, perceived health measures and disability/functional status measures.

The present study studies social phobia and its impact in undergraduate students (young adults) of various faculties of a University in India. It studies prevalence, demographic variables, disability and the impact on quality of life due to...
social phobia.

METHODS
This was a cross-sectional self-report questionnaire study conducted among undergraduate students of various faculties of a university in India.

SAMPLE SELECTION
A sample of 405 undergraduate students from various faculties (Medical, Engineering, Science, Commerce, Arts, Education, and Polytechnic) were selected, out of which 380 students participated. The study population was divided into various strata based on the faculty and the year/batch of study. For each stratum, students were identified by their classroom roll numbers. Using random number tables, students were randomly selected from each stratum and were contacted at the end of their scheduled curriculum classes and invited to participate in the study.

INCLUSION CRITERIA
All those over the age of 18 years and studying in undergraduate courses were included.

EXCLUSION CRITERIA
Those who were not conversant with English language were excluded.

DATA COLLECTION
A structured proforma was administered over the study population after explaining about the purpose of the study and obtaining verbal consent. The proforma consisted of demographic information such as age, sex, family income, marital status and residence. Rating instruments included the Social Phobia Inventory to detect Social Phobia, the Leibowitz Social Anxiety Scale to measure the severity of Social Phobia as well as specific areas involved, the Sheehans Disability Scale to assess disability due to Social Phobia and the WHO Quality of Life – BREF questionnaire to assess Quality of Life. Lastly, students were given a list of check-off items related to their experiences with social phobia.

RATING INSTRUMENTS

SOCIAL PHOBIA INVENTORY [SPIN]
The SPIN by Dr. K. M. Connor is a short, easily administered self-rating scale that captures the spectrum of fear, avoidance and physiological symptoms. It is a 17-item scale and each item is rated from 0 (not at all) to 4 (extremely). The scale ranges from 0-68. A score of 19 and above suggests social phobia. It demonstrates good test-retest reliability, internal consistency, convergent and divergent validity and can be used as a measurement for the screening of and treatment response to social phobia. It has a sensitivity of 73-85% and a specificity of 69-84% in regard to diagnosis of social phobia. The Cronbach alpha for this measure obtained in this sample was 0.85.

LIEBOWITZ SOCIAL ANXIETY SCALE [LSAS]
The LSAS developed by Dr. Michael Liebowitz rates fear/anxiety and avoidance on 24 commonly feared “performance” or “social” situations. There are 13 performance-related items and 11 social-related items which are rated on a 0 to 3 spectrum (0=none/never, 3=severe/usually). The LSAS has good internal consistency and the score evaluates degree/severity of fear and avoidance in common social situations as mild (<55), moderate (55-64), marked (65-79), severe (80-94) and very severe (>95). The Cronbach alpha obtained in this sample for the fear/anxiety domain was 0.88 and for the avoidance domain was 0.87.

SHEEHANS DISABILITY SCALE [SDS]
The SDS developed by David V Sheehan is a simple and commonly used rating scale to evaluate functional impairments/disability in the domains of work, social life/leisure and family life/home responsibility as a result of an anxiety disorder. Each domain is rated on an 11-point continuum from 0 = no impairment to 10 = most severe, with ranges of mild (1-3), moderate (4-6) and marked (5-9). The Cronbach alpha for this measure obtained in this sample was 0.96.

WHO QUALITY OF LIFE – BREF [WHOQOL – BREF]
The WHOQOL – BREF is an abbreviated version of the WHOQOL – 100, by the WHOQOL Group, a multidimensional quality of life assessment tool, applicable cross-culturally. There are 26 items based on a four domain structure – Physical health (7 items), Psychological health (6 items), Social relationships (3 items) and Environment (8 items), along with a self-rating of quality of life (1 item) and satisfaction with health (1 item). It is self-administered and each item is scaled from 1-5 in a positive direction (i.e., higher scores denote higher quality of life). Each domain score (mean score of items within that domain) is converted to a scale of 0-100 and denotes an individual’s perception of quality of life in that domain. The Cronbach alpha for the respective domains, obtained in this sample were 0.63
(physical health), 0.68 (psychological health), 0.67 (social relationships), and 0.59 (environment).

**DATA ANALYSIS**

Analyses were done using the SPSS Version 11.5 and Epi Info Version 6.0 packages. Descriptive statistics were calculated. Categorical variations were analyzed by the chi-square test using Yate’s correction for continuity and the Fisher’s exact test. Continuous variables were analyzed by the t-test. Correlation analysis was done using the Pearson correlation coefficient.

**RESULTS**

The sample consisting of 380 students was studied and data analyzed as follows.

**Figure 1**

Table 1 Socio-demographic Characteristics

<table>
<thead>
<tr>
<th>Socio-demographic profile</th>
<th>Frequency n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>39 (10.3%)</td>
</tr>
<tr>
<td>19</td>
<td>102 (26.8%)</td>
</tr>
<tr>
<td>20</td>
<td>142 (37.4%)</td>
</tr>
<tr>
<td>21</td>
<td>59 (15.5%)</td>
</tr>
<tr>
<td>22</td>
<td>25 (6.6%)</td>
</tr>
<tr>
<td>23</td>
<td>13 (3.4%)</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>257 (67.7%)</td>
</tr>
<tr>
<td>Female</td>
<td>123 (32.3%)</td>
</tr>
<tr>
<td>Faculty</td>
<td></td>
</tr>
<tr>
<td>Medicine</td>
<td>57 (15.0%)</td>
</tr>
<tr>
<td>Science</td>
<td>56 (14.7%)</td>
</tr>
<tr>
<td>Commerce</td>
<td>72 (18.6%)</td>
</tr>
<tr>
<td>Arts</td>
<td>31 (8.2%)</td>
</tr>
<tr>
<td>Engineering</td>
<td>55 (14.5%)</td>
</tr>
<tr>
<td>Education</td>
<td>58 (15.3%)</td>
</tr>
<tr>
<td>Polytechnic</td>
<td>51 (13.4%)</td>
</tr>
<tr>
<td>Family Income (US$ per month)</td>
<td></td>
</tr>
<tr>
<td>&lt; 100</td>
<td>28 (7.3%)</td>
</tr>
<tr>
<td>100 - 200</td>
<td>136 (35.8%)</td>
</tr>
<tr>
<td>&gt; 200</td>
<td>216 (56.8%)</td>
</tr>
<tr>
<td>Relationship Status</td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>349 (91.8%)</td>
</tr>
<tr>
<td>Affiliated</td>
<td>31 (8.2%)</td>
</tr>
<tr>
<td>Residence</td>
<td></td>
</tr>
<tr>
<td>Home</td>
<td>154 (40.6%)</td>
</tr>
<tr>
<td>Hostel</td>
<td>226 (59.4%)</td>
</tr>
</tbody>
</table>

Note: Conversion rate: 1 US dollar = 46.7 Indian rupees

Table 1 shows the socio-demographic profile of the study sample, with the majority (79.7%) of participants having an age of 19, 20, 21 years and two-thirds of the participants being male. The sample consisted of participants from all faculties, with the lowest number from Arts (31, 8.2%) and the highest number from Commerce (72, 18.6%). (This was a proportionate representative sample from each stratum).

Around 90% were from higher income groups and single. Nearly 60% had their residence in hostel.

As shown in Table 2, 19.5% of the subjects had a SPIN score of 19 and more, i.e. social phobia was present in almost 20% of the population. There was no statistically significant difference in prevalence of social phobia with respect to gender, family income or type of residence. Also, as the majority of the sample was within a narrow range of age group (most of them being young adults – the targeted population for the study) and as most of them were single, these two parameters were not associated (p=0.39 and p=0.38 respectively) with social phobia.

**Figure 2**

Table 2 Comparing Social Phobia with Demographic Variables

As shown in Table 3, social phobia was more prevalent in the Commerce, Arts, Science, Education, Polytechnic, Medical and Engineering faculties in decreasing intensity respectively. In India, as admissions in Medical and Engineering courses are competitive and require higher academic skills than other groups (which are considered at par), it was interesting to compare them with the rest, in order to establish that they had the least prevalence of social phobia and explore the reasons thereafter. The results were found to be statistically significant ($\chi^2 = 8.58; p = 0.003$).

**Figure 3**

Table 3 Comparing Faculty and Social Phobia

As shown in Table 4, the frequency of commonly feared situations was obtained using LSAS. Score of > 2 in each domain were considered significant for each situation, with frequency calculated as an average of the two domains.
As measured by the LSAS, among subjects with social phobia, the majority had mild to moderate severity (almost 70%), followed by marked severity (24%), with severe to very severe found in only 6% of them.

Table 5 shows that for each disability areas, the difference between the two groups was statistically significant. There was significantly more disability in all areas in candidates having social phobia as compared to those without social phobia. Also, the quality of life in each parameter of physical health, psychological health, social relationships, and environment was significantly poorer in those with social phobia as compared to those without social phobia.

Lastly, students reported various experiences related to social phobia, affecting academic, social and interpersonal areas (Table 7).

DISCUSSION
The prevalence of social phobia varies widely among different countries. In this study, social phobia was found in 19.5% of subjects, much more than other studies among university students. Previously, when prevalence estimates were based on the examination of psychiatric clinic samples, social anxiety disorder (i.e., social phobia) was thought to be a relatively rare disorder. The opposite was instead true; social anxiety was common, but many were afraid to seek psychiatric help, leading to an understatement of the problem. Prevalence rates may vary widely because...
of overlapping symptoms with other disorders. Because of the difficulty in separating social phobia from poor social skills or shyness developmentally, some studies have a large range of prevalence. In community epidemiological surveys, the prevalence of social phobia depends heavily on where the diagnostic threshold is set, ranging from 1.9% to 18.7%. In this study, as SPIN has a specificity of 69-84% and the analysis using the disability scale suggests that between 15-20% of those scoring above cut-off on the SPIN experienced none or mild disability (implying that they would be unlikely to reach diagnostic criteria for the disorder), it can be inferred that the prevalence rates may be some what lower than identified. Even after this consideration, the prevalence rate appears quite high.

With regard to trans-cultural aspects, the majority of the socio-demographic features and symptoms for social phobia are generally found to be relatively independent of geographic and cultural differences. In this study, there were no age or gender differences among those with social phobia. This differs from what has been reported in many studies that social phobia is more common in females. However, some studies are similar to our findings of no gender differences.

Faculty of study like Commerce, Arts and Science were maximally, while Medical and Engineering were minimally, affected by social phobia. The findings were similar to an Australian study among undergraduate university students where higher rates of social phobia occurred in the Arts & Health science faculty and lower rates in Engineering and Medicine faculty. This study also reported that the difference between students studying medicine versus arts were significant (similar to our study). Interestingly, although performance anxiety would be expected to be higher in higher-pressure professional fields like medicine or engineering, where students are observed by their evaluators, our findings were contrary. It may be the negative impact of social phobia on academic performance during schools/competitive entrance exams and career choices made there after, as admissions in the former are received at lower grades in India. Thus, social phobia was found to be associated with educational field/status, in keeping with previous studies.

The most commonly feared/avoided situations were ‘Acting, performing or giving a talk in front of an audience’ (31%), followed by ‘Speaking up at a meeting’, ‘Being the centre of attention’ and ‘Urinating in a public bathroom’ (20% each).

The findings were matching with that of previous DSM IV studies, which stated that, “Public speaking seems to be the most common fear” (3, 7, 14). Also, the majority of participants had a mild to moderate degree of social phobia as measured on the LSAS, consistent with previous reports.

In the present study, almost all participants with social phobia were very significantly disabled in areas like work, social life and family life, which was directly proportional to the severity of social phobia. In previous studies too, statistically significant reduction in academic and work productivity was demonstrated by individuals with social phobia. Social phobia has been associated with impairment in most areas of functioning including education, employment, family relationships, marriage/romantic relationships, friendships/social network, and other interests.

Quality of life in all areas was very significantly affected and inversely related to the severity of social phobia. Previous studies report that patients with social phobia have reduced quality of life as compared with community norms. They were impaired on a broad spectrum of measures, ranging from dropping out of school to experiencing disability in one’s main activity. They were also significantly more likely than people without social phobia to rate themselves as “low functioning” on the Quality of Well-Being Scale and to report dissatisfaction with many aspects of life. Previous studies on quality of life impairment have demonstrated an increased risk of leaving school early, disability in major social roles, and marked dissatisfaction with friends, leisure activities and income. Lifetime depression, psychological distress and perceived poor overall health remained strongly and independently associated with social phobia. Also, studies report that people with social phobia have lower self-esteem and more distorted body image than do those without social phobia.

In this study, participants narrated their experiences revealing the symptom structure of social phobia. It was evident that social phobia was interfering with the task of acquiring and expressing knowledge, resulting in poor performance in their studies. Also, they were socially disabled in their day to day life and were highly distressed by their incapacity as well as having high level of distress in their relationships which affected their attitude and behavior in interpersonal settings.

Social phobia has been found to be associated with the use of dysfunctional avoidance strategies in educational...
social phobia and its impact in Indian university students

situations and in anticipation of public speaking. Retrospective epidemiological studies and prospective clinical studies confirm that social phobia can profoundly disrupt an individual’s life over many years. This can include disruption of school or academic achievement, interference with job performance and impedance of social development. Also, the early age of onset of social phobia leading to subsequently another psychiatric disorder raises the possibility that early treatment of social phobia could prevent the onset of other psychiatric disorders.

Study limitations included that this sample was only from university students and did not represent the general population. From an epidemiological perspective, it is necessary to study a community representative sample that better represents the entire population.

In conclusion, social phobia has a high prevalence and marked impact on life. These findings demonstrate the need for more vigorous efforts to recognize and treat social phobia in educational settings. Early identification and adequate treatment by university counseling centers will successfully help in reducing the burden of this common condition.

ACKNOWLEDGEMENTS

The authors thank the following for their assistance with the research project.

- Dr. G. K. Vankar (Dept. of Psychiatry, B J Medical College, Ahmedabad, India)
- Dr. Ritambhara Mehta (Dept. of Psychiatry, Govt. Medical College, Surat, India)
- Dr. Kunal Bharadwaj, Dr. Zindadil Gandhi, Dr. Ashish, Dr. Mihir, Dr. Jaydeep, Dr. Shraddha, Dr. Chintan, Dr. Himanshu, Dr. Esha, Ashish Dodiya, Ashish Dhrangadhria and Mukesh

This study was presented as a paper at the Annual Conference of the Indian Psychiatric Society – Gujarat State Branch, 2006, and at the 59th Annual Conference of the Indian Psychiatric Society, 2007.

Work was done at: Department of Psychiatry, Baroda Medical College & SSG Hospital, Vadodara – 390001, Gujarat, India.

There have been no sources of outside funding/support for the project.

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Author Information

Parag S. Shah, MD
Assistant Professor, Department of Psychiatry, Baroda Medical College & SSG Hospital

Lakhan Kataria, MD
Assistant Professor, Department of Psychiatry, SBKS Medical Institute and Research Centre