Original Research Article

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Social anxiety disorder in medical students: socio-demographic correlates

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ABSTRACT

Background: The aims and objectives were to find types of social anxiety disorders among MBBS students; to study association of socio demographic factors and social anxiety disorder among MBBS students.

Methods: This cross sectional study was conducted on 150 medical students of 2nd and 3rd year who were willing to participate. Students were asked to fill pretested structured pro-forma, maintaining all the privacy. The social phobia inventory (SPIN) questionnaire was used to diagnose SAD. Mild social anxiety is considered as normal. Analysis was done using the SPSS Version 20.

Results: Out of 150 medical students, mostly (54%) were not having SAD and 46% of students who were having SAD. 27% of students were having mild SAD and 19% of students were having significant SAD. Mild social anxiety is considered as normal. Factors as gender, score in 10th standard, score in 12th standard, mother's education, student's residence after age of 18 years, student's either of parents are dead or alive, were found to be significantly associated with SAD. After applying multiple logistic regression it was found that Gender (female), <75% in 10thStd, <75% in 12thStd and Mothers education <12th standard were found to be significantly associated with SAD in students.

Conclusions: Out of 150 medical students, 19% of students were having significant SAD. Gender (female), <75% in 10thStd, <75% in 12thStd and Mothers education <12th standard were found to be significantly associated with SAD in students.

Keywords: Social anxiety disorder, Social phobia inventory, Prevalence, Urban and rural area

INTRODUCTION

Social anxiety disorder is the third most common psychiatric disorder with a lifetime prevalence of 13±3%. It is associated with significant impairment in social, educational and vocational functioning.² Social anxiety disorder (also known as social phobia (SP) is characterized by the fear of being observed or evaluated by others.³ In social situations, persons with social anxiety disorder fear that they will do or say something to draw negative attention to themselves. There has been a recent increase in interest regarding Social anxiety disorder (SAD) because of higher-than-expected incidences; and SAD leads to disrupted relationship, severe anxiety and depression.⁴ Considerable degree of psychological morbidity has been reported among medical students ranging from stress, interpersonal problems and suicidal ideation to psychiatric disorders (2-7) and they tend to have greater psychological distress than the general population.⁵ As Medical education can impose significant psychological stress on medical students, this study was conducted to assess the socio demographic factors associated with SAD in medical students.

Aim and objectives

- To find types of social anxiety disorders among MBBS students.
- 2. To study association of socio demographic factors and social anxiety disorder among MBBS students.

METHODS

This cross sectional study was done on medical students of government medical college, Chhattisgarh state. Study period was from January to March 2016.

Inclusion criteria

Inclusion criteria were all MBBS students of 1st, 2nd and 3rd year who were willing to participate; both male and female students were included.

Exclusion criteria

An exclusion criterion was students who were not willing to participate.

All students were willing to participate in the study amounting to 150 undergraduate MBBS students. On fixed day, after explaining about the purpose of the study and obtaining informed consent, students were asked to fill pretested structured pro-forma in a lecture hall maintaining all the privacy. The social phobia inventory (SPIN) questionnaire was used to diagnose SAD among students. It is easily administered self-rating scale that captures the spectrum of fear, avoidance and physiological symptoms. It has a sensitivity of 73-85% and a specificity of 69-84% in regard to diagnosis of SAD. Mild social anxiety is considered as normal.⁶

Statistical analysis

Analysis was done using the SPSS Version 20. Descriptive statistics, percentages, Chi Square test and multiple logistic regression was applied to assess statistical significance. Moderate, severe and very severe social anxiety disorder was clubbed together as significant social anxiety disorder.

RESULTS

In the present study, out of 150 medical students, most of the students (54%) were not having any type of social anxiety disorder. Among 46% of students who were having SAD, 27% of students were having mild SAD and 19% of students were having significant SAD. Mild social anxiety is considered as normal (Figure 1).

Among students who were having significant SAD, most common was moderate SAD, seen in 12.67% of students followed by severe SAD seen in 5.33% of students and the least common was very Severe SAD seen only in 0.67% of the students (Figure 1).

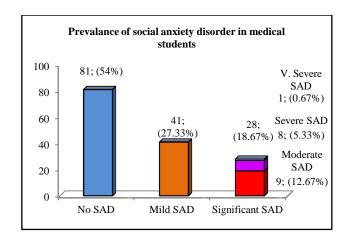


Figure 1: Prevalence of social anxiety disorder in medical students.

Out of 64 males students, only 7 (10.94%) were having SAD and out of 86 females students, 14 (16.28%) were having SAD and this difference was found to be statistically significant (Table 1).

Out of 86 students belonging to age group < 21 years, 14 (16.28%) were having SAD and out of 64 students belonging to age group >21 years, 14 (21.87%) were having SAD and this difference was not statistically significant (Table 1).

Out of 41 students residing in rural area, 8 (19.51%) were having SAD and out of 109 students residing in urban area, 20 (18.35%) were having SAD and this difference was not statistically significant (Table 1).

Out of 16 students who scored <75% in 10^{th} standard, 7 (43.75%) were having SAD but out of 134 students who scored >75% in 10^{th} standard, only 21 (15.67%) were having SAD and this difference was found to be statistically significant (Table 1).

Out of 35 students who scored <75% in 12th standard, 14 (40%) were having SAD but out of 115 students who scored >75% in 12th standard, only 14 (12.17%) were having SAD and this difference was found to be statistically significant (Table 1).

Out of 51 students whose father's education was 12thStd or less, 12 (23.53%) were having SAD but out of 99 students whose father's education was 12thstd or more, only 16 (16.16%) were having SAD and this difference was not statistically significant (Table 1).

Out of 93 students whose mother's education was 12thStd or less, 24 (25.81%) were having SAD but out of 57 students whose mother's education was 12thstd or more, only 4 (7.02%) were having SAD and this difference was found to be statistically significant (Table 1).

Out of 127 students who, after age of 18 years, lived at hostel or lived alone, 28 (22.05%) were having SAD but

out of 23 students who, after age of 18 years also lived with their parents, none were having SAD and this

difference was found to be statistically significant (Table 1).

Table: 1. Association of epidemiological factors and social anxiety disorder

Socio-demographic variable		Social anxiety disorder		Total (0/)	Chi square	Davalara
		Present (%)	Absent (%)	Total (%)	value	P value
Gender	Male	7 (10.94)	57 (89.06)	64 (100)	4.392	0.036
	Female	21 (24.42)	65 (75.58)	86 (100)		
Age	< 21 years	14 (16.28)	72 (83.72)	86 (100)	0.757	0.384
	>21 years	14 (21.87)	50 (78.13)	64 (100)		
Residence	Rural	8 (19.51)	33 (80.49)	41 (100)	0.027	0.871
	Urban	20 (18.35)	89 (81.65)	109 (100)		
10 th Std.	< 75%	7 (43.75)	9 (56.25)	16 (100)	7.422	0.006
Percentage	>75%	21 (15.67)	113 (84.33)	134 (100)		
12 th Std.	< 75%	14 (40.00)	21 (60.00)	35 (100)	13.685	0.000
Percentage	>75%	14 (12.17)	101 (87.83)	115 (100)		
Fathers Education	12 th std or Less	12 (23.53)	39 (76.47)	51 (100)	1.204	0.273
	More than 12 th std	16 (16.16)	83 (83.84)	99 (100)		
Mothers	12 th std or Less	24 (25.81)	69 (74.19)	93 (100)	8.217	0.004
education	More than 12 th std	4 (7.02)	53 (92.98)	57 (100)		
After 18 yrs	At hostel/alone	28 (22.05)	99 (77.95)	127 (100)	6.235	0.013
staying	With parents	0 (0.00)	23 (100.00)	23 (100)		
Parents status	Either one Dead	3 (50.00)	3 (50.00)	6 (100)	2.175	0.140
	Both alive	25 (17.36)	119 (82.64)	144 (100)		

Table 2: Multiple logistic regression analysis of epidemiological factors for social anxiety disorder-final model.

Risk factor	Adjusted Odds ratio	(95% CI)	P value
Gender (female)	5.32	1.605 - 117.609	0.006
<75% in 10 th Std	4.62	1.040 - 20.565	0.044
<75% in 12 th Std	7.94	2.597 - 24.292	0.000
Mothers education less than 12 th standard	3.96	1.136 - 13.820	0.031

Out of 6 students whose either of parents are dead, 3 (50%) were having SAD but out of 144 students whose both parents are alive, only 25 (17.36%) were having SAD and this difference was found to be statistically significant (Table 1).

For the factors which were found to be significantly associated with SAD (as with Chi square test), multiple logistic regression was applied to calculate adjusted Odds' ratio to assess effects of factors individually. It was found that gender (female), <75% in 10th Std, <75% in 12th Std and Mothers education less than 12th standard were found to be significantly associated with SAD in students (Table 2).

DISCUSSION

Only 19% of students were having significant SAD (Figure 1). Among students who were having significant SAD, most common was moderate SAD, seen in 12.67% of students followed by severe SAD seen in 5.33% of students and the least common was very Severe SAD seen only in 0.67% of the students (Figure 1). These

findings are consistent with the study conducted by Iqbal S⁵ on medical students about stress, anxiety & depression showing that 10.5% students were having mild anxiety, 22.9% students were having moderate anxiety, 19.8% students were having severe anxiety and 13.6% students were having extremely severe anxiety.

Above findings are in contrast to a study conducted by Chhabra et al on social phobia in school-going adolescents shows that total 89.7% students were below the cutoff/normal, and moderate, marked, severe and very severe social anxiety was seen in 5.0%, 4.3%, 0.7 % and 0.3% of students respectively.

In the present study, SAD was found statistically more in female students (16.28%). In a study conducted by Bener et al to see prevalence of common phobias in children and adolescents, it was found that phobias were more prevalent in female students (21.9%) than in males (16.8%), with a female to male sex ratio of 1.3:1.⁴

SAD was found more in students belonging to age group >21 years (21.87%) but it was not statistically significant.

These results are similar to study conducted by Upadhyay, we found that there was no statistically significant difference in social anxiety levels with respect to age and residential status.⁸

Prevalence of SAD was almost same in students residing in rural and urban area. These findings are similar to study conducted by Prabu on Arts and Science College students about social Phobia, in which rural and urban area students do not differ significantly in their social phobia scores.⁹

SAD was found statistically more in students who scored <75% in $10^{\rm th}$ standard, (43.75%) and SAD was found statistically more in students who scored <75% in $12^{\rm th}$ standard (40%). This finding was contrast to a study done by Reghuram and Mathias on nursing students stated that there no significant association between social anxiety and educational qualification. 10

SAD was found more in students whose father's education was 12thStd or less (23.53%). SAD was found statistically more in students whose mother's education was 12thStd or less (25.81%). In a study about phobias, conducted by Bener et al shows that phobias are less common among children and adolescents if education of their mother or father is higher but no significant association was found.⁴

SAD was found statistically more in students, after age of 18 years, lived at hostel or lived alone (22.05%). This finding is sane as found in a study conducted by Shah et al about social phobia among Indian university students, shown that higher SPIN scores found in students residing in hostel.⁶

SAD was found statistically more in students who's either of parents are dead (50%).

For the factors which were found to be significantly associated with SAD (as with Chi square test), multiple logistic regression was applied to calculate adjusted Odds' ratio to assess effects of factors individually. It was found that gender (female), <75% in 10th Std, <75% in 12th Std and Mothers education less than 12th standard were found to be significantly associated with SAD in students.

CONCLUSION

In the present study, out of 150 medical students, most of the students (54%) were not having any type of social anxiety disorder, 27% of students were having mild SAD and 19% of students were having significant SAD. Moderate SAD was most common type of significant SAD seen in 12.67% of students. Gender (female), <75% in 10thStd, <75% in 12thStd and Mothers education less

than 12th standard were found to be significantly associated with SAD in students.

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Institutional Ethics Committee

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