

Original Research Article

# A cross-sectional study of symptom profile and socio-demographic risk factors of Social Anxiety Disorder

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## Abstract

**Background:** Social anxiety disorder, an unreasonable excess fear of social situations is many times thought to be normal shyness and ignored due to lack of awareness, leading to great suffering for lifetime. Therefore, we wanted to know the frequency of occurrence of social phobia among medical students and the socio demographic risk factors for the development of this disorder.

**Aim:** To assess the symptom frequency and socio demographic risk factors for Social Anxiety Disorder (SAD).

**Materials and methods:** Online questionnaires were sent to the Medical students of Osmania Medical College. Informed consent was taken. The students were asked to fill the questionnaires which included the socio demographic profile, Liebowitz social anxiety scale and Modified Kuppuswamy scale. Statistical analysis of the data obtained was done using SPSS software v.22.0

**Results:** In our study, a total of 55.9% of students reported social anxiety symptoms. It was found that gender and family history of mental illness were significantly associated with frequency of SAD.

**Conclusion:** Our study showed significantly high frequency of SAD among medical students that need to be evaluated in detail for further planning.

## Key words

Medical students, Social Anxiety Disorder, Socio-demographic factors.

## **Introduction**

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Social Anxiety Disorder is a fear of one or more social situations wherein the patient is concerned about being scrutinized and evaluated for their performance and interpersonal interactions. There is an out-of-proportion fear that they will be shamed by the experience. The symptoms last longer than 6 months and specific social situation(s) are avoided altogether or tolerated only with significant anxiety. Many people describe increased anxiety in social situations, but a key to the Social Anxiety diagnosis as per DSM-5, is a “significant impairment” in an important facet of life functioning [1].

The person may experience symptoms of social anxiety in public gatherings like family functions, office meetings and academic conferences wherein he feels that he will be observed and scrutinized. He may experience anxiety symptoms and autonomic system arousal with sweating, tremors and palpitations. Individual becomes more uncomfortable and shameful once he feels that other people are noticing these symptoms. Social Anxiety Disorders has a cross-sectional prevalence rate of 2-3 percent. They are more common in women than in men, has peak onset in the early teenage years and is associated with an increased risk of depressive episodes [1].

A study on general population prevalence rates varied between 1.9 and 20.4%. Speaking in public was the most common social fear reported. Female gender, past psychiatric history, low educational attainment and lack of social support were identified as the risk factors [2]. A recent (2020) online seven countries study on young population found prevalence rate ranging from 23% to 58% with lowest in Indonesia and highest in United States with equal distribution between male and females. Thus world-wide prevalence of social anxiety was found to be significantly higher than previously reported, with more than 36% meeting the threshold criteria for having SAD [3]. Students with SAD reported their health as moderate to

bad on General Health Questionnaire 12, and they are more likely to use alcohol and suffer from depression [4]. In an institution based study conducted on medical sciences students showed that the prevalence was 31.2%. Female sex, poor social support, students studying in the 1st year, and rural residence were significantly associated with social phobia [5]. In a prospective cross-sectional study done in King Khalid university, Saudi Arabia, showed a prevalence of severe to very severe SAD in 13.5% and was more common in males. Students with high social phobia had decreased academic performance, avoided oral presentation, and showed weak performance in clinical [6].

In a study done on Indian under graduate medical students, frequency of SAD is 11.37%, and depression is 8.96%. Participants with SAD are more likely to experience depression and have poor quality of life [7]. In a hospital based study on South Indian medical students, SAD was present among 30.5% with prevalence more in females, especially in Muslim girls [8]. In another study conducted on Indian medical and paramedical students, the frequency of SAD was found to be 25%. Non-generalized type & mild degree of Social Phobia were more common. Gender, socio-economic status, location of residence & type of family correlated with higher frequency of SAD [9].

Medical profession is an important field that requires updated knowledge with frequent interaction with professional colleagues in academic meetings and conferences. Moreover it requires daily interaction with people. Social anxiety disorder may hinder such interaction and poses threat to excel or even survive in the profession. So we want to know the magnitude of the problem to make appropriate plans.

## **Aims and objectives**

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- To assess the frequency of Social anxiety disorder among medical students.

- To determine the socio-demographic risk factors for the development of Social anxiety disorder. scale [11]. Statistical analysis of the data obtained was done using SPSS software v.22.0.  $p$  value  $\leq 0.05$  was considered significant.

## Materials and methods

A convenient sample of MBBS students between 18-25 years of age attending Osmania Medical College was selected. Those with acute or chronic medical or surgical illnesses were excluded from the study. Ethical clearance was obtained from the Institutional Ethical Committee. Online questionnaires were sent to these students which included the intake proforma with sociodemographic profile, Liebowitz social anxiety scale [10], and Modified Kuppaswamy

## Results

Study conducted in Osmania Medical College and 279 students gave responses. A total of 60.9% female students and 38.7% male students participated in the study with more of girl students. One student reported as others. Majority were Hindus (84.2%) belonging to Nuclear family (83.5%) with Urban (78.1%) background. A total of 156(55.9%) students reported social anxiety with various degree of severity shown in **Table - 1**.

**Table – 1:** Severity.

SEVERITY	FREQUENCY(n)	PERCENTAGE (%)
Moderate social phobia	56	20.1
Marked social phobia	52	18.6
Severe social phobia	23	8.2
Very severe social phobia	25	9.0
<b>Total</b>	156	55.9

**Table – 2:** Socio-demographic variable.

Socio-demographic variable	With Social anxiety	Without Social anxiety	Total
<b>Gender</b>			
Male	55(50.9%)	53(49.1%)	108
Female	100(58.8%)	70(41.2%)	170
Others	1(100%)	0	1
<b>Marital Status</b>			
Unmarried	155(55.7%)	123(44.3%)	278
Married	1(100%)	0	1
<b>Family Type</b>			
Nuclear family	128(54.9%)	105(45.1%)	233
Joint and extended family	28(60.8%)	18(39.2%)	46
<b>Religion</b>			
Hindu	133(56.5%)	102(43.5%)	235
Muslim	14(50.0%)	14(50.0%)	28
Christian	9(56.2%)	7(43.8%)	16
<b>Year of study in MBBS</b>			
Pre-clinical (1st & 2nd year)	115(57.2%)	86(42.8%)	201
Clinical (3rd & 4th year)	41(52.5%)	37(47.5%)	78

<b>Education of the head of the family</b>			
Illiterate	8(53.3%)	7(46.7%)	15
Till 10th standard	24(68.5%)	9(31.5%)	35
Intermediate & Graduation	72(52.5%)	65(47.5%)	137
Professional/Honours	52(56.6%)	40(43.4%)	92
<b>Family income (in rupees)</b>			
<50,000	50(56.1%)	39(43.9%)	89
50,000-1,00,000	51(55.4%)	41(44.6%)	92
>1,00,000	55(56.1%)	43(43.9%)	98
<b>Domicile</b>			
Rural	36(59.01%)	25(40.99%)	61
Urban	120(55.04%)	98(44.96%)	218
<b>Family history of psychiatric illness</b>			
Absent	134(53.8%)	115(46.2%)	249
Present	22(73.3%)	8(26.7%)	30
<b>Substance use</b>			
No	143(56.07%)	112(43.99%)	255
Yes	13(54.1%)	11(45.9%)	24

**Table – 3:** T test.

	<b>T</b>	<b>Sig.</b>
<b>(Constant)</b>	-0.657	0.512
<b>Age</b>	1.140	0.255
<b>Gender</b>	2.573	<b>0.011</b>
<b>Marital status</b>	0.496	0.621
<b>Type of family</b>	1.040	0.299
<b>Religion</b>	-0.283	0.777
<b>Year of study</b>	-1.032	0.303
<b>Education of the head of the family</b>	-1.007	0.315
<b>Total monthly income of the family (in rupees)</b>	1.280	0.202
<b>Domicile/residence</b>	-0.177	0.860
<b>Family history of psychiatric illness</b>	2.482	<b>0.014</b>
<b>Substance use</b>	1.014	0.312
<b>Social anxiety</b>	3.038	0.003

The socio demographic profile of sample and of those students with social anxiety were depicted in **Table – 2**.

In our study, among all the socio-demographic factors, we found gender ( 58.8% of females vs 50.9 % male with *p* value 0.011) and family history of mental illness (73.3% VS 53.8% with *p* value 0.014) as significant risk factors after regression analysis presented in **Table - 3**.

## **Discussion**

In our study sample female students participated more in numbers and 55.9% of students reported social anxiety. This is in accordance with Iranian study on medical students that reported frequency of 58.5% [12]. Few more studies also reported similarly (Saudi Arabia - 60%, Malaysia - 58%). But many international studies reported lower prevalence rates. We conducted study on online basis so students might be free in reporting their

symptoms. Due to ongoing pandemic there may be increased stress which may be a precipitating factor. Another reason may be people are asked to avoid gatherings and follow social distancing in view of Covid pandemic may be confused with social anxiety. So interview based study may clarify those facts.

Nigerian study reported 19.8% prevalence with slightly female preponderance (10.1% vs 9.1%) with higher scores among Muslim students and low social classes [4]. Our study also showed higher frequency among girls (58.8% vs 50.9%) in accordance with literature. An Indian study on medical students reported frequency of 11.37% and more frequent among females [5]. One South Indian study on medical students also reported prevalence of 30.5% and higher among females (31% vs 29.9%) and Muslim students [8]. Our sample did not find any religious predominance. Probably due to predominant urban population brought up in similar socio cultural background. Other international studies reported prevalence rate of 32.8% and significant association with family history of mental illness i.e., 4.72 times more common with positive family history. Frequency of SAD increased as year of study advanced [13]. Similarly we found positive association with family history of mental illness (73.3% vs 53.8). But our study did not find much variation with respect to year of study as all the students are staying at home and exposed to similar type of study pattern with online classes and suspension of clinical postings in view of pandemic. Same finding was showed in the above South Indian study. There was a study that reported students from 1<sup>st</sup> year had SAD 5.5 times more compared to 5<sup>th</sup> year students reasons being sudden exposure to university setting and to live away from home in 1<sup>st</sup> year students [5] where as another study noticed that 5<sup>th</sup> year students were more likely to report SAD as they are more stressed with community postings and research work [13].

### **Limitations**

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It is a cross sectional study and we cannot assess the level of impairment on their academics. Study was done in online mode, their doubts regarding the questions could not be clarified, which may have led to normal shyness being reported as significant.

### **Conclusion and future direction**

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The prevalence of social anxiety disorder is significant in our study sample. We need to explore further through direct interview methods to know the exact numbers. Further we need to plan counseling sessions to students at the entry so that they can improve their social interaction skills to excel in their academics and profession.

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