

Prevalence of Social Phobia and its Determinants among Undergraduate Medical Students of Tamil Nadu, India: A Cross-sectional Study

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ABSTRACT

Introduction: Social Phobia (SP) is described as a persistent fear of one or more social performances. The sustained SP among medical students without prior identification raises susceptibility to substance abuse and poor quality of future life.

Aim: To estimate the prevalence of SP and determine the risk factors contributing to the development of SP among medical students in a tertiary teaching institute in Perambalur, Tamil Nadu, India.

Materials and Methods: A cross-sectional study was conducted among 538 undergraduate medical students, in a tertiary teaching institute in Perambalur, Tamil Nadu, India, from September 2021 to November 2021. Medical students, who were willing to participate, were included in the study. A semi-structured questionnaire was used to collect socio-demographic and personal characteristics and family variables. SP was measured by using Social Phobia Inventory (SPIN) scale. Binary logistic regression was used to expose the definitive predictor factors.

The statistical analysis was done using Statistical Package for Social Sciences (SPSS) version 26.0 software.

Results: A total of 538 students were included. The majority of students 339 (63%) were female and 199 (37%) were male. The mean (\pm SD) age of the participants was 21.27 (\pm 1.73) years. The prevalence of SP among medical students was 41.1%. The predictor for SP was found to be rural residence Adjusted Odds Ratio (AOR): 1.748 (95% CI: 1.184-2.582), female sex AOR: 2.002 (95% CI: 1.358-2.952), mothers' illiteracy AOR: 3.640 (95% CI: 1.430-9.266), students experiencing humiliation (OR 2.3; 95% CI: 1.5-3.6), students with family conflicts (OR 2.4; 95% CI: 1.3-4.4), lack of relationship with parents (OR 2.3; 95% CI: 1.2-4.2). The mean score of the SPIN questionnaire was 19.05 \pm 13.05.

Conclusion: The prevalence of SP was high among medical students in Tamil Nadu. So, early detection and appropriate intervention need to be done by their institution among the students to enhance social interaction and improve academic performance.

Keywords: Humiliation, Quality of life, Risk factors, Social fear

INTRODUCTION

The SP is described as a persistent fear of one or more social performances. SP is the second most common type of anxiety disorder and the third most common mental disorder following depression and alcohol use disorder [1,2]. There are two types of SP (i.e., generalised phobia and non generalised phobia) generalised phobia, where individuals fear most social situations but in non generalised phobia, individuals fear a limited range of situations [2].

An epidemiological study done by Kaye AD et al., reported that the lifetime prevalence of psychiatric and anxiety disorders among students ranges from 3-13% [3]. One of the prerequisites for anxiety disorder is SP and its prevalence among medical students (7-13%) was low in western countries compared to middle and low-income countries (30-90%) [4]. Similarly in India, several cross-sectional studies conducted even before the introduction of Competency Based Medical Education (CBME) revealed the higher prevalence of SP among medical students ranging from 12.6-60.9% [1,2,5-8].

Current introduction of CBME and its demand for newer reforms in the medical curriculum to achieve the competencies by frequent formative assessment, and skills demonstrations were made mandatory for medical students which created havoc and made them prone for SP. So, the medical students with SP will further have difficulty in surviving the changes which are made by the National Medical Commission (NMC) which in turn will reflect on their low performance. In CBME curriculum, most of the teaching

learning methods like seminars, small group discussion, problem-based learning, Objective Structured Clinical Examination (OSCE) and Objective Structured Practical Examination (OSPE) has direct observations or interactions with the teachers and peers which act as the precipitating circumstances for SP among the medical students [9].

Medical Student with SP are characterised by persistent excessive fear of scrutiny, embarrassment and humiliation in social performance, pervasive social timidity, social distress, avoidance of some individuals, and difficulty in basic social discourses [6]. SP's most common somatic symptoms include excessive sweating, slurred speeches, palpitation, blushing, tremor and nausea [6,9]. The sustained SP without prior identification raises susceptibility to substance abuse and poor quality in future lives. Medical students are confronted with various stressors and the need to become accustomed suitably to achieve academic and professional success elucidates the importance of having good mental health [10,11].

The SP is one of the most prevalent anxiety disorders among adolescents and young, and that may hinder the individual's performance if left untreated. Though different factors may increase the probability of having a social anxiety disorder among medical students, poor social support, a field of study and academic stress were the other contributing factors to social anxiety disorder [4].

Therefore, understanding the level of SP among medical students is crucial to revealing factors that can significantly influence a student's mental health and prevent other related problems. Though,

there are many studies on SP all over the world [9-18] but studies including medical students in Tamil Nadu, India are scarce, after the introduction of CBME. So, the current study was carried out after the introduction of CBME in medical curricula which has many precipitating factors for SP among medical students. So, the present study was conducted to find out the prevalence of SP and its determinants among medical undergraduate students of Tamil Nadu.

MATERIALS AND METHODS

This cross-sectional study was conducted in a tertiary medical institute in Perambalur, Tamil Nadu, India, from September to November 2021. Institution Human Ethics Committee approval ((IECHS/IRCHS no: 139 October 26, 2021-Dhanalakshmi Srinivasan Medical College Hospital) was obtained before the start of the study.

Inclusion criteria: Undergraduate Medical students of all the years, aged between 19-25 years and irrespective of gender, who were willing to participate were included in the study.

Exclusion criteria: Students already diagnosed to have any medical or psychiatry disorder were excluded from the study.

Sample size calculation: The sample size was calculated, considering prevalence of 60.9% as per the study done by Elavarasan K et al., [1]. The sample size was estimated with a 95% confidence interval and 5% allowable error by using the formula $n = Z_{\alpha}^2 PQ/d^2$ ($Z_{\alpha}=1.96$, $P=60.9$, $Q=39.1(100-60.9)$, $d=5$). The calculated sample size was 366, with 40% non response rate it was 512 and the total sample collected for this study was 538.

Study Procedure

Participants were recruited by a simple random sampling method. The objective was assessed using a questionnaire made up via the Google forms and disseminated to the selected study participants via social media platforms (WhatsApp and Mail). A pretested semi-structured proforma was used to collect the participant's socio-demographic and personal characteristics such as age (years), sex, year of study, height (cm), weight (kg), Body Mass Index (BMI) classified as per Asian BMI Classification [14] and medium of higher secondary education. Family characteristics such as family structure (occupation, education), lack of close relationship with a parent, order of birth, relationship conflicts, and parental history of mental disorder were elicited among medical students [11,15].

The SP was measured by using 17 items Social Phobia Inventory (SPIN) scale with cut-off points ≥ 21 [12]. A 5-point Likert scale was used for scoring.

- Not at all=0
- A little bit=1
- Somewhat=2
- Very much=3
- Extremely=4

The SPIN score was used to categorise the SP as:

- none (0-20)
- mild (21-30)
- moderate (31-40)
- severe (41-50)
- very severe (51-68)

The minimum and maximum score were 0 and 68, respectively.

STATISTICAL ANALYSIS

The data collected was entered in Microsoft excel and analysed using SPSS version 26.0 software. The descriptive data were analysed using frequencies, mean, Standard Deviation (SD) and proportions. Binary logistic regression was used to expose the definitive predictor factors and odds ratios with a 95% confidence interval were used to assess the strength of associations between variables. The p-value <0.05 was considered statistically significant.

RESULTS

A total of 538 students were included in this study. The majority of students 339 (63%) were female and 199 (37%) were male. The mean age of the participants was 21.27 ± 1.73 years. Around 362 (67.3%) of students belonged to an urban area. In present study, 527 (98%) studied in English medium in their higher secondary education [Table/Fig-1]. Out of 538 participants, 282 (52.4%) of the participants were first born and 19 (3.5%) reported a history of mental illnesses in the family. Around 54 (10%) reported the family conflict and 50 (9.3%) reported lack of relationship with their parents [Table/Fig-2].

Demographic characteristics of participants		Frequency, n	Percent, %
Place of residence	Urban	362	67.3
	Rural	176	32.7
Age (in years)	≤ 20	195	36.2
	> 20	343	63.8
Sex	Male	199	37.0
	Female	339	63.0
Year of the present study	First-year	102	19.0
	Second-year	115	21.4
	Final year (Part-I)	118	21.9
	Final year (Part-II)	99	18.4
	Internship	104	19.3
Medium of higher secondary education	English medium	527	98.0
	Tamil medium	11	2.0
Percentage of marks scored in 12 th standard	< 75	39	7.2
	75-84	101	18.8
	85-94	294	54.6
	≥ 95	104	19.3
Body Mass Index (BMI)	Underweight	29	5.4
	Normal	340	63.2
	Preobesity	145	27.0
	Obese-class 1	22	4.1
	Obese-class 2	02	0.4

[Table/Fig-1]: Socio-demographic and personal characteristics of study participants (n=538).

Family characteristics		Frequency, n	Percent, %
Firstborn in family	Yes	282	52.4
	No	256	47.6
Family H/O mental illness	Yes	19	03.5
	No	519	96.5
Family conflict	Yes	54	10.0
	No	484	90.0
Lack of relationship with parents	Yes	50	09.3
	No	488	90.7
Parent's status	Living together	508	94.4
	Separated	07	01.3
	Divorced	03	0.6
	One deceased	19	03.5
	Both are deceased	01	0.2
Father's education (n=527)	Illiterate	16	03.0
	Primary education	15	02.8
	Middle school	38	07.2
	Secondary education	73	13.9
	Graduate	228	43.3
	Postgraduate	157	29.8

Father's occupation (n=527)	Government	191	36.2
	Private	92	17.5
	Retired	03	0.6
	Business	195	37
	Agriculture	40	07.6
	Unemployed	6	01.1
Mother's education (n=528)	Illiterate	24	04.5
	Primary education	22	04.2
	Middle school	41	07.8
	Secondary education	98	18.6
	Graduate	213	40.3
Mother's occupation (n=528)	Government	139	26.3
	Private	48	09.1
	Retired	02	0.4
	Business	25	04.7
	Agriculture	08	01.5
	Homemaker	306	58

[Table/Fig-2]: Family characteristics of study participants, (n=538).

In present study, the mean score of the SPIN questionnaire was 19.05±13.05. The overall prevalence of SP among medical students was 41.1%, in which medical students were classified as mild 115 (21.4%), moderate 73 (13.6%), severe 25 (4.6%) and very severe 08 (1.5%) [Table/Fig-3].

Variables	SPIN score mean±SD	Frequency, n	Percent, %
None	10.24±6.89	317	58.9
Mild	25.24±2.90	115	21.4
Moderate	34.48±2.57	73	13.6
Severe	45.24±3.16	25	4.6
Very severe	56.37±3.20	08	1.5

[Table/Fig-3]: Classification of Social Phobia (SP) among study participants assessed by Social Phobia Inventory (SPIN) questionnaire, (n=538).

Nearly 114 (21.2%) participants reported experiencing teasing and 112 (20.8%) reported experiencing rejection and humiliation in last one year [Table/Fig-4].

Characteristics of participants	Frequency, n	Percent, %
Have you frequently experienced any teasing	Yes	114 21.2
	No	424 78.8
Have you frequently experienced any rejection	Yes	112 20.8
	No	426 79.2
Have you frequently experienced any humiliation	Yes	112 20.8
	No	426 79.2

[Table/Fig-4]: Experience of symptoms related to the Social Phobia (SP) in the past year among the study participants (n=538).

Characteristics of participants	Social Phobia (SP)		OR (95% CI)	p-value	
	Present	Absent			
Place of residence	Rural	89 (50.6%)	87 (49.4%)	1.782 (1.238-2.564)	0.002*
	Urban	132 (36.5)	230 (63.5%)		
Age	≤20	83 (42.6%)	112 (57.4%)	1.101 (0.771-1.573)	0.597
	>20	138 (40.2%)	205 (59.8%)		
Sex	Female	159 (46.9%)	180 (53.1%)	1.952 (1.351-2.820)	<0.001*
	Male	62 (31.2%)	137 (68.8%)		
Year of the present study	First-year	39 (38.2%)	63 (61.8%)	0.864 (0.555-1.345)	0.517
	Other than the first year	182 (41.7%)	254 (50.3%)		
Medium of higher secondary education	Tamil medium	5 (45.5%)	6 (54.5%)	1.200 (0.362-3.981)	0.766
	English medium	216 (41%)	311 (59%)		

Medical students from rural area were 1.7 (95% CI: 1.2-2.5) times more likely to exhibit SP than students from urban area with significant p-value (0.002). Similarly, Females (OR 1.9; 95% CI: 1.3-2.8), students experiencing teasing (OR 1.9; 95% CI: 1.3-3.0), rejection (OR 1.8; 95% CI: 1.1-2.7), humiliation (OR 2.3; 95% CI: 1.5-3.6) were significantly more like exhibit SP [Table/Fig-5].

Students with family conflicts (OR 2.4; 95% CI 1.3-4.4), lack of relationship with parents (OR 2.3; 95% CI 1.2-4.2) and students whose mother is illiterate (OR 3.7; 95% CI 1.5-9.2) were more likely to exhibit SP than other students with significant p-value (<0.05) [Table/Fig-6].

DISCUSSION

Changing societal needs and newer reforms in medical education coupled with SP were the major stressors among medical students which need to be identified early. In the present study, the prevalence of SP among medical students in Perambalur district, Tamil Nadu were 41.1% which classified as mild, moderate, severe, and very severe SPs were 21.4%, 13.6%, 4.6%, 1.5%, respectively.

Similar to the present study, conducted in Tamil Nadu, Maharashtra, Malaysia reported similar overall prevalence of SP among medical students ranges from 45% to 60% [1,13,16]. Whereas the study conducted in Karnataka (30%) East Delhi (12.3%), Mangalore (25%), Kerala (14.3%), among medical students reported lower prevalence of SP [5,7,8,17] whereas study conducted in Iran and Saudi Arabia reported higher prevalence of SP (75%-92%) [10,13] [Table/Fig-7] [1,5,7-9,13,16,17,19]. This shows the socio-cultural contrast, academic pressure in medical colleges and nature of schooling has great impact on SP which results in medical student feeling more anxious during assessments, asking doubts during lectures and reduced self-confidence during exams, which eventually leads to bad academic performance.

In the present study, female medical students have higher risk of SP compared to male which was supported by the study conducted by, Afshari N et al., Zahra A and Alkhafji M; Jogdande AJ and Gupta A; Alkhalifah AK et al., [10,11,18,19] whereas the study conducted by Dsouza MJ et al., reported no significant differences [5]. In contrast to finding of present study, Mascarenhas JJ et al., reported that male medical students have higher prevalence of SP compared to female students [8].

Mother education plays a vital role in the prevalence of SP, in the present study medical students' mother with low literacy rate have 3.7 times higher risk of developing SP, which was consistent with the study conducted by Jogdande AJ and Gupta A study conducted at Maharashtra [13]. Likewise, students from rural area have higher risk of SP compared to urban students. The present study findings were consistency with the study conducted by, Mascarenhas JJ et al., Afshari N et al., and Desalegn GT et al., [8,10,18]. This shows that the medical students from rural area have lack of exposure to manage the difficult situations.

Percentage of marks scored in 12 th standard	≥75	208 (41.7%)	291 (58.3%)	1.430 (0.718-2.848)	0.307
	<75	13 (33.3%)	26 (66.7%)		
BMI	Abnormal BMI <18.5 and >25	77 (38.9%)	121 (61.1%)	0.866 (0.606-1.239)	0.431
	Normal (BMI 18.5-25)	144 (42.4%)	196 (57.6%)		
Experienced any teasing	Yes	62 (54.5%)	52 (45.6%)	1.987 (1.309-3.018)	0.001*
	No	159 (37.5%)	265 (62.5%)		
Experienced any rejection	Yes	59 (52.7%)	53 (47.3%)	1.814 (1.193-2.759)	0.005*
	No	162 (38%)	264 (62%)		
Experienced any humiliation	Yes	65 (58%)	47 (42%)	2.394 (1.567-3.657)	<0.001*
	No	156 (36.6%)	270 (63.4%)		

[Table/Fig-5]: Binary Logistic Regression of socio-demographic and personal characteristics with Social Phobia (SP) among study participants, (n=538).

OR: Odds ratio; 95% CI: 95% Confidence interval; BMI: Body mass index

*Significant association (*p-value <0.05) by Chi-square test

Family characteristics		Social phobia (SP)		OR (95% CI)	p-value
		Present	Absent		
First born in family	Yes	112 (39.7%)	170 (60.3%)	0.889 (0.630-1.253)	0.500
	No	109 (42.6%)	147 (57.4%)		
Family H/O mental illness	Yes	11 (57.9%)	8 (42.1%)	2.023 (0.800-5.115)	0.129
	No	210 (40.5%)	309 (59.5%)		
Family conflict	Yes	33 (61.1%)	21 (38.9%)	2.474 (1.390-4.405)	0.002*
	No	188 (38.8%)	296 (61.2%)		
Lack of relationship with parents	Yes	30 (60%)	20 (40%)	2.332 (1.287-4.226)	0.004*
	No	191 (39.1%)	297 (60.9%)		
Parent's status	Separated/Divorced/Deceased	16 (53.3%)	14 (46.7%)	1.689 (0.807-3.536)	0.160
	Living together	205 (40.4%)	303 (59.6%)		
Father's education (n=527)	Illiterate	10 (62.5%)	6 (37.5%)	2.448 (0.876-6.838)	0.078
	Literate	207 (40.5%)	304 (59.5%)		
Father's occupation (n=527)	Unemployed	3 (50%)	3 (50%)	1.435 (0.287-7.175)	0.659
	Employed/Retired	214 (41.1%)	307 (58.9%)		
Mother's education (n=528)	Illiterate	17 (70.8%)	7 (29.2%)	3.785 (1.541-9.292)	0.002*
	Literate	197 (39.1%)	307 (60.9%)		
Mother's occupation (n=528)	Employed	89 (40.1%)	133 (59.9%)	0.969 (0.681-1.378)	0.861
	Homemaker	125 (40.8%)	181 (59.2%)		

[Table/Fig-6]: Binary logistic regression of family characteristics with Social Phobia (SP) among study participants, (n=538).

OR: Odds ratio; 95% CI: 95% Confidence interval

*Significant association (*p-value <0.05) by Chi-square test

Authors	Place/Year	Prevalence of Social Phobia (SP)				
		Mild	Moderate	Severe	Very severe	Total
Present study	Tamil Nadu, India	21.4%	13.6%	4.6%	1.5%	41.1%
Jogdande AJ and Gupta A [13]	Maharashtra, India/2017	27.3%	12.6%	5.3%	0.67%	45.8%
Minhat HS and Alawad TA [16]	Malaysia/2019	17.2%	13.6%	9.8%	13.2%	53.8%
Elavarasan K et al., [1]	Tamil Nadu, India/2018	29.7%	21.5%	9.6%	0.20%	60.9%
Agha Mohammad Hasani P et al., [9]	Iran/2016	20.4%	28.9%	19.4%	10.2%	78.8%
Alkhalifah AK et al., [19]	Saudi Arabia/2017	29%	24.3%	19.1%	19.8%	92%
Dsouza MJ et al., [5]	Karnataka/2019	20.6%	7.71%	1.5%	0.7%	30.5%
Mascarenhas JJ et al., [8]	Mangalore/2019	-	-	-	-	25%
Roshan S [17]	Kerala, India/2022	-	-	-	-	14.3%
Das P [7]	East Delhi/2019	-	-	-	-	12.3%

[Table/Fig-7]: Prevalence of Social Phobia (SP) among various studies [1,5,7-9,13,16,17,19].

In present study, family history of mental illnesses was found to be 19 (3.5%), which is not statistically significant with SP, whereas study done by Zahra A and Alkhafji M found that students with SPs have a high positive family history of psychiatric disorders [11]. In the current study, medical students whose parents were separated or deceased one/both parent 19 (3.5%) were not showing significant differences in SP compared to the students living with both the parents. In contrast to the present findings, a study done at King Khalid University, Saudi

among 550 medical students found an increase in the prevalence of SPs for those who lost both parents and separated parents [20].

The other risk factors influencing the development of SPs among medical students found in the current study were the experiencing of teasing, rejection and humiliation in the last year and family conflict. This shows that embarrassment in-front of other people leads to the occurrence of SP among medical students which in turn reduces their confidence.

Limitation(s)

As the study was done by subjective assessment considering few variables, in-depth understanding is needed to identify the stressors and it was done in current tertiary medical institute and the results were not generalisable to all teaching medical institute in Tamil Nadu, India.

CONCLUSION(S)

The current study reported a higher prevalence of SP (41.1%) among medical students. The major risk factors found were female gender, students from a rural areas and their mother's illiteracy, and students experiencing teasing, rejection, and humiliation in the last year. So, early identification and focusing on the mental health of the medical students is an obligatory need in the current CBME medical curriculum to achieve the competencies. The medical curriculum should be reframed to address the issues at early by creating knowledge and training all the medical students on communication skills through social interaction to alleviate SP.

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REFERENCES

- [1] Elavarasan K, Dhandapani T, Norman P, Vidya DC, Mani G. The association between internet addiction, social phobia and depression in medical college students. *Int J Community Med Public Heal.* 2018;5(10):4351-56.
- [2] Ratnani I, Vala A, Panchal B, Tiwari D, Karambelkar S, Sojitra M, et al. Association of social anxiety disorder with depression and quality of life among medical undergraduate students. *J Fam Med Prim Care.* 2017;6(2):243.
- [3] Kaye AD, Liu H, Fox C, Baluch A, Sutker PB. Psychiatric and behavioral disorders. *Anesth Uncommon Dis.* 2012;6:444-69. Available at: <https://doi.org/10.1016/B978-1-4377-2787-6.00015-2>.
- [4] Stein DJ, Lim CCW, Roest AM, de Jonge P, Aguilar-Gaxiola S, Al-Hamzawi A, et al. The cross-national epidemiology of social anxiety disorder: Data from the World Mental Health Survey Initiative. *BMC Med.* 2017;15(1):01-21.
- [5] D'souza MJ, Arun Daniel J, Muhammed Muntazeem G. Social anxiety disorder among medical students in a tertiary care hospital in Davangere, Karnataka. *Int J Community Med Public Heal.* 2019;6(4):1434-36.
- [6] Jaiswal A, Manchanda S, Gautam V, Goel AD, Aneja J, Raghav PR. Burden of internet addiction, social anxiety and social phobia among University students, India. *J Fam Med Prim Care.* 2020;9(7):3607.
- [7] Das P. Prevalence of social anxiety disorder and its determinants among undergraduate medical students of East Delhi. *Int J Community Med Public Heal.* 2019;6(3):1335.
- [8] Jovita Mascarenhas J, Krishna A, Pinto D, Professor A. Social Phobia (Social Anxiety Disorder) in Medical and Paramedical First Year Undergraduates. *Galore Int J Heal Sci Res.* 2019;4(2):120.
- [9] Agha Mohammad Hasani P, Mokhtaree M, Asadollahi Z, Fereidoni M. The prevalence of social phobia among students of Rafsanjan University of Medical Sciences, Iran, and its relation with personality traits in 2013. *J Occup Heal Epidemiol.* 2016;5(2):72-82.
- [10] Afshari N, Farokhzadian J, Abdi K, Sheikhbardsiri H. Gender matter, social phobia and high-risk behaviors in young medical students. *Ethiop J Health Sci.* 2021;31(2):359-70.
- [11] Zahra A, Alkhatji M. Social phobia among Al Qadissya medical student: Prevalence, academic performance and response to different treatments. *J Fac Med Baghdad.* 2012;54(1):33-37.
- [12] Connor KM, Kobak KA, Churchill LE, Katzelnick D, Davidson JRT. Mini-SPIN: A brief screening assessment for generalized social anxiety disorder. *Depress Anxiety.* 2001;14(2):137-40.
- [13] Jogdande AJ, Gupta A. Social anxiety disorder in medical students: Socio-demographic correlates. *Int J Community Med Public Heal.* 2017;4(9):3293-96.
- [14] Girdhar S, Sharma S, Chaudhary A, Bansal P, Satiya M. An epidemiological study of overweight and obesity among women in an Urban area of North India. *Indian J Community Med.* 2016;41(2):154-57.
- [15] Olson CM. Familial factors in the development of social anxiety disorder. *J Psychosoc Nurs Ment Health Serv.* 2021;59(7):23-34.
- [16] Minhath HS, Alawad TA. Risks of mental problems among medical students in a public university in Malaysia. *Malaysian J Med Heal Sci.* 2019;15(SP3):65-69.
- [17] Roshan S. Association of social anxiety disorder and self-esteem among young adults-a single centre study. *Int J Curr Sci Res Rev.* 2022;05(03):737-41.
- [18] Desalegn GT, Getinet W, Tadie G. The prevalence and correlates of social phobia among undergraduate health science students in Gondar, Gondar Ethiopia. *BMC Res Notes.* 2019;12(1):438.
- [19] Alkhalifah AK, Alsalmeh NS, Alhomaidhy MA, Alrwies NA. Prevalence of social phobia among medical students in Saudi Arabia. *Egypt J Hosp Med.* 2017;69(5):2412-16.
- [20] Abadi AM, Abdul M, Albaggar A, Aftab R, Mahmood SE. Prevalence of social phobia and its risk factors among students at King Khalid University, Abha city, Saudi Arabia. *Int J Pharm Res.* 2021;13(02):3471-77.

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