

Social anxiety disorder in medical students at Taibah University, Saudi Arabia

Bashaer Hassan Al-Hazmi^{1,2}, Samia Seddeq Sabur^{2,3},
Raghad Hassan Al-Hazmi⁴

¹Joint Program of Family Medicine Postgraduate Studies, Al-Madinah, ²Joint Program of Family Medicine, National Guard Health Affairs, Al-Madinah, ³Department of Family Medicine, Prince Mohammed Bin Abdulaziz Hospital, Al-Madinah,

⁴Department of Medical Laboratory Technology, Faculty of Applied Medical Sciences, Taibah University, Al-Madinah, Saudi Arabia

ABSTRACT

Background and Aims: Social anxiety disorder (SAD) is highly prevalent among adolescents. This study aimed to assess the prevalence and associated factors of social anxiety disorder and its effect on the academic performance among medical students at Taibah University in Saudi Arabia. **Methods:** This cross-sectional study was conducted among 504 medical students. The social anxiety disorder (SAD) was measured by the validated Social Phobia Inventory (SPIN) questionnaire. **Results:** Most participants were females (56.2%) and aged ≥ 22 years (55.0%). Severe to very severe SAD was reported by 13.5%. Higher SAD was found among younger students ($P = 0.045$), singles ($P = 0.021$), those who were in their first and second academic year ($P = 0.005$) and those with lower income ($P = 0.041$). SAD was correlated negatively with the academic performance ($P = 0.002$). **Conclusion:** SAD was relatively high among medical students and was correlated negatively with the academic performance. Rigorous efforts are needed for early detection and management of SAD.

Keywords: Medical students, mental health, performance, Saudi Arabia, social anxiety disorder

Introduction

Social anxiety disorder (SAD) is highly prevalent and it's the most common anxiety disorder among all types of anxiety disorders and the third most common psychiatric condition after major depression and alcohol dependence.^[1] Social anxiety disorder (SAD) is characterized by persistent fear/anxiety about one or more social or performance situations in social settings.^[2]

SAD had a negative impact on earning ability, educational achievement, professional achievement, quality of life and social relationship.^[3,4] It can lead to substance abuse and depressive disorders.^[3-5] Previous studies found that the lifetime prevalence of SAD was 13.3% and the 12-month prevalence was 7.9%.^[2]

Few studies had been conducted among medical students in Saudi Arabia.^[6,7] This study aimed to assess the prevalence and associated factors of social anxiety disorder and its effect on the academic performance among medical students at Taibah university in Medina city.

Address for correspondence: Dr. Bashaer Hassan Al-Hazmi, Joint Program of Family Medicine Postgraduate Studies, Al-Madinah 41311, Saudi Arabia. Joint Program of Family Medicine, National Guard Health Affairs, Al-Madinah 41311, Saudi Arabia. E-mail: dr.bashaer13@hotmail.com

Methods

This cross-sectional study included 504 medical students from Taibah University.

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A self-administered questionnaire was used to collect data. It consisted of three parts. The first part included the socio-demographic information (age, gender, nationality, educational level and marital status). The second part included one question about performance (GPA). In the third part, social anxiety disorder (SAD) was measured by the validated Social Phobia Inventory (SPIN) questionnaire which is consisted of 17 items.^[8-12] The items were headed by the following question: 'Please indicate how much the following problems have bothered you during the past week'. The answers of each item ranged from 0 (Not at all) to 4 (Extremely). The total score was calculated to determine the severity of the problem as the following: less than or equal 20 points means no disease, 21-30 means mild, 31-40 means moderate, 41-50 means severe and 51 or more means very severe. The SPIN had good test-retest reliability ($r = 0.81$), and internal consistency ($\alpha = 0.89$).^[8-12]

Data was analyzed by using the SPSS software version 23. Categorical variables were described by frequency and percentage while continuous variables were described by mean \pm SD. Normality test for the total score of SPIN was conducted and showed that the scale was normally distributed. The independent t-test and the one-way analysis of variance (ANOVA) were used to compare mean SPIN scale across variables. The accepted level of significance was below 0.05 ($P < 0.05$). Cronbach's alpha coefficient for the SPIN in this study was 0.94.

Ethical consideration

The study was approved by the Ethical Committee of the Institutional Review Board in Al-Madinah, Saudi Arabia at 22/05/2019 (NO: IRB 315). Objectives of the study were explained to the participants. The participants' confidentiality and anonymity were assured. Signed consent was obtained from each participant.

Results

Mean (SD) age was 21.8 (1.7) and age ranged 19 to 25 years.

Most participants were females (56.2%), aged ≥ 22 years (55.0%), singles (97.2%) and had a monthly income of more than 15000 SAR (56.2%). About half of the participants (49.2%) had a GPA of 3.5-4.49 [Table 1].

The findings showed that 13.5% of the students reported severe to very severe social anxiety disorder. Mild and moderate SAD was found among 18.8% and 19.6%, respectively [Table 2].

Regarding the factors associated with SAD, the results showed that the mean SAD score was higher among the followings: younger students (24.73 ± 8.28) compare to older ones (22.23 ± 6.83), ($P = 0.045$), singles (23.63 ± 7.48) compared to married (13.71 ± 7.02), ($P = 0.021$), those who had lower income (32.38 ± 6.47) compared to those who had higher income (22.24 ± 7.02), ($P = 0.041$) and among those who were in their first and second academic year (25.89 ± 6.21), compared to those

Table 1: Socio-demographic characteristics of medical students in Taibah University

	n	Percentage
Age		
<22	227	45.0
≥ 22	277	55.0
Gender		
Female	283	56.2
Male	221	43.8
Marital status		
Single	490	97.2
Married	14	2.8
Monthly income (SAR)		
<10000	137	27.2
10000-15000	110	21.8
>15000	257	51.0
Academic year		
1-2	148	29.4
3-5	287	56.9
Intern	69	13.7
GPA (performance)		
2.5-3.49	29	5.8
3.5-4.49	248	49.2
4.5-5	227	45.0

Table 2: Prevalence of social anxiety disorder among medical students in Taibah University

	n	Percentage
No disease	242	48.0
Mild social anxiety disorder	95	18.8
Moderate social anxiety disorder	99	19.6
Severe social anxiety disorder	43	8.5
Very severe social anxiety disorder	25	5.0

in the advanced levels ($P = 0.005$) [Table 3]. Regarding the effect of SAD on the performance of the students, the results showed that mean score of SAD was higher among the participants who had low GPA (32.38 ± 6.47) compared to those who had higher GPA (22.21 ± 7.19), (22.24 ± 7.01), ($P = 0.002$) [Table 3].

Discussion

This study aimed to assess the prevalence and associated factors of social anxiety disorder and its effect on the performance among medical students at Taibah University in Medina city. The current study found that 13.5% of the students reported severe to very severe social anxiety disorder, 18.8% had mild and 19.6% had moderate social anxiety disorder.

A recent study in Saudi Arabia found that 47.2% of the university students had mild symptoms, 42.3% had moderate to marked symptoms, and 10.5% had severe to very severe symptoms of SAD.^[5]

Another study from Saudi Arabia found sever SAD among 19.1% and very severe SAD among 19.8% of medical

Table 3: Association between socio-demographic characteristics and social anxiety disorder

	Score on Social Phobia Inventory		P
	Mean	SD	
Age			
<22	24.73	8.28	
≥22	22.23	6.83	0.045
Gender			
Female	22.86	6.84	
Male	23.75	8.08	0.491
Marital status			
Single	23.63	7.48	
Married	13.71	7.02	0.021
Monthly income (SAR)			
<10000	32.38	6.47	
10000-15000	22.24	7.02	
>15000	22.24	7.02	0.041
Academic year			
1-2	25.89	6.21	
3-5	23.09	6.30	
Intern	19.03	6.78	0.005
GPA (performance)			
2.5-3.49	32.38	6.47	
3.5-4.49	22.24	7.01	
4.5-5	22.21	7.19	0.002

students.^[13] Previous studies have established that SAD is a common disorder with a current prevalence between 5 and 10%, and lifetime prevalence between 8.4 and 15%.^[2,14,15] Regarding the effect of SAD on the performance, this study found that SAD was negatively correlated with the GPA, in which, higher score of SAD was found among those who had lower GPA. Similarly, a previous study among medical students found that students with high social phobia scores were found to have decreased academic performance, avoided oral presentation, and showed weak clinical exam performance.^[6]

The current study found no difference in SAD between male and females. Some previous studies found no difference in SAD between male and female,^[5] some studies found that females had higher SAD^[13] and some studies found that male had higher SAD.^[6,16]

The current study found that older student has less severe SAD compared to younger. It is possible that by increasing age, the SAD may decrease in severity.

This study found that student with higher income had less severe SAD. However, a previous study found no association between SAD and the family income.^[7]

This study found that students in the advanced academic level had less SAD compared to those who were in the beginning of their academic life. However, a previous study found that SAD was higher among seniors compared to juniors. This study found

that singles had higher SAD compared to married. Similar finding was reported by Alqarni *et al.* (2017).^[16]

In conclusion, the prevalence of SAD among medical students in Taibah University was high. It was associated with academic performance, age, marital status, monthly income and academic level. Hard efforts are needed for early detection and management of SAD.

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Conflicts of interest

There are no conflicts of interest.

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