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# The impact of studying medicine on students' social interactions in Riyadh, Saudi Arabia 2021-2022

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## ABSTRACT

**Background:** The prevalence of social anxiety disorder, commonly known as social phobia, increases during adolescence. Social phobia can be colonized in those who involve interacting with, observing and behaving with many people. These include meeting people, including strangers, speaking in meetings or groups, starting a conversation, working, eating and drinking, going to school, shopping, showing up in public, using public toilets and public speaking, including conversations. Social anxiety disorder can be inherited through family history. It can also be treated with certain therapies and medications. Our aim is to identify the social concerns of medical students in Riyadh. **Methods:** A cross-sectional study. 180 Medical students, we used the social phobia inventory (SPIN) questionnaire to screen and measure severity of social anxiety from September 2022 to November 2022 with SPSS and MS software for analysis. **Results:** Majority of participants was females (66.1%) in the second year (25%) of age from 22-25 years (58.9%) as single (96.7%). Most of them were from Almaarefa University (86.7%) having very mild social phobia (38.9%). Relation between social phobia and gender (p value=0.05) and with academic year (p value=0.05) and with age (p value=0.12). **Conclusion:** The most common form of social anxiety among medical students was moderately low. Although females were more likely to develop social phobia than males, there was a substantial difference in severity between the two groups. In addition, the amount of social anxiety among students had little impact on their academic year.

**Keywords:** Medical Student, Social Phobia, Anxiety, Social Interaction.

## 1. INTRODUCTION

Social anxiety disorder or social phobia, is sometimes known as social anxiety, is a common condition that peaks during adolescence. This is a constant fear of further social situations, many of which are afraid of embarrassment. Fear and anxiety are sometimes disproportionate, the real

threat of social conditions dictated by human cultural norms. Social phobia can take hold in people who interact with, observe or act with large numbers of people. These include meeting people, including strangers, speaking in meetings or groups, starting a conversation, working while being watched, eating or drinking, going to school, shopping, being seen in public, using public restrooms and public performances, including he speaks.

Social anxiety disorder can be inherited through family history. It can also be treated with certain therapies and medications. 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 (Elhadad et al., 2017). Another study from Saudi Arabia found severe SAD among 19.1% and very severe SAD among 19.8% of medical students (Preeti and Das, 2019). 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 (Vilaplana-Pérez et al., 2021). Some previous studies found no difference in SAD between male and female, some studies found that females had higher SAD and some studies found that male had higher SAD (Alkhalifah et al., 2017). Most studies showed that older students develop a less severe social anxiety compared to younger ones. Investigate the impact of medical schools on interactions in student social lives and help develop preventive strategies for this problem. We aim to identify medical students' social apprehension in Riyadh.

## 2. METHODS

The study is cross-sectional. 180 male and female medical students in Riyadh were targeted, utilizing the social phobia inventory (SPIN) questionnaire created by the Duke University Department of Psychiatry and Behavioral Sciences. It is effective for screening and assessing the severity of social anxiety disorder, encompassing both the demographic and screening components. Between September and November 2022, data was collected online using Google forms and disseminated via social media in English. Using SPSS and Microsoft Excel, the data was processed to generate tables and charts. P values 0.05 are regarded as significant. Participants were asked for permission to use their information. Assuring them that the data collected in this study will only be utilized for scientific purposes.

## 3. RESULTS

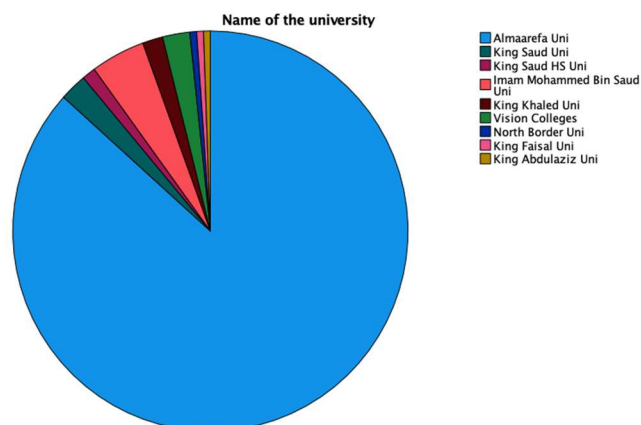
This study included a total of 180 medical students, in Table 1, 66.1% were females. 25% students were from second year and 20% were seniors. Around 58.2% were between the age of 22-25 years. About (96.7%) of these students' social status was single and only 3.3% were married (Table 1).

**Table 1** Demographic Data

Gender		Frequency	Percent
	Male	61	33.9
	Female	119	66.1
	Total	180	100.0
Academic year		Frequency	Percent
	2nd Year	45	25.0
	3rd Year	39	21.7
	4th Year	32	17.8
	5th Year	28	15.6
	6th Year	36	20.0
	Total	180	100.0
Age		Frequency	Percent
	18-21 years	61	33.9
	22-25 years	106	58.9
	26-29 years	12	6.7
	30 or more	1	0.6
	Total	180	100.0
Social status		Frequency	Percent
	Single	174	96.7

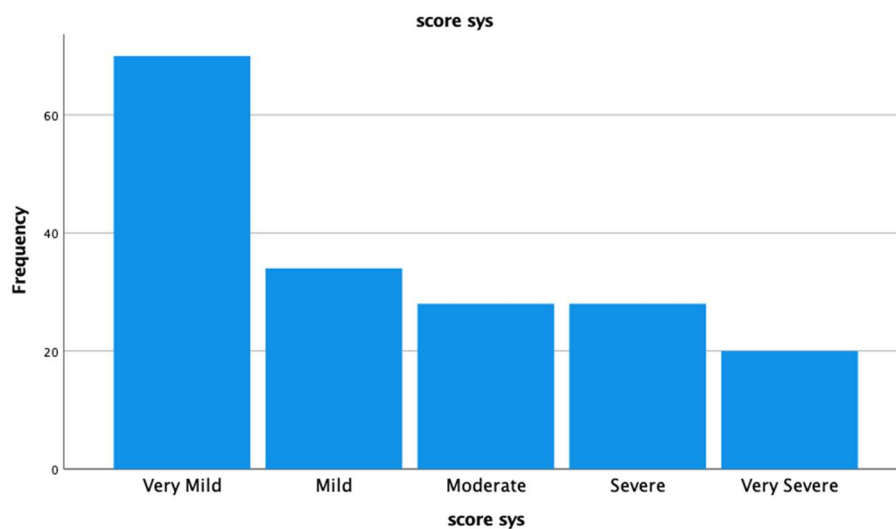
	Married	6	3.3
	Total	180	100.0

N=180



**Figure 1** Names of The Students Universities

Figure 1 show that 86.7% were students from Al-maarefa University, 4.4% from Imam Mohammed Bin Saud University, 2.2% from King Saud University, 2.2% from vision colleges and 4.6% from other Universities in Saudi.



**Figure 2** Prevalence of Social anxiety disorder

Figure 2 shows prevalence of social anxiety disorder and it demonstrates that 38.9% of participants have very mild social phobia and ranging from mild to severe with 50.1% of them and only 11.1% have very severe social phobia.

**Table 2** Correlation between Gender and Prevalence of Social anxiety disorder

		Severity of The Social Phobia					
		Very Mild	Mild	Moderate	Severe	Very Severe	Total
Gender	Male	30	13	4	10	4	61
		16.7%	7.2%	2.2%	5.6%	2.2%	33.9%
	Female	40	21	24	18	16	119
		22.2%	11.7%	13.3%	10.0%	8.9%	66.1%
	Total	70	34	28	28	20	180
		38.9%	18.9%	15.6%	15.6%	11.1%	100.0%

P Value=0.05

Table 2 demonstrates the correlation between gender and prevalence of social anxiety disorder which shows that 22.2% of females have very mild social phobia and 16.7% of males have very mild social phobia and going from mild to severe 35% of females face social phobia and on the other hand 15% of males have it. In regard to very severe social phobia only 2.2% of males have it and 8.9% of females are facing very severe social phobia.

**Table 3** Correlation between Academic Year and Prevalence of Social anxiety disorder

		Severity of The Social Phobia					
		Very Mild	Mild	Moderate	Severe	Very Severe	Total
Academic Year	2nd	16	9	6	9	5	45
	Year	8.9%	5.0%	3.3%	5.0%	2.8%	25.0%
	3rd	19	9	5	3	3	39
	Year	10.6%	5.0%	2.8%	1.7%	1.7%	21.7%
	4th	8	3	6	5	10	32
	Year	4.4%	1.7%	3.3%	2.8%	5.6%	17.8%
	5th	13	7	3	4	1	28
	Year	7.2%	3.9%	1.7%	2.2%	0.6%	15.6%
	6th	14	6	8	7	1	36
	Year	7.8%	3.3%	4.4%	3.9%	0.6%	20.0%
	Total	70	34	28	28	20	180
		38.9%	18.9%	15.6%	15.6%	11.1%	100.0%

P Value=0.05

Table 3 illustrates the severity of the social anxiety disorder among students in Riyadh, Saudi Arabia. It appeared that most second year medical has a very mild social phobia with (8.9%) and it showed only (2.8%) with a very severe social phobia with a total of (25%). Students in the third year have shown (10.6%) with a very mild social phobia and with (1.7%) with very severe. The total of third year medical students were (21.7%), fourth year medical students had a high percentage with very severe phobia with (5.6%) and (1.7%) with mild phobia. The total of fourth year medical students was (17.8%). Students in the fifth year had a low percentage with very severe phobia of (0.6%) and most students has very mild phobia (7.2%). The total of fifth year medical students was (15.6%). Lastly students in the sixth year had a very mild social phobia with (7.8%) and (0.6%) of very severe social phobia. The total of sixth year medical students was (20.0%).

**Table 4** Correlation between Age and Prevalence of Social anxiety disorder

		Severity of The Social Phobia					
		Very Mild	Mild	Moderate	Severe	Very Severe	Total
Age	18-21	18	12	9	8	14	61
	years	10.0%	6.7%	5.0%	4.4%	7.8%	33.9%
	22-25	44	21	17	19	5	106
	years	24.4%	11.7%	9.4%	10.6%	2.8%	58.9%
	26-29	7	1	2	1	1	12
	years	3.9%	0.6%	1.1%	0.6%	0.6%	6.7%
	30 or more	1	0	0	0	0	1
		0.6%	0.0%	0.0%	0.0%	0.0%	0.6%
	Total	70	34	28	28	20	180
		38.9%	18.9%	15.6%	15.6%	11.1%	100.0%

P Value=0.12

Table 4 illustrates the severity of the social phobia among 18 to 30 years of age. 18-21 years showed very mild phobia with (10.0%) and (5.0%) with moderate social phobia with a total of (33.9%). Most students with 22-25 years had very mild phobia with (24.4%) and (2.8%) with very severe. The total of these students were (58.9%). Most 26-29 years had very mild phobia with (3.9%) and nearly all this age group had (0.6%) of mild, severe and very severe social phobia with total of (6.7%). 30 years or more had only (0.6%) with very mild social phobia.

#### 4. DISCUSSION

180 medical students participated in the current study; they were mostly women (66.1% of them), 2nd Year students made up the majority of the study's participants (25%). According to the results of the current study, very mild social anxiety affected 38.9% of participants which was the majority. In a study conducted by medical students at King Khalid University, social phobia symptoms were 60% prevalent (Elhadad et al., 2017). In a Malaysian study of medical students, it was shown that 56% of them had symptoms of social phobia (Gill and Mohammad, 2010). Additionally, previous study discovered a high incidence (85%) among medical students in Prague, Czech Republic. However, medical students in Norway were found to have a 22% reduced prevalence of social anxiety symptoms (Kjeldstadli et al., 2006).

An Iranian study indicated that 58.5% of medical students had social phobia, which was classified into three severity levels: Moderate, severe and extremely severe (Hasani et al., 2016). The prevalence rate among English medical students was reported to be 8% (Laidlaw, 2009). This variation in social phobia prevalence between medical students may be due to the use of various techniques for assessing social phobia prevalence as well as variations in culture and socio-demographics between various groups. The link between the various social phobia grades and the other factors in this study was examined and it was discovered that there was no significant difference between male and female social phobia grades ( $P$ -value = 0.05).

In contrast to the western world, where social phobia was found to be more prevalent among women (Olivares et al., 2005), a study revealed that males had greater social phobia ratings than females (Alkhathami et al., 2014). According to a Saudi study, men scored higher than women for social phobia (Elhadad et al., 2017). In a study conducted in Iran, men scored on average higher for social phobia than women did, although there was no discernible difference between the two sexes (Hasani et al., 2016). There was no significant difference between the various levels of social anxiety in the current study with reference to the medical year of the participants ( $P$ -value = 0.12).

#### 5. CONCLUSION

Vary mild social anxiety was the most prevalent type among medical students. Although females were more likely than males to experience social phobia, there was a significant difference between the two groups in terms of severity. Additionally, the severity of students' social phobia had little influence on their academic year.

#### Ethical Considerations

The ethical approval of the Institutional Review Board (IRB06-06022022-11) in Al-maarefa University, College of Medicine was fulfilled before the start of the data collection. The aim of this study was clarified to the participants of this study and the data was kept confidential.

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#### Authors' contribution

All authors had substantial contribution to the paper, ABH, NBH, AA and FQ designed the study and prepared the proposal. ABH analyzed and interpreted data. NBH, AA and FQ wrote results and MA wrote discussion. ABH checked the paper from plagiarism and did proofreading. ASM checked and revised every step of this paper. All authors critically reviewed and approved the final draft and are responsible for the content and similarity index of the manuscript.

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**Conflict of interest**

The authors declare that there is no conflict of interests.

**Data and materials availability**

All data sets collected during this study are available upon reasonable request from the corresponding author.

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