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Prevalence of Social Anxiety Disorder and Impact on School Performance among Secondary School Students in Makkah City

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Abstract

Background: Social anxiety disorder (SAD) is a predominant disorder in Saudi Arabia, particularly within the vulnerable groups as adolescence. However, there is no existing data on social anxiety disorder in Makkah secondary male schools. **Objectives:** to assess the prevalence of social anxiety disorders and determine its impact on their academic and school performance. **Subjects and methods:** A cross-sectional study was carried out at Makkah city, including a representative random sample of male secondary schools enrolled in private and governmental schools throughout the academic year 2019-2020. Data were collected using a self–administered questionnaire. It included socio-demographic characteristics of the students as well as the Arabic version of Social Phobia Inventory (SPIN) to assess SAD among them. In addition to questions regarding their school performance. **Results:** The study included 190 students. Regarding age, about one-third of them (34.7%) was 17 years whereas that of 30.5% was 18 years or above. More than half of the participants (56.3%) were recruited from governmental schools. The prevalence of social phobia was 17.9%; it was mild among 11.6% of them and severe among only 2.1%. Students of lower educated mothers were more likely to have severe forms of the disorder, p=0.030. There was no difference between students of private and governmental schools regarding prevalence and severity of social phobia. **Social anxiety disorder had no impact of school performance of the affected students.Conclusion:** The prevalence of social anxiety disorder among secondary school students in Makkah is within the range of other Saudi studies. However, it

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is higher than those reported in Western countries and affects a considerable proportion of students

Introduction

Adolescence is a period of life that involves many changes for young people and is portrayed as a time of emotional, behavioral, and psychological confusion (Al Salman et al., 2020).Anxiety disorders, the most common disorders diagnosed in adolescence, are defined as “excessive worry and fear that are difficult to control”(Frank-Briggs&Alikor., 2010; Asa&Lasebikan., 2016)

"Social anxiety disorder”; it's also known as social phobia, includes the fear of social situations, with situations that involve scrutiny or contact with strangers (Sadock., 2015). Persons with social anxiety disorder are fearful of embarrassing themselves in social situations (i.e., social gatherings, oral presentations, meeting new people) (2). They may have specific fears about performing specific activities such as eating or speaking in front of others, or they may experience a vague, nonspecific fear of "embarrassing oneself" (Al-Gelban., 2007).

Various studies have reported a lifetime prevalence ranging from 3 to 13 percent for SAD. In epidemiological studies, females are affected more often than males, but in clinical samples, the reverse is often true. The peak age of onset for SAD is in the teens, although onset is common as young as 5 years of age and as old as 35 years (Al Gelban., 2009; Al-Qahtani & SBFM., 2012).

Several studies have reported that some children possibly have a trait characterized by a consistent pattern of behavioral inhibition (Ghazwani et al., 2016). This trait may be particularlycommoninchildrenofparentswhoareaffectedwithpanicdisorder,and it may develop into severe shyness as the children grow older (Alzahrani et al., 2016). At least some persons with SAD may have exhibited behavioral inhibition during childhood. Perhaps associated with this trait, which is thought to be biologically based, are the psychologically based data indicating that the parents of persons with SAD, as a group, were less caring, more rejecting, and more overprotective of their children than were other parents (Jarallah et al., 2017). Existing prospective epidemiological findingsindicate that SAD is typically chronic, although patients whose symptoms do remit tend to stay well. Both retrospective epidemiological studies and prospective clinical studiessuggestthatthedisordercanprofoundlydisruptthelifeofanindividualover many years

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(Taha et al., 2017). This can include disruption in school or academic achievement and interference with job performance and social development(Hakami et al., 2017). SADisaprevalentconditioninSaudiArabia,constitutingapproximately13% of all neurotic disorders seen in the psychiatric clinic, especially in people who are in their adolescent years (5-10). Therefore, the researcher found it necessary to investigate and assess the prevalence of social anxiety disorder among secondary school students and build a block in determining its impact on the students' school performance, Makkah, KSA, 2020.

Aims of the study:

- Assess the prevalence of social anxiety disorders among secondary school student in Makkah
- Determine the impact of social anxiety disorders on the studens' school performance.

Materials and method:

Design:

This study was a cross-sectional study

Setting:

The study was carried out at all governmental and private secondary schools in Makkah city.

Subject:

A convenience sample of all secondary school students presented at the time of data collection at the above mentioned settings (190 students).

Tools:

Datawerecollectedusingaself–administeredquestionnaire.It developed by the researcher after reviewing of current national and international related literature. Itincludedthe followingsections:

- Socio-demographic characteristics of the students (age, sex, nationality, educational grade, parents' education and job).
- The Arabic version of Social Phobia Inventory (SPIN) was utilized.

Scoring system SPIN consists of 17-items scale and is rated from 0 (not at all) to 4 (extremely),thetotalscorerangesfrom0to68.Socialphobiaisdiagnosedwhenthe student has a total score of ≥20 on SPIN, mild social phobia is considered when the total score ranges from 21 to 30, moderate from 31 to 40, and severe from 41 to 50 while 51 or more is considered

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very severe form (11). SPIN is valid and reliable psychometric tool of screening social phobia in adolescents. It`s Cronbach alpha valueis0.85,itssensitivityrangingbetween73and85%whileitsspecificityranging between69and84%(12,13).Thedatawereverifiedbyhandthencodedandentered to a personalcomputer.

Pilot study

A pilot study was conducted in one school, in a class other than those selected for the study to test wording of questionnaire, to estimate the time required to fill the questionnaire as well as feasibility of the study methodology.

Ethical Approval

This study was approved from regional research center and director of primary health care in Makkah. Each participant gave a verbal consent prior to recruitment and confidentiality was assured for each situation.

Data analysis

Data entry and analysis was conducted using statistical software package SPSS version 25.0. Data were presented using descriptive statistics in the form of frequencies and percentages as all date were of categorized type. Analytic statistics was done using Chi Square tests (χ^2) to test for the association and/or the difference between two categorical variables. P-value equal or less than 0.05 was considered statistically significant.

Results

Demographics

One hundred and ninety students were included in the study. The age of about one- third of them (34.7%) was 17 years whereas that of 30.5% was 18 years or above. More than one-quarter of the students were last in birth order whereas 23.2% were first birth order. More than a third of them (35.3%) were recruited from the third scholastic grade. Majority were Saudis (96.8%). Fathers of 33.2% of them were retired whereas mothers of 72.6% were not working. Fathers and mothers of 46.3% and 44.7% of students respectively were at least university graduated. The family income exceeded 15000 SR/month among 37.8% of the students. Table 1

More than half of the participants (56.3%) were recruited from governmental schools as illustrated in figure 1.

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Table 1: Socio-demographic characteristics of the participants		
	Frequency	**Percentage**
Age (years)		
15	**14**	**7.4**
16	**52**	**27.4**
17	**66**	**34.7**
≥18	**58**	**30.5**
Birth order		
First	**44**	**23.2**
Second	**33**	**17.4**
Third	**26**	**13.7**
Fourth	**14**	**7.4**
Fifth	**21**	**11.1**
Last	**52**	**27.4**
School grade		
First	**63**	**33.2**
Second	**60**	**31.6**
Third	**67**	**35.3**
NationalitySaudi	**184**	**96.8**
Non-Saudi	**6**	**3.2**
Father`s job Civilian employee Military employee Business/trading Retired	**59 51 17 63**	**31.1 26.8 8.9 33.2**
Mother`s job status Working Not working	**52 138**	**27.4 72.6**
Father`s educational level Illiterate Primary school Intermediate school Secondary school	**12 11**	**6.3 5.8**

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University Postgraduate	**30**	**15.8**
	49	**25.8**
	61	**32.1**
	27	**14.2**
Mother`s educational level Illiterate		
Primary school Intermediate school	**26**	**13.7**
Secondary school University	**19**	**10.0**
Postgraduate	**26**	**13.7**
	34	**17.9**
	60	**31.5**
	25	**13.2**
Family income (SR/month)		
<3000	**22**	**11.6**
3000-5000	**29**	**15.3**
5001-10000	**34**	**17.9**
10001-15000	**33**	**17.4**
>15000	**72**	**37.8**

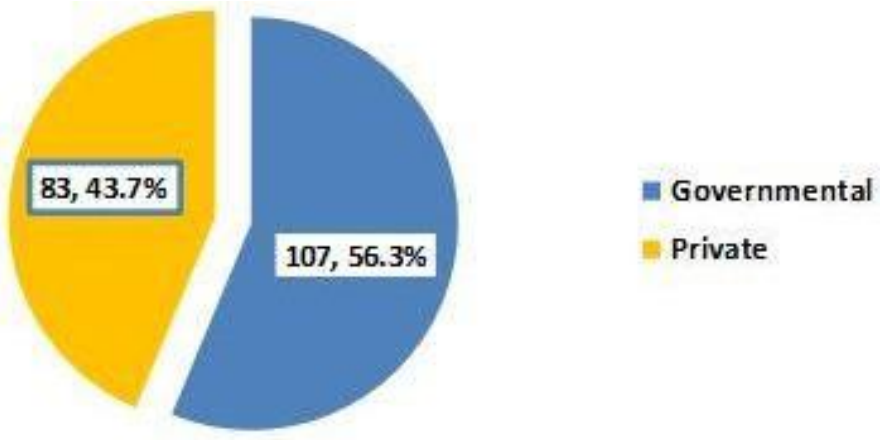

Table 2: Factors associated with social phobia and its severity:

Regarding factors associated with social phobia and its severity. As shown in table II, Moderatetoseveresocialphobiawasreportedamong25%ofstudentswhosefathers were illiterate compared to none among those whose fathers were postgraduates. However, the association between father`s educational level and severity of social phobia was borderline not

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significant, p=0.055. The father`s educational level was notsignificantlyassociatedwithsocialphobia.Moderatetoseveresocialphobiawas reported among 15.8% of students whose mothers were primary school graduated compared to none among those whose mothers were postgraduates. Theassociation between mother`s educational level and severity of social phobia was statistically significant,p=0.030.However, other factors were found to be statistically not significance as shown in table2.

	Social phobia				**P1**	**P2**
	No	**Yes**				
	N=156	**Mild N=22**	**Moderate to severe N=12**	**Total N=34**		
Age (years)						
15 (n=14)	11 (78.6)	2 (14.3)	1 (7.1)	3 (21.4)	0.389	0.478
16 (n=52)	42 (80.8)	7 (13.5)	3 (5.8)	10 (19.2)		
17 (n=66)	58 (87.9)	7 (10.6)	1 (1.5)	8 (12.1)		
≥18 (n=58)	45 (77.6)	6 (10.3)	7 (12.1)	13 (22.4)		
Birth order						
First (n=44)	34 (77.3)	9 (20.5)	1 (2.3)	10 (22.7)	0.122	0.133
Second (n=33)	30 (90.9)	1 (3.0)	2 (6.1)	3 (9.1)		
Third (n=26)	18 (69.2)	6 (23.1)	2 (7.7)	8 (30.8)		
Fourth (n=14)	14 (100)	0 (0.0)	0 (0.0)	0 (0.0)		
Fifth (n=21)	17 (81.0)	2 (9.5)	2 (9.5)	4 (19.0)		
Last (n=52)	43 (82.7)	4 (7.7)	5 (9.6)	9 (17.3)		
Type of school						
Governmental (n=107)	89 (83.2)	11 (10.3)	7 (6.5)	18 (16.8)	0.814	0.662
Private (n=83)	67 (80.7)	11 (13.3)	5 (6.0)	16 (19.3)		
School grade						
First (n=63)	53 (84.1)	7 (11.1)	3 (4.8)	10 (15.9)	0.446	0.265
Second (n=60)	52 (86.7)	6 (10.0)	2 (3.3)	8 (13.3)		

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Third (n=67)	51 (76.1)	9 (13.5)	7 (10.4)	16 (23.9)		
Nationality						
Saudi (n=184)	152 (82.6)	21 (11.4)	11 (6.0)	32 (17.4)	0.504	0.292
Non-Saudi (n=6)	4 (66.7)	1 (16.7)	1 (16.7)	2 (33.3)		
Father`s job						
Civilian employee (n=59)	49 (83.1)	6 (10.2)	4 (6.8)	10 (16.9)	0.082	0.878
Military employee (n=51)	41 (80.4)	10 (19.6)	0 (0.0)	10 (19.6)		
Business/trading (n=17)	13 (76.5)	1 (5.9)	3 (17.6)	4 (23.5)		
Retired (n=63)	53 (84.1)	5 (7.9)	5 (7.9)	10 (15.9)		
Mother`s job status						
Working (n=52)	46 (88.5)	4 (7.7)	2 (3.8)	6 (11.5)	0.372	0.161
Not-working (n=138)	110 (79.7)	18 (13.0)	10 (7.2)	28 (20.3)		
Father`s educational level						
Illiterate (n=12)	8 (66.7)	1 (8.3)	3 (25.0)	4 (33.3)	0.055	0.382
Primary school (n=11)	9 (81.8)	1 (9.1)	1 (9.1)	2 (18.2)		
Intermediate school (n=30)	24 (80.0)	5 (16.7)	1 (3.3)	6 (20.0)		
Secondary school (n=49)	44 (89.8)	2 (4.1)	3 (6.1)	5 (10.2)		
University (n=61)	51 (83.6)	6 (9.8)	4 (6.6)	10 (16.4)		
Postgraduate (n=27)	20 (74.1)	7 (25.9)	0 (0.0)	7 (25.9)		
Mother`s educational level						
Illiterate (n=26)	22 (84.6)	2 (7.7)	2 (7.7)	4 (15.4)		

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Primary school (n=19)	13 (68.4)	3 (15.8)	3 (15.8)	6 (31.6)		
Intermediate school (n=26)	22 (84.6)	2 (7.7)	2 (7.7)	4 (15.4)		
Secondary school (n=34)	31 (91.2)	3 (8.8)	0 (0.0)	3 (8.8)		
University (n=60)	51 (85.0)	4 (6.7)	5 (8.3)	9 (15.0)		
Postgraduate (n=25)	17 (68.0)	8 (32.0)	0 (0.0)	8 (32.0)		
Family income (SR/month)						
<3000 (n=22)	19 (86.4)	1 (4.5)	2 (9.1)	3 (13.6)		
3000-5000 (n=29)	24 (82.8)	3 (10.3)	2 (6.9)	5 (17.2)		
5001-10000 (n=34)	27 (79.4)	4 (11.8)	3 (8.8)	7 (20.6)		
10001-15000 (n=33)	29 (87.9)	3 (9.1)	1 (3.0)	4 (12.1)		
>15000 (n=72)	57 (79.2)	11 (15.3)	4 (5.6)	15 (20.8)		

Table 3: Outcome of social phobia and its severity:

This table clarified that there were no significantassociationbetween socialphobiaand its severity among students and school performance in the last scholastic year, last examination this year and number of failures($p>0.05$)

	Social phobia				P1	P2
	No	Yes				
	N=156	**Mild N=22**	**Moderate to severe N=12**	**Total N=34**		
School performance in the last scholastic year						
90-100% (n=99)	78 (78.8)	15 (15.2)	6 (6.1)	21 (21.2)	0.621	0.368

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80-89% (n=56)	49 (87.5)	4 (7.1)	3 (5.4)	7 (12.5)		
70-79% (n=29)	25 (86.2)	2 (6.9)	2 (6.9)	4 (13.8)		
60-69% (n=6)	4 (66.7)	1 (16.7)	1 (16.7)	2 (33.3)		
School performance in the last examination this year						
Excellent (n=127)	103 (81.1)	16 (12.6)	8 (6.3)	24 (18.9)		
Very good (n=41)	34 (82.9)	4 (9.8)	3 (7.3)	7 (17.1)		
Good (n=21)	18 (85.7)	2 (9.5)	1 (4.8)	3 (14.3)		
Pass (n=1)	1 (100)	0 (0.0)	0 (0.0)	0 (0.0)		
Number of failures in school throughout all school stages						
None (n=170)	139 (81.8)	21 (12.4)	10 (5.9)	31 (18.2)	0.684	0.596
Once (n=12)	11 (91.7)	0 (0.0)	1 (8.3)	1 (8.3)		
Twice (n=8)	6 (75.0)	1 (12.5)	1 (12.5)	2 (25.0)		

Discussion:

Socialphobiaor social anxiety disorder isaprevalentanxietydisordersamongadolescentgroupwithnegative consequences and effectsonoverallhealthandperformanceofthisgroup.However,itisoften under diagnosed as many cases are afraid to seek medical advice and if diagnosed not effectively treated (Asgari et al., 2015). Despite the importance of this issue, limited studies have been conducted in Saudi Arabia to estimate the prevalence, associated factors andimpactofthisdisorderonschoolperformance.Therefore,thisstudywascarried out to estimate the prevalence, identify some associated factors of social phobia and determine its effect in school performance among secondary school students in Makkah city.

The results of the present study showed that the prevalence of social phobia was low (17.9%) . this results go in the same line and in a very close figure withotherstudiescarriedoutamongmalesecondaryschoolstudents inTabuk,(18.6%)(Aljohani&Mahrus., 2018),KhamisMushayt(14.1%)(Al-Qahtani & SBFM., 2012), Abha,KSA(17.3%) (Mahfouz et al., 2009)and Iran (17.2%) (Asgari et al., 2015).

On the other hand. A study done by Murray et al., 2007, Gren-Landell et al., 2009 and Beesdo et al., 2007 showed a very low level of social phobia among secondary school

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students than in our study. The reason of differences observed between various studies could be attributed to the fact of using different tools in diagnosis of social phobia, in addition to the variation in the social-cultural context of populations in differentstudies.

In agreement with AlQahtani& SBFM (2012), the current study revealed that age, and scholasticgradeofsecondaryschoolstudentswerenotassociatedwithsocialphobia. However, Wittchen and Fehm (2001) reported higher rate of social phobia among younger students.

In the present study, the lower maternal educational level was associated with more severesocialphobia.ThisfindingagreeswiththatreportedinIranianstudy as severe level of social phobia was more reported among students whose mothers were low educated (Asgari et al., 2015).

This study revealed that student`s birth order was not associated with social phobia or its severity. However, Al-Qahtani and SBFM. (2012)) and Wittchen and Fehm(2001) reported that middle-born students were associated with lowest prevalence of socialphobiaandtheonlyorfirstbirthchildwasassociatedwithhighestprevalence ofsocialphobia.Also,Hettemaetal.(2005)foundthatthefirstchildwasathigherrisk for developing SP. They attributed this to the limited experience of still young parents with dealing with their children who may stay for a period of time the only kid in their family while those who are born after the first child start their life in a more social way.

Inthecurrentstudy,althoughseverlevelofsocialphobiawasmoreobservedamong students with lower educated fathers, this was not significant. However,another study carried out in Iran reported that low level of father`s education was a significant predictor of social phobia and its severity (Zamani, et al., 2004).

Family income was not significantly associated with social phobia or its severity in the present work. However, Asgari et al (2015) and Zamani et al (2004) reported that Social phobia was more prevalent in the students whose family's income was Moderate. Different findings were observed by Stansfield SA et al and Acarturk C et al who reported that social phobia were more observed among students with low family income (Margarita., 2008; Chhabra et al., 2009).

According to the results of the current study, maternal and paternal jobs were not associated with social phobia among students. In Iran, Asgari, et al (2015) reported higher rate of social phobia among students whose fathers were employed.

TherehasbeensomedebateonwhetherSADimpairstheschoolperformanceofthe affected students or not (Russell&Topham., 2012). In the current study, SAD or its severity were not associatedwithschoolperformance.HoweverMazzoneetal(2007)(30)reported negative impact

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of SAD on school performance. Further in-depth study might be needed to focus on this importantissue.

It is hypothesized that students of government schools belong to not well off economicallyfamiliesusuallytheparentsnotthatmucheducated,inadditiontopoor education and lack of adequate care and attention on the part of teachers in these schools. Therefore, these students have a greater risk of developing social phobia (Chhabra et al., 2009). However, this is not the situation in Saudi Arabia, where there is no such big difference between private and governmental schools. In this study there was no significant difference between private and governmental schools concerning the prevalence of socialphobia.

In conclusion, the prevalence of social anxiety disorder among secondary school studentsinMakkahiswithintherangeofotherSaudistudies.However,itishigherthan those reported in Western countries and affects a considerable proportion of students. It is recommended to involve the female students in further researches in order to compare. Teachers stress should involve as a source of students' anxiety.

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