Social phobia among Al Qadissya medical student: prevalence, Academic performance and response to different treatments

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Fac Med Baghdad 2012; Vol. 54, No. 1
Received July., 2011
Accepted Feb. 2012

Summary:

Background: Social phobia (SP) is an inappropriate anxiety; experienced in social situations in which the person feels observed by others and could be criticized by them so he/she attempts to avoid such situations.

Objectives: This study aims to identify the prevalence of (SP) among the medical students, as well as the socio- demographic characters will be investigated.The effect of (SP) on the students that is; their academic performance and the response to different type of treatments.

Methods: Three hundred eighty students of both genders were selected randomly from Al-Qadissia Medical College in Al- Diwania city. These students were interviewed using the International Diagnostic Checklist of ICD.10 Social Phobia. The academic performance of subjects meeting a diagnosis of (SP) was studied. Their response to selective serotonin reuptake inhibitor (Fluoxetine) and comprehensive cognitive behavioral therapy were evaluated.

Results: The result showed that the prevalence of (SP) among the medical student is (12.6 %). female students had higher rates than males (17.4%, 7.9%) respectively. positive family history of any psychiatric disorder was found more in students having (SP) . Eating or speaking in public appeared to be the most common feared situations avoided by the diagnosed students. (SP) appeared to have no effect on the students academic performance. Both treatment (Fluoxetine, Comprehensive Cognitive Behavioral Therapy) had good response (48%, 52.8%) respectively.

Conclusions: Significant differences are found between the rate of SP and different sexes. SP appeared to have no effect on the students academic performance. Both active treatments had good response; in addition they have nearly equal result.

Key words: SP. social phobia; FL. Fluoxetine; CCBT. Comprehensive Cognitive Behavioral Therapy

Introduction:

Phobia is defined as persistent, pathological, unrealistic intense fear of an object or situation, the person may realize that the fear is irrational, but, none the less, can not dispel it (1).

In social phobia, inappropriate anxiety is experienced in social situations in which the person feels observed by others and could be criticized by them (2). Children and adolescents with this disorder often have great impairment in their academic performance, social skills and peer relation ships (3).

Various studies have reported a life time prevalence ranging from 3-13 percent for social phobia (1). Both genetic and environmental factors play a role (2). Parental social phobic is associated with offspring risk to develop social phobia (4).

There is a relation ship between familial risk factors e. g negative parental styles and offspring social phobia (5).

Behavioral theories argue that phobias are learned by being paired with traumatic event (1). Cognitive factors have a role in which the person has high standards for social performance and negative beliefs about himself (2). Social phobia leads to disrupted relation ship, other anxiety disorders, mood disorder, substance related disorder, personality disorder (specialty the avoidant type) and loss of natural faculties (3).

It is frequently co morbid with other anxiety disorders 41% (6) and depressive disorders (35%) (7).

Social phobia can be treated with cognitive behavioral therapy which is regarded as the psychological treatment of choice (2).

Selective serotonin reuptake inhibiter is often the first choice of pharmacological treatment of social phobia also pharmacological and psychological treatment is beneficial together (3).

Common complication are drinking alcohol especially in students, they may drink to reduce social anxiety (8).

Students found difficulties in forming and maintaining relationship (9).

Suicidal ideation is about (34%) and suicidal attempt by (12%) at any time of their lives (10).

Subjects & methods:

The study was conducted in Al Qadissia Medical College in Al- Dwainia city. The student's names were coded and entered the Microsoft excel computer program to select (380) students, (190) male & (190) female (total number of medical students is 576).Age distribution of the sample is 18-

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27 years old. By simple random sampling which is representative. Names of students were optional & they had the right to give a number. Verbal consent was taken from the students. The study started from 15th November 2010 to the 15th may 2011.

A semi structured interview schedule based on criteria of International Diagnostic Checklist of ICD.10 Social Phobia (IDCL) was used to interview each student by a specialist psychiatrist.

Socio – demographic characteristics were studied for those students involving personal and family information.

Academic performances of the participants were analysed and a comparison was made between the academic achievements of the group fulfilled the criteria of diagnosis social phobia with a control group.

Response to treatment (FL versus CCBT) was evaluated by using the Brief Social Phobia Scale (BSPS), an (18) items scale comprised of fear, avoidance and physiological symptoms. Each 18 BSPS items is anchored to 5-point rating scale (from 0=none to 4=extreme). Individual item scores are summed to yield three subscale scores (Fear [BSPS-F], Avoidance [BSPS-A], and Physiological [BSPS-P]) and one total score (BSPS-T = BSPS-F + BSPS-A + BSPS-P). Scores range from 0 to 72 for the BSPS-T, from 0 to 28 for the BSPS-A and the BSPS-F, and from 0 to 16 for the BSPS-P. A total score of >20 has been judged to reflect social phobia symptoms severe enough to warrant treatment (11).

Comprehensive Cognitive Behavioral Therapy (CCBT) was a 14 week group treatment (with one session weekly) that combines in vivo exposure, cognitive restructuring, and social skill training, which was derived from the type of treatment that is developed by heimberg et al (12).

CCBT includes specific social skills training (e.g., how to begin a conversation with a stranger) & improves wanted behavior (e.g. eye contact), and role play. Between sessions the students completed homework assignments designed to help them confront fearful social situations using the techniques learned in therapy.

Fl was started at 20 mg\d, increasing on day 8 to 40mg\d. After 8 weeks the dose was raised to 60 mg \d if the subject failed to show improvement.

Forty eight Student met the diagnostic criteria of SP according to ICD-10 were included in an intention to evaluate the efficacy of different types of treatments. The subjects were divided into two groups FL and CCBT according to certain method, that is, the subject select certain number(odd or even), if the number is odd the subject is listed under the FL group ,and if the number is even, the subject is listed under the CCBT group.

The second group was divided to four subgroups each consisted of 6 students their age rang between 18-24 years old. Two of subgroups were with equal gender the other two were with four female and two male.

Results:

1- prevalence of social phobia

The prevalence of SP in the medical students according to the ICD- 10 Checklist was (12.6 %).

Number and percentage of cases of Sp

Sp Diagnosis	Number	Percentage
Positive SP	48	12.6 %
Negative SP	332	87.4%
Total	380	100%

2- Gender.

There was a significant gender difference with a higher rate in female students. (17. 4%) of female students were affected in comparison to (7.9%) male students.

Table (2)

Distribution of cases according to gender

SP Diagnosis	Male	Female
Positive SP	15 (7.9%)	33(17.4%)
Negative SP	175(92.1%)	157 (82.6%)
Total	190 (100%)	190 (100%)

Chi .Sq = 20.65 df = 1 P. value = 0. 001

3- Residence

Students living in rural areas had higher rate of SP (20%) in comparison to those who were living in suburban and urban areas (11.3% and 11.4 %) respectively which was statistically significant.

Table (3)

Distribution according to residence

SP Diagnosis	Rural N (%)	Suburban N (%)	Urban N (%)
Positive SP	11 (20%)	14(11.3%)	23(11.4%)
Negative SP	44(80%)	110 (88.7%)	178(11.6%)
Total	55(100%)	124 (100%)	201 (100%)

Chi. Sq = 11. 31 df = 2 p value =0.003

4- Family history

Highly significant difference found between cases having positive family history of any psychiatric disorder (19.7%) comparing to those have negative family history (7.7%).

Table (4)

Distribution according to family history of psychiatric disorder

F.H of psychiatric Disorder	Diagnosed SP N (%)	Non diagnosed N (%)	Total N (%)
Positive	31 (19.7%)	127 (80.3%)	158 (100%)
Negative	17(7.7%)	205 (92.3%)	222(100%)

Chi. Sq = 15.67 d f = 1 p value = 0.001

5- Autonomic arousal symptoms

The autonomic arousal symptoms which were present in students with SP: palpitation were the most common symptoms answered by (87.5%) followed by trembling or shaking by (66.6%) then sweating by (52.1%) & the least common symptom was dry mouth (not due to medication or dehydration) by (37. 5%).

Table (5) Frequency of autonomic arousal symptoms

Autonomic symptoms	Number	Percentage
Palpitation	42	87.5 %
Trembling	32	66 .6 %
Sweating	25	52. 1 %
Dry mouth	18	37 .5%

6-symptoms involving Mental state

The symptoms involving mental state which were answer by students with SP : Derealization (feeling that objects are unreal) or depersonalization (that the self is distant or" not really here") were the most common symptoms present in (54.2%) of cases , fallowed by the fear of dying which was answered by (31.2%) , then feeling dizzy, unsteady , or light – headed by (29 .2%) , and the least common symptom was fear of losing control "going crazy" by (18 .7 %) .

Table (6)

Frequency of occurrence of symptoms involving mental state

Symptoms involving mental state	Number	Percentage
Derealization or depersonalization	26	54 .2 %
Feeling dizzy	14	29. 2 %
Fear of losing control	9	18. 7 %
Fear of dying	15	31. 2 %

7- social situation

The social situation which were feared or avoided by the students with SP were : eating or speaking in public (70.8 %) was the most common feared situation ,followed by entering or enduring small group situations (52.1 %) , then encountering known individuals in public (43.7%) , and lastly other situation like (writing infort of others , other sex embarrassment) (35.4%) .

Table (7)Distribution of social situation for fear or avoidance behavior

Social situations	Number	Percentage
Eating or speaking in public	34	70. 8%
Entering small group situation	25	52. 1 %
Encountering known individual	21	43. 71%
Other sex embarrassment	17	35. 4 %

8 – Students academic competence

Percentage of SP in students who passed the last mid year exams is (12 .2%), which was not different statistically from the percentage of SP in those students who failed in the exams (15. 4%).

Table (8)

Distribution in relation to student success in the last mid – year exams

Mid year exams	Diagnosed SP N (%)	Non diagnosed N (%)	Total N (%)
Passed	40 (12 . 2 %)	288(87.8 %)	328(100%)
Failed	8 (15 .4%)	44 (84. 6%)	52(100%)

Chi sq = 0 .003 d f = 1 p value= 0.94

9 – Response to treatment

Percentage of student with positive response to (CCBT) treatment is (51. 8%) which was not different statically from percentage of student with positive response to (F1) treatment (48 .2%) . P value greater than 0.05 %.

Table (9)

Distribution in relation to student positive response to treatment

Response to treatment	CCBT N (%)	F L N (%)	Total N (%)
Positive Response	14 (51 . 8)	13 (48.2)	27 (100%)
Negative Response	10 (47. 6%)	11 (52 . 4%)	21 (100%)

Chi sq = 0 .002 d f =1 p value = 1.1

Note: Positive response to treatment takes less than twenty marks in BSPS rating scale

Discussion:

This study explored the prevalence of SP among medical students which was (12. 6 %). This rate was found to be relevant in comparison to other studies in Iraq & other countries as for example Sewed, Germany and USA. The previous studies showed that SP among university students in Sulaimania province was (9.I %) (13) and (15.6%) of SP was found among general population in Swedish (14) . In Germany they found (11%) of adolescents between 14 – 24 years old had SP (15). Also in USA (43) studies done among general population they revealed that about (3-13 %) of general population had SP (16). The relation difference that was detected between the present study & other studies might be due to different criteria for diagnosis or different age groups were used.

The rate of SP among female students was greater than that in male students (17. 4% and 7.9%) respectively which was statistically significant. The result is similar with most of other studies Ranta et al study 2007 (17), Gren-Landell et al study 2008 (18). Differences among geographic distribution were found in the present study. The rate of SP was significantly higher in the rural than the urban and suburban students. Similar urban – rural differences in SP morbidity have been reported in the study of Chia-Fen et al 2009 (19). About (19.7%) of cases had family history of at least one psychiatric disorder which is a highly significant value, similar to our study , Knappe et al in Germany in 2009 found an association between parental psychopathology and offspring social phobia (20).

Presence of autonomic arousal symptoms was at the top of the list on the other hand symptoms involving mental state were less common this might be explained on the bases of the fact that autonomic symptoms are felt easily, & there are no cultural obstacles to admit their presence. Mental state symptoms were lesser in occurrence either because they are actually less common, or because students were less likely to talk about them for cultural

reasons being associated with stigma. Similar finding were adopted by hassan &Amins study 2006 (13). Regarding social situations which are feared or avoided by students, eating or speaking in public was the most common, present in (70.8%) of cases. Furmark et al in 1999(14) & chia et al in 2009(19) found that public speaking was the most common social fear. Also Kessler et al found that speaking fears were the most common &present in one third of people with life time SP (21).

Regarding student's academic competence, among those who passed & those who failed the rate of SP were (12.2% vs. 15.4) in table (8) with no significant difference. These findings were different from other studies. Khan et al study in UAS in 2007 who found that children & adolescents with SP often have great impairment in their academic performance(3). Russian et al study in USA 2007 declared that if SP left untreated it will lead to significant functional impairment (22). Furmak et al study suggests an association between SP and low educational attainment (14).

In difference of present study to the above studies may be due to that student academic competence depended on the academic assessments which are mostly written exams that do not concern with the evaluation of social skill & competences. In our study none of the subjects are drop out, it may be due to the fact that they are medicine students, who have good recognition of importance of medical treatment. Response to treatments demonstrated efficacy for FL and CCBT with positive response (48.2% & 51.8 %) respectively in treating patient with SP. This result goes with study of Heimberg et al (23) who found positive response to CCBT about 58% but he studded phenlzine instead of FL, &found the positive response is about 65%. It is conceivable that phenelzine carries greater benefit than an SSRI, a hypothesis consistent with a recent Meta – analysis by Hidalgo et al (24).

One SSRI, sertraline has been studied in conjunction CCBT in a Swedish primary care setting (25) sertraline CCBT & sertraline alone exceeded the response from placebo alone. Fedoff I C, Taylor S 200I suggested that treatment of choice for SP is CBT based on exposure and Antidepressant medication (26).

Conclusions:

The prevalence of SP among medical college students in Diwania is (12. 6 %); the rate is higher in females than male. There are special factors appear to have risk in the development of SP, being female, coming from rural area, &positive family history of any psychiatric disorders. SP appears to have no effete on academic performance. Both treatments (FL, CCBT) had a positive response as well as they have about the same statistical results.

References:

1- *Sadock B J, and. Virginia Alcott Sadock . Kaplan and Sadocks Synopsis of psychiatry. Behavioral Sciences \ Clinical psychiatry. 10th Edition 2007; 281: 597 -604.*

2- Gelder M, paul Harrison, and Philip cowen Shorter Oxford Textbook of Psychiatry. 5th Edition 2006; Oxford University press.

3- khan K S, Santibanez M p , Mcuicken C,and Ragan MA . Social Anxiety Disorder in children and adolescents: Epidemiology, Diagnosis and Treatment. Pediatric Drugs. 2007; 9(4): 227- 237.

4-Knappe S, Lieb R, Beesdo K , Fehm L, Low NC, Glostre AT, and Wittchen HU . The role of parental psychopathology and family environment for Social phobia in the first three decades of life. 2009; 26(4):364-470.

5- Knappe S, Beedok Fehm L, Lieb R, and wittchen HU. Associations of familial risk factors with social fears and social phobia: evidence for the Continuum Hypothesis in social anxiety disorder? Journal of Neural Transmission. 2009 Jun; 116 (6): 639 – 648.

6- Rantak , Kaltiala-Heino R , Rantanen P, and Marttunen M . Social phobia in Finnish general adolescent population: prevalence comorbidity, individval and family correlates, and service use Depression Anxiety. 2009; 26 (6): 528 – 36.

7 – Stein MB, Tancer ME, Gelernter ES, Vittone BJ and Uhde TW. Major depression in patients with social phobia. American Journal of psychiatry. 1990; 147: 637 – 39. Press by American psychiatric Association 1990.

8 – Ham L S, and Hope DA. Incorporating social anxiety in to a model of college problem drinking: replication and extension. Psychological Addictive Behaviors. 2006 Sep; 20 (3): 348 – 55.

9 – Schneider BH. An observational study of the interaction of socially withdrawn anxious early adolescents and their friends. Journal of Child Psychology and Psychiatry. 2009 Feb; 26.

10 – Cox BJ, Direnfeld DM, Swinson RP and Norton GR. Suicidal ideation and suicide attempts in panic disorder and Social phobia. American Journal of psychiatry. 1994; 151: 882- 87. Press by American psychiatric Association.

11 – Davidson JRT Miner CM , De veaugh Geiss J ,Tupter L A , colket J T, potts NLS . The Brief social phobia scale: psychometric evaluation psychol Med. 1997; 27: 161 – 166.

12 – Heimberg RG , Dodge CS , Hope DA , Kennedy CR , zollo L , Becker RE . Cognitive behavioral group treatment of Social phobia: Comparison to a credible placebo control. Cognit Ther Res. 1990; 14: 1- 23.

13 – Afram M. Hasan and Nazar M. Amin. Prevalence of social phobia among Suleimani university students Thesis submitted to the Iraq council of psychiatry in partial fulfillment for the degree of fellowship of the Iraq Council for medical specializations in psychiatry 2006.

14 – Fumark T, Tillfors M, Everz p , Marteinsdottir I , Gefvert O, and Fredrikson M . Social phobia in the general population: prevalence and socio – demographic profile. Social psychiatry and

psychiatric Epidemiology 1999 Aug; 34 (8): 416 – 24.

15 – Beesdo K , Bittner A , Pine Ds , stein MB, Hofler M,Lieb R, and wittchen HU . Incidence of social Anxiety Disorder the consistent risk for secondary depression in the first three decades of life. Archives of General psychiatry. 2007 Aug; 64 (8): 903 – 12.

16- Furmark T. Social phobia: Overview of community Surveys. Acta psychiatrica Scandinavia. 2002 APr ; 105 (2) : 84 – 93 .

17 – Ranta K , Kaltiala – Heino R, Koivisto AM , Tuomisto MT, pelkonen M, and Morttunen M . Age and gender differences in social anxiety symptoms during Adolescence: the social phobia Inventory (SPIN) as a measure. Psychiatry Research. 2007 Dec 3; 153 (3):261 – 70. Epub 2007 Aug 16.

18 – Gren – Landell M , Tilfors M , Furmark T , Bohlin G , Andersson G, and Svedin CG . Social phobia in Swedish adolescents: prevalence and gender differences . Social psychiatry and psychiatric Epidemiology. 2009 Jan; 44 (1) : 1 – 7.

19 – Chia- Fen Tsai , Shuu- Jiun wang , Kai- Dih Juand,and Jong- Ling Fuh . Use of the Chinese (Taiwan) version of the social phobia Inventory (SPIN) among early adolescents in rural areas: reliability and validity study. Journal of Chinese Medical Association 2009 Aug; 27 (8): 422-29.

20 – Knappes . Beesdo K, Fehm L, Lieb R, and Wittehen HU. Association of familial risk factors with social fears and social phobia: evidence for the continuum hypothesis in social anxiety disorder? Journal of Neural Transmission. 2009 Jun; 116(6): 639 – 48. Epub 2008 Nov 4.

21 – Kessler R C, Murray B Stein and Patritia Berglund. Social phobia subtypes in the national co morbidity survey. American Journal of psychiatry. 1998 May; 155:613 – 19.

22 – Russian AM, Brown TA, Chiu WT, Sareen J, Stein MB, and Kessler RC. Social fears and social phobia in the USA: results from the National Survey Replication .Psychological Medicine. 2008 Jan; 38 (1): 15 – 28.

23- Heimbery RG Liebowitz MR, Hope DA, Schneier FR,Holtcs , Welkowitz CA , Juster HR , Campeas R , Bruch MA , Cloitre M, Fallon B, klein DF . Cognitive behavioral group therapy vs. phenelzin therapy for social phobia: 12– week outcome. Arch Gen psychiatry. 1998; 55: 1133 - 1141.

24 – Hidalgo RB, Barnett SD, Davidson JRJ. Social anxiety disorder in review-two decades of progress. Int J Neropsychopharmacology . 2001; 4: 279 – 298.

25 – Blomhoff S, Haug TT, Hellstrom K, Holme I, Humbler M Madsbutt p, Wold JE, Randomized controlled general practice trial of sertraline, exposure therapy and combined treatment in generalized social phobia .B J psychiatry. 2001; 179: 23 – 30.

26 – Fedoroff IC, Jaylor S. Psychological and pharmacological treatment of social phobia: a meta-analysis. Journal of Clinical psychopharmacology. 2001; 21: 311 – 324.