Social anxiety and its effect on self-efficacy among family medicine residents in Riyadh

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ABSTRACT

Background: Social anxiety is a common disorder that characterized by fear of social situations. Social anxiety disorder causes several problems including alcohol abuse. Its prevalence is high, and it affects work and education. Self-efficacy influences any action the individual takes. Aim: The aim of this study is to evaluate the prevalence of social anxiety disorder and its effect on self-efficacy on family medicine residents. Materials and Methods: This study included 200 participants of family medicine residents; two validated scales were incorporated in one questionnaire to investigate the social anxiety and self-efficacy. Results: The prevalence rate of social anxiety was low among family medicine residents, and there was no difference between the levels of anxiety and other demographics, there was a negative correlation between social anxiety levels and self-efficacy. Conclusion: There was a negative correlation between social anxiety and self-efficacy, where high levels of social anxiety were related to low levels of self-efficacy.

Keywords: Family medicine residents, self-efficacy, social anxiety

Introduction

Many physicians are not caring for themselves due to stress and overwork.[1] The poor mental health of physicians affects their performance and hence affects negatively on patients’ health outcomes.[2] Anxiety is defined as an emotion that characterized by anxious thoughts, feelings of tension, and physical changes such as increased blood pressure. Those who have anxiety disorders usually express recurring intrusive thoughts or concerns.[3]

In the Arab world, the prevalence of anxiety differs between studies that performed on clinical populations and community samples, with an increase in anxiety prevalence in clinical studies than in community studies.[4] There are several types of anxiety including social anxiety disorder.[5] Social anxiety disorder, which also known as the social phobia, is a common disorder which characterized by an intense fear of scrutiny, a consequent avoidance of social encounters, and restricted social functioning.[6] Persons who suffer social anxiety disorder also suffer reduced quality of life.[7,8]

A social anxiety disorder may cause alcohol abuse and other several problems.[9] Its prevalence was reported to be high 12% by Kessler.[10] In the Western countries, social anxiety disorder prevalence was 1%–13% among adolescents and young adults.[9] In Saudi Arabia, the prevalence of social anxiety disorder was found to be 13% of all neurotic disorder seen in the psychiatric clinic.[11] Social anxiety disorder has a significant effect on education and employment.[11]

Self-efficacy is the very important factor in the regulation of human behavior and coping with anxiety.[12] Self-efficacy was...
defined as the belief of the person about his ability to strategize any action that should be performed for a certain goal in life. Self-efficacy is the main basis for the person to accomplish any task, so self-efficacy can influence any action and the thinking pattern of persons. The level of self-confidence performs any task is determined by one’s self-efficacy, where a strong sense of efficacy enhance individuals for accomplishment and personal well-being.

Review of literature
It was found in one study that medical students had more stress level than before their entire life. Stress causes the increase in the level of anxiety, emotional difficulties, and suicide. In a study by Al-Gelban in KSA, he reported that the prevalence rate of anxiety was 48.9% of participants. In German study on adolescents and young adults, it was reported that the prevalence of social anxiety disorder was 11.0% for the total sample. The patients with social anxiety disorder were found to have at least one other psychiatric disorder. A study by Arafat et al. showed a high prevalence of social phobia in Saudi Arabia. Another study in Saudi Arabia, it was reported that the prevalence of social phobia was 7.8% among male students.

Self-efficacy affects the self-confidence and hence influence the task to be performed. It was found that there was a positive relationship between self-efficacy and the level of self-adjustment regarding academic performance. A correlation was found between self-efficacy and depression in adolescent. In addition, it was mentioned that self-efficacy should be considered as a component of anxiety. It was reported that the high levels of anxiety were associated with low levels of self-efficacy. The researchers about social anxiety disorder are few, and none of them focused on family medicine residents, also no researches on the effect of social anxiety on self-efficacy. Hence, the aim of this study was to evaluate the prevalence of social anxiety disorder among family medicine residents as well as to investigate the effect of social anxiety disorder on self-efficacy of family medicine residents.

Materials and Methods

Subjects
This is a cross-sectional study was performed on family medicine residents of Saudi program of family medicine at Riyadh. The total number was 256 residents based on Saudi Commission for Health Specialties statement, 200 residents returned the survey; the response rate was 78%. The study was conducted in the period from May 1, 2017 to May 31, 2017. Consent was taken from participants before their participation in the study, and the research approval was obtained from IRB.

Questionnaire
Two predesigned and validated scales were used in this study, the first was Social Phobia Inventory (SPIN-17) with a cut off 19 and the second was general self-efficacy scale, both the scales were involved in one questionnaire. The SPIN-17 scale was developed and validated by Prof. Jonathan Davidson, Duke University in the USA and the general self-efficacy scales which was permissible to use. Other questions were incorporated into the questionnaire to investigate demographics.

Statistical analysis
Statistical analysis was done using SPSS 16.0 (SPSS Inc., Chicago, Illinois, United States of America) statistical software package. Results were presented as mean and standard deviation for quantitative data, frequencies, and percentage for qualitative data. Student’s t-test was used to compare quantitative variables between participants with and without anxiety Chi-square test was used for comparing qualitative variables between groups; person correlation was done to test the correlation of two scores. P ≤ 0.05 was considered statistically significant.

Results
The present study included 200 participants; most of them were male 122 (61%) while 78 (39%) were female. The age range of participants was 24–34 years old with a mean ± standard deviation (SD) of 27.7 ± 1.97 years. Married participants were more common 105 (52.5%) than singles 94 (47%). There were 44 (22%) at Level 1 residency, 58 (29%) at Level 2, 53 (26.5%) at Level 3, and 45 (22.5%) at Level 4. Half of the participants 100 (50%) graduated at or after 2014, while 97 (48.5%) graduated before 2014, there were three individuals did not mention the year of their graduation [Table 1].

Regarding anxiety score, the range of social anxiety score was 0–58 with a mean ± SD of 15.59 ± 10.89. Regarding self-efficacy score, the range of self-efficacy score was 11–40 with a mean ± SD of 28.18 ± 6.32. At score, 19 of the anxiety which was the cutoff, a lower percentage of participants had social anxiety 69 (34.5%), while higher percentage was without anxiety 131 (65.5%).

There was no significant difference regarding the age between those with and without anxiety (P = 0.109). In addition, no significances were found regarding sex and marital status between those with and without anxiety [Table 2].

There was a significant negative correlation between anxiety and self-efficacy (r = −0.235, P = 0.001) [Figure 1].

The mean score of self-efficacy was higher (28.85 ± 6.55) in those without social anxiety than the mean score of those with social anxiety (26.88 ± 5.67). There was a significant difference between the mean score of self-efficacy between those with and without anxiety (P < 0.036).

Discussion
Anxiety is a feeling that characterized by anxious thoughts and feelings of tension; there are several types of anxiety including
Table 1: Demographic data of the participants

| Variable        | Level     | n=200, n (%) |
|-----------------|-----------|--------------|
| Gender          | Female    | 78 (39.0)    |
|                 | Male      | 122 (61.0)   |
| Age             | Mean±SD, range | 27.7±1.97, 24-34 |
| Marital status  | Single    | 94 (47.0)    |
|                 | Married   | 105 (52.5)   |
| Education       | Resident (1) | 44 (22.0)    |
|                 | Resident (2) | 58 (29.0)    |
|                 | Resident (3) | 53 (26.5)    |
|                 | Resident (4) | 45 (22.5)    |
| Graduation      | Before 2014 | 97 (48.5)    |
| year            | At or after 2014 | 100 (50.0)   |

SD: Standard deviation

Table 2: Relation between anxiety and demographics

| Group               | No social anxiety | With social anxiety | P       |
|---------------------|-------------------|---------------------|---------|
| Age (mean±SD)       | 27.91±2.07        | 27.43±1.75          | 0.109   |
| Sex (%)             |                   |                     |         |
| Male                | 78 (59.5)         | 44 (63.8)           | 0.58    |
| Female              | 53 (40.5)         | 25 (36.2)           |         |
| Marital status (%)  |                   |                     |         |
| Married             | 74 (56.5)         | 32 (46.4)           | 0.173   |
| Single              | 57 (43.5)         | 37 (53.6)           |         |

SD: Standard deviation

Social anxiety is characterized by a fear of social situations when exposed to unfamiliar persons. There are limited studies on social anxiety, especially between doctors, so we aimed to study the prevalence of social anxiety and its effect on self-efficacy of family medicine residents. The present study included 200 participants of family medicine residents, most of them were male, and all participants were younger with age range of 24–34 years old.

The cutoff value of social anxiety was 19; the range of anxiety score was 0–58 with a mean ± SD of 15.59 ± 10.89. There was the low prevalence of social anxiety among family medicine residents, where 34.5% of them had social anxiety, while 65.5% did not suffer social anxiety. The rate of prevalence of social anxiety in this study among family medicine residents was low. However, it was higher than the prevalence reported in the previous Saudi studies if we compared it with the prevalence of this disorder in KSA. It was estimated that the prevalence rate of social anxiety in KSA was approximately 13% of all neurotic disorder seen in the psychiatric clinic. It was reported that the prevalence of social anxiety constituted third of the medical students. There was a study on Saudi adolescent secondary school girls; it was found that 16.4% of total 545 girls experienced social anxiety.

A study on Moroccan individuals by Kadri et al., it was found that social anxiety constitutes about 3.4%. In the USA study, it was found that social anxiety prevalence rate was 12%. By comparing our results to the others, it is undeniable that social anxiety was more prevalent among family residents than others. This high prevalence among doctors in this study may affect negatively on their work and self-efficacy, where social anxiety has a significant impact on employment. It was found that social anxiety had an adverse effect on quality of life of a person and made the individual unstable both physically and psychologically. Regarding age, there was no significance between those with and without social anxiety (P = 0.109), where the means of ages of those with and without social anxiety were very close (27.43 ± 1.75) and (27.91 ± 2.07) for those with and without social anxiety respectively, this refers to that social anxiety is not affected by age or this can be explained by another theory that the range of age of participants was not large.

In the present study, regarding gender, there was no significant difference between the two genders for those who had social anxiety or without social anxiety (P = 0.52), this means that both genders experienced anxiety at the same level and anxiety is not affected by gender. In the current study, there was no significant difference between those with and without anxiety regarding being single or married (P = 0.173), this indicates that the marital status did not influence the anxiety prevalence.

A high self-efficacy of the individuals enhances accomplishment and personal well-being. It was mentioned that self-efficacy should be considered as a component of anxiety. Murri stated that high levels of anxiety are correlated with low levels of self-efficacy. By assessing the self-efficacy in the present study, the mean score was found 28.18 ± 6.032. There was a significant negative correlation between social anxiety and self-efficacy (r = −0.235, P = 0.001), this means that increasing anxiety cause a significant decrease in self-efficacy. In Khoshnevisan’s survey, which was established to assess the relationship between self-efficacy with depression, anxiety, and stress. He found that 15% of anxiety variance was explained by the presence of self-efficacy. The findings of our study were in agreement with the findings of other studies where it was reported that people with more social anxiety had low self-efficacy. Although the previous two studies were not performed on physicians, their results are in accordance with ours.
Conclusion

This study showed that there was an inverse relation between social anxiety and self-efficacy between family medicine residents, where the high levels of social anxiety led to low levels of self-efficacy. There were no significances between suffering social anxiety and gender, age, or marital status. There was a limitation in studies on social anxiety between physicians and no previous Saudi studies on the relation between social anxiety and self-efficacy. We recommended more studies to get more details about the prevalence of social anxiety between doctors and to ensure the correlation between social anxiety and self-efficacy.

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Conflicts of interest

There are no conflicts of interest.

References

1. Alzahrani AS, Alghamdi EA, Alyamani MN, Alowdhah MA, Aseeri OM Aljadani MF. Generalized anxiety disorder among physicians in Jeddah, Saudi Arabia: Prevalence and determinants. Int J Med Res Prof 2016;2:140-6.
2. Gong Y, Han T, Chen W, Dib HH, Yang G, Zhang R, et al. Prevalence of anxiety and depressive symptoms and related risk factors among physicians in China: A cross-sectional study. PLoS One 2014;9:e103242.
3. Alzahrani M, Alfaheid F, Alamrous M, Alghamdi T, Ansari T, Sami W, et al. Prevalence of generalized anxiety disorder and major depression in health-care givers of disabled patients in Majmaah and Shaqra cities, Kingdom of Saudi Arabia. Int J Health Sci (Qassim) 2017;11:9-13.
4. Tanios CY, Abou-Saleh MT, Karam AN, Salamoun MM, Mneimneh ZN, Karam EG, et al. The epidemiology of anxiety disorders in the Arab world: A review. J Anxiety Disord 2009;23:409-19.
5. Dew MA, Myaskovsky L, DiMartini AF, Switzer GE, Schulberg HC, Kormos RL, et al. Onset, timing and risk for depression and anxiety in family caregivers to heart transplant recipients. Psychol Med 2004;34:1065-82.
6. Murray L, Cooper P, Creswell C, Schofield E, Sack C. The effects of maternal social phobia on mother-infant interactions and infant social responsiveness. J Child Psychol Psychiatry 2007;48:45-52.
7. Von Dawns B. Neuropetidergic Modulation of Social Behavior in Health and Social Phobia. Germany: Verlag; 2009.
8. Chaleb K. Social phobia in Saudis. Soc Psychiatry 1987;22:167-70.
9. Fumark T. Social phobia: Overview of community surveys. Acta Psychiatr Scand 2002;105:84-93.
10. Kessler RC, Berglund P, Demler O, Jin R, Merikangas KR, Walters EE, et al. Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the national comorbidity survey replication. Arch Gen Psychiatry 2005;62:593-602.
11. Patel A, Knapp M, Henderson J, Baldwin D. The economic consequences of social phobia. J Affect Disord 2002;68:221-33.
12. Walters S. Self-regulated learning and college students’ regulation of motivation. J Educ Psychol 1998;90:221-9.
13. Bandura A. Self-efficacy. In: The Exercise of Control. New York: W.H. Freeman and Company; 1997.
14. Mustafa MF, Nasir R, Yusoff F. Parental support, personality, self-efficacy and depression among medical students. Procedia Soc Behav Sci 2010;7:419-24.
15. Lent RW, Hackett G. Career self-efficacy: Empirical status and future directions. J Vocat Behav 1987;30:347-82.
16. Tahmassian K, Jalali Moghadam N. Relationship between self-efficacy and symptoms of anxiety, depression, worry and social avoidance in a normal sample of students. Iran J Psychiatry Behav Sci 2011;5:91-8.
17. Lee J, Graham AV. Students’ perception of medical school stress and their evaluation of a wellness elective. Med Educ 2001;35:652-9.
18. Shapiro SL, Shapiro DE, Schwartz GE. Stress management in medical education: A review of the literature. Acad Med 2000;75:748-59.
19. Al-Gelban KS. Depression, anxiety and stress among Saudi adolescent school boys. J R Soc Promot Health 2007;127:33-7.
20. Beesdo K, Bittner A, Pine DS, Stein MB, Lieb R, et al. Incidence of social anxiety disorder and the consistent risk for secondary depression in the first three decades of life. Arch Gen Psychiatry 2007;64:903-12.
21. Lecrubier Y, Weiller E. Comorbidities in social phobia. Int Clin Psychopharmacol 1997;12 Suppl 6:S17-21.
22. Merikangas KR, Angst J. Comorbidity and social phobia: Evidence from clinical, epidemiologic, and genetic studies. Eur Arch Psychiatry Clin Neurosci 1995;244:297-303.
23. Schneier FR, Johnson J, Hornig CD, Liebowitz MR, Weissman MM. Social phobia. Comorbidity and morbidity in an epidemiologic sample. Arch Gen Psychiatry 1992;49:282-8.
24. Arafa M, Al-Klmi M, Hamdi E, Yousseryia A, Eldafrawy MH, Moussa FA. Social phobia in an Arab culture: Impact Socio cult Factors Psychiat 1992;15:102-13.
25. Alzahrani AH, Abozaid H, Ahmed AA, Alshomrani AA, Aljoaid RA, Alqurashi MS, et al. Prevalence of anxiety disorder among male school students at Taif governorate, Saudi Arabia. Int J Adv Res 2016;4:302-16.
26. Brady-Ammon M. The Association between Self-Efficacy and Self-Related Abilities and College Students’ Adjustment and Academic Performance. Ph.D Fordham University, New York; 2008.
27. Ehrenberg MF, Cox DN, Koopman RF. The relationship between self-efficacy and depression in adolescents. Adolescence 1991;26:361-74.
28. Comunian AL. Some characteristics of relations among depression, anxiety, and self-efficacy. Percept Mot Skills 1989;69(3 Pt 1):755-64.
29. Murris P. Relationship between self-efficacy and symptoms of anxiety disorders and depression in a normal adolescent sample. Pers Individ Dif 2002;32:337-48.
30. American Psychiatric Association. The Diagnostic and Statistical Manual of Mental Disorders. 5th ed. Arlington, VA: American Psychiatric Publishing; 2013.
31. Bin Jarallah HN, Al-Omari FK, Altowairiqi IF, Al Saadi KK. Magnitude of social anxiety disorder, and impact on quality of life among medical students, Taif City-KSA. J Psychol Clin
32. Al Gelban KS. Prevalence of psychological symptoms in Saudi secondary school girls in Abha, Saudi Arabia. Ann Saudi Med 2009;29:275-9.
33. Kadri N, Agoub M, El Gnaoui S, Berrada S, Moussaoui D. Prevalence of anxiety disorders: A population-based epidemiological study in metropolitan area of Casablanca, Morocco. Ann Gen Psychiatry 2007;6:6.
34. Schneier FR. Clinical practice. Social anxiety disorder. N Engl J Med 2006;355:1029-36.
35. Hambrick JP, Turk CL, Heimberg RG, Schneier FR, Liebowitz MR. The experience of disability and quality of life in social anxiety disorder. Depress Anxiety 2003;18:46-50.
36. Khoshnevisan Z, Afroz GH. Relationship of efficacy with depression, anxiety and stress. J Thought Behav 2011;5:20-73.
37. Rodebaugh TL. Self-efficacy and social behavior. J Behav Res Ther 2006;44:1831-8.
38. Muris P, Schmidt H, Lambrichs R, Meesters C. Protective and vulnerability factors of depression in normal adolescents. Behav Res Ther 2001;39:555-65.