Social anxiety among adolescents and its relation to quality of life

Saleh Alkhathami[a]* Hossein Kaviani[a], Emma Short[a]

[a]Luton LU13IU, United Kingdom

Abstract

The aim of this study was to investigate the level of self-reported social anxiety in a community sample of Saudi adolescents and the relationship between social anxiety quality of life, and some socio-demographic parameters. This study was a school-based cross-sectional study. Students in elementary and high school (aged 12–19) were from randomly schools in Dammam, Saudi Arabia and were screened by the Social Anxiety Scale for Adolescents (SAS-A), social phobia inventory scale and social anxiety interaction scale. All scales were cross-culturally adapted by the translated and back-translated recommended method. The correlations of socio-demographic parameters with the SAS-A scores were examined. Data from a sample of 564 students were analysed. No significant gender difference in the SAS-A total score, fear of negative evaluation and social avoidance and distress-New points was found. Comparing the SPIN scores, Fear, Avoidance and Authority Problems for boys and girls found that boys reported higher in SPIN total, fear and avoidance than girls did. SAS-A scores were higher in those with a low socioeconomic level. The result of this study showed that social anxious symptoms among Saudi adolescents were more severe in boys. Result found that adolescents without social anxiety scored on quality of life and its subscales more than adolescents with social anxiety as measured by SAS-A. Some factors such as low socioeconomic level and having more siblings in one family had impact on the SAS-A scores as well as others scales.

* Corresponding author. Tel.: +0-000-000-0000 ; fax: +0-000-000-0000 .

1. Introduction

Olledick and Hirshfel-Becker (2002) consider social fears to be an important facet of normal development. A study by Essau et al. (1999) of adolescents aged 12-17 found that almost 50% of the participants had a social fear. The most common fears in a school environment have been found to pertain to reading in a class or doing speech and drama performances (Kearney, 2005). In a clinical group, fear has been found to be a common reaction to public speaking and in school-related situations (Beidel, Turner & Morris, 1999; Rao et al., 2007). Connolly & Bernstein (2007) found that anxiety was also related to a lack of social skills, learning and attention problems. As these skills vary with age, the level of fear may also vary with age in this age group.

Social anxiety ranks as the third most common mental health disorder after depression and alcohol abuse (Furmark, 2002). At least one in every ten persons has at some time in their life been affected by social phobia, a phenomenon experienced in almost every culture studied. By adulthood, a large proportion of people acknowledge having experienced at least transient social anxiety on occasion, predominantly regarding public speaking or performing in front of others (Kessler, Stein & Berglund, 1998).

Due to strict cultural norms, these samples are comprised largely of men, and little is known about the prevalence rates of SP in Saudi women. Researchers have examined cultural reasons for this research sample bias (Bassiony, 2005). First, because the Saudi workforce is comprised mainly of males, Saudi males tend to have more opportunity to interact in social situations, and the corresponding pressures are also greater than those faced by Saudi women. Second, Saudi norms require that women are accompanied by a male relative. This restricts their access to facilities such as health services because women are required to explain their health-related problems and convince their male relatives of the necessity of visiting the health service; consequently it is more convenient for studies to access males only. In Saudi Arabian society, psychological consultation still carries a stigma, particularly for females whose privacy and confidentiality are not well protected, due to the requirement that they let their male relative know about their issues.

Within the Saudi context, some vital studies have been conducted on SP in children and young people, although less is known about the prevalence of SP in these populations. Phobic anxiety is the most frequent mental-health-related problem among Saudi adolescents, with a rate of around 17.3% (Mahfouz et al., 2009). Another study, of 545 Saudi female students, found a prevalence rate of 16.4% for phobic anxiety (Al Gelban, 2009). To date, no epidemiological studies have been conducted in Saudi Arabia or any other Arab country on SP among children. The aim of the present study is to fill this gap in the research by considering the Saudi Arabian context.

Social phobia can have a catastrophic impact on adolescents as they face many of the aforementioned situations in everyday life, particular since, as Crozier, Gillihan and Powers (2011) found, the same symptoms that occur in specific phobias also occur in social phobias. Wittchen and Beloch (1996) found that most individuals suffering from social phobia develop acute illness which disrupts their everyday activities. It

has also been found that subjects suffering from social phobia rarely meet a doctor for proper treatment. According to the Epidemiologic Catchment Area study, "only 19.6 percent of persons with social anxiety disorder sought treatment" (Simon et al., 2002).

1.1 Social anxiety related to quality of life

One aim of the current study is to discover how social anxiety affects the maintenance of quality of life. Koot (2002) shows that Quality of Life (QOL) can be defined in a number of ways. Primarily it is concerned with the individual's subjective notions about life. The individual's attitudes towards health, social participation, routine and economic conditions need to be considered in order to determine his or her quality of life. Similarly, Ghaedi and Tavoli (2009) contend that a patient's quality of life depend on his or her "physical, social, and psychological" conditions. According to Wallander and Koot (2001), QOL incorporates the "functional impairments, handicaps, and living conditions of an individual". Hughes et al. (1995, in Wallander and Koot , 2001) identified 44 definitions of QOL with 15 different dimensions. Defined from medical point of view, QOL can be considered as a field concerned with "subjective health status" (Koot & Wallander, 2001). On the other hand, Wallander and Koot (2001) shows that quality of life can be considered as an abstract paradigm which exists only in our thoughts. It may be concluded that the construct QOL potentially incorporates all domains of human life. Imposing a particular philosophical genre on research about QOL is a way of delimiting the parameters of the construct so that it can be usefully studied.

Ragheb et al. (2007) claim that only two published studies reported social phobia prevalence in an Arab country. They highlight the need for psychometric measures for screening or diagnosis of social anxiety in Arabic countries.

The study of social phobia and social anxiety in adolescents is relatively new. While Zhou et al. (2008) claims that attention has been given to the negative effect of social anxiety on adolescents' social and academic worlds, the current study seeks to better illuminate the debilitating effect of social phobia on the quality of adolescent life in an under-studied cultural setting: in Saudi Arabia. Saudi Arabia is a relatively young society with 47 percent of the population under 15 years old. According to Khoja and Farid (2000), a large proportion of the Saudi Arabian population is young, with 69 percent under 30 years old, and 47 percent under 15 years.

Few studies have been conducted on social interaction anxiety in which a person suffers from communication-related impairment (Mattick & Clarke, 1998). This can be a devastating disorder for adolescents in that it affects the development of their other faculties and impedes their ability to adapt to mainstream society (Haywood et al., 2008). Studies on this topic in non-European countries are limited. The present study aims to determine the risk factors for social phobia in adolescents of Saudi Arabia. The overall aim of this research is to evaluate social anxiety in adolescents with respect to determining how social anxiety affects quality of life.

2. Method

2.1. Choosing an appropriate measure for social anxiety

Research instruments were selected based on their simplicity and the suitability of the study sample and age groups for the present study. The questionnaires items were selected based on the researcher's judgement of culture equivalence.

The research instruments for social anxiety were selected if they covered strategies, theories, descriptive scales and models which are associated with social anxiety.
All the examples of strategies, models and theories were then compared with each other. The researchers then met with psychologists to obtain their views on the suitability of the scales items are suitable for Saudi students' the level of understanding.

In total eight scales were selected.

1. Social Anxiety Scale for Adolescents (SAS-A) (Garcia-Lopez, Olivares, Hidalgo, Beidel & Turner, 2001)
2. Social interaction (this scale was designed by the researcher to understand the extent to which adolescents are socially interactive; the questions were constructed based on earlier research on social interaction).
3. Social Phobia Inventory (SPIN) (Connor et al., 2000)
4. World Health Organization's Quality of Life Questionnaire (QoL) (WHOQOL-BREF)
5. Social Interaction Anxiety Scale (SIAS) (Mattick & Clarke, 1998).
6. Brief version of the Fear of Negative Evaluation Scale (BFNE) (Leary, 1983)
7. Self-Referent Adjective Questionnaire (SRAQ) (Kirsh & Kuiper, 2002)
8. Beck Anxiety Inventory (BAI) (Beck & Steer, 1991).

2.2. Questionnaire translation

The original instruments were in English. The researcher adapted these questions for the present study, and then translated them into Arabic using professional bilingual translators. The questions were reviewed as psychometric concepts before administering them.

2.3. Questionnaire administration

The questionnaire that was devised by the researcher to measure social interaction itself rather than measuring social interaction anxiety was administered to all 798 participants. The participants took on average 25-30 minutes to complete the questionnaire.

The researcher delivered the survey package to 30 schools in July 2012, following the list of the Department of Education in Dammam. 22 schools responded. The returned questionnaires were pre-numbered for identification purposes in follow-up processes. In total, 580 questionnaires were returned. However, some information was missing or unclear. Due to the illegibility of some of the answers, two questionnaires were returned to the participants to clarify. Community sample: n=564, ages 12-19, from elementary and high schools. Using the schools listed by the Department of Education in Dammam 2012, 22 schools were randomly selected.

3. RESULTS

The overall aim of this research was to investigate the relationships between social anxiety, and quality of life. To achieve this aim, quantitative data were collected and analysed to address the following two research questions:

1. What is the prevalence of social anxiety among school students in Saudi Arabia as measured by SPIN and SAS-A?

2. What is the relationship between social anxiety and quality of life in Saudi adolescents?

3.1 Demographic characteristics of the community respondents

The overall response was 564 out of 1000 questionnaires giving a response rate of 56%. Table 1 summarises the demographic characteristics of the sample. The results show that more than half of respondents 291 (51.6%) are girls and 273 (48.4%) of respondents are boys. The majority of the respondents 216 (38.3 %) are aged 17 years. 18 years old indicating the next high rate of the youth age category of the respondents 150 (26.6 %). Most of the family numbers in the sector are registered as between 5-10 siblings of the respondents 396 (70.2%). This is because of the common large family in Saudi Arabia. Parents' educations recorded degree of higher education as the majority of father education level of the respondents 177 (31.4) and that because the increased of knowledge obtained in last three decade by men in Saudi Arabia, whereas the majority of mothers education level was primary Level of the respondents 174 (30.9%). Thus, at its early beginnings, official education for Saudi woman faced many obstacles and challenges, which caused the delay of official women's education for 30 years after the establishment of the Saudi state. Of the respondents 187 (33.4%) are having low socioeconomic. However, about three quarters of the respondents 406 (72.1%) were belong to a families who owning their house.

Table 1 Demographic Characteristics of community particip

Demographics	Frequency	Percentage	Mean	Std. Deviation
Gender			1.52	.50
Boys	273	48.4%		
Girls	291	51.6%		
Age			16.79	1.13
12	1	.2%		
13	11	2.0%		
14	9	1.6%		
15	41	7.3%		
16	128	22.7%		
17	216	38.3%		
18	150	26.6%		
19	8	1.4 %		
Education Level			1.90	.29
Secondary School	56	9.9%		
High School	508	90.1%		
Family number			2.01	.54
Between 3-5	80	14.2%		
Between 5-10	396	70.2%		
More than 10	88	15.6		
Father education			2.97	1.17
Primary Level	91	16.1%		
secondary level	87	15.4%		
high school level	172	30.5%		
higher education	177	31.4%		
postgraduate level	37	6.6%		
mother education			2.55	1.23
Primary Level	174	30.9%		
secondary level	76	13.5%		
high school level	158	28.0%		
higher education	139	24.6%		
postgraduate level	16	2.8%		
Family income			2.24	1.08
5000-10000 SR	187	33.4%		
10000-15000 SR	145	25.9%		
15000-20000 SR	137	24.5%		
More than 20000 SR	91	16.3%		
Accommodation			1.28	.44
Owning Housing	406	72.1%		
Rent Housing	157	27.9%		

3.2 Question 1: *what is the prevalence of social anxiety among school students in Saudi Arabia as measured by SPIN and SAS-A?*

Regarding students' report of their social anxiety symptoms, the analysis for the levels of social anxiety symptoms showed that the majority of school students had no symptoms at all (39%, n = 220), while mild symptoms found among 26.8% (n = 151), moderate symptoms found among 22% (N = 124) and those with severe to very severe represented 12.3% (n = 79). Using of 34 as the cut off score for social phobia suggested by (Mattick & Clarke, 1998), 34.3% (N = 145) of the students are considered suffering from social phobia.

3.3 Adolescents' quality of life with and without Social anxiety

It is hypothesised that Saudi adolescents with social anxiety as measured by SAS-A will score less on WHOQOL-BREF scale than Saudi adolescents without social anxiety.

Table 2 Quality of life scores as measured by the WHQOL-BREF and its subscales in school students with and without social anxiety (SAS-A)

	Adolescents with social anxiety N= 152		Adolescents without social anxiety N= 411		*t* value	*p*
	Mean	**Std. Deviation**	**Mean**	**Std. Deviation**		
WHOQOL total score	88.45	14.94	92.33	13.32	2.970	.003
Physical health	22.82	4.25	22.69	3.68	-.378	.706
Psychologica l health	19.94	4.24	21.62	3.76	4.524	.000
Social relationships	10.46	2.75	10.98	2.50	2.119	.03
Environment	27.30	6.08	28.75	5.67	2.625	.009

From table 2 it can be seen that there are significant differences between adolescents without social anxiety and adolescents with social anxiety as measured by ASA-A in quality of life total score and its subscales psychological health, social relationships and environment. That is, adolescents without social anxiety scored on quality of life and its subscales more than adolescents with social anxiety. No significant difference was found in psychical health.

3.4 It is hypothesised that there is statistically difference in social interaction anxiety, anxiety, social interaction, fear of negative evaluation, self-referent adjective and quality of life between boys and girls.

Table 3 Results from the independent sample t-test for differences between male and female in SIAS, BAI, BFNE, SI, SRAQPI, SRAQPR and WHOQOL.

	Male vs. Female	N	Mean	Std. Deviation	T value	P value
SIAS	Male	264	26.45	10.54	.569	.57
	Female	291	25.95	10.14		
BAI	Male	264	14.73	9.82	-5.530	.000
	Female	291	19.37	9.92		
BFNE	Male	264	26.80	9.40	-.885	.377
	Female	291	27.43	7.51		
SI	Male	264	20.46	6.08	-3.193	.001
	Female	291	22.10	6.01		
SRAQPI	Male	264	55.42	16.93	-.766	.44
	Female	291	56.41	13.70		
SRAQPR	Male	264	58.27	15.93	-3.772	.000
	Female	291	62.66	11.47		
WHOQOL	Male	264	88.79	15.20	-4.221	.000
	Female	291	93.68	12.05		

Note: SIAS = Social Interaction Anxiety Scale, BAI = Beck Anxiety Inventory, BFNE = Brief version of the Fear of Negative Evaluation Scale, SI = Social Interaction, SPIN = Social phobia Inventory, SASA = Social Anxiety Scale-Adolescents, SRAQPI = Positive Individualism, SRAQPR = Positive Relatedness,, WHOQOL = World Health Organisation's Quality of Life Questionnaire.

4. DISCUSSION

4.1 Social anxiety and quality of life

It was hypothesised that Saudi adolescents with social anxiety will score less on the World Health Organization's Quality of Life Questionnaire (QoL) (WHOQOL-BREF) scale than Saudi adolescents without social anxiety. In line with previous studies, the findings show that social anxiety disorder has an adverse effect on life satisfaction (Hambrick, Turk, Heimberg, Schneier & Leibowitz, 2003). It affects the quality of life of a person severely and thus makes him or her unstable both physically and psychologically.

The results of the WHOQOL-BREF also show how their quality of life is adversely affected. This study is consistent with Wittchen's et al. (2000) findings about quality of life, physical and role functioning, and above all physical pain.

4.2 Gender differences

Given that female adolescents report higher levels of social anxiety than their male counterparts, it was hypothesised that girls would report higher levels of social anxiety than boys.

In the Western world, adolescent girls score higher on the Social Anxiety Scale for Adolescents (SAS-A) (Garcia-Lopez, Olivares, Hidalgo, Beidel & Turner, 2001) than do boys (La Greca & Lopez, 1998; Inderbitzen & Walters, 2000; Olivares et al., 2005) which was not found in China, although adults were studied as well (Lam et al., 2002; Lee et al., 2005). In the present study, Saudi boys scored higher than girls on this measure. It may be argued that boys are more burdened than girl with expectations due to Saudi social and cultural values.

The present study also shows higher scores of social anxiety among boys in the SAD–New subscale only, whereas no difference was found between boys and girls in the SAS-A total score, the SAD-General or the FNE.

However, in the Social Phobia Inventory (SPIN) (Connor et al., 2000) total score and two of its subscales, namely, fear and avoidance, boys reported higher social anxiety than girls. This may be the case because socio-cultural conventions usually imposes more emphasis on social functioning on boys, so they may become very vulnerable to the expectation and begin to suffer from social phobia. Boys with social phobia are seen to possess shyness and timidity which are considered as more conventional characteristics of girls. The more boys try to overcome these problems, the more they tend to become concerned about their problems.

5. Conclusion

Saudi Arabia is a newly established country that is currently going through a period of rapid development. Thus, research is still relatively limited, and there is a lack of culturally appropriate instruments for research purposes. It is highly recommended that researchers distinguish carefully between developing a new instrument and using existing instruments, depending on their established psychometric properties.
This study is the first to initiate investigation of the relationship between social anxiety and the quality of life of Saudi adolescents. It concentrated on adolescents in Arab countries who suffer from social anxiety, with a view to exploring how the collectivist culture influences the nature of social anxiety in these adolescents. This research paves the way for research on which particular psychological symptoms have the greatest effect on the quality of life.

References

Al Gelban, K. S. (2009). Prevalence of psychological symptoms in Saudi secondary school girls in Abha, Saudi Arabia. *Annals of Saudi medicine, 29*(4), 275.

Bassiony, M. M. (2005). Social anxiety disorder and depression in saudi arabia. *Depression and Anxiety, 21*(2), 90-94. doi:10.1002/da.20056

Beck, A. T., & Steer, R. A. (1991). Relationship between the Beck anxiety inventory and the Hamilton anxiety rating scale with anxious outpatients.*Journal of Anxiety Disorders*, *5*(3), 213-223.

Beidel, D. C., Turner, S. M., & Morris, T. L. (1995). A new inventory to assess childhood social anxiety and phobia: The Social Phobia and Anxiety Inventory for Children. *Psychological Assessment*, *7*(1), 73.

Connolly, S. D., & Bernstein, G. A. (2007). Practice parameter for the assessment and treatment of children and adolescents with anxiety disorders.*Journal of the American Academy of Child and Adolescent Psychiatry*, *46*(2), 267-283. DOI: 10.1097/01.chi.0000246070.23695.06

Connor, K. M., Davidson, J. R. T., Churchill, L. E., Sherwood, A., Foa, E., & Wesler, R. H. (2000). Psychometric properties of the Social Phobia Inventory (SPIN). *British Journal of Psychiatry, 176,* 379- 386.

Crozier, M., Gillihan, S. J., & Powers, M. B. (2011). Issues in differential diagnosis: Phobias and phobic conditions. In *Handbook of Child and Adolescent Anxiety Disorders* (pp. 7-22). Springer New York.

Essau, C. A., Conradt, J., & Petermann, F. (1999). Frequency and comorbidity of social phobia and social fears in adolescents. *Behaviour Research and Therapy, 37*(9), 831-843. doi:http://dx.doi.org/10.1016/S0005-7967(98)00179-X

Furmark, T. (2002). Social phobia: overview of community surveys. *Acta Psychiatrica Scandinavica*, *105*(2), 84-93. DOI: 10.1034/j.1600-0447.2002.1r103.x

Garcia-Lopez, L., Olivares, J., Hidalgo, M., Beidel, D., & Turner, S. (2001) Psychometric properties of the social phobia and anxiety inventory, the social anxiety scale for adolescents, the fear of negative evaluation scale, and the social avoidance and distress scale in adolescent Spanish-Speaking sample. *Journal of psychopathology and behavioural assessment, 23*, 1.

Ghaedi, G. H., Tavoli, A., Bakhtiari, M., Melyani, M., & Sahragard, M. (2010). Quality of life in college students with and without social phobia. *Social indicators research*, *97*(2), 247-256.

Hambrick, J. P., Turk, C. L., Heimberg, R. G., Schneier, F. R., & Liebowitz, M. R. (2003). The experience of disability and quality of life in social anxiety disorder. *Depression and anxiety*, *18*(1), 46-50.

Inderbitzen-Nolan, H. M., & Walters, K. S. (2000). Social Anxiety Scale for Adolescents: Normative data and further evidence of construct validity. *Journal of Clinical Child Psychology*, *29*(3), 360-371.

Kearney, C. A. (2005). *Social anxiety and social phobia in youth*. New York:

Kessler, R. C., Stein, M. B., & Berglund, P. (1998). Social phobia subtypes in the National Comorbidity Survey. *American Journal of Psychiatry*, *155*(5), 613-619.

Khoja TA, Farid SM(2000) *Saudi Arabia Family Health Survey 1996: Principal Report.* Riyadh: Ministry of Health.

Kirsh, G. & Kuiper, N. (2002). Individualism and relatedness themes in the context of gender, depression. *Canadian Psychology* 43, 76–90.

Koot, H. M., & Wallander, J. L. (2002). Challenges in child and adolescent quality of life research. *Acta Paediatrica*, *91*(3), 265-266.

La Greca, A. M.,&L´opez, N. (1998) Social anxiety among adolescents:Linkages with peer relations and friendships. *Journal of Abnormal Child Psychology; 26,* 83–94.

Lam TH, Shi MM, Ho LM, Stewart SM, Fan S (2002) Timing of pubertal maturation and heterosexual behaviour among Hong Kong Chinese adolescents. Arch Sex Behav 31:359–366 26.

Leary, M. R. (1983a). A brief version of the Fear of Negative Evaluation Scale. *Personality and Social Psychology* Bulletin, 9, 371–375.

Lee S, Lee MTY, Kwok K (2005) A community-based telephone survey of social anxiety disorder in Hong Kong. J Affect Disord 88:183–186

Mahfouz, A. A., Abdelmoneim, I., Al-Gelban, K. S., Daffalla, A. A., Amri, H. A., Shaban, H., ... & Mohammed, A. A. (2009). Adolescents' Mental Health in Abha City, Southwestern Saudi Arabia. *The International Journal of Psychiatry in Medicine*, *39*(2), 169-177. DOI:10.2190/PM.39.2.e

Mattick, R. P., & Clarke, J. C. (1998). Developmental and validation of measures of social phobia scrutiny fear and social interaction anxiety. *Behaviour Research and Therapy*, 36, 455–470

Ollendick, T. H., & Hirshfeld-Becker, D. R. (2002). The developmental psychopathology of social anxiety disorder. *Biological Psychiatry, 51*(1), 44-58. doi:http://dx.doi.org/10.1016/S0006-3223(01)01305-1

Ragheb M, et al. (2007) Psychometeric properties of the Arabic version of social phobia inventory(SPIN).*Current Psychiatry*;14(1):36-44.

Rao, P. A., Beidel, D. C., Turner, S. M., Ammerman, R. T., Crosby, L. E., & Sallee, F. R. (2007). Social anxiety disorder in childhood and adolescence: Descriptive psychopathology. *Behaviour Research and Therapy, 45*(6), 1181-1191. doi:http://dx.doi.org/10.1016/j.brat.2006.07.015

Simon, N. M., Otto, M. W., Korbly, N. B., Peters, P. M., Nicolaou, D. C., & Pollack, M. H. (2002). Quality of life in social anxiety disorder compared with panic disorder and the general population. *Psychiatric Services*, *53*(6), 714-718.

Wallander, J. L., Schmitt, M., & Koot, H. M. (2001). Quality of life measurement in children and adolescents: issues, instruments, and applications. *Journal of clinical psychology*, *57*(4), 571-585.

Wittchen, H. U., & Beloch, E. (1996). The impact of social phobia on quality of life. *International clinical psychopharmacology*, *11*, 15-23.

Wittchen, H. U., Carter, R. M., Pfister, H., Montgomery, S. A., & Kessler, R. C. (2000). Disabilities and quality of life in pure and comorbid generalized anxiety disorder and major depression in a national survey. *International Clinical Psychopharmacology*, *15*(6), 319-328.

Zhou, X., Xu, Q., Ingles, C, Hidalgo, M. & La Greca, A. (2008) Reliability and validity of the Chinese version of the social anxiety scale for adolescents. *Child psychiatry hum dev*. 39:1850-200.