

# A Comparative Study of Disability Among Patients Suffering Social Anxiety Disorder and Comorbid Depressive Disorders

Molykhia T.<sup>1</sup>, Ibrahim S.<sup>1</sup>

<sup>1</sup>Faculty of Medicine, Alexandria University.

Date received: 5/6/2008

Date accepted: 5/7/2008

**Background:** In recent years, we have come to recognize that social phobia is common, highly comorbid with other conditions such as depression. Despite the availability of these findings, there have been very few data demonstrating that persons with social phobia and/or depression in the community are impaired by their disorder. The current study aimed to demonstrate the disability attributed to social anxiety disorder (SD) whether it occurs alone or co-occurring with Depressive Disorders (DD).

**Subjects and Methods:** The study was performed on three groups of females, each composed of 15 subjects. The first group is composed of patients diagnosed with SAD, the second group is composed of SAD and DD, while the third one was a control group. The groups were subjected to clinical

psychiatric examination, and psychometric evaluation using; Social Phobia Inventory (SPIN), Sheehan Disability Scale (SDS); and Beck's Depression Inventory (BDI).

**Results:** The mean scores of SDS were higher in patients with SaD and patients with SAD and comorbid DD compared to controls. Also, patients with SAD and DD had higher mean scores in social and family parameters of the SD than patients with SAD alone.

**Conclusion:** Social anxiety disorder are associated with considerable degree of disability. The disability is increased when SAD co-occurs with DD. The substantial disability should not be minimized and targeted in treatment plans to improve patients quality of life.

**Keywords:** Social anxiety disorder, Comorbid depressive disorder, Functional disability, Quality of life, Social phobia inventory, Sheehan's disability scale, Beck's depression inventory.

## Abbreviations:

SAD: Social Anxiety Disorder

DD: Depressive Disorders

WHO: World Health Organization

ICD-10: International Classification of mental diseases, tenth edition

SPIN: Social Phobia Inventory

SDS: Sheehan Disability Scale

SDS-w: Sheehan Disability Scale-work field

SDS-s: Sheehan Disability Scale-social activity and leisure times field

SDS-f: Sheehan Disability Scale-family relation and household responsibilities field

BDI: Beck's Depression Inventory, DSM-IV-TR the Diagnostic and Statistical Manual of Mental Disorders, 4th edition, Text Revised: DSM-III-R: the Diagnostic and Statistical Manual of Mental Disorders, 3th edition, Revised

Egypt. J. Psychiatry, June 2009; 29(1): 27-33

## INTRODUCTION

Social Anxiety Disorder (SAD) is a common psychiatric condition with serious consequences for afflicted individuals (Brunello, et al. 2000; Schneier, et al. 2001; Kaufman and Charney, 2000). Not only, are the symptoms of the illness debilitating on work, family and social life, but also the risk of psychiatric comorbidity particularly depressive disorders is significant (Liebowitz, 2004). Epidemiologic research in community and clinical settings reveals a strong correlation between mental disorder and impaired occupational and social functioning (Spitzer, et al. 1995; Broadhead, et al. 1990; Hecht, et al. 1990). Longitudinal studies of primary care patients provide evidence for the disabling effects of mood and anxiety disorders (Von Korff, et al. 1992; Ormel, et al. 1993). Patients whose psychiatric symptoms substantially improve over time show corresponding improvements in social and occupational functioning. In contrast, patients whose psychiatric symptoms do not substantially improve have no or little change in their level of disability (Ormel, et al. 1993).

The link between specific mental disorders and functional disability may be confounded by the co-occurrence of multiple mental disorders within the same individual. In a World Health Organization (WHO) study (Sherbourne, et al. 1996), primary care patients with isolated ICD-10 mental disorders reported greater occupational and physical disability than patients without a mental disorder. Across a range of mental disorders, patients who met the criteria for only one disorder tended to have poorer occupational and role functioning than patients with no mental disorder but better functioning than patients with multiple mental disorders.

Studies have focused on disabilities resulting from either SAD or DD separately (Brunello, et al. 2000; Ormel, et al. 1994; Von Korff, et al. 1992). However, not much is known about disability outcomes when both conditions co-occur together. We hypothesized that patients suffering from SAD and comorbid DD

are more disabled socially and occupationally than patients suffering from SAD alone. We tried to compare between the disability caused by SAD alone and SAD co-occurring with DD.

## AIM OF THE WORK

**The aim of this work was to:**

1. Study the disability resulting from SAD.
2. Study the disability resulting from SAD comorbid with DD.
3. Compare between disabilities resulting from SAD alone and SAD comorbid with DD.

## SUBJECTS AND METHODS

### Subjects:

The study was carried out on two groups of female patients recruited from a private saudian polyclinic in Riyadh, Saudi Arabia, and a third control group:

**Group (1):** 15 female patients diagnosed with SAD.

**Group (2):** 15 female patients diagnosed with SAD and comorbid DD.

**Group (3):** a control group composed of 15 female subjects clinically-free of psychiatric disorder matching for age. This group was made from the female accompanying relatives of the patients.

### Inclusion criteria:

1. Diagnoses of SAD and DD according to the Diagnostic and Statistical Manual of Mental Disorders, 4th edition, Text Revised (DSM -IV-TR) criteria in groups one and two (First, 2000).
2. Age: 14-55 years.
3. Sex: female gender.
4. Written informed consents of all participants.

### Exclusion criteria:

1. Psychiatric comorbidities other than DD.
2. Chronic debilitating physical disease.

### Methods:

**All subjects will be subjected to:**

1. History taking.
2. Clinical physical and neurological examination.
3. Clinical psychiatric interview.
4. Psychometric assessments:
  - **Social Phobia Inventory (SPIN):** this is a self-rating, 0-4 likert scale which is composed of 17 items evaluating fear of social situations, avoidance, and physiological discomfort. Higher scores are related to greater distress (Connor, et al. 2000). The scale was translated to the Arabic language and a jury of three saudian professionals (Two psychiatrists, and one university lecturer of

Arabic language) revised the translated format and approved its usage in saudian culture.

- **Sheehan Disability Scale (SDS):** this is a self-rating scale from 0-10 describing the degree of disability resulting from disorders in three fields; work, social activities and leisure times, and family life and house responsibilities. The scale was translated to the Arabic language and a jury of three saudian professionals (Two psychiatrists, and one university lecturer of Arabic language) revised the translated format and approved its usage in saudian culture (Sheehan, 1993).
- **Beck's Depression Inventory (BDI):** this is a self-rating 21-itemed 4 points scale. It ranges from 0-3 in terms of severity describing symptoms and attitude of depressed patients (Beck, et al. 1996).

## RESULTS

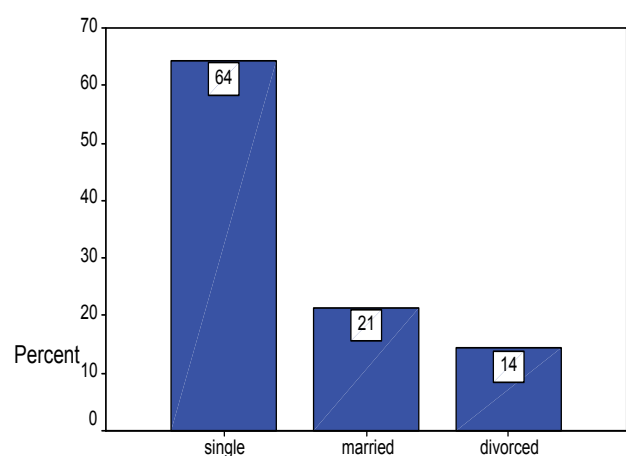
The study was done on three groups of female subjects who had a mean age of  $25.1 \pm 9.1$ ,  $30.7 \pm 9.3$ , and  $32.4 \pm 8.3$  in group I, II, and III, respectively. There was no statistical significance among the three studied groups regarding age (F-test=2.6,  $p=0.08$ ). The three groups matched for age and sex. (Table 1)

**Table 1:** Age distribution among the studied groups:

|     | Group  | Mean  | SD   | F-test | Sig. |
|-----|--------|-------|------|--------|------|
| Age | Gp I   | 25.07 | 9.05 | 2.58   | 0.08 |
|     | Gp II  | 30.64 | 9.34 |        |      |
|     | Gp III | 32.42 | 8.33 |        |      |

\*Level of significance is  $p \leq 0.05$

**Marital status:** Among group I, (64%) females were single, (24%) females were married, and (14%) females were divorced, while in group II, (29%) females were single, (64%) females were married, and (7%) females were divorced. (Figure 1, 2).



**Fig. 1:** Marital status among group I participants.

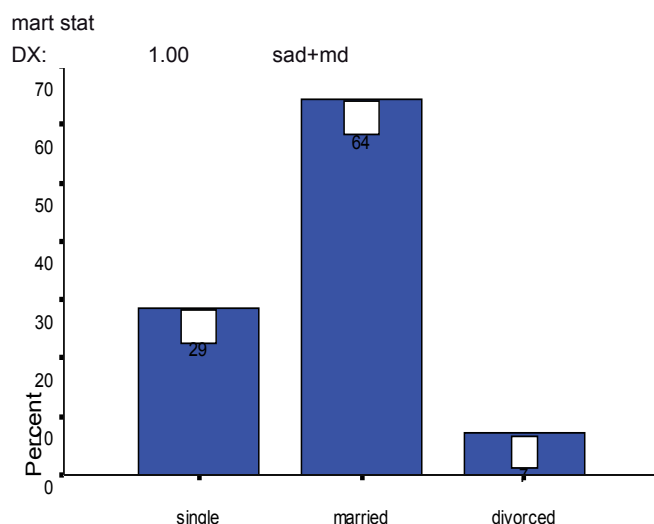


Fig. 2: Marital status of group II participants.

**Occupation:** There were (64%) females were working, while (36%) females had no current occupation in group-I, compared to (71%) working females and (29%) non-working females in group-II. (Figure 3, 4)

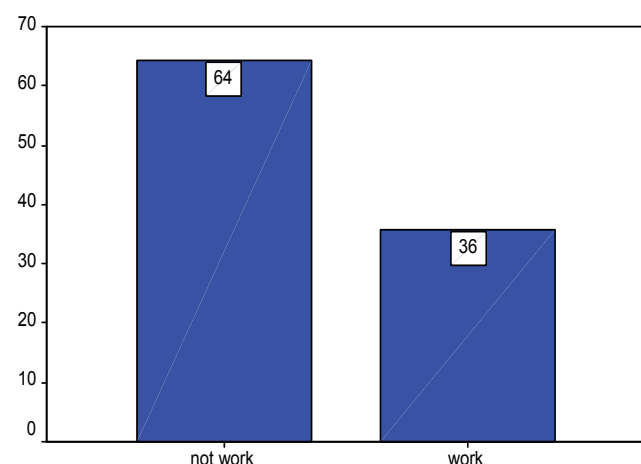


Fig. 3: occupation among group I participants.

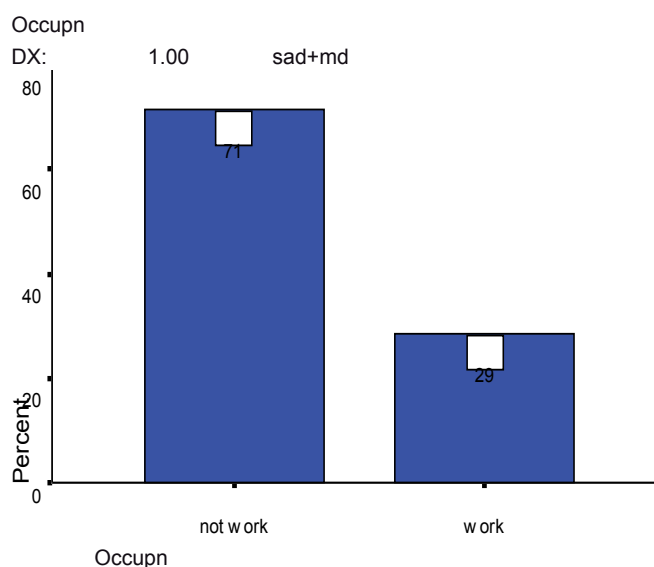


Fig. 4: occupation among group II participants.

### Psychometric studies:

- **SPIN:** On applying SPIN to compare between the degree of social anxiety disorder among groups I and II, the mean scores were  $49.9 \pm 5.7$ , and  $53.1 \pm 9.3$ , respectively. There was no statistical significance between both groups regarding SPIN mean scores (T-test=1.1,  $p = 0.3$ ).
- **BDI:** The degree of depressive disorders among group II participants were measured by BDI which revealed a mean score of  $29.93 \pm 3.4$  denoting a moderate degree of depression.
- **SDS:** As regard disability, the SDS were applied on participants in three fields; work (SDS-w), social activities and leisure times (SDS-s), and family life and house responsibilities (SDS-f). The greater disability was seen in SDS-w among group I ( $5.2 \pm 2.4$ ), followed by group II ( $4.8 \pm 3.8$ ), followed by the control group ( $1.4 \pm 1.6$ ). On the other hand, the same order were seen for SDS-s, and SDS-f where the greatest disability were seen among group II (SDS-s= $7.9 \pm 0.99$ , SDS-f= $6.6 \pm 1.3$ ), followed by group I (SDS-s= $7.7 \pm 1.3$ , SDS-f= $4.1 \pm 1.9$ ), followed by the control group (SDS-s= $1.1 \pm 0.7$ , SDS-f= $1.1 \pm 0.9$ ). A statistical significant difference was found between group I&II on one hand and the control group on the other hand regarding SDS-w (F-test=7.6,  $p=0.00$ ), SDS-s (F-test=205.7,  $p=0.00$ ), and SDS-f (F-test=49.3,  $p=0.00$ ). Also, there was a statistical significant difference between group I and II regarding SDS-f (T-test=3.8,  $p=0.001$ ). (Table 2, 3).

**Table 2:** Mean scores of BDI, SPIN, and SDS of patients in groups I & II:

|              | Group | Mean    | SD     | T-test | Sig   |
|--------------|-------|---------|--------|--------|-------|
| <b>BDI</b>   | Gp II | 29.9286 | 3.4298 | 32.650 | 0.000 |
|              | Gp I  | 0.0000  | 0.0000 |        |       |
| <b>SPIN</b>  | Gp II | 53.1429 | 9.2724 | 1.105  | 0.279 |
|              | Gp I  | 53.1429 | 5.7038 |        |       |
| <b>SDS-w</b> | Gp II | 4.7857  | 3.7658 | -0.349 | 0.730 |
|              | Gp I  | 5.2143  | 2.6364 |        |       |
| <b>SDS-s</b> | Gp II | 7.9286  | 0.9972 | 0.497  | 0.623 |
|              | Gp I  | 7.7143  | 1.2666 |        |       |
| <b>SDS-f</b> | Gp II | 6.5714  | 1.2839 | 3.831  | 0.001 |
|              | Gp I  | 4.1429  | 1.9945 |        |       |

\*Level of significance is  $p \leq 0.05$ .

**Table 3:** SDS mean scores among the three studied groups:

|       | Group  | Mean | SD   | F-test | Sig. | Scheffe test |
|-------|--------|------|------|--------|------|--------------|
| SDS-w | Gp II  | 4.79 | 3.77 | 7.61   | 0.00 | 1-3          |
|       | Gp I   | 5.21 | 2.64 |        |      | 2-3          |
|       | Gp III | 1.43 | 1.6  |        |      |              |
| SDS-s | Gp II  | 7.93 | 1    | 205.67 | 0.00 | 1-3          |
|       | Gp I   | 7.71 | 1.27 |        |      | 2-3          |
|       | Gp III | 1.14 | 0.66 |        |      |              |
| SDS-f | Gp II  | 6.57 | 1.28 | 49.33  | 0.00 | 1-2          |
|       | Gp I   | 4.14 | 1.99 |        |      | 1-3          |
|       | Gp III | 1.07 | 0.92 |        |      | 2-3          |

\*Level of significance is  $p \leq 0.05$ .

## DISCUSSION

Social anxiety disorder has been described as an "illness of lost opportunities" (Stein and Gorman, 2001). In recent years, we have come to recognize that social phobia is common (Magee, et al. 1996; Wittchen, et al. 1998), highly comorbid with other conditions such as depression (Kessler, et al. 1999; Warner, et al. 1999). Despite the availability of these findings, there have been very few data demonstrating that persons with social phobia and/or depression in the community are impaired by their disorder.

In the present study, significant greater disability was seen in work, social life, and family life of patients with SAD and patients with SAD and comorbid DD compared to controls. Moreover, the patients with SAD alone had non-significant greater disability in the work field but a lesser disability in their social (Non-significant) and family lives (Significant) than patients with both SAD and comorbid DD. The greater disability in social and family lives in patients with SAD and comorbid DD may be explained by the fact that many of the female patients expressed their fear from communicating with their husbands and dealing with in-laws, as well as, the lack of interest in activities and frustration they had as a part of their co-occurring depression depressive.

Similar to our results, an earlier study found that primary care patients with social phobia uncomplicated by major depression reported poorer overall health than patients without a mental disorder. The authors of the study concluded that although phobia that occurs with other mental disorders increases disability, phobia alone may be an important source of impairment and should not be minimized in practice (Weiller, et al. 1996).

Also, our findings matched the results of (Olfson, et al. 1997), who examined social and occupational disability associated with several DSM-IV mental disorders in a group of adult primary care outpatients. The subjects recruited were 1,001 primary care patients (Aged 18–70 years) from a large health maintenance organization. Data on each patient sociodemographic characteristics

and functional disability, including scores on the Sheehan Disability Scale, were collected at the time of a medical visit. A structured diagnostic interview for current DSM-IV disorders was then completed by a mental health professional over the telephone within 4 days of the visit. The authors found that compared with patients who had a single mental disorder, patients with co-occurring disorders reported significantly more disability in social and occupational functioning. After adjustment for other mental disorders and demographic and general health factors, compared with patients with no mental disorder, only patients with major depressive disorder, bipolar disorder, phobias, and substance use disorders had significantly increased disability, as measured by the Sheehan Disability Scale. They concluded that primary care patients with more than one mental disorder are common and highly disabled. Individual mental disorders have distinct patterns of psychiatric comorbidity and disability (Olfson, et al. 1997).

Also, our findings were similar to the results of (Antony, et al. 1998), who found that 49 patients with social phobia reported substantial interference with their day-to-day functioning in multiple domains. In that study patients with social phobia reported a level of illness intrusiveness that was comparable to that experienced by patients with panic disorder and patients with obsessive compulsive disorder. When compared indirectly to patients with a variety of other chronic illnesses (E.g., multiple sclerosis, rheumatoid arthritis, and end-stage renal disease), patients with social phobia demonstrated comparable or more severe perceived impairment. Thus, from the perspective of patients with social phobia who seek treatment, the extent of their disability and the reduction in quality of life is substantial (Antony, et al. 1998).

We replicated the results of (Stein and Kean, 2000), who studied disabilities resulting attributable to social phobia as opposed to comorbid major depression. The authors examined relevant data from the Ontario Health Survey Mental Health Survey which is a survey of more than 8,000 residents of Ontario, Canada, aged 15–64, used the University of Michigan Composite International Diagnostic Interview to assign DSM-III-R diagnoses. Several indicators of disability and quality of life were included. The authors compared these indices for persons with and without social phobia and adjusted where indicated for the effects of major depression and relevant sociodemographic factors. They found that persons with social phobia were impaired on a broad spectrum of measures, ranging from dropping out of school to experiencing disability in one's main activity. They were also significantly more likely than persons without social phobia to rate themselves as "Low functioning" on the Quality of Well-Being Scale and to report dissatisfaction with many aspects of life. Depressive comorbidity seemed to contribute only modestly to these outcomes. They concluded social



phobia can be a serious, disabling anxiety disorder associated with marked reduction in quality of life. Impairment in social phobia is substantial, even in the absence of comorbid major depression (Stein and Kean, 2000).

In congruence with our results, (Shields, 2004), examined aspects of functional impairment and compared for people with current, past, and no history of the condition. She collected data from the 2002 Canadian Community Health Survey: Mental Health and Well-being. She found that people with social anxiety disorder had higher rates of disability and negative perception of life: people with current social anxiety disorder were over 10 times more likely to report at least one disability day in the past two weeks due to mental health, compared with those with no history of the disorder. Individuals who previously had social anxiety disorder were more likely to report long-term activity limitations and disability days in the past two weeks, compared with those with no history of the disorder, although their impairment rates were substantially below those of people who currently had the disorder (Shields, 2004).

In the current work, patients with SAD alone had non-significant greater disability in the work (SDS-w) field than patients with both SAD and comorbid DD. Our results came contradictory to studies in the literature, in which patients with two mental disorders suffered a greater disability than patients with one mental disorder (Weiller, et al. 1996; Shields, 2004). However, most of the latter group were married (64%), and housewives (71%) and therefore assessment of their work was not a good indicator for SDS-w, as well as, in the saudian culture makes no emphasis on work for married females.

## CONCLUSION

SAD is a disabling disorder in the work, social, and family fields of patients. The disability is increased when SAD co-occurs with other comorbidities. In our work increased disability in both social and family fields were seen when SAD was associated with DD. Targeting disability resulting from SAD and associated comorbidities would improve patients' quality of life and perception of illness.

### Corresponding Author

Dr. Tarek Molokia  
Assistant Professor of Psychiatry, Faculty of Medicine,  
Alexandria University  
E-mail: molokhiatark@yahoo.com

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## الملخص العربي

### دراسة مقارنة لدرجة الإعاقة من المرض بين مرضى مصابون باضطراب الرهاب الاجتماعي واضطرابات الإكتئاب المترافقة

طارق كمال ملوخية<sup>١</sup> وسهى إبراهيم<sup>٢</sup>

<sup>١</sup>أستاذ مساعد الطب النفسى - كلية الطب - جامعة الإسكندرية، <sup>٢</sup>مدرس الطب النفسى - كلية الطب -  
جامعة الإسكندرية

ظابطة مكونة من سيدات أصحاء وتم إجراء الفحص النفسى وتطبيق المقاييس النفسية، مقياس الرهاب الاجتماعى، ومقياس شيهان لقياس درجة الإعاقة، ومقياس بك للإكتئاب ووجد أن هناك درجة إعاقة لسيدات المجموعتان الأولى والثانية مقارنة بسيدات المجموعة الظابطة، كما تبين أن المجموعة الثانية اكتسبت درجة إعاقة أكبر من المجموعة الثانية فى مجالى الإعاقة الاجتماعية والعائلية.

فى الأونة الأخيرة تبين أن من الشائع تواجد اضطرابى الرهاب الاجتماعى مع الإكتئاب فى المرضى ولكن أهملت دراسة درجة الإعاقة الناتجة عن تواجدهما معا وقد هدف البحث لدراسة هذه النقطة وقد أجرى على ثلاثة مجموعات من السيدات: المجموعة الأولى مكونة من سيدات يعانون من اضطراب الرهاب الاجتماعى والمجموعة الثانية مكونة من سيدات يعانون من اضطرابى الرهاب الاجتماعى والإكتئاب أما المجموعة الثالثة كانت مجموعة