



Review Article

## Sexual Dysfunction among drug-naïve anxiety disorder patient in a multidisciplinary teaching hospital

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### ABSTRACT

**Background:** Little is known about the prevalence, typology and natural course of non-drug-induced sexual dysfunction in patients with anxiety disorder. The degree of sexual dysfunction and its prevalence appears to be correlated with the severity of disease.

**Aims and objectives:** The aim of the study is to find the prevalence and pattern of sexual dysfunction among drug naïve patient having anxiety disorder and its correlation.

**Materials and Methods:** Anxiety disorder was established according to ICD-10 criteria. Patients fulfilling inclusion criteria were subjected to Hamilton Anxiety Rating Scale to assess the severity of their anxiety and Arizona Sexual Experience Scale questionnaire to assess sexual dysfunction if any in confidentiality. **Settings and Design:** 2 years (September 2013- August 2015), cross-sectional study, out-patient department, Department of Psychiatry, Regional Institute of Medical Science Imphal, Manipur. Sexual functioning was then evaluated using the Arizona Sexual Experiences Scale (ASEX) in local language translated from the original English version. Reliability of the translated version was established by doing a pilot study.

**Statistical Analysis Used:** Statistical package for the social sciences (SPSS) version 21. Chi square test was used and p value of less than 0.05 was taken as statistically significant.

**Result:** 50 patients with anxiety disorder were enrolled for the study. 42 percent of them were found to have sexual dysfunction. More problems were found with sexual desire and arousal phases of sexual life. A positive correlation was established between the severity of illness and the degree of sexual dysfunction.

**Conclusion:** This study showed that majority of such patients has sexual problems especially with regard to desire for sex and arousability. The degree of sexual dysfunction was found to be proportional to the severity of anxiety and hence may be an important predictor of sexual dysfunction among depressed patients.

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## INTRODUCTION

Adequate sexual expression is essential to many human relationships and provides a sense of physical, psychological and social wellbeing. Western societies are more open about sexual matters and sexual images are used in advertising and entertainment. Interest in human sexual function has increased considerably in recent years and these shifts in social attitudes may increase the number of people who wonder whether their sexual performance is less than ideal and increase the number who consulted health professionals<sup>1</sup>. The introduction of sildenafil (Viagra), the first orally active drug for male erectile disorder, created wide-spread comment and increased public awareness of sexual dysfunction, which is now often regarded as a medical condition that can be treated by a doctor.<sup>2</sup> Epidemiological and clinical studies showed that untreated anxiety is associated with impairment of sexual function and satisfaction, even in untreated patients.<sup>3</sup>

The normal sexual response is conventionally divided into the three or four phases (namely, libido, arousal, orgasm, and resolution), and the Diagnostic and Statistical Manual of Mental Disorders-5 defines sexual dysfunction as disturbances in one or more of these phases.<sup>4,5</sup>

Anxiety plays an important role in the pathogenesis and maintenance of sexual dysfunction (SD). This co-presence is very common in clinical practice: patients with sexual dysfunction will often present with an anxiety disorder, and in most cases, it is unclear which one is the primary disorder.<sup>6,7</sup> Sympathetic dominance is also negatively involved in the arousal and orgasm phases and may interfere with sexual desire.<sup>4</sup> Psychological elements are generally considered important in the pathogenesis of SD, but it is difficult to explore these factors with standardized instruments. There are few studies that explore this hypothesis using diagnostic tools,

and in some cases these studies have considered anxiety as a feeling and not as a clinical entity.

## MATERIALS AND METHOD

The study was conducted in a multi-speciality teaching cum tertiary care hospital of Northeast India. Sharing border with Assam, Mizoram, Nagaland and internationally with Myanmar. The cross-sectional study over 2 years (September 2013 to August 2015) aimed to document the prevalence and pattern of sexual dysfunction among patients with anxiety disorder. Patients diagnosed with anxiety disorder according to the International Classification of Diseases-10 for the first time and fulfilling the inclusion criteria were enrolled for the study. **Inclusion criteria:** Married patient between the age of 18-60 years of both the sex with the diagnosis of anxiety and depressions without the history of antidepressant and also patient who are willing to participate in the study. **Exclusion criteria** are patient with comorbid medical illness that could cause sexual dysfunction; patient with comorbid with substance dependence including alcohol and nicotine; patients with medication known to cause sexual dysfunction; uncooperative patient and psychotic patient. Patients were subjected to the Hamilton Rating Scale for Anxiety (HAM-A)<sup>8</sup> to assess the severity of anxiety. The study was pre-approved by the institutional ethics committee (IEC) for the final permission.

Sexual functioning was then evaluated using the Arizona Sexual Experiences Scale (ASEX) in local language translated from the original English version.<sup>9</sup> Reliability of the translated version was established by doing a pilot study. Collected data were analysed using Statistical Package for Social Sciences version 21 (Armonk, NY, IBM Corp). The association between the variables was calculated using the Chi-square test.  $P < 0.05$  was considered as statistically significant.



## RESULTS

A total of 50 newly diagnosed patients with anxiety disorder were enrolled for the study. The age of the study population ranged from 21 to 53 years. The mean age was 37.66 years with a standard deviation of 7.67 years. Majority of them were males (58%). Ninety four percent of anxiety disorder patients belonged to the reproductive age group of 20–50 years [Table 1].

**Table 1: Demographic distribution of anxiety patients (n=50)**

Parameters	n (%)
Male	29 (58)
Female	21 (42)
Mean	37.66±7.67
Age group (years)	
21-30	7 (14)
31-40	24 (48)
41-50	16 (32)
51-60	3 (6)
Christian	37 (74)
Hinduism	8 (16)
Muslim	5 (10)

**Table 2: Duration of illness and its correlation with sexual dysfunction (n=50)**

Duration of illness	N (%)	Sexual dysfunction		P value
		Yes, n (%)	No (%)	
<6 months	14 (28)	10 (71.4)	4 (28.6)	0.206
6-12 months	12 (24)	6 (50)	6 (50)	
>12 months	24 (48)	10 (42.7)	14 (57.3)	
Total (50)		26 (52)	24 (48)	

**Table 3: Pattern of sexual dysfunction on the four phases of sexual cycle (n=50)**

ASEX score	Desire, n (%)	Arousal, n (%)	Orgasm, n (%)	Satisfaction, n (%)

Normal (≤3)	27 (54)	27 (54)	35 (70)	39 (78)
Problem (3)	16 (32)	16 (32)	8 (16)	7 (14)
Severe (4)	5 (10)	5 (10)	3 (6)	2 (4)
Never (5)	2 (4)	2 (4)	4 (8)	2 (4)
Total	50	50	50	50

ASEX: Arizona Sexual Experiences Scale

**Table 4: Association between severity of anxiety and sexual dysfunction (n=50)**

Severity of anxiety	N (%)	Sexual dysfunction		P
		No, n (%)	Yes, n (%)	
Mild	5 (10)	5 (100)	0	0.008
Moderate	15 (30)	11 (73.3)	4 (26.66)	
Severe	22 (44)	12 (54.5)	10 (45.45)	
Very severe	8 (16)	1 (12.5)	7 (87.5)	
Total	50	29 (58)	21 (42)	

Considering separately on the pattern of sexual dysfunction on individual score (i.e., score >3 in ASEX in the particular area), 46% had problems in desire and arousal phases while 30% had problems in achieving orgasm and 22% were not satisfied with sex [Table 3]. Among anxiety patients, 10% were mild anxiety according to the HAM-A, while 30% had a moderate level of anxiety, 44% had very severe anxiety, and 16% had severe anxiety. A majority (87.5%) of those with very severe anxiety had sexual dysfunction, while nearly half of those with severe anxiety had sexual dysfunction. More than one fourth of those who were moderate illness and none with mild anxiety had sexual dysfunctions. The severity of anxiety was statistically found to be significantly associated with sexual dysfunction ( $P = 0.008$ ) [Table 4].

## DISCUSSION

The prevalence of Sexual dysfunction among anxiety disorder patients was found to be 42%. This finding is consistent with findings reported by Umut Mert Aksoy et al<sup>3</sup> who reported prevalence of sexual dysfunction of 36%-38%. Also, Ivan Figueira et al<sup>10</sup> in their study reported a prevalence of sexual dysfunction of 36% and 50% among male and female patient respectively.

Considering separately on the pattern of sexual dysfunction on individual score, our findings inconsistent with findings of Arvind Kendurkar et al<sup>11</sup> and Leiblum et al<sup>13</sup> who reported higher rates of dysfunction in desire and arousal and also reported orgasm was impaired by anxiety. Umut Mert Aksoy et al<sup>3</sup> in 2012 also reported absent orgasm was detected in 24.2% of the female subject.

Sexual dysfunction was found to be more common among those who were severe anxiety and this association was found to be statistically significant. This finding is consistent with Watts G et al<sup>13</sup> and Kalmbach DA et al<sup>14</sup> who also reported that the degrees of sexual dysfunction were significantly correlated with the increasing severity of psychological illness.

### Limitations of the study

The sample size and cross-sectional nature of the study are limiting factors. In addition, the study was conducted in a hospital setting with no sample from community or control group for comparison. The above limitations may act as a bias in our results.

## CONCLUSION

The prevalence, typology, and the natural course of sexual dysfunction among the drug-naive anxiety patients is known very little. This study showed that majority of such patients has sexual problems, especially with regard to the desire for sex and arousability. The degree of sexual dysfunction was found to be proportional to the

severity of anxiety and hence may be an important predictor of sexual dysfunction among anxiety patients. Future research needs to explore the various biological, psychological, and social factors that are likely to be involved for its high prevalence.

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### Conflicts of interest

There are no conflicts of interest.

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