

FREQUENCY OF SEXUAL DYSFUNCTION IN FEMALES SUFFERING FROM MAJOR DEPRESSIVE DISORDER.

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ABSTRACT

OBJECTIVE

To find out frequency of sexual dysfunction in female patients suffering from major depressive disorder.

STUDY DESIGN

Descriptive Cross-sectional study

PLACE AND DURATION OF THE STUDY

This study was conducted at Department of Psychiatry, Baqai Medical University, Karachi over the period of six months (180 days).

SUBJECTS AND METHODS

148 patients following the selection criteria, presenting to psychiatry department, Baqai Medical University were enrolled after informed consent. The Hamilton Depression Rating Scale (HAM-D) score was used to diagnose depression. All these patients were asked to read female sexual function index and mark their response on a 5 point scale. Patients with score < 26 were defined as having sexual dysfunction. All the demographic data and relevant outcomes were recorded on the questionnaire administered in the national language (i.e., Urdu).

RESULTS

The mean age of these patients was 30.1 ± 7.4 years. The mean age of their husbands was 35.6 ± 7.1 years. The mean number of children of these patients was 4.0 ± 3.0 . 111 (75.0%) patients found their current relationship satisfactory. The results showed that sexual dysfunction was found in 71 (47.9%) patients.

CONCLUSION

Depressive disorder has significant links with sexual dysfunction and we recommend future studies to make firm conclusions in order to start the early management of both, depressive disorder and sexual dysfunction.

KEY WORDS

Depression, Sexual Dysfunction, Female, Epidemiology.

INTRODUCTION

The normal sexual response cycle comprises four stages I) Desire, II) Excitement, III) Orgasm and IV) Resolution. Problems of sexual response can involve any of these phases^{1,2}. Sexual dysfunction is the problem experienced by individual or couple during sexual intercourse or any stage of the sexual response cycle in both genders, but female sexual dysfunction (FSD) is further subdivided into Hypoactive sexual dysfunction, Female sexual arousal disorder, Sexual aversion disorder, Female orgasmic disorder, Vaginismus and Dyspareunia³. A Brazilian study showed that the frequency of any type of sexual dysfunction ranges from 28 to 49%, while the prevalence of hypoactive sexual desire was 26.7% and female orgasmic disorder ranged from 18 to 29.3%⁴.

The depression, age and unnecessary use of medication are directly linked to sexual dysfunction. Further, sexual dysfunction can arise from physical conditions (chronic illness) and psychological factors such as poor interpersonal relationship and psychiatric disorders⁵. The most prevalent sexual dysfunction in females with major depression is hypoactive sexual disorder⁶.

Depression is basically loss of enjoyment and interest in pleasurable activities and individual avoids the intimate relationships and goes into social withdrawal; it is anticipated to cause problems in sexual relationships⁷⁻¹¹. In developed countries 12 month prevalence of sexual dysfunction in sexually active male and female was between 30% and 70%, based on current epidemiological studies¹²⁻¹⁴.

No doubt depression is commonly linked to the sexual dysfunction and even the drugs that we prescribe to treat depression reduce the sex drive. In females, variations in sexual hormones affect the sexual function and it also modulates the neuro-chemical systems¹⁵. A study was conducted in 47 adults depressed females who were compared with 47 adult non-depressed females, the researcher found that depressed females were not sexually gratified and they complained about some sexual issues of orgasm, arousal and pain as compared with the non-depressed females¹⁶.

The Indian cultural study determined the frequency and form of sexual problems in depressed women and told that female sexual dysfunction is complex and polygenic disorder with multiple determinants and its prevalence is very high in depression reaching up to 67.34%¹⁷.

The above discussion has highlighted the importance of sexual problems in patients of depression. The discussion also highlighted more prevalence of sexual dysfunction in the female gender. Despite this there are few studies that have explored this issue, particularly in females. There are only few studies nationally and internationally exploring the epidemiological data, and factors associated with sexual dysfunction in women who have depressive symptoms or have clinical depression.

SUBJECTS AND METHODS

Participants

The required sample size was calculated using WHO software by taking the prevalence of 43%, confidence level 'CI'=95%, margin of error $d=08\%$. The sample size came out to be 148. The sample was collected through non-probability Consecutive sampling technique from psychiatry department, Baqai Medical University were enrolled after informed consent. The inclusion criteria was females between 18-55 years of age, married and cohabiting with their husbands for at least 6 months prior to inclusion. The exclusion criteria was as follows;

- Single, divorced or separated patients will be excluded.
- Separated from husbands for more than 3 months.
- Patients who had attained menopause, who are pregnant and those who are in postpartum period will be excluded.
- History of sexual dysfunction before the onset of depressive disorder
- Taking hormones or other medication which are known to decrease sexual functioning.
- Subjects with co-morbid psychiatric disorders or substance use.
- Chronic medical conditions which could cause sexual problems (HTN, DM, hypothyroid, cardiovascular disorders like MI, renal dysfunction and neurological problems like CVA and spinal cord lesions)

Instruments

HAM-D (Hamilton rating scale for depression) was used to assess the depression and female sexual function index to assess sexual dysfunction. Patients were required to mark their response on a five point scale on the 19 item questionnaire of female sexual function index. Patients with score < 26 were defined as having sexual dysfunction. Both scales took around 25 to 30 minutes to be completed for each patient.

Procedure

This study was conducted after seeking approval from Baqai Medical university hospital ethical review committee. Patients who fulfilled the inclusion criteria were selected. Informed consent and confidentiality was ensured. Questionnaires were administered and privacy was fully ensured. 6-7 women were seen during each clinical setting. All data was entered and analyzed in SPSS version 20. Descriptive statistics were used to summarize the continuous variables like age, number of children, age of husband and score on female sexual function index was presented as $\text{mean} \pm \text{S.D}$ and categorical variables like education, current relationship with husband, pain during intercourse, use of contraceptives and current medications, sexual intercourse in a week and outcome variable i.e sexual dysfunction (yes/no). Stratification was done with respect to age, no. of children, age of husband, age at marriage, education, relationship with husband, pain during intercourse and current medications and sexual intercourse in a week to control the effect modifier and look for the effect of these on outcome variable applying Chi-square test taking $p \text{ value} \leq 0.05$ as significant.

RESULTS

The Results showed that the mean age of the patients was 30.1 ± 7.4

years. Most of the patients (42.57 %) were above the age of 33 years (see figure 1). The mean age of their husbands was 35.6 ± 7.1 years. Majority of the patients' husbands (47.3%) were between 32 to 42 years of age as shown in figure 2. The mean number of children of these patients was 4.0 ± 3.0 . There were 81 (54.7%) patients who had between 1 to 3 children. 83 (56.1%) patients were more than or equal to 18 years at the time of marriage. Nearly 111 (75.0%) patients found their current relationship satisfactory (see table 2 for details).

The mean of the HAM - D score was 16.9 ± 4.7 , the mean of female sexual function index (FSFI) was 19.9 ± 11.3 . All the patients had major depressive disorder and their HAM-D score was more than or equal to 8. Sexual dysfunction was found in 71 (47.9%) of patients.

Thirty four (23.0%) patients reported pain during intercourse. Approximately 43 (29.1%) patients were using contraceptive while 42 (28.4 %) had used benzodiapine drugs. Sixty two (41.9%) patients had sexual activity between 1 to 2 times per week, 47 (31.8%) patients had a history of previous psychiatric illness, only 13 (8.8%) patients' husbands were suffering from some illness (see table 1).

No significant difference in proportion of sexual dysfunction was observed ($p\text{-value} > 0.05$) among different categories of age group of the patient, age of husbands, age at marriage, educational status, pain during intercourse, use of contraceptives and use of any drugs on Chi square (see table 2). Chi square has shown a significant difference in proportion of sexual dysfunction was observed ($p\text{-value} < 0.05$) among different categories of relationship and number of children (see table 2).

Table 1
Characteristics of patients (n=148)

Characteristics	n	(%)
Living with husbands	148	100
Age at marriage		
<18 years	65	43.9
≥ 18 years	83	56.1
Current relationship		
Satisfactory	111	75.0
Unsatisfactory	37	25.0
Pain during intercourse	34	23.0
Using contraceptives	43	29.1
Using any drugs	42	28.4
Benzodiapine	42	28.4
Frequency of sexual intercourse in week		
No sexual activity in a week	43	29.1
1-2 times/week	62	41.9
3-5 times/week	41	27.7
6-7 times/week	2	1.4
Previous history of psychiatric illness	47	31.8
Husband suffering from any illness	13	8.8

Figure 1
Distribution of age (n=148)

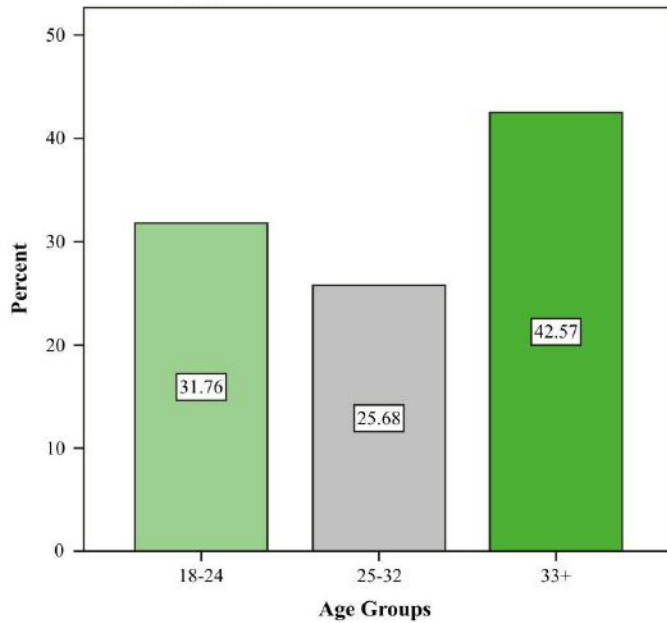
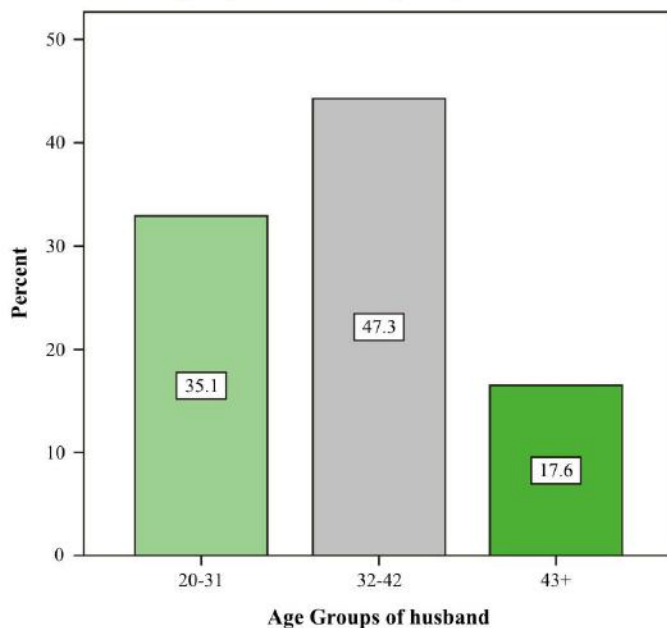


Figure 2
Distribution of age of patients' husband (n=148)



DISCUSSION

Studies have shown that patients, particularly women suffering from depression have more sexual dysfunction problems as compared with healthy populations. Sexual dysfunction is very common and it is creating a major burden on health services and the cost as around 25% of suffering people are looking for medical help. However, only few studies have explored this issue in our region in particular^{13,14}.

Our study recruited 148 patients who followed the selection criteria. The results showed that the mean of the HAM - D score was 16.9 ± 4.7 , the mean of female sexual dysfunction index (FSFI) was 19.9 ± 11.3 . Further, sexual dysfunction was found in 71 (47.9%) of patients. A study was conducted by Fabre and Smith to see the impact of

Table 2
Comparisons of different variables with female sexual dysfunction (n=148)

Variables	Female Sexual	Female Sexual	p-value
	dysfunction	dysfunction	
	Yes n (%)	No n (%)	
Educational status			0.878
No education	10 (14.1)	14 (18.2)	
Primary	16 (22.5)	14 (18.2)	
Matric	27 (38.0)	26 (33.8)	
Graduate	13 (18.3)	17 (22.1)	
Postgraduate	5 (7.0)	6 (7.8)	
Current Relationship			0.000
Satisfactory	42 (59.2)	69 (89.6)	
Unsatisfactory	29 (40.8)	8 (10.4)	
Pain during intercourse			0.067
Yes	21 (29.6)	13 (16.9)	
No	50 (70.4)	64 (83.1)	
Using contraceptives			0.189
Yes	17 (23.9)	26 (33.8)	
No	54 (76.1)	51 (66.2)	
Using any drugs			0.433
Yes	18 (25.4)	24 (31.2)	
No	53 (74.6)	53 (68.8)	
Age groups (years)			0.141
18 -24	32 (45.1)	46 (59.7)	
25 -32	14 (19.7)	20 (26.0)	
≥33	25 (35.2)	11 (14.3)	
Number of children			0.012
1 - 3	31 (54.4)	40 (62.5)	
4 - 6	7 (12.3)	16 (25.0)	
≥7	19 (33.3)	8 (12.5)	
Age of husband (years)			0.523
20 - 31	23 (32.4)	29 (37.7)	
32 - 42	33 (46.5)	37 (48.1)	
≥43	15 (21.1)	11 (14.3)	

depression on the occurrence of sexual dysfunction and consequences of intensity of depression and it showed that Hypoactive Sexual Desire Disorder (HSDD) which is 17.7% with the highest prevalence followed by Female Orgasmic Disorder (FOD) 7.7%, Female Arousal Disorder (FAD) 5.8% and last Sexual Aversion Disorder (SAD) which is 3.4%¹⁸. Our study results also showed a high (48%) prevalence of sexual dysfunction in patients with major depressive disorder vs around 36% in the above study. However, we did not classify the sexual dysfunction levels opposed to the above study. A study concluded that the severity of depression (increased HAM-D scores) is directly proportional to the sexual dysfunction¹⁸.

A descriptive case control study was conducted in Pakistan to find out the prevalence of sexual dysfunction in patients with depressive

disorder. The study included 117 subjects having depression and a similar number of controls with the age group of 16-60 years and of both sexes. It was concluded that statistically significant numbers of patients were having sexual dysfunction (49 cases) as compared with control group (13 cases)¹⁹. An other research was carried out to find out the level of association between sexual problems and different symptoms of depression to clarify the dimension most closely suggestive of sexual dysfunction. The conclusion of this study of 135 patients with depression was showing that intensity of sexual dysfunction is directly proportional to the intensity of depressive domain but not the intensity of somatic symptoms²⁰.





Another study by Cyranowski and colleagues looked for a link between life time depression and sexual drive in females at midlife in society and they found decreased sexual arousal with negligible physical enjoyment and reduced emotional gratification within their recent sexual relation²¹.

In sum, the results showed a greater prevalence of sexual dysfunction in depressive women presenting to tertiary care centre. The study findings support the previous related literature. Studies have shown a correlation of sexual dysfunction and depression, though with variable degree of strength and prevalence. This strength of evidence was consistent with the use of different measures of depression and sexual dysfunction. However, based on study results, in particular the related findings and the inability of the current study to explore other related factors and sexual dysfunction characteristics in detail, we recommend future studies to be conducted to further explore this relationship in multiple settings and with larger sample size.

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3	Azra Shaheen	Assistant Professor, Institute of Psychiatry, Baqai Medical University	Data collection, review of article, Proofreading and critical analysis	
4	Sarika Bai	Woman Medical Officer, Taluka Hospital Pano Aqil.	Concept of study, review of article, Critical analysis and proofreading	
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