Section A-Research Paper

ISSN 2063-5346

Study of Prevalence and Pattern of Antidepressant Induced Sexual Dysfunction in Married Female Patients

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Received Date: 18/03/2023 Revised Date: 10/04/2023 Published Date: 27/05/2023

Abstract

Background: One of the biggest factors preventing the use of antidepressants is their negative effects, one of which is sexual dysfunction. The patient's quality of life is negatively impacted by this problem, which may increase clinical non-adherence in long-term therapy. The aim of the current study was to study the characteristics of sexual dysfunction in married female patients on antidepressants. **Methodology:** The study comprised 98 adult female patients over the age of 18 who went to the Psychiatry OPD between August 2021 and July 2022. A standardised questionnaire was used during an interview with them to elicit the adverse effects both before and after commencing antidepressants. **Results:** In the current study, 71% of females has experienced sexual dysfunction brought on by antidepressants. The means and standard deviation values of the Pleasure, Desire/frequency, Desire/interest, Arousal, and Orgasm scores are found to be statistically significant. **Conclusion:** Sexual dysfunction is found to be very common in married female patients who are on antidepressant medications across all the domains.

Keywords: Female sexual dysfunction, antidepressant, sexual arousal, desire, orgasm.

Introduction: The use of antidepressants is increasing every day for the treatment of psychiatric illnesses such depression, obsessive compulsive disorder, somatoform disorder, anxiety disorders, etc. especially among the married people. Depression, among them is very commonly seen in women than in men as per existing literature.[1] Antidepressants are used to treat a variety of conditions in psychiatry, including mood disorders, anxiety disorders, substance abuse-related behavioural changes, premenstrual dysphoric syndrome, postmenopausal mood disorders, somatoform disorders, eating disorders, and sleep disturbances. Clinicians and patients can choose from a wide variety of antidepressants to

ISSN 2063-5346

treat depression, however, the adverse effects, including sexual dysfunction, are a significant barrier to the consistent use of antidepressants. [2] Although occurrences vary among the various antidepressants, sexual dysfunction has been linked to almost all of them like MAOIs, TCAs, SSRIs, SNRIs and also the newer antidepressants. [3] The prevalence of antidepressant-induced sexual dysfunction in females has ranged from 2% to 82%. According to studies, antidepressants that predominantly operate on noradrenergic, dopaminergic, or non-monoaminergic neurotransmitters are less likely to cause sexual dysfunction than those that primarily act on serotonergic neurotransmitters.[4] Sexual dysfunction creates a vicious cycle that worsens symptoms by driving people to despair and unhappiness. A woman or a couple may experience difficulty with female sexual dysfunction at any stage of sexual activity that involves physical pleasure, desire, preference, arousal, or orgasm. This can lead to a number of distressing sexual health issues, such as female sexual interest or arousal disorder, female orgasmic disorder, and genitopelvic pain or penetration disorder. [5] The patient's quality of life is impacted by this issue, which has the potential to cause long-term treatment non-compliance. [6] The goal of the current study was to determine the various sexual dysfunctions caused by various antidepressant drug classes. It also provides information on how frequently antidepressants have adverse effects on sexual functioning.

Materials And Methods

A cross sectional study was conducted in the Psychiatry OPD for one year on 98 adult married female patients over the age of 18. The sample size consisted of all patients who had received an antidepressant prescription in accordance with standardised prescribing standards after being identified as having a psychiatric disease by the International Classification of Mental & Behavioural Disorders–10 (ICD–10). The sample technique used to acquire the sample size is convenient universal sampling of all those that fit the inclusion criteria. Those with an existing sexual abnormality, or those with known poor compliance to antidepressants were omitted from the study.

The study population was surveyed using a structured questionnaire prior to commencing antidepressants, and a sexual dysfunction questionnaire was given out following remission. A pre- tested, structured questionnaire was designed to gather information about sexual dysfunction, and quality of sexual life of study subjects using tools such as Changes in Sexual Functioning Questionnaire (CSFQ- F-C) and Medication Adherence Rating Scale (MARS).

Table 1 shows the scoring for CSFQ-F-C (Female Clinical Version), which showed that if the female patient obtains a score at or below the following cut-off points on any of these scales, it is indicative of sexual dysfunction. [7]

Microsoft Excel was used to enter the data, and SPSS software version 20 was used to analyse it. A variety of descriptive statistical measures were used, including percentage, mean, standard deviation, and frequency. Chi-square test, sensitivity, specificity, PPV, and NPV were used as inferential statistical tests. Less than a 0.05 p-value was used to interpret the connection and differences as statistically significant differences.

Results

Out of the 98 female patients, there were 33 females under the age of 30, and 23 over the age of 40, with a mean age of 34.55 ± 7.422 years. The usage of antidepressants showed that majority of the patients were taking Escitalopram (29.5%), followed by sertraline (20.4%), fluoxetine (17.3%), duloxetine (16.3%), and amitriptyline (9.1%). Clomipramine and paroxetine were taken by 3 and 4 patients each.

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Table 1: CSFQ-F-C scoring

	Scores (Range)
Sexual Desire/Frequency score:	41.0 (range: 14 to 70)
Sexual Desire/Interest:	6.0 (range: 2 to 10)
Sexual Pleasure:	9.0 (range: 3 to 15)
Sexual Arousal/Excitement:	4.0 (range: 1 to 5)
Sexual Orgasm/Completion:	12.0 (range: 3 to 15)

The present study has observed a high sexual dysfunction rate of 71% among the study population. Most of the participants had pleasure dysfunction followed by desire/frequency dysfunction. Orgasm dysfunction was seen in 54% of the study participants, which is the least occurring dysfunction (Table 2). When we compared the dysfunction with the age of participants, 73% of it is seen in females under 30 years of age, and 74% is seen in those above 40 years of age.

Table 2: Sexual dysfunction among the study participants

S.No	**Dysfunction Type**	**Frequency**	**Percentage**
1	**Pleasure dysfunction**		
	Yes	64	65%
	No	34	35%
2	**Desire/Frequency dysfunction**		
	Yes	60	61%
	No	38	39%
3	**Desire/Interest dysfunction**		
	Yes	56	57%
	No	42	43%
4	**Arousal dysfunction**		
	Yes	59	60%
	No	39	40%
5	**Orgasm dysfunction**		
	Yes	53	54%
	No	45	46%
6	**Overall Sexual dysfunction**		
	Yes	70	71%
	No	28	29%

The study also measured the adherence score and the sexual dysfunction scores based on the tools we used, which were given in Table 3. The antidepressant adherence scores in the study were 7.95, which was very low.

Table 3: Means and Standard deviations of the scores

S. No	**PARAMETERS**	**N**	**MEAN**	**STD DEV.**
1	Adherence Score	98	7.95	0.87
2	Pleasure Score	98	3.47	1.35
3	Desire Frequency Score	98	6.1	1.49
4	Desire Interest Score	98	8.35	2.14
5	Arousal Score	98	10.47	2.30
6	Orgasm Score	98	10.62	2.25
7	Total CSFQ-F-C Score	98	45.50	7.76

ISSN 2063-5346

The total CSFQ scale score was 45.5 with a standard deviation of 7.76, which was considered very significant. (Refer Table 1 for scoring system) The pleasure scores in sexual functioning has shown very low (3.47) in this study, whereas the arousal and orgasm scores were at 10.4 and 10.6 respectively. This correlates with the overall sexual dysfunction levels, and the relation was statistically significant.

Table 4: Sexual dysfunction in relation to the drugs used

	Sexual Dysfunction			
	YES	**NO**	**Overall**	**P value**
Amitriptyline	7 (78%)	2 (22%)	9 (100%)	0.026
Clomipramine	2 (67%)	1 (33%)	3 (100%)	
Duloxetine	10 (63%)	6 (38%)	16 (100%)	
Escitalopram	27 (93%)	2 (7%)	29 (100%)	
Fluoxetine	9 (53%)	8 (47%)	17 (100%)	
Paroxetine	2 (50%)	2 (50%)	4 (100%)	
Sertraline	13 (65%)	7 (35%)	20 (100%)	
TOTAL	70 (71%)	28 (29%)	98 (100%)	

The antidepressant drugs were assessed with their levels of causing sexual dysfunction in the study population, and it was observed that in 29 individuals using escitalopram, 27 had dysfunction (93%) with its highest side effects in pleasure (90%) and frequency dysfunction (86%). After this, amitriptyline showed dysfunction (78%) with same pleasure and frequency dysfunction. Fluoxetine, and duloxetine were the second and third commonly used drugs in this study, and yet the sexual dysfunction levels with them were low at 53% and 63% respectively (Table 4).

Discussion

The study population belonged to a mean age of 34.5 years, with sexual dysfunction seen mostly in age groups 40 and above. According to Berman et al.[8], female sexual dysfunction is age-related and egalitarian. Montejo et al.[9] discovered a correlation between patient age and a decreased tolerance for sexual dysfunction, suggesting that as a patient ages, sexual dysfunction causes them greater anxiety.

Most of our study subjects were taking Escitalopram (29 out of 98), followed by fluoxetine and duloxetine. Antidepressant medications and sexual dysfunction were statistically associated. Sexual function and antidepressant medication use was the only measure that Reddy et al [10] found to be statistically significantly correlated in their research. These results suggest that antidepressants impair sexual functioning throughout the sexual response cycle. With up to 80 percent of patients exhibiting a reduction in sexual dysfunction, serotonin reuptake inhibitors (SSRIs) patients had the highest rate of sexual dysfunction, which is consistent with other studies' findings.

In present study, 70 out of 98 had sexual dysfunction, and among those pleasure dysfunction and desire/frequency dysfunction were the majority types. Sexual arousal (83%) and sexual desire (72%) are the two categories of sexual functioning that have higher prevalences of disorder in the study by Asefa et al.[11] Dysfunction in other domains is less frequently documented when compared to these domains.

According to a study by Grover et al [12], sexual dysfunction occurs in 46.63% of patients on SSRIs, 50% of those taking SNRIs, 42.85% of those taking TCAs, and 16.66% of those taking mirtazapine. These numbers typically fall within the range of these antidepressants' claimed results. Patients taking Escitalopram exhibited higher levels of sexual dysfunction

ISSN 2063-5346

than those taking Paroxetine, Sertraline, Fluvoxamine, Fluoxetine, Clomipramine, Mirtazapine, and Imipramine, which was observed in a study by Montgomery SA et al. [13]
In the current study, the means of the various scores employed in the current study were adherence score (7.95), pleasure score (3.47), desire frequency score (6.1), desire interest score (8.35), arousal score (10.47), orgasm score (10.62) and overall sexual dysfunction score (45.50) using CSFQ-S-C scale. Grover et al.[10] examined the prevalence and patterns of sexual dysfunctions in female antidepressant patients using the female sexual function index (FSFI) scale. The FSFI domains of desire (3.00), arousal (3.45), lubrication (4.58), orgasm (4.12), contentment (4.59), and pain (5.16) were averaged among patients using antidepressants. The average score was 24.93 overall in his study. The overall sexual dysfunction rates in studies from the West that assessed sexual dysfunction in females using tools like change in sexual functioning questionnaire (CSFQ) ranged from 37% (reported together for both genders) to 57%. [14]

Conclusion

In conclusion, our study indicates that 71% of married female patients report sexual dysfunction brought on by antidepressants. Antidepressants reduced sexual functioning across all the domains. This dysfunction brought on by antidepressants was found to be irrespective of their sociodemographic and clinical variables. Therefore, while prescribing an antidepressant to a female patient in the reproductive age range, one should take into account any sexual side effects caused by the medication.

Limitations

The small sample size and cross-sectional design of this study are limitations. Only married female patients receiving antidepressants for an underlying depressive illness at tertiary care hospitals were the subject of this study. We did not evaluate the couple's marital adjustment before beginning antidepressants.

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