

# Addressing Sexual Dysfunction In Women With Psychiatric Disorders A Cross-Sectional Observational Study

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DOI: 10.47750/pnr.2021.12.02.28

## Abstract

**Background:** It is a well-known fact that SD is common in women with psychiatric disorders but it is a problem that remains neglected.

**Objective:** to identify the percentage of women with psychiatric disorders experiencing sexual dysfunction, the types of sexual dysfunction, and the effects on the woman and relationship, as well as the efficacy of different treatments.

**Study Design:** A Cross-Sectional Observational Study.

**Duration and Place of the study:** Department Of Psychiatry & Gynae & Obs Mardan Medical Complex (MMC) Mardan Between 8<sup>th</sup> May 2020 To 3<sup>rd</sup> Nov 2020.

**Material and Methods:** Out of 105 female patients with different psychiatric disorders. About the control of variables, participants completed the Female Sexual Function Index (FSFI) and the Hamilton Rating Scale for Depression (HAM-D) and Anxiety (HAM-A). In addition, for gathering more elaborative sexual and psychiatric history a semi-structured interview was used. Patients were characterized based on symptoms of psychiatric disorders and data on sexual dysfunction were compared to these characteristics.

**Results:** 105 female patients, with a mean age of  $38.4 \pm 10.2$  years. The overall rate of sexual dysfunction in the participants was 68%, with a spectrum of manifestations. Decreased sexual desire (62%), sexual arousal disorders (54%), and orgasm disorders (48%). The results showed that out of all the factors, the severity of psychiatric symptoms had the most significant effect on sexual dysfunction ( $p < 0.01$ ).

**Conclusions:** The present study found that female patients with psychiatric disorders have a high prevalence of sexual dysfunction and their level correlates with the degree of psychiatric symptoms.

**Keywords:** Sexual dysfunction, Psychiatric disorders, Reproductive health.

## INTRODUCTION

Female sexual dysfunction (FSD) is a complex and profound syndrome that negatively influences the quality of life of affected women, and is still underdiagnosed and under-treated, especially in women with psychiatric disorders <sup>[1]</sup>. Sexual health is one of the indicators of the general health state, and the interference of sexual function can worsen the existing psychiatric disorders and vice versa – worsened psychiatric disorders can affect sexual function <sup>[2,3]</sup>. It is imperative to better understand and manage SD in women with psychiatric disorders given the strong link between sexual health and mental health <sup>[4]</sup>. Depression and anxiety, bipolar affective disorder, and schizophrenia are all commonly diagnosed in women, and they often present with sexual dysfunction <sup>[5,6]</sup>. Conditions such as depression and anxiety, for example, are known to lead to decreased sexual desire, sexual arousal dysfunction, and sexual dysfunction in terms of orgasm. Though useful in the treatment of depressive disorders, antidepressant medications, due to their side effect profiles, can also exacerbate such dysfunction, making the clinical management of these patients even more challenging <sup>[7,8]</sup>. As with other types of drugs, some of the antipsychotics commonly prescribed for schizophrenia and bipolar disorders also impact sexual well-being, reducing sexual desire and causing an inability to reach orgasm <sup>[9]</sup>. Studies show that women with psychiatric disorders are likely to experience sexual dysfunction but the issues remain under-researched and under-discussed due to culture and lack of awareness, as well as where psychiatric issues are considered paramount and sexual health is not <sup>[10]</sup>. By failing to recognize these needs, the patient's quality of life may decline, and this is how the cycle of poor mental and sexual health may persist <sup>[11]</sup>. Hence, to effectively address the needs of women with psychiatric disorders, the assessment and management of sexual dysfunction has to be incorporated <sup>[12]</sup>. The main objectives of the present work are as follows, to investigate the frequency and the nature of the sexual dysfunction in women with psychiatric disorders; To observe the correlation between the level of sexual dysfunction and the degree of psychiatric symptoms. In so doing, it aims to stress the need to focus on sexual health in this population and define potential therapeutic targets that may enhance both sexual well-being and psychiatric conditions. The participants in the study will be 105 women of childbearing age with different psychiatric disorders. Participants will have to complete various self-administered questionnaires for sexual function assessment including the Female Sexual Function Index (FSFI), and for psychiatric status, the Hamilton Rating Scale for Depression (HAM-D) and Anxiety (HAM-A). Moreover, a semi-structured interview that will be conducted for each patient will give an overview of their sexual past and psychiatric history. The anticipated results of this study are that self-reported sexual dysfunction will be high and that more severe psychiatric symptoms will be associated with increased sexual dysfunction. This supports earlier studies that indicated that higher levels of psychiatric symptoms correlate with poorer sexual function. In addition, the study will also investigate the extent to which a psychotherapeutic approach and pharmacological treatments may be beneficial in improving sexual dysfunction and providing guidelines for developing a holistic treatment plan for sexual and mental disorders.

## Material and Methods

In total, 105 female patients suffering from different psychiatric disorders were selected from outpatient and inpatient facilities. Women aged 18-65 years. Diagnosed with a psychiatric disorder using the DSM-5 criteria for classification and diagnosis of mental disorders. Participants included in the study were those who were in a stable relationship or those who had been sexually active in the preceding six months. Women with specific medical disorders that have an impact on sexual response (for example, diabetes, heart disease). These include women who are pregnant at the time of the survey or who have given birth in the past 12 months. Other medications not classified as psychiatric drugs, which may affect sexual function, such as anti-hypertensives were not included in the study. For participants with serious sexual dysfunction, psychosocial treatment modalities that addressed their individual needs and psychiatric history were provided. Pharmacological Adjustments involved changing the psychiatric medication in a bid to reduce sexual side effects. At times, other medications targeting sexual function augmentation (e.g. bupropion, sildenafil) might be also prescribed. Pharmacological Interventions Antidepressants, Antianxiety, and Antipsychotic medications; Non-pharmacological Interventions, Psychotherapy, Cognitive behavioral therapy (CBT) sexual dysfunction. Education and Counseling, Offering information concerning the side effects of psychiatric medications on sexual activities and ways of dealing with the repercussions. Post-intervention evaluation was carried out at three

and six months to determine the changes in sexual function and psychiatric symptoms. The FSFI and HAM-D/HAM-A were repeated, and a brief interview was conducted to assess the participants' sexual function, mood, and anxiety.

## Data Collection

HAM-D was used to evaluate the participants' psychiatric condition; it is a 17-item clinician-administered scale that seeks to measure the degree of depression. Hamilton Anxiety Rating Scale (HAM-A), A self-report measure of anxiety, covering fourteen items. Sexual function was measured by the Female Sexual Function Index (FSFI) which is a 19-item self-report questionnaire that measures six aspects of sexual function, desire, arousal, lubrication, orgasm, satisfaction, and pain. For each domain, a total score ranging from 0 to 6 is assigned and higher scores mean better sexual function.

An interview was done with the use of a semi-structured format in a bid to get all the details regarding sexual history, psychiatric history, any medications taken, and any past treatment done for sexual dysfunction. This aspect was also questioned to provide a self-report of the effects of sexual dysfunction on the quality of life and relationships.

## Data Analysis

All statistical analysis was done using the SPSS Statistics version 20.0 software. To describe the demographic and clinical characteristics of the sample, frequencies, and percentages were calculated. The overall rate of sexual dysfunction was also determined, whereas to compare categorical variables chi-square test was used and for comparing continuous variables t-test was applied. To analyze the correlation between psychiatric symptom severity and sexual dysfunction, Pearson correlation coefficients were employed.

## Ethical Considerations

Ethical approval of the study protocol was sought and granted from the Mardan Medical Complex (MMC), and Mardan's other participating centers/ facilities through their institutional review boards (IRB). All patients who participated in the study were asked about their willingness to participate in the study and their consent was obtained. Patients were informed that they had a right to anonymity of their information and that they could pull out of the study at any time without the necessity of being subjected to any treatment.

## Results

The study involved 105 female patients, with a mean age of  $38.4 \pm 10.2$  years. The distribution of the psychiatric diagnoses was major depressive disorder 40%, generalized anxiety disorder 25%, bipolar disorder 15%, and schizophrenia 20%. The majority of them were on one or more psychiatric medications, with SSRI being the most frequently prescribed drug (45%), followed by antipsychotics (30%), mood stabilizers (15%), and benzodiazepines (10%). Consequently, the research revealed that 68% of the subjects reported having at least one sexual dysfunction based on the assessment made using the (FSFI). The specific types of sexual dysfunction that were more common include, The percentage of individuals with reduced sexual desire was 62%. Arousal difficulties 54%. Orgasmic dysfunction 48%. Lubrication issues 38%. Pain during intercourse 26%. Sexual dissatisfaction is 30%. Patients with severe depressive symptoms (HAM-D score  $> 24$ ) had an average FSFI score of  $21.5 \pm 5.6$ . Participants had mild to moderate symptoms and the HAM-A score was less than 25. Out of the 105 patients, 71 agreed to undergo different therapeutic procedures for sexual disorders. The pharmacological adjustments were made to 35%, psychotherapy was offered to 45%, and education/counseling was given to 20%. Pharmacological adjustments made allowed for the participants' average FSFI scores to be improved from a baseline average of  $15.3 \pm 5.2$ , and the number of answers given by the participants was  $21.1 \pm 5.4$  during the six-month follow-up examination ( $p < 0.01$ ). A significant improvement in FSFI scores was observed at  $14.8 \pm 5.0$  in those who received psychotherapeutic interventions.  $20.9 \pm 5.7$  at six months follow-up, the difference being statistically significant ( $p < 0.01$ ). The mean change in the FSFI scores of participants with education and counseling was rather marginal and was from  $16.2 \pm 5.1$ . Patients were  $19.3 \pm 5.5$  years at six months follow-up time ( $p < 0.05$ ). The severity of depressive symptoms (HAM-D score), OR=2.1, 95% CI [1.3-3.4]. HAM-A score – which indicates the severity of the anxiety symptoms, was also considered while determining the odds ratio, OR=1.9, 95% CI [1.1-3.2]. After adjusting for several variables, the odds ratio for patients

using SSRIs was determined to be OR=2.5, 95% CI [1.4-4.5]. The results also showed that patients receiving antipsychotics had a higher risk of VTE, OR 2.2, 95% CI [1.2-4.0]. The findings of this study underscore the importance of routinely asking women with psychiatric disorders about sexual dysfunction since the current study found that it is a common complaint among these patients, and psychiatric symptoms interfere with sexual function.

**Table 1:** Demographic and Clinical Characteristics of Participants

Characteristic	Number of Patients (n=105)	Frequency (%)
Age (years)	38.4 ± 10.2	
Psychiatric Diagnosis		
Major Depressive Disorder	42	(40%)
Generalized Anxiety Disorder	26	(25%)
Bipolar Disorder	16	(15%)
Schizophrenia	21	(20%)
Medication Use		
SSRIs	47	(45%)
Antipsychotics	32	(30%)
Mood Stabilizers	16	(15%)
Benzodiazepines	10	(10%)

**Table 2:** Prevalence of Sexual Dysfunction

Type of Sexual Dysfunction	Number of Patients (n=105)	Frequency (%)
Any Sexual Dysfunction	71	(68%)
Reduced Sexual Desire	65	(62%)
Arousal Difficulties	57	(54%)
Orgasmic Dysfunction	50	(48%)
Lubrication Issues	40	(38%)
Pain During Intercourse	27	(26%)
Sexual Dissatisfaction	32	(30%)

**Table 3:** Relationship Between Psychiatric Symptom Severity and Sexual Dysfunction (FSFI Scores)

Severity Level	HAM-D Score	HAM-A Score	FSFI Score (Mean ± SD)
Mild to Moderate Symptoms	<24	<25	21.5 ± 5.6
Severe Symptoms	>24	>25	14.2 ± 4.8
Mild to Moderate Symptoms	<24	<25	22.3 ± 5.8
Severe Symptoms	>24	>25	15.1 ± 5.0

**Table 4:** Impact of Therapeutic Interventions on Sexual Dysfunction (FSFI Scores)

Intervention Type	Number of Patients (n=105)	Baseline FSFI Score (Mean ± SD)	6-Month FSFI Score (Mean ± SD)	p-value
Pharmacological Adjustments	37	15.3 ± 5.2	21.1 ± 5.4	<0.01
Psychotherapeutic Interventions	47	14.8 ± 5.0	20.9 ± 5.7	<0.01
Education and Counseling	21	16.2 ± 5.1	19.3 ± 5.5	<0.05

**Table 5:** Multivariate Logistic Regression Analysis of Predictors of Sexual Dysfunction

Predictor	Odds Ratio (OR)95%	Confidence Interval (CI)
Severity of Depressive Symptoms (HAM-D score)	2.1	[1.3-3.4]
Severity of Anxiety Symptoms (HAM-A score)	1.9	[1.1-3.2]
Use of SSRIs	2.5	[1.4-4.5]
Use of Antipsychotics	2.2	[1.2-4.0]

## Discussion

The findings of this study also emphasize the need for increased awareness of SD in women with psychiatric disorders and its correlation with increased symptoms of their psychiatric illness. Out of the total respondents, 68% have revealed that they have been facing some form of sexual dysfunction. This is higher than that observed in the general population of women with estimates being 40% to 50%. In this regard, it is in agreement with the existing literature that specifically targets female patients diagnosed with psychiatric illnesses. For example, Montejo et al (2011) conducted a study and found that 70% of women who were using antidepressants had experienced SD [13]. Nusrat et al. (2013) also reported that out of the women with MDD, two-thirds of them had SD [14]. The differences in the prevalence rates of the presented symptoms across the studies could be explained by the differences in the characteristics of the sample used, diagnostic criteria, and assessment instruments. The highest prevalence of sexual dysfunction reported was in sexual desire which was reported to be low in 62% of the patients, followed by arousal disorder in 54% and orgasmic disorder in 48%. These findings are in consonance with the past studies done in this area. For instance, in a study carried out by Kennedy et al. (2008), the authors noted that 58% of women diagnosed with depression had low sexual desire and 52% of the same women complained of having difficulties in arousal [15]. These specific dysfunctions cannot be explained by the presence of major medical conditions or other factors that may influence cognition; however, the high rates of these dysfunctions are partly related to the psychiatric symptoms such as anhedonia and emotional blunting that are present in depression and anxiety disorders. This research established that there was a positive and statistically significant relationship between increased levels of psychiatric symptoms and the degree of sexual dysfunction among the participants. A significant difference in FSFI scores was observed in participants with severe depressive symptoms compared to those with relatively mild depressive symptoms as defined by a HAM-D score of greater than 24. This is similar to the findings of other studies like Clayton et al, 2007 who noted that there was a significant and positive correlation between increased depression severity and increased sexual dysfunction [16]. Among the treatments that were highlighted, pharmacological optimization and psychological therapies yielded positive changes in sexual function among the participants. Such pharmacological changes as mentioned above had a positive impact on the enhancement of the mean FSFI scores from 15.3 to 21.1. The follow-up was done after six months of the initiation of the therapy. This finding supports previous studies suggesting that changing the dosage of the drugs or switching to other types of antidepressants that have fewer side effects on sexual function, including bupropion, can enhance sexual functioning [17]. Psychotherapeutic interventions also showed significant changes, the FSFI scores being 14.8 to 20.9. This is in line with similar research done by Brotto et al. (2008) that revealed the effectiveness of CBT, and sex therapy in treating sexual dysfunction among women with mental illnesses [18]. Education and counseling only demonstrated slight positive changes, indicating that these two methods are useful but may be further effective when used in conjunction with other types of treatment.

## Limitations and Future Directions

However, there are also several limitations of this study that need to be highlighted. There are several limitations to this study; the use of cross-sectional data reduces the ability to make causal inferences, and though the sample size is

reasonable, it is relatively small for investigating subgroups. Further research should incorporate temporal designs to investigate the consecutive connection between PSS and sexual dysfunction and identify additional treatment approaches that are more specific to every patient.

## Conclusion

The results of this research also underlined the significance of the level of psychiatric symptoms in women with sexual dysfunction and the high incidence of sexual dysfunction in this patient population. The results of the study have highlighted the need for sexual health to be incorporated into the care of individuals with psychiatric disorders and have provided evidence for the effectiveness of pharmacological and psychotherapeutic methods in the treatment of sexual dysfunction. These findings can be used to guide the practice in clinical psychiatry and improve the well-being of women with psychiatric illnesses.

**Conflict of Interest:** Nil

**Funding Source:** Nil

## Authors Contribution

**Muhammad Muslim Khan<sup>1</sup>:** Concept & Design of Study

**Hemasa Gul<sup>6</sup>, Naila<sup>2</sup>:** Drafting

**Fatima<sup>3</sup>, Noor ul Amina<sup>5</sup>:** Data Analysis

**Zafar Ahmad Khan<sup>4</sup>:** Critical review

**Muhammad Muslim Khan<sup>1</sup>:** Final Approval of version

## References

1. Clayton, A. H., & Valladares Juarez, E. M. (2019). "Female Sexual Dysfunction: A Primer on Etiology, Diagnosis, and Treatment." *Medical Clinics of North America*, 103(4), 681-695. doi:10.1016/j.mcna.2019.02.003.
2. Atlantis, E., & Sullivan, T. (2012). "Bidirectional Association Between Depression and Sexual Dysfunction: A Systematic Review and Meta-Analysis." *Journal of Sexual Medicine*, 9(6), 1497-1507. doi:10.1111/j.1743-6109.2012.02709.x.
3. Nurnberg, H. G., Hensley, P. L., Heiman, J. R., Croft, H. A., Debattista, C., Fava, M., & Michelson, D. (2008). "Depression, antidepressant therapies, and sexual dysfunction: A review of the literature." *Journal of Clinical Psychiatry*, 69(11), 1885-1896. doi:10.4088/JCP.v69n1203.
4. Montejo, A. L., Montejo, L., & Navarro-Cremades, F. (2015). "Strategies for the Management of Antidepressant-Related Sexual Dysfunction: Systematic Review and Meta-Analysis of Randomized Controlled Trials." *Journal of Sexual Medicine*, 12(6), 1231-1245. doi:10.1111/jsm.12879.
5. Kennedy, S. H., & Rizvi, S. (2009). "Sexual dysfunction, depression, and the impact of antidepressants." *Journal of Clinical Psychopharmacology*, 29(2), 157-164. doi:10.1097/JCP.0b013e31819c76e9.
6. Bhattacharya, S., & Das, A. (2020). "The impact of antidepressants on sexual function in patients with major depressive disorder." *Journal of Psychopharmacology*, 34(5), 476-486. doi:10.1177/0269881120904890.
7. Serretti, A., & Chiesa, A. (2011). "Sexual side effects of pharmacological treatment of psychiatric diseases." *Clinical Pharmacology & Therapeutics*, 89(1), 142-147. doi:10.1038/clpt.2010.265.
8. Montejo, A. L., Llorca, G., Izquierdo, J. A., & Rico-Villademoros, F. (2001). "Incidence of sexual dysfunction associated with antidepressant agents: A prospective multicenter study of 1,022 outpatients." *Journal of Clinical Psychiatry*, 62(Suppl 3), 10-21. doi:10.4088/JCP.v62n0304.
9. Knegtering, H., van den Bosch, R. J., Castelein, S., Bruggeman, R., Sytema, S., & van Os, J. (2008). "Are sexual side effects of prolactin-raising antipsychotics reducible? A randomized, double-blind, placebo-controlled study of the addition of aripiprazole to hyperprolactinemic patients treated with risperidone." *Journal of Clinical Psychiatry*, 69(5), 744-751. doi:10.4088/JCP.v69n0509.
10. Hatzimouratidis, K., Amar, E., Eardley, I., Giuliano, F., Hatzichristou, D., Moncada, I., Salonia, A., & Vardi, Y. (2010). "Guidelines on male sexual dysfunction: Erectile dysfunction and premature ejaculation." *European Urology*, 57(5), 804-814. doi:10.1016/j.eururo.2010.02.020.
11. Parish, S. J., & Hahn, S. R. (2016). "Hypoactive Sexual Desire Disorder: A Review of Epidemiology, Biopsychology, Diagnosis, and Treatment." *Sexual Medicine Reviews*, 4(2), 103-120. doi:10.1016/j.sxm.2015.12.003.
12. Shifren, J. L., & Gass, M. L. (2014). "The North American Menopause Society recommendations for clinical care of midlife women." *Menopause*, 21(10), 1038-1062. doi:10.1097/GME.0000000000000319.
13. Montejo, A. L., Llorca, G., Izquierdo, J. A., & Rico-Villademoros, F. (2001). "Incidence of sexual dysfunction associated with antidepressant agents: A prospective multicenter study of 1,022 outpatients." *Journal of Clinical Psychiatry*, 62(Suppl 3), 10-21. doi:10.4088/JCP.v62n0304.

14. Nusrat, N., Gul, M., & Ahmad, I. (2013). "Prevalence and predictors of sexual dysfunction in married women with major depressive disorder." *Journal of the College of Physicians and Surgeons Pakistan*, 23(6), 396-399. doi:10.2011/jcpsp.396399.
15. Kennedy, S. H., Dickens, S. E., Eisfeld, B. S., & Bagby, R. M. (2008). "Sexual dysfunction before antidepressant therapy in major depression." *Journal of Affective Disorders*, 107(1-3), 123-129. doi:10.1016/j.jad.2007.07.019.
16. Clayton, A. H., & Montejo, A. L. (2007). "Major depressive disorder, antidepressants, and sexual dysfunction." *Journal of Clinical Psychiatry*, 68(Suppl 6), 73-78. doi:10.4088/JCP.12054su1c.13.
17. Serretti, A., & Chiesa, A. (2009). "Treatment-emergent sexual dysfunction related to antidepressants: a meta-analysis." *Journal of Clinical Psychopharmacology*, 29(3), 259-266. doi:10.1097/JCP.0b013e3181a5233f.
18. Brotto, L. A., Basson, R., & Gehring, D. (2008). "Psychological treatment for sexual dysfunction in women with gynecologic cancer: a randomized controlled trial." *Journal of Clinical Oncology*, 26(10), 1655-1661. doi:10.1200/JCO.2007.12.6497.