

## Correlation Between Depression and Sexual Dysfunction in Adult Males and Females

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### Abstract:

**Background:** Depression is a common psychiatric disorder that affects multiple aspects of life, including sexual functioning. Sexual dysfunction is frequently reported among individuals with depressive symptoms and may significantly reduce quality of life and relationship satisfaction.

**Aim:** To assess the correlation between depression and sexual dysfunction among adult males and females.

**Methodology:** A hospital-based cross-sectional observational study was conducted among 90 adult patients attending the psychiatric outpatient department of Darbhanga Medical College and Hospital, Bihar, India. Participants aged 18–60 years were included after obtaining informed consent. Socio-demographic data were collected using a semi-structured proforma. Depression severity was assessed using Beck's Depression Inventory (BDI), while sexual functioning was evaluated using the Arizona Sexual Experiences Scale (ASEX). Erectile function in males was further assessed using the International Index of Erectile Function (IIEF). Data were analyzed using descriptive statistics and Pearson's correlation test.

**Results:** Among the participants, 57.8% had sexual dysfunction. Moderate depression was the most common category (33.3%). Sexual dysfunction was slightly higher in males (62.5%) than females (52.4%). A statistically significant moderate positive correlation was observed between depression and sexual dysfunction scores ( $r = 0.46$ ,  $p = 0.001$ ).

**Conclusion:** Depression is significantly associated with sexual dysfunction, indicating the importance of assessing sexual health during psychiatric evaluation.

**Keywords:** Depression, Sexual Dysfunction, BDI, ASEX, Mental Health, Adult Males and Females.

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### Introduction

Healthy sexual functioning is a vital aspect of the overall well-being and quality of life. Sexual health is a factor that helps both men and women to achieve emotional satisfaction, relationship and psychological stability. The disruption of sexual functioning is harmful to the mental health of a person, marital integrity, and social adaptation of the person. Depression has been broadly accepted as one of the most critical challenges towards sexual dysfunction among the range of other psychological disorders that affect sexual health. One of the prevalent issues among people with depressive disorders is sexual problems which shows that there is a strong correlation between the emotional well-being and sexual functioning [1].

Depression refers to a typical psychiatric disease, which is manifested by unremitting sadness, loss of interest and pleasure in everyday activities, fatigue, low self-esteem, sleep and appetite disturbances. These symptoms are likely to go beyond emotional distress and impact several spheres of life, including sexual functioning [2]. Depression which is a clinical manifestation including anhedonia meaning the inability to take pleasure can easily affect sexual desire and enjoyment. Also, the sexual activity and responsiveness may also be lowered by fatigue and lower energy levels that are common among depressed people. Low self-esteem and poor self-perception that are typical of depressed persons can also result in low confidence in intimate relationships in turn causing sexual problems [3].

Sexual dysfunction is defined as continuous malfunctions experienced in any stage of the sexual response process, such as desire, arousal, orgasm and resolution where individuals fail to find satisfaction when engaging in sexual intercourse [4]. Erectile dysfunction, premature ejaculation and reduced libido are some of the common sexual dysfunctions in men. Sexual dysfunction in women may be encountered in a form of loss of sexual desire, inability to be aroused, lack of lubrication, no orgasmia or pain during intercourse. These circumstances may arise because of a mix of biological, psychological, and social aspects. Psychological disorders especially depression and anxiety have been found to be significant determinants which contribute to the prevalence and the degree of sexual dysfunction in both men and women.

The use of antidepressant drugs is another key variable that makes it difficult to establish the relationship between depression and sexual dysfunction. The use of antidepressants, commonly used in the management of depressive disorders has been largely linked to numerous sexual side effects. The most common complaint by many patients who are under antidepressant treatment is that of reduced libido, delayed orgasm, erectile dysfunction or the inability to attain sexual satisfaction. Selective serotonin reuptake inhibitors (SSRI) are among the various classes of antidepressants that are usually attributed to the cause of sexual dysfunction. Even though these medications are essential in reducing the symptoms of depression, they are associated with possible negative consequences on sexual functioning which can have a negative impact on the treatment adherence and quality of life [5].

Sociocultural factors are also significant in the development of attitudes towards sexual health besides biological and psychological factors. In most cultures such as in India, sex and sexual health are a taboo topic. The cultural values and societal taboos render people reluctant to openly talk about sexual issues, even to healthcare specialists. Patients are usually embarrassed or ashamed to discuss sexual problems and physicians may also feel uncomfortable or not possessing the necessary training of discussing the problem properly [6]. Sexual dysfunction thus often goes underreported and untreated despite its significant burden on the quality of life.

Moreover, the absence of formal sexual education is a factor that supports maintaining myths and misconceptions on sexuality. In most instances, youths learn about sexual health through unreliable sources like their peers, media or the internet that might not necessarily be accurate in their provision [7]. This little and usually wrong perception of sexual anatomy, physiology, and functioning may result in confusion, realistic expectations, and anxiety about sexual functioning. The myths about masturbation, sexual intercourse, sexually transmitted diseases, and

sexual well-being, in general, continue to exist in the society and could be affecting how people perceive and experience sexual health.

Although the interaction between depression and sexual dysfunction has been identified, studies of this disease have traditionally concentrated on the identification of particular variables, e.g. how antidepressant drugs affect sexual functioning or the frequency of sexual disorders within clinical groups [8]. Although a number of international studies have been conducted to associate depressive symptoms with sexual functioning, comparatively fewer studies in India have managed to conduct the association study fully, on both the male and female population. Majority of the research done is on the male sexual dysfunction and there is little data available that compared sexual functioning of both depressed individuals versus the general population in the Indian context.

In addition, the extent to which cultural beliefs, myths and misconceptions towards sexual health affect sexual functioning of people with depression is not well researched [9]. The importance of understanding these sociocultural factors is that they might affect not only reporting of sexual problems but also the perception and way of handling such problems. It is important to close such knowledge gaps to come up with effective measures of curbing mental health and sexual well-being of the affected individuals.

The complex relationship between psychological elements and drug treatments and social cultural factors needs to be studied through its effects on depression and sexual dysfunction. The relationship between these two factors needs to be better understood so that healthcare providers can detect sexual issues at their initial stages and deliver proper counseling and treatment. The recognition of sexual dysfunction as a potential aspect of depressive disorder will lead to better clinical results and higher patient contentment.

The current research study aims to examine how depression links to sexual dysfunction in both male and female adult participants. The study aims to evaluate the prevalence of sexual dysfunction among individuals with depression and to examine the association between depressive symptoms and various domains of sexual functioning. The research investigates these aspects to improve understanding of how mental health and sexual well-being interact while showing psychiatric care should address sexual health concerns.

### Methodology

**Study Design:** The present study was conducted as a hospital-based cross-sectional observational study designed to evaluate the correlation between depression and sexual dysfunction in adult males and

females. The study aimed to assess the prevalence and severity of depressive symptoms and sexual dysfunction and to determine the relationship between these two conditions among patients attending the psychiatric outpatient department.

**Study Area:** The study was carried out at Department of Psychiatry, Darbhanga Medical College and Hospital (DMCH), Laheriasarai, Darbhanga, Bihar, India.

**Study Duration:** The total duration of the study was 9 months from March 2025 to November 2025.

**Study Participants:** The study population consisted of adult male and female patients attending the psychiatry outpatient department of Darbhanga Medical College and Hospital during the study period. Participants who fulfilled the eligibility criteria and were willing to participate were included in the study after obtaining informed consent.

#### Inclusion Criteria

- Adult males and females aged 18–60 years.
- Patients attending the psychiatry outpatient department (OPD).
- Participants who were sexually active.
- Individuals who were able and willing to provide informed consent for participation in the study.
- Patients capable of understanding and responding to the study questionnaires.

#### Exclusion Criteria

- Patients with severe psychiatric disorders such as psychosis or severe cognitive impairment.
- Individuals with serious medical illnesses that could independently affect sexual functioning (e.g., severe neurological or endocrine disorders).
- Patients with substance dependence such as alcohol or drug abuse.
- Individuals currently receiving medications known to significantly affect sexual function.
- Patients unwilling or unable to provide informed consent.

**Sample Size:** The total sample size for the study was 90 participants. These participants included adult males and females who met the inclusion criteria and were recruited from the psychiatric outpatient department during the study period.

**Procedure:** Eligible participants attending the psychiatry outpatient department were approached and informed about the objectives and procedures of the study. Written informed consent was obtained from all participants before their inclusion in the study. A semi-structured proforma was used to collect relevant socio-demographic details such as age, gender, marital status, education, occupation, and clinical history. The severity of depressive symptoms among

participants was assessed using the Beck's Depression Inventory (BDI), which is a widely used self-report questionnaire consisting of 21 items that evaluate the presence and intensity of depressive symptoms. Sexual functioning was assessed using the Arizona Sexual Experiences Scale (ASEX), which measures key components of sexual function including sexual drive, arousal, lubrication/erection, ability to reach orgasm, and satisfaction from orgasm. For male participants, erectile functioning was further assessed using the International Index of Erectile Function (IIEF) to evaluate different aspects of sexual performance such as erectile function, sexual desire, and overall satisfaction. The questionnaires were administered in a confidential environment to ensure privacy and encourage honest responses. Participants were given adequate time to complete the questionnaires, and assistance was provided when necessary to clarify any questions. All responses were carefully recorded and verified for completeness before being included in the dataset for analysis.

**Statistical Analysis:** The collected data were compiled and entered into Microsoft Excel and subsequently analyzed using the Statistical Package for the Social Sciences (SPSS) version 27.0. Descriptive statistics such as frequency, percentage, mean, and standard deviation were used to summarize the socio-demographic characteristics and study variables. Inferential statistical tests including the Chi-square test and t-test were used where appropriate to assess associations between categorical and continuous variables. The correlation between depression scores and sexual dysfunction scores was analyzed using Pearson's correlation coefficient. A p-value of less than 0.05 was considered statistically significant for all analyses.

#### Result

Table 1 presents the socio-demographic characteristics of the study participants (n = 90). The majority of participants belonged to the age group of 31–45 years, accounting for 40% (n = 36), followed by 46–60 years with 33.3% (n = 30), while participants aged 18–30 years constituted 26.7% (n = 24). With respect to gender distribution, males formed a slightly higher proportion of the sample at 53.3% (n = 48), whereas females accounted for 46.7% (n = 42). In terms of marital status, most participants were married, representing 68.9% (n = 62) of the total sample, while 22.2% (n = 20) were unmarried and 8.9% (n = 8) were either divorced or widowed. Regarding occupational status, the largest proportion of participants were employed (42.2%, n = 38), followed by unemployed individuals (26.7%, n = 24). Homemakers constituted 20% (n = 18) of the study population, whereas students represented the smallest group with 11.1% (n = 10). Overall, the findings indicate that the study sample

predominantly consisted of middle-aged, married, and employed individuals.

**Table 1: Socio-Demographic Characteristics of Study Participants (n = 90)**

Variable	Category	Frequency (n)	Percentage (%)
Age Group (years)	18–30	24	26.7
	31–45	36	40
	46–60	30	33.3
Gender	Male	48	53.3
	Female	42	46.7
Marital Status	Married	62	68.9
	Unmarried	20	22.2
	Divorced/Widowed	8	8.9
Occupation	Employed	38	42.2
	Unemployed	24	26.7
	Homemaker	18	20
	Student	10	11.1

Table 2 shows the distribution of participants according to the severity of depression based on the Beck Depression Inventory (BDI) score among the total sample of 90 participants. The results indicate that the largest proportion of participants, 33.3% (n = 30), experienced moderate depression (BDI score 21–30). This was followed by 24.4% (n = 22) who had minimal or no depression (BDI score 0–16). Mild depression (BDI score 17–20) was observed in

20% (n = 18) of the participants. A smaller proportion of individuals reported higher levels of depression, with 15.6% (n = 14) experiencing severe depression (BDI score 31–40) and 6.7% (n = 6) experiencing extreme depression (BDI score >40). Overall, the findings suggest that while a considerable number of participants had minimal or mild depressive symptoms, a substantial proportion exhibited moderate to severe levels of depression.

**Table 2: Distribution of Participants According to Severity of Depression (BDI Score)**

Severity of Depression	BDI Score Range	Frequency (n)	Percentage (%)
Minimal/No Depression	0–16	22	24.4
Mild Depression	17–20	18	20
Moderate Depression	21–30	30	33.3
Severe Depression	31–40	14	15.6
Extreme Depression	>40	6	6.7

Table 3 shows the prevalence of sexual dysfunction among the study participants based on the ASEX score. Out of the total participants, 52 individuals (57.8%) were found to have sexual dysfunction, whereas 38 participants (42.2%) did not report sexual dysfunction. The findings indicate that more than half of the study population experienced some form of sexual dysfunction. This relatively high

prevalence suggests that sexual dysfunction is a common concern among the participants included in the study. The results highlight the importance of assessing sexual health among individuals, particularly in clinical settings, as a significant proportion of patients may experience difficulties related to sexual functioning.

**Table 3: Prevalence of Sexual Dysfunction Among Study Participants (ASEX Score)**

Sexual Dysfunction Status	Frequency (n)	Percentage (%)
Sexual Dysfunction Present	52	57.8
Sexual Dysfunction Absent	38	42.2

Table 4 shows the association between gender and the presence of sexual dysfunction among the study participants (n = 90). Out of the total 48 male participants, 30 (62.5%) reported the presence of sexual dysfunction, while 18 (37.5%) did not report any sexual dysfunction. Among the 42 female participants, 22 (52.4%) were found to have sexual

dysfunction, whereas 20 (47.6%) did not experience sexual dysfunction. Overall, sexual dysfunction was present in 52 (57.8%) participants, while 38 (42.2%) participants did not report any dysfunction. The findings indicate that sexual dysfunction was slightly more prevalent among males compared to females in the study population.

Gender	Sexual Dysfunction Present n (%)	Sexual Dysfunction Absent n (%)	Total
Male	30 (62.5)	18 (37.5)	48
Female	22 (52.4)	20 (47.6)	42
<b>Total</b>	<b>52 (57.8)</b>	<b>38 (42.2)</b>	<b>90</b>

Table 5 shows the correlation between depression score and sexual dysfunction score among the study participants (n = 90). The mean depression score measured by the BDI was  $25.8 \pm 9.4$ , while the mean sexual dysfunction score assessed using the ASEX scale was  $18.7 \pm 5.2$ . The analysis revealed a moderate positive correlation ( $r = 0.46$ ) between depression and sexual dysfunction scores, indicating that higher levels of depressive symptoms were

associated with increased severity of sexual dysfunction among the participants. The p-value of 0.001 indicates that this relationship was statistically highly significant. These findings suggest that individuals with greater depressive symptoms tend to experience higher levels of sexual dysfunction, highlighting the close relationship between psychological well-being and sexual health in the studied population.

Variable	Mean $\pm$ SD	Pearson Correlation (r)	p-value
Depression Score (BDI)	$25.8 \pm 9.4$		
Sexual Dysfunction Score (ASEX)	$18.7 \pm 5.2$	<b>0.46</b>	<b>0.001</b>

## Discussion

The current research analyzed how depression affects sexual function between men and women who visit psychiatric outpatient services. The socio-demographic profile of the participants revealed that the majority of individuals were in the age group of 31–45 years (40%), followed by 46–60 years (33.3%), and 18–30 years (26.7%). The study population shows that middle-aged people made up the majority of its participants. Similar age trends have been reported in previous studies where sexual dysfunction and depressive symptoms were more frequently observed among middle-aged adults due to increased psychosocial stress, family responsibilities, and occupational pressures. For instance, a study by Rao et al. (2015) [10] reported that approximately 38% of individuals experiencing sexual disorders in their sample belonged to the 30–45-year age group which closely resembles the findings of the present study. The findings demonstrate that middle adulthood represents a stage when people experience both psychological stress and relationship demands and these factors lead to depression and sexual health issues.

The study's gender distribution revealed that 53.3% of participants were male while 46.7% were female. The study design achieved a balanced representation which enabled researchers to study sexual dysfunction across both genders. The study revealed that sexual dysfunction affected 62.5% of males and 52.4% of females. Kendurkar and Kaur (2008) [11] reported results that matched these findings because they discovered sexual dysfunction affected approximately 63% of males who had depressive disorders and around 50% of females. Bonierbale et al. (2003) [12] demonstrated through their ELIXIR study with more than 4,500 depressed patients that almost 60% of males and approximately 50% of females

developed sexual dysfunction. The present study results match earlier research because they show that sexual problems occur in both genders who suffer from depressive disorders, but their specific manifestations and reporting methods differ.

The present study found that 68.9% of participants in the study were married. The study results show that sexual functioning reaches important clinical levels when people enter stable relationships. Research findings from previous studies show that married individuals experience sexual difficulties because they have sexual encounters which help them identify their changing sexual abilities. The study by Clayton et al. (2006) [13] found that sexual dysfunction was more frequently reported by married or partnered people who made up almost 65% of the cases in their research which studied depressed patients. The similar results support the theory that relationship context functions as a crucial factor for people to identify their sexual problems.

The study used the Beck Depression Inventory to assess depressive symptoms which showed that 33.3% of participants had moderate depression 20% had mild depression 24.4% showed minimal symptoms and 15.6% and 6.7% respectively experienced severe and extreme depression. The results demonstrate that participants showed clinically important symptoms of depression which reached high levels across the study. The study by Thakurta et al. (2012) [14] found that approximately 48% of their major depressive disorder participants showed moderate to severe depression. The results show that psychiatric outpatients experience moderate depression as their most common diagnosis which leads to sexual functioning problems and other life area disturbances.

The study found that 57.8% of participants exhibited sexual dysfunction. The study found high

prevalence which matches earlier research results showing that sexual dysfunction affects most people who have depressive disorders. Bonierbale et al. (2003) [15] reported that about 57–60% of depressed patients experienced some form of sexual dysfunction which is remarkably similar to the prevalence observed in the present study. Kendurkar and Kaur (2008) found that 62% of their study group who suffered from depressive disorders experienced sexual dysfunction. The study results show that more than half of depressed individuals experience sexual health issues which creates a need for psychiatrists to conduct regular sexual dysfunction assessments.

The study found that depression and sexual dysfunction have a statistically significant relationship. The study found that participants had an average depression score of 25.8 with a standard deviation of 9.4 and an average sexual dysfunction score of 18.7 with a standard deviation of 5.2. The study found a moderate positive relationship between depression and sexual dysfunction with correlation value ( $r$ ) of 0.46 and a statistical significance level ( $p$ ) value of 0.001. The study found that higher levels of depressive symptoms resulted in more severe sexual dysfunction. Previous studies have documented similar relationships between depression and sexual dysfunction. Thakurta et al. (2012) discovered a major link between depressive severity and various sexual dysfunction areas which produced correlation coefficients between  $r = 0.38$  and  $r = 0.49$ . Atlantis and Sullivan (2012) [16] conducted a systematic review which discovered a strong connection between depression and erectile dysfunction because they found an average correlation coefficient of about  $r = 0.40$  through their analysis of multiple studies. The findings of the present study establish a strong connection between psychological well-being and sexual health which mirrors the established relationship between these two variables.

The study conducted by Kennedy and Rizvi (2009) [17] demonstrated that depression interacts with sexual dysfunction in both directions because depressive symptoms lead to decreased sexual desire and problems with sexual arousal and sexual pleasure. The research performed by Ishak et al. (2013) [18] demonstrated that patients with major depressive disorder experienced significant reductions in sexual satisfaction compared to individuals without depression, while their sexual performance improved with decreasing depressive symptoms after they received treatment.

The current research results show strong agreement with earlier studies which demonstrate that sexual dysfunction affects a large number of people who suffer from depressive disorders and that more severe depression leads to increased sexual dysfunction. The study found a moderate correlation which supports the theory that mental health and sexual

health maintain a strong connection. The comprehensive psychiatric evaluation process needs to include sexual functioning assessment because it helps doctors achieve better treatment results and enhances life quality for their patients.

### Conclusion

The present study highlights a significant relationship between depression and sexual dysfunction among adult males and females attending the psychiatric outpatient department. The findings demonstrated that a considerable proportion of participants experienced moderate to severe depressive symptoms, and more than half of the study population reported the presence of sexual dysfunction. The results further revealed that sexual dysfunction was slightly more prevalent among males compared to females. Most importantly, a statistically significant moderate positive correlation was observed between depression scores and sexual dysfunction scores, indicating that increased severity of depressive symptoms was associated with greater impairment in sexual functioning. These findings emphasize that mental health and sexual health are closely interconnected. Therefore, routine assessment of sexual functioning in patients with depression is essential to ensure comprehensive management, improve treatment outcomes, and enhance overall quality of life among affected individuals.

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