

## Evaluating Male Sexual Dysfunctions in the Rural Areas of Bihar's Koshi Region

Rohit Alok<sup>1</sup>, Ahmad Ijtaba Karim<sup>2</sup>, Pranav Prakash Choudhary<sup>3</sup>, Arati Shivhare<sup>4</sup>

<sup>1</sup>Assistant Professor, Department of Psychiatry, KMCH, Katihar, Bihar, India

<sup>2</sup>Assistant Professor, Department of Psychiatry, KMCH, Katihar, Bihar, India

<sup>3</sup>Senior Resident, Department of Psychiatry, KMCH, Katihar, Bihar, India

<sup>4</sup>Assistant Professor, Department of Psychiatry, KMCH, Katihar, Bihar, India

---

Received: 05-05-2022 / Revised: 17-06-2022 / Accepted: 09-07-2022

Corresponding author: Dr. Arati Shivhare

Conflict of interest: Nil

---

### Abstract

**Aim:** To ascertain the incidence of sexual disorders in males among the rural population of Bihar's Koshi region.

**Methodology:** A research with 275 patients was conducted. Patients provided a detailed case history using a self-prepared Semi-Structured Proforma, including demographic information, educational level, occupational and marital records, family history, socioeconomic situation, and various symptoms, beliefs, and behaviour relevant to treatment. Each patient was given the 13 Arizona sexual experience scale, and their responses were documented.

**Results:** 80 men (29.09 percent) were diagnosed with sexual disorders. Erectile dysfunction was reported by 36 (45.0 percent), premature / early ejaculation by 22 (27.5 percent), male hypoactive sexual drive disorder by 12 (15.0 percent), and delayed ejaculation by 10 (10.0%). (12.5 percent) Of the 36 erectile dysfunction patients, 38.9 percent had mild to moderate erectile dysfunction, 30.6 percent had moderate erectile dysfunction, 11.1 percent had severe erectile dysfunction, and 19.4 percent had mild erectile dysfunction. There was no significant link with age, socioeconomic status, religion, education, or marital status.

**Conclusion:** To fight the rising prevalence of sexual issues, the media and health care practitioners must give sex education. In order to address treatment demands and increase case discovery in the general community, sexology must also be included in undergraduate and postgraduate medical education. Providers of health care must educate and treat such persons as soon as possible.

---

This is an Open Access article that uses a fund-ing model which does not charge readers or their institutions for access and distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>) and the Budapest Open Access Initiative (<http://www.budapestopenaccessinitiative.org/read>), which permit unrestricted use, distribution, and reproduction in any medium, provided original work is properly credited.

---

### Introduction

Sexual disorders are complicated, diverse, and linked to a variety of biological, physiological, and psychological factors. Men who visit general hospitals frequently experience sexual dysfunction [1].

However, it is frequently overlooked, misdiagnosed, and mismanaged [1]. While hospital-based research has been conducted [1], data on male sexual dysfunction in the Indian subcontinent community is quite

scarce [2]. Rao et al. [3] studied sexual dysfunction in rural Mysore and discovered that 15.77 percent of the population had erectile dysfunction, 8.76 percent had premature ejaculation, and 2.56 percent had hypoactive sexual desire disorder. ED affects more than 52% of men aged 40 to 70. This is a significant public health concern with a strong relationship to cardiovascular disorders, which share physiopathological processes and risk factors [4, 5].

In India, only a few epidemiological studies on the prevalence of sexual diseases have been undertaken. The widespread cultural beliefs and stigma in India may discourage and restrict individuals from seeking medical care and disclosing their sexual life, making determining the scope of the problem difficult [6]. According to a few community surveys, the prevalence of male sexual dysfunction ranges from 10% to 52% [4, 7]. The prevalence of ED grew from 3% to 15%, premature ejaculation (PE) increased from 4% to 8%, and male hypoactive sexual desire disorder (HSDD) increased from 1% to 7%. In the Indian study, 15.77% of the males had erectile dysfunction, 2.56 percent had male HSDD, and 8.76% experienced premature ejaculation [8].

Human sexuality is inextricably tied to a number of social and public health issues in India. Contraception use, child maltreatment, sex education, LGBT legal difficulties, and AIDS are all possible themes [9]. These health concerns have a significant impact on the current health infrastructure and budget. Poverty, tough living conditions, different cultural belief systems, quackery, ignorance, and inadequate health treatment are all aspects to consider. However, little is known about the relationship between these health conditions and human sexuality and its dysfunctions [10]. It is vital to understand how sexual attitudes, beliefs, and values operate and impact these difficulties. Our cultural viewpoints can have an impact on

how we perceive and grasp particular situations. As a result, sexual experiences and dysfunctions that influence adult behaviour patterns in India must be investigated.

## Methods

The current cross-sectional study was conducted at Katihar Medical College's rural health centre in Katihar, Bihar. 275 males who visited a rural health centre from January to December 2016 with minor physical ailments were tested to determine sexual issues. The study included patients who were sexually active between the ages of 18 and 60 and gave their consent. Individuals with depression, psychotic condition, dementia, mental retardation, or a history of head injury were excluded from the study, as were those with coexisting medical illness or evidence of organic aetiology on history or clinical examination. Following a thorough physical examination and standard laboratory examinations, the patient's information was collected in a self-prepared semi-structured proforma, and the diagnostic tool Arizona sexual experience scale was applied to each patient.

Patients provided detailed case histories using a self-prepared Semi-Structured Proforma that included multiple choice questions, specific responses in various other rating formats, and open-ended questions covering demographic details, educational level, occupational, and marital records, family history, socioeconomic status (using the Kuppu Swamy Scale), and various symptoms (relating to sexual disorder), beliefs, and behaviour related to treatment. The original scale was created in Hindi before being translated into English. There is good cross-language equivalence between the Hindi and English versions. Semi-structured socio-demographic proforma were also used to obtain socio-demographic data. To assess the type of sexual dysfunction, in-depth interviews and questioning were conducted using the

International Index of Erectile Function and Premature Ejaculation Diagnostic Tools.

### Analytical Statistics

The data was analysed using the Statistical Package for Social Sciences, version 23 (SPSS Inc., Chicago, IL). Continuous variable results are reported as mean standard deviation, whereas categorical variable values are shown as frequency/number (percentage). Data was analysed using proportions and chi-square tests. The significance level P 0.05 was used as the cut off value.

### Results

According to the findings of the current study, 195 (70.91 percent) of the 275 males included in the study had no diagnosable sexual disorders. However, sexual disorders were observed in 80 (29.09 percent) of the men. The most common

sexual disorder among enrolled males was erectile dysfunction, which was reported by 36 (45.0 percent), premature / early ejaculation by 22 (27.5 percent), and male hypoactive sexual drive disorder by 12 (12). (15.0 percent). In addition, 10 12.5 percent of males had Delayed ejaculation (figure 1). Of the total 36 erectile dysfunction patients, 14 (38.9 percent) had Mild Moderate Erectile Dysfunction and 11 (30.6 percent) had Moderate Erectile Dysfunction. There were only 4 (11.1%) patients with severe erectile dysfunction and 7 (19.4%) instances with mild erectile dysfunction (figure 2). Table 1 demonstrates the relationship between sexual dysfunction and numerous other characteristics. Sexual dysfunction was shown to have no significant link with age, socioeconomic status, education, or marital status.

**Table 1: Association of various parameters with sexual dysfunction**

Parameters		Male hypoactive sexual desire disorder (n=12)	Male erectile disorder (n=36)	Premature/early ejaculation (n=22)	Delayed ejaculation (n=10)	p value
		n (%)	n (%)	n (%)	n (%)	
age	<b>18-19</b>	2 (16.7)	4 (11.1)	2 (9.1)	3 (30.0)	0.62
	<b>20-30</b>	7 (58.3)	22 (61.1)	14 (63.6)	4 (40.0)	
	<b>31-40</b>	2 (16.7)	8 (22.2)	3 (13.6)	2 (20.0)	
	<b>41-50</b>	0 (0.0)	1 (2.8)	3 (13.6)	1 (10.0)	
	<b>51-60</b>	1 (8.3)	1 (2.8)	0 (0.0)	0 (0.0)	
marital status	<b>Single</b>	8 (66.7)	16 (44.4)	11 (50.0)	7 (70.0)	0.56
	<b>Married</b>	4 (33.3)	18 (50.0)	10 (45.5)	3 (30.0)	
	<b>Widowed</b>	0 (0.0)	2 (5.6)	0 (0.0)	0 (0.0)	
	<b>Divorced</b>	0 (0.0)	0 (0.0)	1 (4.5)	0 (0.0)	
education	<b>Illiterate</b>	2 (16.7)	4 (11.1)	3 (13.6)	3 (30.0)	0.89
	<b>Primary</b>	3 (25.0)	10 (27.8)	7 (31.8)	0 (0.0)	
	<b>High school</b>	3 (25.0)	8 (22.2)	4 (18.2)	3 (30.0)	
	<b>Pre university</b>	3 (25.0)	7 (19.4)	0 (0.0)	1 (10.0)	
	<b>Graduate</b>	1 (8.3)	7 (19.4)	6 (27.3)	3 (30.0)	
	<b>PG or above</b>	0 (0.0)	0 (0.0)	2 (9.1)	0 (0.0)	
employment status	<b>Unemployed</b>	3 (25.0)	14 (38.9)	7 (31.8)	3 (30.0)	0.04
	<b>Unskilled Employment</b>	5 (41.7)	17 (47.2)	11 (50.0)	5 (50.0)	
	<b>Skilled Employment</b>	4 (33.3)	5 (13.9)	4 (18.9)	2 (20.0)	

SES	Less than 30000	3 (25.0)	8 (22.2)	3 (13.6)	1 (10.0)	0.65
	30000-60000	5 (41.7)	12 (33.3)	8 (36.4)	3 (30.0)	
	60000-100000	2 (16.7)	13 (36.1)	5 (22.7)	3 (30.0)	
	More than 100000	2 (16.7)	3 (8.3)	6 (27.3)	3 (30.0)	
family type	Nuclear	7 (58.3)	13 (36.1)	9 (40.9)	5 (50.0)	0.02
	Extended/joint	5 (41.7)	23 (63.9)	13 (59.1)	5 (50.0)	

## Discussion

This cross-sectional study was carried out to investigate the prevalence of male sexual disorder in the general population, to determine the presence of sexual problems, and to assess the relationship of sexual disorder with various socio-demographic characteristics. In the current study, 80 (29.09 percent) of the 275 males enrolled had sexual problems. In a study conducted by Rao et al [11] and Oyekanmi et al [12], about 21.15 percent and 40.4 percent of male patients, respectively, were diagnosed with one or more male sexual disorders.

In our study, the most common sexual illness among enrolled male patients was erectile dysfunction (35.0%), followed by premature/early ejaculation (22.5%), male hypoactive sexual drive disorder (11.3%), and delayed ejaculation (10.3%). (6.3 percent). Our findings were consistent with those of Oyekanmi et al [12], who observed sexual desire impairment in 17.1 percent of patients and erectile dysfunction in 34.5 percent. They did, however, contradict the findings of Kinsey et al. [13], who discovered that erectile dysfunction affects less than 1% of the male population. Another study, Laumann et al [14], discovered that male HSDD is more common in the general population than previously thought, at 16%. According to Rao et al [11], the prevalence of erectile dysfunction was 15.77 percent, with 8.76 percent of patients experiencing premature ejaculation and 2.56 percent experiencing male hypoactive sexual desire disorder (HSDD). Male HSDD has been shown in studies to have prevalence rates ranging

from 1% to 7% [15, 16]. Another study discovered that discrepancies in estimations were caused by changes in methods used.

Erectile dysfunction was discovered to be the most common presenting condition, which is consistent with the literature. Although previous research on the prevalence of erectile dysfunction in clinical samples ranged from 1% to 70%, studies from sexual dysfunction units produced better results. Erectile dysfunction was found in 36% of men by Frank et al [17] and 41.8 percent of men by Bancroft and Coles [18]. According to masters and Johnson [19], 50% of men seeking treatment have secondary erectile dysfunction, while only 8% have primary erectile dysfunction. Uguz et al [20] identified a considerable prevalence of erectile dysfunction in Turkish clinical samples (55 percent).

Rao et al [11] discovered that 9.40 percent of patients had severe erectile dysfunction, 28.20 percent had moderate erectile dysfunction, 42.73 percent had mild moderate erectile dysfunction, and 19.65 percent had light erectile dysfunction. Similarly, in our current study, male erectile dysfunction was classified based on severity. Of the total 28 patients with erectile dysfunction, half (12 (42.86 percent) had mild intermediate erectile dysfunction and the other eight (28.57 percent) had moderate erectile dysfunction. Only three patients (10.71 percent) had severe erectile dysfunction, while five (17.86 percent) had mild erectile dysfunction.

The mean age of ED patients in our study was 27.6 years, with an 8.05 standard deviation. Among the cases evaluated, children aged 20 to 30 years were the most afflicted (58.75 percent). Furthermore, male patients aged 31-40 years and adolescents aged 18-19 years were affected (18.75 percent and 13.75 percent respectively). In line with the data shown above, Mittal AK et al [21] and Pavan K et al [22] revealed comparable findings in their studies, highlighting the prevalence of sexual dysfunction in middle adulthood. In our study, we discovered that erectile dysfunction was more common in unmarried or single men (52.5 percent). Erectile dysfunction and premature ejaculation were shown to be more common in single males, according to our findings. HSDD, on the other hand, has been demonstrated to be more prevalent in married men, according to Rao et al [11]. This conclusion, however, contradicts a few other research that revealed a somewhat higher prevalence of sexual disorders among married persons than among unmarried people.

Regarding the patient's education, it was discovered that education played no substantial part in affecting the condition because the disease had taken in almost evenly educated, semi-educated, and uneducated people. As a result, education does not appear to have a substantial impact in the disease's transmission.

According to Oyekanmi et al [12], unemployed respondents were more likely than employed respondents to experience sexual dysfunction. Previous studies have found a link between sexual dysfunction, depression, and socioeconomic disadvantages like unemployment. Unemployment might result in a role reversal in a relationship, making the male partner feel embarrassed and inadequate. Previous study has linked unemployment among people with mental illnesses to public and self-stigmatization, resulting in a "double peril" that can undermine self-

worth and sexual performance or enjoyment. In our study, we reported the occupational status of patients and their association with sexual diseases, and the statistical difference between Skilled and Unskilled employees in reference to the aforementioned criteria was significant ( $P=0.043$ ). The statistical differences in the aforementioned parameters between groups of patients from different socioeconomic strata were not significant ( $P=0.394$ ). In terms of the aforementioned parameters, the statistical difference between the two groups, Nuclear and Extended/joint patients, was thus significant ( $P=0.0237$ ).

We are unable to remark on the direction of causality due to the study's cross-sectional methodology. Sexual dysfunction can cause melancholy, anxiety, and explanatory models to manifest, and vice versa. Furthermore, depressive medicines have been linked to sexual dysfunction [23]. The unwillingness of patients and physicians to discuss sensitive or uncomfortable sexual topics complicates matters. Poor clinical practise is exacerbated by the notion that sexual disorders are not 'serious,' as well as insufficient physician skill and confidence in dealing with these issues [24]. Excessive dependence on culturally acceptable, traditional forms of treatment/resources (e.g., traditional healers) and alternative medical systems frequently results in underreporting of these symptoms in healthcare settings.

In our study, the majority of patients with erectile dysfunction (>81 percent) worked in Unskilled Employment or were unemployed, with only one patient (18.8 percent) working in Skilled Employment. In our investigation, we discovered that economic position did not play a significant role in determining the condition, as it had taken hold of a considerable number of both economically sound people and those who were not. According to Rao et al [11], male sexual abnormalities are more common in the upper bottom (29.3 percent) and lower middle groups (27.6 percent).

According to numerous research, the prevalence of sexual diseases increases with age, diabetes, treated hypertension, untreated ulcer, arthritis, allergies, and smoking. Sexual dysfunction has been connected to poor subjective health and type 2 diabetes. Although sexual dysfunction is more common in the aged, data reveal that it is more often caused by coexisting disease than by ageing alone [25]. In our investigation, the variations in parameters between age groups were not significant ( $P = 0.368$ ). [26]

### Conclusion

Sexual problems were detected in about 30% of our samples who visited the health centre. Most people in India lack fundamental sexual knowledge, and those who have sexual disorders are less likely to seek help. To fight the rising prevalence of sexual issues, the media and health care practitioners must give sex education. In order to meet treatment demands and improve case detection in the general community, sexology must also be integrated into undergraduate and postgraduate medical education. Providers of health care must educate and treat such persons as soon as possible.

### References

1. Bancroft J. Sexual Problems In: Bancroft J. Human Sexuality and its problems 2nd Ed. New York: Churchill Livingstone.1983.360-411.
2. Lewis RW, Fugl-Meyer KS, Bosch R, Fugl-Meyer AR, Laumann EO, Lizza E, et al. Epidemiology/risk factors of sexual dysfunction. *J Sex Med.* 2004;1(1):35-9.
3. Sathyanarayana Rao TS, Ismail S, Darshan MS, Tandon A. Sexual disorders among elderly: An epidemiological study in South Indian rural population. *Indian J Psychiatry* 2015; 57:236-41.
4. Thangadurai P, Gopalakrishnan R, Kuruvilla A, Jacob KS, Abraham VJ, Prasad J. Sexual dysfunction among men in secondary care in southern India: Nature, prevalence, clinical features and explanatory models. *Natl Med J India* 2014; 27:198-201.
5. Yao F, Huang Y, Zhang Y, Dong Y, Ma H, Deng C, et al. Subclinical endothelial dysfunction and low-grade inflammation play roles in the development of erectile dysfunction in young men with low risk of coronary heart disease. *Int J Androl.* 2012;35(5):653-9.
6. Maroto-Montero JM, Portuondo-Maseda MT, Lozano-Suárez M, Allona A, Pablo-Zarzosa C, Morales-Durán MD, et al. Erectile dysfunction in patients in a cardiac rehabilitation program. *Rev Esp Cardiol.* 2008;61(9):917-22.
7. Verma R, Mina S, Ul-Hassan S, Balhara YS. A descriptive analysis of patients presenting to psychosexual clinic at a tertiary care center. *Indian J Psychol Med* 2013; 35:241-7
8. Prakash O, Rao TS. Sexuality research in India: An update. *Indian J Psychiatry* 2010;52(Suppl): S260-3
9. Prakash O. Lessons for postgraduate trainees about Dhat syndrome. *Indian J Psychiatry* 2007; 49:208-10.
10. Ammar, M. B., Dick, B. A., Sid, Y. M. O., & Fekhaoui, M. Comparative study of the effect of different aqueous solutions on the physicochemical elements of solid medical waste in Nouakchott case of the Amitie hospital. *Journal of Medical Research and Health Sciences*, 2022;5(5), 2018–2022.
11. Grover S, Avasthi A, Aneja J, Shankar G, Mohan M R, Nehra R, Padhy SK. Comprehensive questionnaire for assessment of Dhat syndrome: development and use in patient population. *J Sex Med.* 2014 Oct;11(10):2485-95.
12. Sathyanarayana Rao TS, Darshan MS, Tandon A. An epidemiological study of sexual disorders in south Indian rural

- population. *Indian J Psychiatry* 2015; 57:150-7.
13. Oyekanmi AK, Adelufosi AO, Abayomi O, Adebowale TO. Demographic and clinical correlates of sexual dysfunction among Nigerian male outpatients on conventional antipsychotic medications. *BMC Res Notes*. 2012; Jun 7; 5:267.
  14. Kinsey AC, Pomeroy WB, Martin C. *Sexual Behavior in the Human Male*. Philadelphia: W. B. Saunders; 1948. p. 14-47.
  15. Laumann EO, Paik A, Rosen RC. Sexual dysfunction in the United States: Prevalence and predictors. *JAMA*. 1999; 281:537-44.
  16. Simons JS, Carey MP. Prevalence of sexual dysfunctions: Results from a decade of research. *Arch Sex Behav* 2001; 30:177-219.
  17. Schiavi RC, Stimmel BB, Mandeli J, White D. Chronic alcoholism and male sexual function. *Am J Psychiatry* 1995; 152:1045-51.
  18. Frank E, Anderson C, Kupfer DJ. Profiles of couples seeking sex therapy and marital therapy. *Am J Psychiatry*. 1976 May;133(5):559-62.
  19. Bancroft J, Coles L. Three years' experience in a sexual problems clinic. *Br Med J*. 1976 Jun 26;1(6025):1575-7.
  20. Masters WH, Johnson VE. *Human sexual inadequacy*, Boston (Little, Brown & Company) 1970.
  21. Uguz S, Soylu L, Unal M, Diler RS, Evlice YE. Psychosocial factors and sexual dysfunctions: a descriptive study in Turkish males. *Psychopathology*. 2004 May-Jun;37(3):145-51.
  22. Mittal AK, Gupta V, Kapoor A, Dang P. Sexual Dysfunctions in Rural Population as Indicators of Psychiatric and Addiction Problems. *Int J Sci Stud* 2014;2(6):86-90
  23. Pavan K, Chada Apurva, Anaveni R, Roy S. Study of prevalence of Sexual dysfunction in Alcohol Dependant individuals: A cross sectional study. *Perspectives in medical research* 2017;5(1):25-29.
  24. Nakra BR, Wig NN, Varma VK. A study of male potency disorders. *Indian Journal of Psychiatry*. 1977 Jul 1;19(3):13-8.
  25. Verma KK, Khaitan BK, Singh OP. The frequency of sexual dysfunctions in patients attending a sex therapy clinic in north India. *Arch Sex Behav*. 1998 Jun;27(3):309-14.
  26. Smith SM, O'Keane V, Murray R. Sexual dysfunction in patients taking conventional antipsychotic medication. *Br J Psychiatry*. 2002 Jul; 181:49-55.