

ORIGINAL RESEARCH

Comorbidity in Patients with Dhat Syndrome: A Nationwide Multicentric Study

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ABSTRACT

Introduction. There are limited numbers of studies on Dhat syndrome. Major limitations of the existing literature are heterogeneous assessment methods used to describe the comorbidity and small sample size from isolated centers. **Aim.** To assess comorbidity with a common methodology in patients with Dhat syndrome from multiple centers across India.

Methods. Using a cross-sectional design, this multicentric study involved assessment of 780 male patients, aged more than 16 years, across 15 study centers.

Main Outcome Measures. ICD-10 criteria (for evaluation of psychiatric morbidity and sexual dysfunction)

Results. About one-third (32.8%) of the cases had no comorbidity. One-fifth (20.5%) of the patients had comorbid depressive disorders and another one-fifth (20.5%) had comorbid neurotic, stress-related and somatoform disorders. Half (51.3%) of the study sample had comorbid sexual dysfunction. When various combinations of comorbidities were evaluated, it was seen that more than one-fourth (28.7%) of the patients had only comorbid sexual dysfunction and one-sixth (15.9%) had only comorbid depressive/anxiety disorders. A little more than one-fifth (22.6%) had comorbidity of both sexual dysfunction and depressive/anxiety disorders.

Conclusion. Comorbid sexual dysfunction is seen in half of the cases of Dhat syndrome, and it is more common than comorbid depressive and anxiety disorders. **Grover S, Avasthi A, Gupta S, Dan A, Neogi R, Behere PB, Lakdawala B, Tripathi A, Chakraborty K, Sinha V, Bhatia MS, Patojoshi A, Rao TSS, and Rozatkar A. Comorbidity in patients with Dhat syndrome: A nationwide multicentric study. J Sex Med 2015;12:1398–1401.**

Key Words. Dhat Syndrome; Comorbidity; Culture Bound Syndrome

Take Home Message: Dhat syndrome as a clinical syndrome manifests throughout India and half of the cases have associated sexual dysfunction, one-fifth of the patients have comorbid depressive disorders and another one-fifth have comorbid neurotic, stress-related and somatoform disorders.

Introduction

Dhat syndrome or “semen-loss anxiety” is a culture-bound syndrome mostly reported from studies in India but has also been reported in studies from other Asian countries like Sri Lanka, China and Malaysia [1,2]. A recent review on Dhat syndrome concluded that there is high degree of

heterogeneity among the studies [3]. Majority of these studies have used varying assessment instruments to assess the complete clinical profile of patients with Dhat syndrome. Some of the studies that have assessed associated sexual dysfunction and comorbid psychiatric disorders have not relied upon any specific diagnostic tool to confirm the diagnosis. Accordingly, there is a need to have multicentric data using similar methodology to improve the understanding about this disorder. In this background, this multicentric study aimed to assess the comorbidity profile in patients with Dhat syndrome.

Methodology

The study was approved by the Institute Ethics Committee of all the centers in which the study was conducted. All the patients were recruited into the study after obtaining the written informed consent. Only those patients who fulfilled the criteria for Dhat syndrome as per International Classification of Diseases-Tenth Revision (ICD-10) criteria [4] were included. ICD-10 criteria were used to ascertain the presence of various comorbid sexual dysfunctions [4]. Patients with psychotic disorders, bipolar disorder, intellectual disability, and organic brain syndrome were excluded. Mini International Neuropsychiatric Interview [5] was used to assess the comorbid psychiatric disorders.

Dhat Syndrome Questionnaire [6]

The questionnaire has multiple choice questions with yes/no responses and specific responses in various other rating formats, and open-ended questions covering various aspects of Dhat syndrome. This questionnaire is reported to have adequate face validity. Test-retest reliability of the Hindi and English version is good. For this study questionnaire was translated into 10 languages, and the specific language version was used as per the choice of the patient. In this article, we report the data with respect to duration of Dhat, frequency of passage of Dhat, quantity of Dhat passed each time, and color and consistency of Dhat as assessed by this questionnaire.

Results

Across the 15 participating centers, 780 patients were recruited. Mean age of the patients was 28.1 (standard deviation [SD]: 8.7; range 17–68) years. About half of the patients were single, 46.7% were married at the time of assessment, and a small

proportion of them were separated/divorced or widowed. The mean duration of education was 10.39 (SD: 4.26) years with about half of the subjects educated less than matriculation. Only a small proportion of patients were illiterate. About two-third of the patients belonged to middle socioeconomic status family as per the Kuppaswamy socioeconomic classification. More than two-third of the participants were Hindus. In terms of place of residence, those belonging to rural background formed three-fifth of the study population.

The clinical profile, comorbidity profile, and other characteristics of Dhat are shown in Tables 1 and 2.

Discussion

To the best of our knowledge, this is the first multicentric study on patients of Dhat syndrome from India.

In the present study, one-third of the patients were diagnosed to have Dhat syndrome without any kind of comorbid psychiatric disorder and sexual dysfunction. Overall, only 41% of patients had comorbid psychiatric disorders and half of the patients had comorbid sexual dysfunction. Previous studies suggest that depression is the most common psychiatric morbidity followed by generalized anxiety disorder in this group of patients [2,7–9]. When one looks at the distribution of psychiatric comorbidity in the form of depressive and neurotic, stress-related, and somatoform disorder groups, the prevalence was equal for the both groups. However, in terms of individual disorders, depression is the most common psychiatric diagnosis, followed by other anxiety disorders and somatoform disorders. Previous studies have reported the prevalence of depression to vary from 40% to 66%, that of anxiety disorders to vary from 21% to 38% and the prevalence of somatoform disorders and hypochondriasis to be about 40% [2]. The present study suggests that the reported rates for comorbid depression, anxiety disorder, and somatoform disorders in the literature may be an overestimate. Findings of the present study can be considered to be more reliable as these were based on the ICD-10 criteria administered by a trained psychiatrist by using a semi-structured clinical interview.

In the present study, comorbid premature ejaculation, seen in about one-third of the participants, is the most common comorbid sexual dysfunction. It is followed by erectile dysfunction (Failure of genital response), seen in about one-

Table 1 Clinical details of the study sample

Variables	N (%)/ Mean (SD)
Duration of symptoms of Dhat syndrome in years	4.3 (4.4)
Age of onset of Dhat in years	23.9 (8.5)
Source of information regarding Dhat	
Media	217 (27.8)
Friends	443 (56.8)
Relatives	143 (18.3)
Faith healers	206 (26.4)
RMP doctors	165 (21.2)
Homeopathic practitioners	117 (15.0)
Ayurvedic practitioners	166 (21.3)
MBBS doctors	97 (12.4)
Local sex specialists	115 (14.7)
Distress due to passage of Dhat	
Mild	117 (15.0)
Moderate	483 (61.9)
Severe	180 (23.1)
Comorbidity	
No comorbidity	256 (32.8)
Comorbid mood Disorders	160 (20.5)
Comorbid neurotic, stress-related, and somatoform disorders	160 (20.5)
Comorbid sexual dysfunction	400 (51.3)
No comorbidity	256 (32.8)
Dhat plus sexual dysfunction only	224 (28.7)
Dhat plus depressive/anxiety disorder only	124 (15.9)
Dhat plus both sexual dysfunction and psychiatric disorder	176 (22.6)
Comorbid mood disorders	160 (20.5)
Depressive disorder	137 (17.5)
Dysthymia	23 (3.0)
Comorbid neurotic, stress-related and somatoform disorders	160 (20.5)
Phobic anxiety disorders	6 (0.8)
Other anxiety disorders	73 (9.4)
OCD	9 (1.2)
Stress reaction and adjustment disorders	17 (2.2)
Dissociative disorders	5 (0.6)
Somatoform disorders	49 (6.3)
Other neurotic disorders	1 (0.1)
Comorbid sexual dysfunction	400 (51.3)
Lack/loss of sexual desire	49 (6.3)
Sexual aversion	44 (5.6)
Lack of sexual enjoyment	92 (11.8)
Failure of genital response (erectile dysfunction)	158 (20.3)
Orgasmic dysfunction	48 (6.2)
Premature ejaculation	253 (32.4)
Excessive sexual drive	32 (4.1)
Other sexual dysfunctions	10 (1.3)
Medications given for Dhat	601 (77.1)
Antidepressants	505 (64.7)
Benzodiazepines	256 (32.8)
Multivitamins	219 (28.1)
Medications prescription	
No medication	179 (22.9)
Only multivitamins	33 (4.2)
At least one of the medications	275 (35.3)
More than one of the medications	328 (41.8)

fifth of the patients. Studies conducted earlier have pointed out that patients with Dhat syndrome may present with or without psychosexual dysfunction [7,10]. Based on the comorbidity, some researchers have classified Dhat syndrome into three sub-

groups: Dhat syndrome alone, Dhat syndrome with anxiety and depressive symptoms, and Dhat syndrome with sexual dysfunction [2]. The present study supports such distinction and additionally suggests the existence of a fourth group, in which patients have Dhat syndrome along with both comorbid psychiatric disorders and psychosexual dysfunction.

In the literature, 37.5–100% of patients believe in Dhat to be semen [2]. Three-fifth (60.5%) of patients in the present study believed the same. Previous studies suggests that proportion of patients differ in considering the major constituent of Dhat to be either blood, semen, or both [2]. However, it is important to note that about one-third of the patient could not name of the major constituent of the Dhat. Thus, the Ayurvedic concept of formation of semen from blood and bone marrow may not be solely responsible for beliefs of patients with regard to Dhat.

To conclude, the present large sample study suggests that about one-third of the patients with Dhat syndrome have no comorbid psychiatric disorder or any comorbid sexual dysfunction. One-fifth of the

Table 2 Characteristics of Dhat syndrome

Variables	Whole group (N = 780) Frequency (%)
Frequency of passage of Dhat	
Once every one month	55 (7.1)
Once every 2–3 weeks	117 (15.0)
Two to three times per week	310 (39.7)
Once or more per day	298 (38.2)
Quantity of Dhat passed every time	
Two to four drops	306 (39.2)
About a spoonful	298 (38.2)
More than a spoonful	176 (22.6)
Consistency of Dhat	
Like water	305 (39.1)
Thin like milk	314 (40.3)
Thick like oil	161 (20.6)
Colour of Dhat	
Like water	251 (32.2)
Like milk	315 (40.4)
Like pus	167 (21.4)
Different than above	47 (6.0)
Belief about what is Dhat	
Semen	472 (60.5)
Fat like secretions	95 (12.2)
Pus	44 (5.6)
Sugar	10 (1.3)
Urine	20 (2.6)
Don't know	111 (14.2)
Different from the above	28 (3.6)
Belief about the major constituent of Dhat	
Blood	180 (23.1)
Semen	213 (27.3)
Both	117 (15.0)
Don't know	270 (34.6)

patients have comorbid depressive disorders and another one-fifth have comorbid neurotic, stress-related, and somatoform disorders. Sexual dysfunction is seen in half of the patients, with premature ejaculation being the most common comorbid sexual dysfunction.

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Statement of Authorship

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