

ORIGINAL ARTICLE

SOCIODEMOGRAPHIC PROFILE AND CO-MORBID SYMPTOMS AMONG INDIVIDUALS WITH SEMEN LOSS

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Abstract:

Background: Semen loss and associated problems, sometimes known as 'Dhat syndrome' or 'Semen loss anxiety', are found specially in the cultures of South Asian region including Bangladesh. The aim of this study was to assess the physical, psychological and sexual problems in the patients complaining semen loss. **Methods:** This cross-sectional study was conducted at the outpatient department of National Institute of Mental Health, Dhaka, Bangladesh. All the male patients (aged 18-60 years) with self-reported complaints of semen loss were included in the study. Within three months, data were collected from 95 respondents through face to face interview with a semi-structured questionnaire. Data analysis was performed using Statistical Package for Social Sciences (SPSS) version 24. **Results:** Mean age of the respondents was 23.7 (± 5.1) years. Almost half (47.4%) of the respondents belonged to the age group of 21-30 years. Majority of them was Muslim (94.7%), married (54.7%), completed primary education (42.1%), currently unemployed (46.3%) and resided in urban area (87.4%). Most of the respondents complained of semen loss through urine (57.9%), followed by through night emission (18.9%) and masturbation (16.8%). All respondents complained more than one other symptom. Common physical symptoms were physical weakness (89.8%) and vertigo (50.5%), psychological symptoms were anxiety (49.8%) and depression (38.9%) and sexual symptoms were premature ejaculation (42.1%) and erectile dysfunction (31.6%). **Conclusion:** There were various other physical, psychological and sexual problems among the patients with the complaints of semen loss. So, other symptoms should be considered and managed when dealing with these patients.

Key words: Bangladesh, Dhat syndrome, National Institute of Mental Health, Semen loss.

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Introduction:

In Indian sub-continent, men are worried about semen loss because men's eternal force of life and survival is believed to be conserved in semen. *Virya*, and *Birjo*, the Hindi and Bengali words respectively to denote semen, means the same – vigour. Men here believe that the 'excessive', 'unnatural', or 'immoral' loss of semen can negatively impact health status in general and sexual health in particular.^{1,2,3}

A qualitative study in Bangladesh, a country belonging to Indian sub-continent, found that men considered semen the most powerful and vital body fluid representing their sexual performance and reproductive ability. Traditional practitioners held semen loss as a major sexual health concern. In the study, ejaculation of semen through sexual intercourse, particularly in a 'legal relationship' (i.e. with a wife), was described as 'natural', 'healthy', and 'real'. All other forms of semen discharge were considered 'illegal,' 'unproductive', and a 'loss.' Men described *swapno-dosh* (nocturnal emission) and *hasto-moithun* (masturbation) as two of the major ways of semen loss. This loss caused them psychological distress. As semen was seen as the vital energy for men, they believed that any loss of this energy carried negative impact for their health.⁴ Men in the mentioned study indicated semen using the word *dhatu*, which originally is a Sanskrit word and according to the classical texts of Ayurvedic medicine (Sushruta Samhita), means 'elixir that constitutes the body'.⁵

Dhat Syndrome, derived from the word *dhatu*, was first used in scientific literature by renowned Indian psychiatrist Prof. N. N. Wig. He described the syndrome as characterized primarily with complaints of semen loss through urine, nocturnal emission or masturbation, accompanied by vague symptoms of weakness, fatigue, palpitation and sleeplessness. Having no organic etiology, it may sometimes be associated with sexual dysfunction (impotence and premature ejaculation) and psychiatric illness (depression, anxiety neurosis or phobia).⁶ Based on the comorbid psychological and sexual conditions, 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.⁷ This syndrome has acquired further International recognition by being included in Annexure 2 (culture-specific disorders) of the ICD-10 Diagnostic Criteria for Research.⁸

In some studies in India found that the patients with Dhat syndrome is more likely to be recently married; of average or low socio-economic status; a student, labourer or farmer by occupation; comes from a rural background and belongs to a family with conservative attitudes towards sex.^{9,10,11}

There are few original studies regarding Dhat syndrome or semen loss in Bangladesh.^{4,12} The current study aimed to identify the various socio-demographic factors and assess the physical, psychological and sexual problems in the patients complaining semen loss.

Methods:

This cross-sectional study was conducted at the outpatient department of National Institute of Mental Health, Dhaka, Bangladesh. All the male patients (aged 18-60 years) with self-reported complaints of semen loss were included in the study by convenient sampling method. The individuals with acute episode of major psychiatric conditions, e.g. schizophrenia, manic episode of bipolar disorder and dementia were excluded. In three months of data collection, the current study approached 110 individuals but 10 of them refused to participate in the study. After taking informed written consent, data were collected from 100 respondents through face to face interview with a semi-structured questionnaire. During data processing, 5 respondents were excluded due to incompleteness and inconsistencies of data. Analysis was performed on 95 completed data using Statistical Package for Social Sciences (SPSS) version 24. Ethical clearance was obtained from the Institutional Review Board and all the ethical issues were properly addressed.

Results:

Almost half (47.4%) of the respondents belonged to the age group of 21-30 years with the mean age of 23.7 (± 5.1) years. Most of them resided in urban area (87.4%) was Muslim (94.7%), married (54.7%), completed primary education (42.1%) and currently unemployed (46.3%) (Table I).

Table-I*Socio-demographic characteristics of the respondents (n = 95)*

Socio-demographic	Frequency	Percentage
	characteristics	(%)
Age (in years)		
≤20	20	21.1
21-30	45	47.4
31-40	21	22.1
41-50	6	6.3
≥51	3	3.1
Mean: 23.7 (±5.1); Range: 16 – 56		
Marital Status		
Single	22	23.2
Married	52	54.7
Divorced	10	10.5
Separated	5	5.3
Widower	6	6.3
Residence		
Urban	83	87.4
Rural	12	12.6
Religion		
Muslim	90	94.7
Hindu	3	3.2
Others	2	2.1
Education status		
Illiterate	11	11.6
Primary	40	42.1
Secondary	21	22.1
Higher Secondary	10	31.3
Graduation	9	10.5
Post-graduation	4	4.2
Current occupation		
Unemployed	44	46.3
Service-holder	10	10.5
Businessman	12	12.6
Retired	1	1.1
Student	25	26.3
Others	3	3.2
Monthly family expenditure (in Taka)		
≤10,000	53	55.8
10,001-20,000	30	31.6
20,001-30,000	10	10.5
≥30,001	2	2.1

More than half (57.9%) of the respondents complained of semen loss through urine, followed by through night emission (18.9%) and masturbation (16.8%) (Table II). Most (44.2%) of the respondents suffered the problem for more than 12 months. (Table III)

Table-II*Situation during semen loss (n = 95)*

Situation during semen loss	Frequency	Percentage
Urination	55	57.9
Night emission	18	18.9
Masturbation	16	16.8
Sexual excitement	3	3.2
Non-specific situation	3	3.2

Table-III*Duration of the problem (n = 95)*

Duration	Frequency	Percentage
< 6 months	25	26.3
6 months – 12 months	28	29.5
> 12 months	42	44.2

About two-third (63.2%) of the respondents went to the traditional healer/ quack initially for treatment. (Table IV)

Table-IV*Treatment-seeking behaviour of the respondents (n = 95)*

Initial treatment seeking	N	%
Quack/ traditional healers	60	63.2%
General practitioner	12	12.6%
Dermatologist	18	18.9%
Psychiatrist	5	5.3%

All respondents complained more than one other symptom in addition to semen loss. Common physical symptoms were physical weakness (89.8%) and vertigo (50.5%), psychological symptoms were anxiety (49.8%) and depression (38.9%) and sexual symptoms were premature ejaculation (42.1%) and erectile dysfunction (31.6%) (Table V).

Table V*Physical symptoms among the respondents (n = 95)*

Physical symptoms	Frequency	Percentage
Physical weakness	85	89.5
Vertigo	48	50.5
Fatigue	42	44.2
Weight loss	40	42.1
Anorexia	20	21.1
Blurring of vision	20	21.1
Nausea	15	15.8
Frequency of micturition	14	14.7
Headache	10	10.5
Other physical symptoms	26	27.4
Psychological symptoms		
Anxiety	47	49.8
Low mood	37	38.9
Sleep disturbances	33	34.7
Poor concentration	32	33.7
Forgetfulness	28	29.5
Guilt feelings	31	32.6
Other symptoms	24	25.3
Sexual symptoms		
No sexual dysfunction	20	21.1
Premature ejaculation	35	36.8
Erectile dysfunction	15	15.8
Premature ejaculation + Erectile dysfunction	20	21.1
Other dysfunctions	5	5.2

Discussion:

The study investigated the socio-demographic and clinical profile of adult males with self-reported semen loss. Mean age of the respondents was 23.7 (± 5.1) years. Similar mean age (24.46 \pm 5.41 years) was reported by a previous study conducted by Mullick MSI (1995) in a clinical setting in Bangladesh.¹² It was slightly lower than the estimated mean age of included respondents (26 years) in a review of 13 studies.¹³ The age of more than two third (68.5%) of our respondents was less than 30 years. It indicates that the younger adult males were more concerned about the issue than the older. In the study by Behere PB & Natraj GS (1984), most (68%) respondents belonged to age group of 16-25 years.¹¹ Other studies also showed that semen loss anxiety / dhat syndrome

was most commonly reported in young males of low or medium socioeconomic status.^{3,9,14}

Majority of our respondents was married (54.7%) which differs from the study findings of Mullick MSI¹² but is consistent with the findings of Behere PB & Natraj GS.¹¹ Some (15.8%) of our respondents were either separated or divorced, which might be due to his underlying psychiatric conditions or sexual problem.

As our study place was a tertiary care psychiatric facility which is situated in the capital city of Bangladesh, it was expected that most of the respondents would be of urban background (87.4%), which was also the fact in the previous Bangladeshi study conducted in Sir Salimullah Medical College and Mitford hospital, Dhaka.¹² It may also indicate that urban people were more concerned about semen loss than the rural people in this country, though the findings contradict with the results found in the neighbouring countries like India where most patients with semen loss anxiety came from rural background.^{15,16}

Regarding religion, most of the respondents were expected to be Muslim as Bangladesh is a muslim-dominant country with 90.4% Muslim people. Educational status of the respondents was good enough considering the national figure, where 73.9% of the adult population (more than 15 years of age) is literate.¹⁷ It might be surprising to see the concern of semen loss among the educated individuals, but among the respondents mostly (42.1%) completed only primary level of education. So, they might not be learned well about the facts of 'semen loss'. Mullick MSI also found that most of their respondents were literate, though they had a considerable rate of respondents (about 45%) with higher secondary level education and above.¹² Around half of the respondents were unemployed (46.3%). The reason might be any underlying psychiatric conditions and/or personality issues.

Current study reported that more than half (57.9%) of the respondents complained of semen loss through urine. In an Indian study, urine was the most common route of semen loss, and they found a higher rate of this complaint (74%) among their respondents.¹¹ Night emission (18.9%) and masturbation (16.8%) were the other common routes of semen loss which was supported by other study findings.^{9,10,11}

The duration of complaint of these patients from the onset varies from less than three months to one year,^{10,11} in some cases even up to 20 years.¹⁸

Majority (44.2%) of our respondents suffered the problem for more than 12 months. The reason of their long sufferings before psychiatric consultation might be explained partly by their treatment-seeking behavior. Most (63.2%) of them went to the traditional healers or quacks initially for treatment. More one-third visited other physicians except psychiatrists. The picture did not differ in this regard from the scenario of India and Bangladesh in '80s and '90s of last century.^{11,12} This might be because of the stigma, misconception, and lack of knowledge related to the problem and management of semen loss.¹⁹

In addition to the complaint of semen loss, all respondents also had more than one other physical, psychological or sexual symptoms. Around 90% of our respondents complained of physical weakness; vertigo, fatigue and weight loss being the other common physical symptoms. In the previous Bangladeshi study, most frequent complaints were generalised weakness, urinary complains, lack of energy and sleep disturbances. In the systematic review of 13 studies, fatigue and weakness were found to be the most common symptoms, affecting around 75% of patients with semen loss. Other symptoms included sleepiness, loss of concentration, palpitations, headache, and stomach pain.¹³

In our study, common psychological symptoms among the respondents were anxiety and depression which correspondents with most of the studies. Previous Bangladeshi study reported that depressive disorder (54.31 %) was the most common psychiatric morbidity followed by anxiety disorder (27.59%) in this group of patient.¹² A review of the world literatures on dhat syndrome reported the prevalence of depression to vary from 40% to 66%, and that of anxiety disorders to vary from 21% to 38%.²⁰ As semen is regarded as the most vital fluid and source of vigour, the loss might make men anxious about their masculinity and sexual capacity. Their cognition might become erroneous, pessimistic; self-esteem and confidence might decrease; interest and pleasure in usual activities as well as libido may turned down, which can lead them to depression.

More than three-fourth of the respondents in the current study had sexual symptoms. Common sexual symptoms were premature ejaculation and erectile dysfunction which is similar to the findings of the study by Mullick MSI.¹² In a nation-wide multi-centric study in India, half (51.3%) of the study sample had comorbid sexual dysfunction. Premature ejaculation, seen in about one-third of the participants, was the most common comorbid sexual dysfunction, followed by erectile dysfunction (one-fifth of the participants).²¹

The study investigated the presence of co-morbid physical, psychiatric and sexual symptoms among the persons complaining of semen loss. As it was a study of cross-sectional design, causal relationships could not be established. Moreover, it was conducted on a small sample size selected by convenient sampling. So, there is chance of selection bias. As it was a hospital-based study, the results did not reflect the picture of the community.

Conclusion:

A considerable proportion of the individuals complaining semen loss had co-morbid physical, psychiatric and sexual problems. So, to deal with this group of patient, the physicians should assess for the co-morbidities for better management. On the other hand, the individuals complaining non-specific physical, psychiatric and sexual symptoms should be enquired about semen loss, which can be a potential source of stress for them. Proper management including psychoeducation for semen loss anxiety can be proved beneficial for the improvement of all the associated symptoms.

Limitation of the Study:

The study was a hospital based and only a small number of respondents were taken. Patients from all socioeconomic status and all parts of the country did not come to seek medical attention in the study place. Due to financial constrain much of the tests was not possible to cross check the results of serological findings for acute precision and accuracy. It will be more authentic if this study can be done on a large population group in more institutions with longer duration of study.

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Declaration of interest:

The authors report no conflict of interest.

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Ethical consideration:

The study was conducted after approval from the ethical review committee. The confidentiality and anonymity of the study participants were maintained.

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