ORIGINAL ARTICLE

DHAT SYNDROME ASSESSMENT USING MIXED METHODOLOGY

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Abstract

Objectives: **Dhat syndrome is a cultural bound syndrome in which affected individuals have morbid pre-occupation with semen loss in their urine and its impact on the body. Previous studies have explored the symptomatology and perception regarding seminal discharge of such patients while there is lack of literature on the assessment by quacks and practitioner of alternative and complementary practitioners (ACMP). Therefore, in addition to objectives of previous studies, this study explores the reprehensibility of such practitioners as they may not be giving correct advice to such patients.** ***Methods:*** **For duration of three months, this mixed method study was conducted in Rohilkhand Medical College campus; individuals were approached both in and outside the Psychiatric Outpatient Department using purposive sampling procedure. ICD-10 diagnostic criterion was used to include affected individual in the study sample. Subsequently, a semi-structured questionnaire to document their socio-demographic data and symptomatology was used. Further, previous consultation to quack, ACMPs and allopathic practitioners other than psychiatrist and advice given to the patient by them was obtained via in-depth interview. The quantitative data was analyzed through proportions whereas qualitative data via thematic analysis.** ***Results:*** **There were 38 out of 110 with Dhat syndrome. Invariably, they complained of undue concern regarding debilitating effects of seminal discharge and harmful for the body. A total 21.1% had prior consultation to ACMPs and attributing it to masturbation and hot weather. Surprisingly, allopathic practitioners consulted gave incorrect advices.** ***Conclusion:*** **Dhat syndrome affects individuals irrespective of their social and education background. Sex education among the masses and emphasis for awareness of this syndrome among ACMPs and allopathic practitioners other than psychiatrist is necessary to reduce this cultural bound syndrome.** ***ASEAN Journal of Psychiatry, Vol. 16 (2): July – December 2015: XX XX.***

Keywords: Dhat Syndrome, Cultural Bound Syndrome, Practitioner Of Alternative And Complementary Medicine, Sex Education

Introduction

The word "Dhat" in Sanskrit, originates from word "dhatu" which indicates "semen" [1].Wig helped coined and described the term "Dhat syndrome" [2]. ICD – 10 classified Dhat syndrome as both neurotic disorder [code F 48.8] (WHO) and culture – specific Disorder [Annexe-2] (APA) caused by undue concern about the debilitating effects of passage of

semen [3]. Ranjith and Mohan (2006) emphasized Dhat syndrome is a widely recognized condition from the Indian subcontinent with fatigue and pre-occupation with semen loss as the main complaint [4].

The concept of Dhat syndrome or semen-loss syndrome was prevalent among Western cultures with different names at some point of time [5]. Most of the empirical studies on Dhat syndrome have emerged from Asia, whereas its concepts have been described historically in other cultures, including Britain, the USA and Australia [6].These studies emphasized that different sources indicate the universality of symptoms and global prevalence of this condition, despite its image as a 'neurosis of the Orient'. Kar mentions that Dhat is known as 'Shen kui' among the Chinese population and 'Sukra Prameha' in Sri Lanka [7,8] .Prevalence rates of 11.7% (India) to 30% (Pakistan), suggest the disorder is pervasive [2].

Patients present with vague symptoms of weakness, fatigue, palpitations, loss of interest, headaches, pain in epigastrium, forgetfulness or constipation [9-12]. They attribute these symptoms to their belief of passing of semen (Dhat) in urine as a direct consequence of either excessive indulgence in masturbation or sexual intercourse [10]. Studies have shown that patients with Dhat syndrome have significantly different illness beliefs and behaviors and have similarities with other functional somatic syndromes [13]. Gautham et al. (2008) revealed men's perceptions regarding symptomatology, with semen loss as their predominant concern, was influenced by traditional and local notions of health [14].

Khan N. cites Verma study mentioning that guilt around masturbation being associated with semen loss is very common in young men who associate physical and psychological complaints to semen loss through nocturnal emission and masturbation [15]. Akhtar mentions the myth prevalent among people of the Indian subcontinent is that it takes 40 days for 40 drops of food to be converted to one drop of blood, 40 drops of blood to make one drop of bone marrow and 40 drops of bone marrow form one drop of semen [16]. Widespread fears of the ill-effects of semen loss have been reported in Sri Lanka, and also among Chinese in Malaysia, Hong Kong, Singapore, Taiwan and mainland China [17]. Prakash recounts that in many Western European cultures, masturbation was prohibited by religion and supported by historical evidence which considered semen loss, especially if it occurs through masturbation, results in serious mental illness [18].

Dhat syndrome has been extended to include women presenting with somatic symptoms associated with leucorrhea, and loss of a 'vital fluid' [2] In the local parlance, the complaint is referred to as leucorrhea; 'safed pani', 'shwet prader' and many other local names are used [5]. Singh et al(2001) reports a case of an adult female with Dhat syndrome presenting with complaints of aches and pains, headaches and poor concentration which she attributed to "wetness" experienced per vaginum during sexual intercourse [12]. Dhat syndrome patients may be associated with another cultural bound disorder, Koro. Koro is a psychiatric syndrome in which the patient is convinced his penis is retracting [19]. Mattelaer JJ and Jilek W defined Koro as the panic anxiety state in which affected males believe that the penis is shrinking and/or retracting, and perhaps disappearing [20]. Koro has also been reported both as isolated cases as well as an epidemic from India [21, 22] . Bhatia on studying 60 cases of different cultural bound syndrome found that the prevalence of Koro was only 5% [23].

Under stress, persons predisposed to amplifications of somatic symptoms and health anxiety may focus attention on physiological changes such as turbidity of urine and tiredness, and misattribution to loss of semen in the light of widely prevalent health beliefs. This attribution may then be confirmed by traditional views as well as by local practitioners subscribing to a similar belief [4]. Majority of these individuals visit self- claimed sex specialist and traditional faith healers. The contact with these health providers not only strengthened their misconception and false beliefs, but also compelled the patients to pay a huge cost of investigations and drugs, which are not only non-effective but also hazardous [24]. Fear of semen loss and its cure are propagated by advertisements on walls, television,

newspapers, roadside hoarding in most of the northern Indian cities [18]. Khan et al. noted traditional practitioners disseminated leaflets with proposition mentioning young men who indulged in 'excessive' masturbation lose semen, resulting in loss of memory, weakness, indigestion, and palpitations [1]. Improved literacy rate has still not been able to convince the general population of its non-organic nature [3].

Authoritatively, this study highlights the psychiatric and somatic symptomatology in patients suffering from Dhat syndrome. In addition, it hopes to provide information regarding their mythological misperception pertaining to sexual issues and spurious propaganda of quacks, practitioner of alternative and complementary medicine as they may not always give correct advice to patient suffering from this syndrome.

Materials and Method

This was a mixed study design comprising cross-sectionally quantitative and qualitative study conducted from 15 March to 15 June 2010 in Rohilkhand Medical College and Hospital campus (a tertiary care hospital), Bareilly, India. Prior approval from Institutional Ethical Committee was taken.

Prior seeking informed consent, male individuals were briefed that the interview would comprise questions intending to document their perception about effect of semen loss on their body.The individuals were approached both in and outside the Psychiatric Out Patient Department(OPD) through purposive sampling. Outside the OPD, participants comprised male participants comprising computer operators, lab attendant of various departments, hostel mess employees, sweepers and medical students. A hundred and ten individuals gave informed consent were interviewed (one to one) to diagnose for Dhat syndrome using ICD-10 guideline [24] i.e undue concern about the debilitating effects of passage of semen. Only those male individuals who gave informed consent as well as complied with ICD-10 diagnostic guideline for Dhat syndrome were included in the study sample. Individual who refused to give informed consent or gave consent but did not comply to ICD-10 diagnostic guideline for Dhat syndrome were excluded from the study. Further, female individuals were excluded too.

A total of 38 consenting male participant complying with ICD-10 diagnostic guideline of Dhat Syndrome were included in the study sample and a semi-structured questionnaire to document their socio-demographic profile, somatic and psychiatric symptoms, consultation to practitioners of complementary and alternative medicine like Hakim (Practitioner of Unani Medicine), Ved (Practitioner of Ayurvedic Medicine), homeopaths and quacks (their opinion regarding patients concerned condition) and views regarding seminal composition, impact of seminal discharges from the body. It is to be noted that in-depth interview was done regarding health seeking behaviour for Dhat syndrome and from that interview, the opinion of quacks and practitioner of alternative and complementary medicine and allopathic practitioners (other than psychiatrist opinion) regarding patients condition was also included. Time taken for each interview was about 60 to 90 minutes.

Statistical Analysis

(a) Quantitative data in Preset Categories

The quantitative data in Preset Categories were analysed through proportions.

The pre-set categories comprised of the following:

1. Total participants with Dhat syndrome, individuals interviewed out with Dhat syndrome in and outside Psychiatric OPD,
2. Socio-demographic Profile like Marital status, religion, education status, background (urban or rural),
3. Psychiatric and somatic symptoms,
4. Patients misperception regarding seminal discharge in urine/stool and attribution to this condition, perception regarding seminal composition and views regarding

impact of seminal discharge on the body.

5. Preset categories for OPD study sample was their previous consultation to other practitioner.

(b) Quantitative data in Emergent Categories

The quantitative data in Emergent Categories were analysed through proportions.

Emergent categories comprised of the following:

1. Mean age for Dhat syndrome participants,

2. Other cultural bound co-morbidities in Dhat patients,

3. Opinion of Practitioners of Alternative and Complementary medicine and quacks opinion on condition of Dhat patients.

4. Patient consulting psychiatric OPD diagnose primarily for Dhat syndrome or secondary to premature ejaculation or erectile dysfunction.

Qualitative Data Analysis

Thematic analysis was done for
1. Incorrect advises given by quacks and Practitioner of Alternative and Complementary Medicine
2. Unawareness among other allopathic practitioners regarding patient's condition
(See Figure 1)

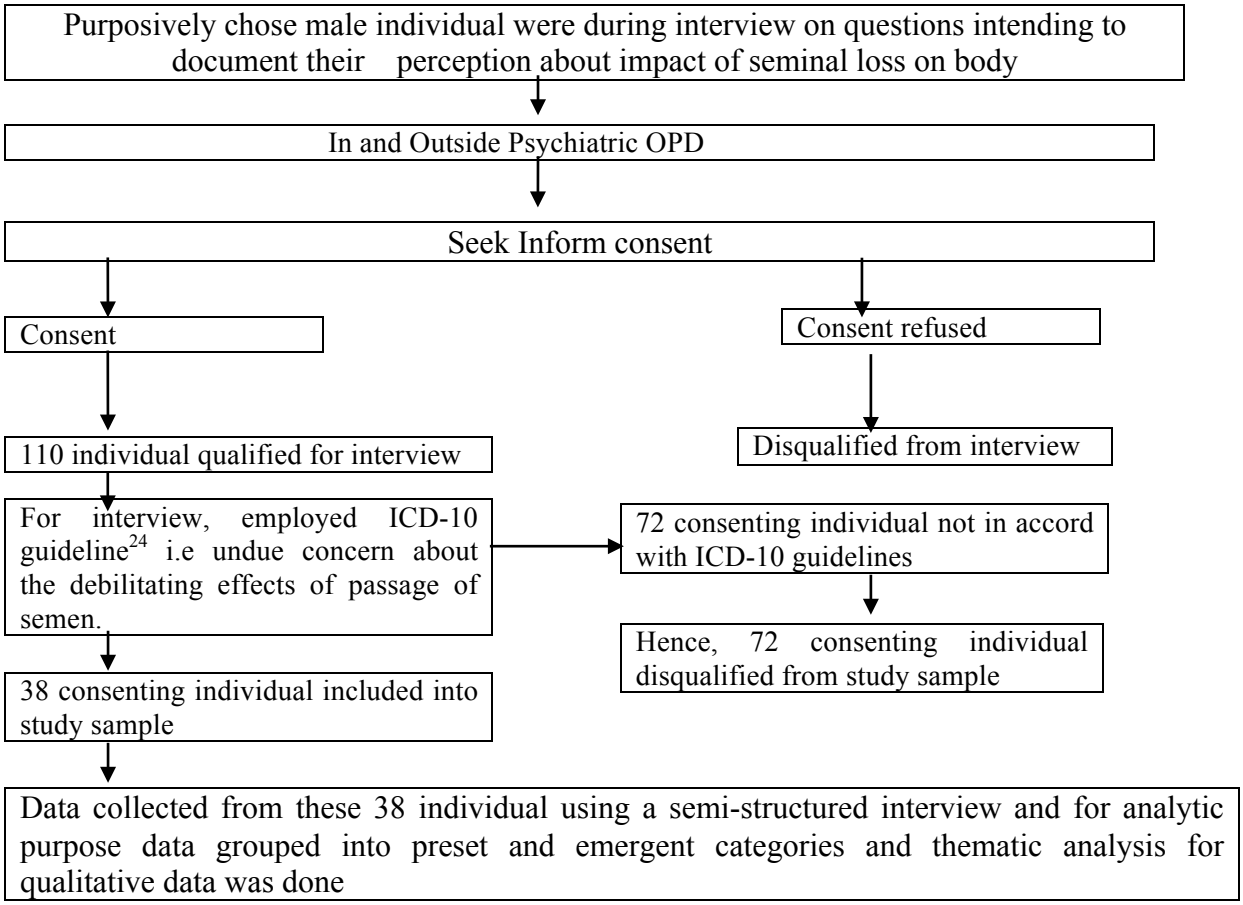

Figure 1. Flow chart depicting the methodology
(OPD) Out Patient Department

Results

On interviewing consenting participants, 38 turned out with Dhat syndrome. This syndrome was mainly witnessed in unmarried, urban, Hindu males, comprising in large part of High school/Intermediate graduates (Table 1).

Table 1. Demographic Profile of Dhat syndrome Patients

Total participants with Dhat syndrome	38
Interviewed out with Dhat syndrome in Psychiatric OPD	13
Interviewed out with Dhat syndrome outside OPD	25
Mean age for Dhat syndrome	21.6+/-3.1
Background	
Urban	20(52.6%)
Rural	18(47.4%)
Religion	
Hindu	33(86.84%)
Muslim	5(13.15%)
Marital status	
Unmarried	29(76.31%)
Married	9(23.61%)
Educational status	
Illiterate	8 (21%)
School dropouts	7 (15.9%)
High school/Intermediates	15(39.4%)
Undergraduates/Graduates	8 (21%)

Psychiatric symptoms in subjects with Dhat syndrome were fatigue, weakness and undue concern regarding debilitating effect of seminal discharge (Table 2).

Table 2. Psychiatric and Somatic Symptoms in Dhat Syndrome

Psychiatric & Somatic Symptoms	Proportion of with these Symptoms
1.Undue concern regarding debilitating effects of seminal discharge	38 (100 %)
2.Fatigue	38 (100%)
3.Weakness	38 (100%)
4.Anxiety	24 (63%)
5.Depressive mood	20 (52%)
6. Guilt feeling	19 (50%)
7. Palpitations	18 (47%)
8. Anorexia	13 (34%)
9. Headache	13 (34%)
10.Sleeplessness	3 (8%)
11.Dizziness	2 (5.2%)
12.Constipation	1 (2.6%)
13.Burning micturition	1 (2.6%)
14.Blackout	1 (2.6%)

Most patients misperception that their semen is discharging in urine (Table 3), seems to be on account of their unawareness regarding sexual issues.

Table 3. Misperception and Misconception Regarding Sexual Issues

1. Patients misperception regarding seminal discharge in	
i.Urine	34(89.5%)
ii. Stool	1(2.6%)
iii. Both urine and stool	3(7.9%)
2. Seminal discharge either in urine or stool or both attributed to	
i. Nightfall	22(57.9%)
ii. Masturbation	22(57.9%)
iii. Overindulgence in sex	16(42.1%)
3. Perception regarding seminal composition	
i. Blood	15(39.5%)
ii.Foodstuff	5(13.1%)
iii.Bone	3(7.9%)
iv.Both blood and bone	3(7.9%)
v.Both bone and foodstuff	1(2.6%)
vi.Both blood and foodstuff	3(7.9%)
vii.Not sure	8(21%)
4. Views regarding impact of seminal discharge on the body	
i.Harmful loss for the body and wastage of energy	38(100%)
ii.Semen preservation fosters longevity& health	33(86.4%)
iii.Semen elixir of life	20(52.6%)

Dhat patients were witnessed to be co morbidly associated with Koro [Table 4]. Patients consulting Psychiatric OPD were diagnosed with Dhat syndrome secondary to other sexual disorders like premature ejaculation and erectile dysfunction [Table 4].

Table 4. Other sexual & cultural Co-morbidities

1) Patients consulting Psychiatric OPD	
i. Primarily for Dhat Syndrome	9(69.2%)
ii. Secondary to sexual disorders like Impotence and Premature ejaculation	4(30.8%)
2) Other Cultural bound co-morbidities in Dhat patients	
i. Dhat syndrome only	31(81.6%)
ii. Associated with Koro	7(18.4%)

Instances of Dhat patients consulting traditional healers, alternative and complementary medicine practitioners (ACMP), being rendered wrong advice by the ACMPs skeptical & spurious opinion regarding patient's condition [Table 5].

Theme 1. Incorrect advises given by quacks and ACMPs

"I had consulted three Hakim for my problem , the first one gave no opinion but only prescribed medication ; the next one told me that passage of semen in urine is a natural process just as menses is to women and prescribed medication" – Rural Patient of Dhat syndrome.

"For my condition, I have consulted several type of practitioner – Homeopathic, Ayurvedic, Hakim and a Surgeon. The homeopathic doctor had told me that masturbation was responsible for my condition whereas a surgeon attributed my condition to Liver and stomach problem ….allopathic treatment was of no use. On consulting a Hakim, a treatment was prescribed but no opinion was given for my condition. My last consultation to an Ayurvedic doctor, I was told that my condition, was on account of masturbation and change in weather." - Urban, Bsc graduate, Lab attendant.

Prior consultation to other allopathic practitioners not only reflects the unawareness regarding whom to consult (i.e. psychiatrist) regarding their condition among such patients [Table 5], but the necessity of awareness of this syndrome among the allopathic practitioners whom they have consulted.

Theme 2. Allopathic practitioners giving incorrect advice may be because of unawareness of this syndrome.

"2 months ago, I consulted a surgeon he prescribed me medication and told my condition is due to hot weather." – Rural, mess employer.

"Earlier, on consulting a Hakim, he gave no opinion regarding my condition instead prescribed medication. As I was not satisfied I consulted a physician who told me semen loss is an illness and ordered a urine examination test"- Urban, M.Com (master of commerce) student".

"I consulted a surgeon, he advised to take traditional medicine available for Dhat syndrome" - Rural, canteen employer.

Table 5. Patients consultation prior to Psychiatric OPD and advices rendered to the patients by ACMP

1.Patients consultation prior to Psychiatric OPD	
i. Quacks	5(38.4%)
ii. ACMP [#]	3(23.1%)
iii. Surgeon	2(15.4%)
iv. Dermatologist	2(15.4%)
v. Physician	1(7.7%)
2. Number of the subject told the following by ACMP and quacks	
i. No opinion	6(15.8%)
ii. Masturbation	5(13.2%)
iii. Overindulgence in sex	4(10.5%)
iv. Hot weather/Change in weather	2(5.2%)
v. Illness	2(5.2%)
vi. Semen loss accounts for loss of vitality	2(5.2%)
vii. Nightfall	1(2.6%)
3. Number of consultees to ACMP and quacks	8(21.1%)
4. Number of consultees to whom ACMP, quacks prescribed treatment	8(100%)

Practitioner of Alternative and complementary medicine

Discussion

Our study revealed the mean age of patient with Dhat Syndrome mean age 21.1±-3.1years, 76.3% being unmarried. Dhat patients comprising mostly of High school & Intermediate students(39.4%) followed by undergraduate and graduate students (21%), illiterates (21%) and school dropouts(15.9%) of Urban Background(52.6%).

Dhikav et al. on studying 30 patient, revealed 33.33% had a co-morbid problems of pre-mature ejaculation and 6.6% with erectile dysfunction [25]. Dhat syndrome may also have co-morbid psychosexual dysfunction ranging from concern about potency to frank impotence and premature ejaculation either alone or in combination. However, its phenomenology, long term course and prognosis need to be studied further before this entity is accorded international acceptance [26]. In our study 30.8% patient consulting Psychiatric OPD were diagnosed with Dhat syndrome secondary to sexual disorders like pre-mature ejaculation and impotence. Overall, 18.4% of Dhat patient's co-morbidly is associated with Koro.

In addition to previous studies, first, our study documented patients with Dhat syndrome views regarding the impact of the seminal discharge from the body. Invariably, all patients with Dhat syndrome regarded seminal loss in form of discharge to be harmful for the body & wastage of energy. Majority considered seminal preservation to foster longevity & health (86.4%), and 52.6% considered semen to be an elixir of life. Malhotra and Wig emphasized that the belief seminal fluid is considered an elixir of life both in the physical, and in the mystical sense and its preservation guarantee's health, longevity, and supernatural powers were infested in mind of patients with Dhat syndrome. The preservation of semen was seen, in a classical Ayurvedic medical tradition of India, as necessary for good health and longevity, and indeed sexual prowess [28].

Secondly, documented Dhat patient's perception regarding the composition of seminal fluid, most assert it to comprise blood (39.5%)[claim one drop of semen comprises 100 drops of blood], followed by misperception comprises a mixture of blood and bone (7.9%), bone (7.9%) [some claim that decomposition of vertebral bone's accounts for semen formation], mixture of blood and food (7.9%), food and bone (2.6%) [some have disproportionate perception that 32gm of food make one gram of semen; few claim drinking sugarcane enhances produce semen production].The remaining 21% not sure regarding composition.

Ismail pointed out that Dhat is promoted by practitioners of alternative and complementary medicine. This is obvious in many advertisements appearing in the newspapers boasting different forms of cures for loss of semen [28]. Further this is substantiated by our study documenting opinion of quacks, alternative and complementary medicine practitioner (ACMP) regarding patient's condition, majority (15.8%) gave no opinion regarding patient's condition, while most attributed patient's condition to masturbation (13.2%), overindulgence in sex (10.5%), hot weather or change in weather(5.2%) illness(5.2%) loss of vitality due to semen loss (5.2%) and nightfall (2.6%) . All patients who consulted quacks, ACMP was prescribed treatment at an exorbitant price.

The study lays down certain implications. First, there should be an initiative for implementation of sex education, starting from school level, colleges of various disciplinarians and rural areas. Likewise, Sex education based on this study can enable individuals to eradicate myths regarding semen composition, sexual attraction & misperception that nightfall, masturbation and sexual intercourse accounted for seminal discharge in urine/stool. Second, government must implement a sex counseling program to be accessible to the population irrespective of gender, socioeconomic status, literacy and background. Initiative should be undertaken to curb quacks, practitioner of alternative and complementary medicine dubious and skeptical propaganda via harnessing effective modes in surfacing at their foul play with naïve minds oblivious of sexual matters. Bhattacharya R. reported West Bengal government keen on training quacks and links them with state-run hospitals [29]. Further, Basu D. reported that NGO (non-government organization), Baroda, trying to educate the

faith healers on identifying mental-health problems, so that they referred them to a psychiatrist [30].

Finally, on the same grounds, we can train these faith healers regarding this cultural-bound syndrome and maneuvers of psycho-education sessions. This may help halt their spurious propaganda. There is also a necessity to initiate seminars concerning cultural bound syndrome not only among the general masses but also among the allopathic practitioners to be familiarized with such syndromes. Finally taking the same objectives into account a study should be conducted on female population affected with Dhat syndrome and a more rigorous research should be undertaken to explain to what extent Dhat represents a distinct syndrome or an illness attribution.

The study has a number of limitations. First of all, study cannot be generalized on account of study design and a small study sample size (due to time constraint) obtained through non-probability sampling from heterogeneous sample source. Further, there is a possibility that the study is subjected to bias like social desirability, non-response, selection, recall and interviewer bias. Second, Khan devised "Dhat Syndrome Symptom Checklist" should have been employed for documenting Dhat patient's symptomatology [15]. Had this checklist been used, an elaborate symptomatology of these individuals could have been documented. Finally, follow-up of patients consulting the Psychiatric OPD should have been done. A longitudinal or case-control study, would offer substantial information on management of Dhat patients.

Conclusion

In conclusion, it's evident that Dhat syndrome is tangible in every social background and has been witnessed to a significant extent not only in illiterates, rural background but also in literate urban population comprising graduates of various streams. It's worth noting that most of the people suffering from this syndrome do not prefer to consult anyone, which could be due to inhibitions in minds of these patients regarding discussing these things with anyone. In light of this predicament, there is a need for sex education among the people and awareness regarding this syndrome among the practitioners of alternative and complementary medicine and allopathic practitioners other than a psychiatrist since these patients may primarily consult them. Further, emphasis should be laid down on eradicating such cultural bound syndrome attributed to dubiously psycho-engineered sexual myths. Eradication will have to involve an idiosyncratic transition from sexual conservativeness to its liberalization. Sex-education can be an effective mode to halt psycho-engineered sexual myths that may culminate into cultural bound syndromes. Lastly, the faith-healers could be trained to impart correct advice to such patients in turn helping to halt their spurious propaganda, reducing this cultural bound syndrome.

Abbreviations

ICD-10: International Classification of Diseases version 2010

WHO: World Health Organization

APA: American Psychological Association

ACMP: Practitioner of Alternative and Complementary Medicine

RMCH: Rohilkhand Medical College and Hospital

Conflict of interests

The authors declare that there is no conflict of interests regarding the publication of this paper.

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