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Research article

DHAT SYNDROME AND ITS ASSOCIATION WITH SEXUAL BEHAVIOR AND PSYCHIATRIC COMORBIDITIES IN MALES: A CASE CONTROL STUDY

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ABSTRACT

Background: Dhat syndrome is often taken as culture bound syndrome (CBS) of Indian subcontinent. There are many misconceptions which form base of symptoms and co morbidities. **Aim:** Dhat syndrome is reported on basis of self diagnosis. The study aims to study associated symptoms, sexual behavior and co morbidities in Indian population. **Material and Methods:** This cross-sectional and case-control study was carried with help of trained local interviewers at Department of Psychiatry and Medicine, Gandhi Medical College (GMC), Associated Hamidia Hospital, Bhopal, India. Cases were compared to healthy matched controls. The study was conducted using clinical interview, physical examination and other necessary investigations like urine analysis and microscopy. **Results:** Of the 50 cases and control, each, age group was 21 to 25 years (48%) and education upto 12th class (60%). 20% cases reported history of Masturbation. Extramarital or premarital sexual contact was found to have little significance on the syndrome. 76% of the patients met DSM-IV Diagnostic Criteria for Anxiety and 56% patients met for Depression. 23 patients (46.3%) were having a co-morbid somatic complains like body ache, weakness and fatigue. Erectile dysfunction by 34% & premature ejaculation by 8% was reported. In Urine routine analysis and microscope no oxalates or phosphates were noted. **Conclusions:** Dhat syndrome is more common among low educated young population. Laboratory evidence of any pathological cause was not found. Contrary to popular belief, it had no direct correlation with masturbation and pre and extra marital sexual contact.

Keywords: Dhat Syndrome, Semen, Sexual behavior, Somatic symptoms, Erectile dysfunction

INTRODUCTION

Dhat syndrome is a Culture bound syndrome¹. But it has been mentioned in medical history and reported by population worldwide. The culture has a profound impact on the mental status of an individual.

According to International Classification of Diseases (ICD) – 10 had classified Dhat syndrome had been classified in both neurotic disorder (F48.8) and into culture specific disorder caused by 'undue concern about the debilitating effects of the passage of

semen.' The cases are always self reported and they often report a set of symptoms. These vague somatic symptoms are fatigue / bodily weakness, headache, depression², anxiety, loss of appetite, palpitation/tachycardia, guilt, poor concentration, forgetfulness³. Due to existing belief, it is often associated as a result of masturbation and being sexually active outside marriage. The co morbidities include erectile dysfunction, premature ejaculation and impotence.

Patients reported semen loss in urine or involuntarily outside (spontaneously; while sleeping; during defecation; or while showering) of sexual relations⁴. A typical profile of Dhat Syndrome patient has either been a young man, unmarried or recently married, less educated, and the one who holds strong traditional beliefs⁵.

This category of disease involves mixed disorders of behavior, beliefs, and emotions which are of uncertain etiology and nosological status and which occur with particular frequency in certain cultures. The cultural belief and pattern associated with Dhat syndrome make it different from delusional disorder^{6,7}.

MATERIAL AND METHODS

The study is a case-control cross sectional study, aimed to evaluate the symptoms, beliefs and co morbidities related to Dhat syndrome. The study and control group of 50 each was assessed.

The study was conducted at Gandhi Medical College (GMC), Associated Hamidia Hospital, Bhopal, India. Study group of 50 subjects was selected who had Dhat syndrome without any other organic disorder at OPD of Psychiatry Department. The control group of 50 patients was shortlisted from the Medicine Department. They were not diagnosed as a Dhat syndrome and were matched with the case group in all aspects.

Inclusion criteria:

Case group: Complain of whitish discharge in the urine and associating it with symptoms and co morbidities, Fulfilled Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) TR criteria apart,⁸ Consenting to clinical interview

Control group: In patients who were not suffering from Dhat syndrome though they were suffering from

other medical ailments, matched in other aspects with the case group, consenting to clinical interview

Exclusion criteria: Presence of Genitourinary disorder, Testicular tumor, Varicocele, Organic sexual dysfunction, Pelvic inflammatory disease, Endocrine disorders, Spinal cord trauma.

On the persons enrolled for both study and control group detailed case history, including past, medical, family and sexual history was taken. General and systemic examination were performed to rule out other ailments before proceeding to laboratory evaluation. Both groups were interviewed based on a structured interview, which was prepared by the investigator. The questionnaire included demographic data, symptoms, past, medical, personal and sexual history. The detail questionnaire can be accessed by communication via Email with Corresponding author. The laboratory parameters were evaluated for all the participants of both the groups. These included routine biochemical evaluation and urine analysis. To exclude organicity Sonography, Hormone Assay and semen analysis were performed on case group.

All interviewers were careful about ethical and legal considerations. All identification information including names, initials and hospital numbers were avoided to keep the patient details in anonymity.

Ethics: Institutional review board and ethical committee approval was taken from GMC, Bhopal, India. All periodic adverse event reports were reported to them and appropriate guidance was taken. Written informed consent after the details of the project were fully explained, was obtained from all participants. There were no minors involved and hence no paternal consent involved in this study.

Statistics: The data was analyzed by using statistical tests of mean and standard deviation. ($P > 0.005$)

RESULTS

Dhat syndrome is prevalent in younger age group. Anxiety is most prevalent followed by depression. They are related to sexual symptoms as ejaculatory dysfunction, premature ejaculation and impotence. (Fig. 1) Patients associated Dhat syndrome as a direct result of excessive indulgence in sexual activity or masturbation or to nocturnal emissions. (Fig. 2) Dhat syndrome was prevalent in class of lower education, below class 12.

Routine biochemical and urine laboratory evaluation was conducted for all 100 participants. Other necessary investigations were carried out as per the requirement of the subjects to exclude organicity (Sonography and Hormone Assay).None of the reports showed presence of oxalates or phosphates. A semen analysis founded out only 1 patient had azospermia and 2 were having oligospermia.

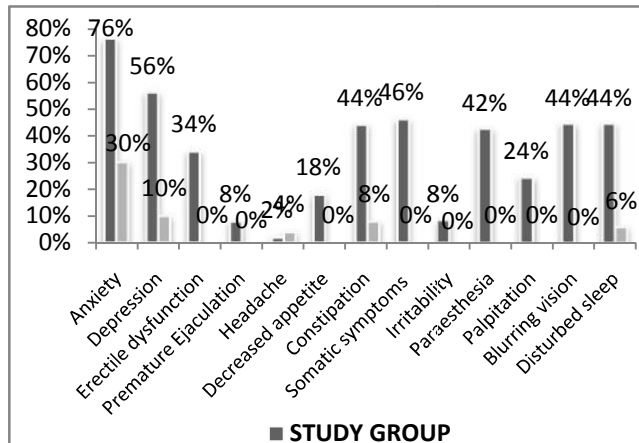


Fig 1: Co-morbid conditions associated with patients in study group and control group

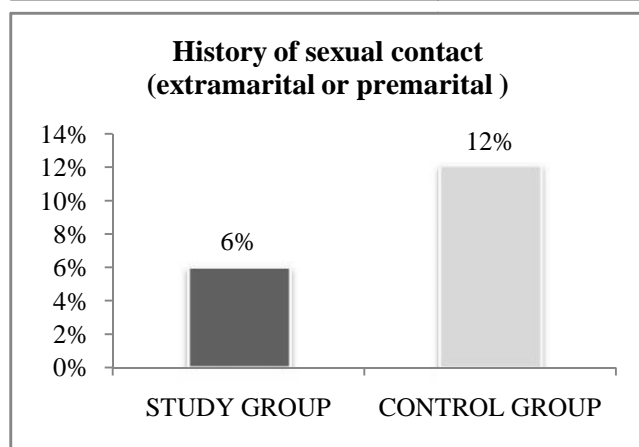
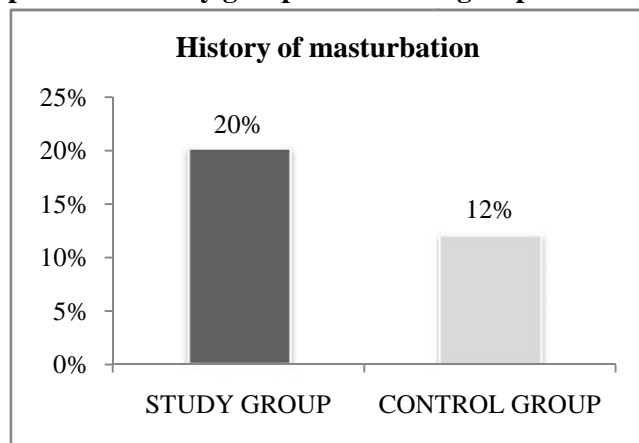


Fig 2: Sexual history of patients in study group and control group

DISCUSSION

As a Culture bound syndrome (CBS), Dhat syndrome has been discussed for long time. Epidemiology and prevalence are noted in history of medicine all over the world^{1, 9}. The Dhat syndrome is not limited to Indian subcontinent. The origin of its name had a strong relationship with Indian culture, history and mythology^{10, 11}.

Dhat Syndrome forms an important health problem and the magnitude is also very high. In view of this it needs a proper attention and sensitization amongst the healthcare providers for the proper treatment, counselling of these patients and referring them to related Specialty. The patient presenting with Dhat syndrome is typically more likely to be recently married; of average or low socio-economic status (student, laborer or farmer by occupation), came from a rural area and belonged to a family with conservative attitudes towards sex¹².

The exact pathophysiology of ‘Dhat syndrome’ is not known. The study demonstrated various other symptoms and morbidities being involved along with Dhat syndrome. The prevalence in a relatively younger age group can be attributed to hormonal rush¹³. Majority of these individuals visited self-claimed sex specialists and traditional faith healers. The contact with these health providers not only strengthen their misconception and false beliefs, but also compel the patients to pay a huge cost of investigations and drugs which are not only non-effective but also hazardous.

Among other studies the relationship between marital status and sexual contact outside marriage and Dhat syndrome is not discussed. This study establishes contrary to the popular belief that no such cause-effect relationship exists. Dhat syndrome was most common among illiterate patients and less educated patients. There is a need for patient education and sex education in the eradication of syndrome^{14, 15}. The spread of disease in all age groups indicates towards the need of patient education about the disease in India. In many cases the syndrome is under diagnosed in general, the deep-rooted misconceptions associated with anatomical and physiological aspects of sexuality are difficult to be correct with general counseling sessions.

The further work in this field is required to know: Whether Dhat is a Culture bound syndrome only in

India? What is the pathophysiology behind it? Is there any relationship of it with depression, anxiety or other mental health disorder? Whether there is any relationship between puberty and Dhat syndrome.

CONCLUSION

Thus to control the morbidity that arise out of cultural misconceptions like Dhat syndrome, the public awareness and education should be done in young adults. Those with actual azospermia or oligospermia can be provided with proper counseling and knowledge about assisted reproductive technological.

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Conflict of Interest: Nil

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