

Dhat Syndrome - A clinical study

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Abstract: Traditionally Ayurveda, the Indian system of Medicine as well as religion has valued, emphasized and promoted conservation of semen. Loss of semen by any means – through night emissions, masturbation of sexual intercourse – has been believed produce physical, mental, sexual and spiritual weakness. Since the age of Charaka and Sushruta, the consequences of semen loss have been described, surprisingly systematic studies began only in the eighties. Perhaps the term “Dhat Syndrome” was first used by WIG in 1960 (SING, 1985). To date four studies have been published on Dhat Syndrome (BEHERE & NATRAJ, 1984; SINGH 1985; CHADDA & AHUJA, 1990 and BHATIA & MALIK, 1991). These studies focused on clinical manifestations of Dhat Syndrome, associated attitude towards passage of Dhat.

Keywords: Sociodemographic, symptomatology, heterosexual

1. Introduction

In a conservative society like India, where sex is never mentioned and is considered a taboo, not surprising ignorance about sex may be universal and restrictive attitudes rules rather than exception. Although belief in sex myths and faulty attitudes towards sex are considered most important in genesis of psychosexual dysfunctions (KOTHARI, 1987) relationship of knowledge and attitude towards sex and sexual dysfunctions has not been studied systematically. This work humbly attempts such a study.

2. AIMS AND OBJECTIVES

The study aimed at finding out :

- (1) Sociodemographic factors associated with Dhat Syndrome.
- (2) Clinical manifestations of Dhat Syndrome i.e. duration and frequency of passage of Dhat, its association with burning micturition, frequency of micturition, nocturnal emission and premature ejaculation.
- (3) Psychiatric morbidity especially anxiety and depression in Dhat Syndrome patients.
- (4) Knowledge and attitude of these patients regarding sex.

3. MATERIAL AND METHOD

This prospective study was conducted on outpatients attending psychiatry department, government medical college and new civil hospital, Surat during January 1993 to March 1993.

[1] PATIENTS :

All consecutive patients who met the following definition of Dhat Syndrome were interviewed.

DHAT SYNDROME : A condition where a patient presents with primary complaint of loss of semen. Various physical and mental symptoms usually accompany the chief complaint. This includes loss of semen through night discharges and

masturbation or through sexual Intercourse. At times patients complain of whitish discharge along with or preceding passage of urine. This is usually related to presence of oxalates and/or phosphates in the urine, but is believed to be semen by the subject (SINGH, 1985).

The symptomatology was investigated in detail duration and frequency of passage of Dhat, burning micturition, frequency of micturition, association with nocturnal emission, premature ejaculation and erectile impotence. The latter two were defined as under (BHATIA & MALIK, 1991)

PREMATURE EJACULATION : Orgasm and ejaculation persistently occur before or immediately after penetration of female introitus during heterosexual intercourse.

ERECTILE IMPOTENCE : A persistent inability to obtain an erection sufficient to allow orgasm and ejaculation to be satisfactorily concluded during heterosexual coitus.

Symptoms like sad mood, poor appetite, loss of weight, insomnia, deathwish or suicide ideation, pessimistic thoughts, guilt, impairment in work, headache, gastrointestinal symptoms, cardiovascular symptoms (e.g. palpitations), bodyache, weakness, tension, forgetfulness, lack of concentration, constipation and anxiety were enquired.

Patient's own view regarding cause of the disorder was explored.

All patients had urinalysis and VDRL test.

All patients also completed the following:

| A | **General Health Questionnaire – 28** (GOLDBERG & HALLIER, 1979)

GHQ – 28 is a widely used instrument for screening minor psychiatric morbidity. It consists of items related to somatic symptoms, Anxiety and insomnia, social dysfunction and severe depression (seen items each). Subjects are requested to answer all questions by tick marking only one of the four alternative response. The score range of GHQ-28 is 0 to 28. A cut-off point to identify cases was taken as (4/5) as suggested by GOLDBERG & HALLIER (1979), thus anyone who scored 4 or more was considered a ‘probable case’. GHQ-28 Gujarati (VANKAR) has been used previously in General population

minor psychiatric morbidity survey, in sexually transmitted disease patients, in dermatology and leprosy outpatients.

|B| Beck Depression Inventory (Abridged Version) (BECK, 1974)

BDI (Abridged version) is a self rating screening instrument for depression with 13 items. With four alternative response 0-3. The range of scores for the abridged BDI are : 0-4 none or minimal, 4-7 mild, 8-15 moderate, 16+ severe. For purpose of this study, BDI score 8 and or more was taken as indicator of clinical depression as suggested by BECK (1974).

|C| Zung Self Rating Anxiety Scale (ZUNG, 1974)

This instrument consists of 20 items with four alternative responses and a score value of 1, 2, 3 and 4. An index for the SAS is derived by dividing the sum of the values (raw scores) obtained on the 20 items by the maximum possible score of 80, converted to a decimal and multiplied by 100. The converted SAS score is also called an index. As suggested by ZUNG (1974), converted SAS score of 50 or more is indicator of Clinical Anxiety Disorder.

|D| Modified Derogatis Sexual Functioning Inventory – Knowledge Subscale (DEROGATIS, 1976)

DSFI is a comprehensive instrument in psychological evaluation of sexual functioning. This consists of 21 items with true-false response alternative. The items cover knowledge about various areas of human sexuality.

Notable addition to the original DSFI is item on passage of Dhat. To reach correct response, Score 1 is assigned. For a group of subjects, if the response is not correct in 30% of subjects, it was considered knowledge deficit area.

|E| Inventory of Attitudes to Sex (EYSENCK, 1971)

It is an inventory to measure attitudes to sex, consisting of 91 items, with the following factors : satisfaction, excitement, nervousness, curiosity, premarital sex, repression, prudishness, experimentation, homosexuality, censorship, promiscuity, hostility, guilt and inhibition. EYSENCK (1971) found correlation between personality scores and some of the sex attitude factors.

|A| General Health Questionnaire – 28 (GOLDBERG & HALLIER, 1979)

GHQ – 28 is a widely used instrument for screening minor psychiatric morbidity. It consists of items related to somatic symptoms, Anxiety and insomnia, social dysfunction and severe depression (seen items each). Subjects are requested to answer all questions by tick marking only one of the four alternative response. The score range of GHQ-28 is 0 to 28. A cut-off point to identify cases was taken as (4/5) as suggested by GOLDBERG & HALLIER (1979), thus anyone who scored 4 or more was considered a ‘probable case’. GHQ-28 Gujarati (VANKAR) has been used previously in General population minor psychiatric morbidity survey, in sexually transmitted disease patients, in dermatology and leprosy outpatients.

[2] Control Group

Fifty subjects who did not have Dhat Syndrome and had not consulted Psychiatrist constituted control group. They consisted of students, hospital, employees, healthy hospital visitors. All subjects completed GHQ-28, (GOLDBERG & HALLER, 1979). Modified Derogatis Sexual Function

Inventory – Knowledge Subscale (DEROGATIS, 1976) and Inventory of Attitudes to sex (EYSNECK, 1971).

[3] ANALYSIS :

The data were tabulated. Dhat Syndrome patients were considered Index Group and Normal Subjects were considered control group. Categorical variations were analysed by test using Yate’s correction for continuity. Continuous variables were analysed by independent ‘t’ test. The groups were compared regarding sociodemographic factors, GHQ score, knowledge score and responses to inventory of attitudes to sex.

4. RESULTS AND DISCUSSION

During the study period 42 patients with Dhat Syndrome attended the department.

[1] SOCIODEMOGRAPHIC FACTORS :

TABLE – 1
SOCIODEMOGRAPHIC FACTORS OF INDEX AND CONTROL GROUP

		INDEX (n = 42)	CONTROL (n = 50)
A	Age (years)	19-46 26.69 (7.10)	16-54 27.94 (8.64)
B	Marital Status	Single	17.00 (40.5 %)
		Married	25.00 (59.5 %)
C	DOMICILE	Gujarati	11.00 (26.2 %)
		Migrant	31.00 (73.8 %)
D	Occupation	Skilled worker	32.00 (76.2 %)
		Unskilled worker	4.00 (9.5 %)
		Shopkeepers / clerks / Govt. Servants	6.00 (14.3 %)
		Students	0.00
			6.0 (12.0 %)
E	Monthly Income (Rupees)	≤1000	19.00 (45.2 %)
		1001 to 2000	23.00 (54.8 %)
		> 2000	0
F	Education	Illiterate	8.00 (19.0 %)
		Primary	17.00 (40.5 %)
		Secondary	12.00 (28.6 %)
		College	5.00 (11.9 %)

A : t = 0.7499, df = 90, NS

B : X² = 0.1779, df = 1, NS

C : X² = 19.04, df = 1, p < 0.01

D : X² = 10.779, df = 3, p < 0.02

E : X² = 4.7068, df = 2, NS

F : X² = 1.4224, df = 3, ns

Index patient age ranged from 19 to 46 years with mena age of 26.69 (7.10) years while control group had age range of 16-54, with mean age of years 27.94 (8.64). The difference between the groups was not statistically significant.

At most six and every ten patients in the Index group were married, in the control group two third of the patients were married. Thus the groups did not differ statistically significantly.

Vast Majority (73.8 %) of Dhat Syndrome patients were migrants from the states of UP, Bihar, M.P., Maharashtra, Orissa and Nepal. In the control group almost three of each four persons hailed from Gujarat. The difference Between the groups was statistically highly significant.

There were 32 (76.2 %) skilled workers, 4 (9.5 %) unskilled workers, 6 (14.3 %) shopkeepers / clerks / Govt. Servants among Dhat Syndrome patients. In the control group 21 (42 %) were skilled workers, 5 (10 %) unskilled workers, 18 (36 %) shopkeepers/clerks/govt. servants, 6 (12%) students. Thus, there were more skilled workers in the index group while

shopkeepers / clerks / govt. serants and students were more in control group. Index and control groups differed statistically significantly regarding occupation.

In the index group 19 (45.2 %) patients had monthly income below Rs. 1000/- while 23 (54.8 %) had montly income between Rs. 1001 and Rs. 2000/-. In the control group 14 (28 %) had montly income below Rs. 1000/-, 30 (60 %) had montly income between Rs. 1001 and Rs. 2000 and 6 (12 %) patients had Monthly income aboe Rs. 2000. Thus, in the control group there were more individuals with monthly income above Rs. 1000. The difference between the groups was statistically significant.

Among the Dhat Syndrome patients, 8 (19 %) were illiterate, 17 (40.5 %) had primary school education, 12 (28.6 %) had secondary school education and 5 (11.9 %) had college education. Although there were more individuals with secondary school and college education, difference between groups was not statistically significant.

Thus, majority of Dhat Syndrome patients were migrants educated, married skilled workers with monthly income above Rs. 1000. Dhat Syndrome patients and control group differed statistically significantly as regards domicile and occupation.

Several studies on Dhat Syndrome reported age of patients raging form 16 to 45, most patients being adolescents or young adults (BEHERE & NATRAJ, 1984, SINGH, 1985; CHADDA & AHUJA, 1990, BHATIA & MALLIK, 1991). BEHERE & NATWRAJ (1984) mentioned that 52 % of their Dhat Syndrome patients were married, SINGH (1985) reported that 70 % of his Dhat Syndrome patients were married, in series of CHADDA & AHUJA (1990) about half were married while BHATIA & MALLIK (1991) mentioned that 45.8 % were married.

BEHERE & NATRAJ (1984) reported that 46 % of patients were students. Seconday school and above education was reported in 46 %, 61.5 % and 39.5 % of Dhat Syndrome patients in series of SINGH (1985), CHADDA & AHUJA (1990) and BHATIA & MALLIK (1991) respectively.

As regards economic occupational status BEHERE & NATRAJ (1984) reported that 42 % Dhat Syndrome patients belonged to lower socioeconomic strata CHADDA & AHUJA (1990) had 61.3 % manual labourer family background in their series.

[2] CLINICAL MANIFESTATIONS

Out of 42 patients, 35 (83 %) had chief complaint of passage of Dhatu per urethra ,while 7 (16.7 %) had nocturnal emission. The ast majority i.e. 360 (71.4 %) patients had complaints for more than one year. Five (11.9 %) had complaints for 3 months to 1 year while four (9.5 %) had duration of illness 1 to 3 months, three (7.1 %) had complaints for less than 1 month.

Out of 42, 20 (47.6 %) had passage of Dhatu or nocturnal emission once or more times every day. Similar number of patients had such passage once a week. Only 2 (4.8 %) patients had passage of Dhat or nocturnal emission once

fortnightly. 13 (32.5 %) patients had burning micturition 13 (32.5 %) had frequency of micturition. However, pus cells were seen in urinalysis of 13 (30.9 %) patients and VDRL was positive only in 2 (4.8 %)patients.

When patients were required about cause of Dhat Syndrome. 42 (100 %) believed it to be due to semen loss, 27 (64.3 %) believed it to be due to masturbation while 8 (19 %) believed that premarital sexual relationship might have caused it, six (14.3 %) considered it due to extramarital or commercial sex, one (2.4 %) patient associated it to his sexual activity with buffalo.

BEHERE & NATRAJ (1984) reported daily Dhat discharge in 46 % of patients, once in a week in similar numbers of patients and once fortnightly is 8 % of patients. CHADDA & AHUJA (1990) reported that 53.8 % had Dhat Syndrome for more than 1 year. Frequency of passage varied from once or twice daily to once per 10-15 days, although in most patients it was in 1 to 7 days.

Premature Ejaculation was associated with Dhat Syndrome in 7 (16.7 %) patients while erectile impotence was seen in 1 (2.4 %) patient, while 21 (50 %) had over concern with nocturnal emission.

BEHERE & NATRAJ (1984) in their series found 26 % of Dhat Syndrome patients with impotence and 22% with premature ejaculation. BHATIA & MALLIK (1991) reported association of Dhat Syndrome with impotence and premature ejaculation in 8.3 % and 14.6 % respectively.

CHADDA & AHUJA (1990) reported that 32 (61.5 %) of 52 Dhat Syndrome patients and premature ejaculation, 19 (36.5 %) had erectile impotence, while 10 (19.2 %) patients had over concern with nocturnal emission.

SINGH (1985) mentioned that 52 % patients considered masturbation, 16 % premarital sex, 14 % extramarital sex as causative factors for Dhat Syndrome. CHADDA & AHUJA (1990) mentioned that 24 (46.1 %). Out of 52 pateints considered masturbation, 11 (21.1 %) pre-or extramarital relations and 3 (5.8 %) homosexual complex to be the causative factor. BHATIA & MALLIK (1991) mentioned that 45% of their patients blamed masturbation and excessive sex, 19 % venereal disease, a 10 % considered urinary tract infection as causative factor.

[3] ASSOCIATED SYMPTOMS :

Table -2 compares associated symptoms in Dhat Syndrome patients.

Weakness is the commonest symptom, seen in all patients in this series. Guilt associated with semen loss is also common seen in 59.5 % patients. Sadness of mood in 57.1 % Insomnia and anxiety were seen in almost 4 in every 10 patients. poor appetite, impaired work and pessimistic thoughts were reported by one third of the patients. Other symptoms reported were Headache (23.8 %), forgetfulness (23.8 %), Tension (21.4 %), Constipation (16.7 %), lack of concentration (4.8 %), Six (14.3 %) patients reported deathwise or suicidal ideation.

TABLE – 2 ASSOCIATED SYMPTOMS

SYMPTOM	SINGH (1985) %	BHATIA & MALLIK (1991) (%)	PRESENT STUDY (1993) (%)
Weakness	73.8	70.8	100
Guilt	12.5	35.4	59.5
Sad mood	62.5	58.3	57.1
Insomnia	43.1	62.4	42.9
Anxiety	51.6	-	38.1
Poor Appetite	43.8	45.8	35.7
Impaired work	12.5	-	33.3
Pessimistic Thoughts	18.8	-	30.9
Headache	68.0	-	23.8
Forgetfulness	18.8	45.8	23.8
Tension	18.8	-	21.4
Constipation	12.5	35.4	16.7
Deathwish/Suicidal ideation	26.2	18.6	14.3
Poor Concentration	18.8	56.3	4.8
Cardiovascular (palpitation)	31.3	68.7	-

[4] PSYCHIATRIC MORBIDITY IN DHAT SYNDROME :

In this study, General Health Questionnaire score of Dhat Syndrome patients ranged from 0 to 25 with mean score 10.9 (7.9). Thirty two (76.2 %) scored 5 to more GHQ suggestive of psychiatric morbidity in these patients. In comparison to this, the control group GHQ score ranged from 0 to 21 with mean GHQ score 1.84 (4.59), only 6 (12 %) scored 5 or more on GHQ. The difference between the groups is statistically highly significant as regards GHQ score.

TABLE – 3
SCORE ON PSYCHIATRIC INSTRUMENTS

		INDEX (n = 42)	CONTROL (n = 50)
1	GHQ Score Range Mean (S.D.)	0 - 25 10.9 (7.9)	0 - 21 1.84 (4.59)
2	BDI Score Range Mean (S.D.)	0 - 21 8.59 (6.49)	
3	ZSRA Score Range Mean (S.D.)	36.25 to 53.75 44.22 (4.28)	

* t = 32.73, df = 90, P > 0.01

TABLE – 4
MODIFIED DEROGATIS SEXUAL FUNCTIONING INVENTORY
KNOWLEDGE SUBSCALE : CORRECT RESPONSES

No.	Items	DHAT SYNDROME (n = 42)	NORMAL (n = 50)
1.	During menstrual flow, sexual intercourse is not advisable.	5 (11.9)	03 (6)
2.	Simultaneous orgasm of both man and women is an indicator of good sexual relationship	4 (9.5)	01 (2)
3.	After marriage masturbation means something is lacking in sex life.	15 (35.7)	08(16)
4.	After hysterectomy operation wome is unable to experience sexual pleasure	16 (38.1)	24 (48)
5.	Sex drive in man is maximum in twenties, for woman it is so in thirties.	19 (45.2)	40 (80)
6.	After sixty years of age most men lose sexual interest.	13 (30.9)	10 (20)
7.	With sexual excitement in man erection occurs, in woman vagina becomes lubricated.	27(64.3)	42 (84)

On Beck Depression Inventory (BECK, 1974), the score ranged from 0 to 21, with mean score 8.59 (6.49). As suggested by BECK, if we consider BDI score above 8 as indicator of moderate or severe depression, 21 (50 %) of Dhat Syndrome patients had clinical depression. Although sadness mood was reported by 57.1 % patients, clinical depression was found out in 50 % patients when screened with BDI.

Although anxiety was reported by 38% of patients in this series, on Zung Self Rating Anxiety Scale the score ranged from 36.25 to 53.75 % with mean score of 44.22 (4.28). If we consider score 50 ad above as indicator of Anxiety Disorder as suggested by ZUNG (1974), 5 (11.9 %) patients had clinical anxiety disorder. These findings suggest that considerable proportion of Dhat Syndrome patients had comorbid psychiatric disorder, especially depressive and anxiety disorders.

All patients who scored 8 or more on BDI, also scored high on GHQ. Similarly all patients who scored 50 or more on Zung Self Rating Anxiety Scale, also scored high on GHQ. This indicates high correlation of BDI and Zung SRAS with GHQ.

Most workers have mentioned that Dhat Syndrome is associated with other psychiatric disorders. BEHERE & NATRAJ (1984) found thjat 38% Dhat Syndrome patients had anxiety, 46 % had hypochondriasis while 10% had no accompanying psychiatric problem. SINGH (1985) mentioned that in his series, 16% had anxiety neurosis, 48% had depressive reaction, 4% had psychotic depression while 32% had no other psychiatric disorder. BHATIA & MALLIK (1991) found that 58% Dhat Syndrome patients scored 7 to more Hamilton Rating Scale for Depression suggesting Depression. CHADDA & AHUJA (1990) reported 40.4 % Dhat Syndrome patients had neurotic depression, 36.5 % had anxiety neurosis 5.8 % had hypocondriasis; only 13.5 % patients received diagnosis of pure Dhat Syndrome.

8. Oral sex is not advisable as it leads to sexually transmitted diseases.	11 (26.2)	13 (26)
9. Sexual fantasies in woman during intercourse indicates that something is lacking in her sex life	27 (64.3)	35 (70)
10. Frequency of sexual intercourse is an exact measure of successful relationship	15(35.7)	25 (50)
11. For woman it is possible to reach orgasm by teaching sexual organs.	19 (45.2)	28 (56)
12. After menopause in woman sexual desires decline markedly	16 (38.1)	09 (18)
13. Women desire sexual activity as often as men.	20 (47.6)	41 (82)
14. After ejaculation it takes time before another erection is achieved	19 (45.2)	47 (94)
15. Woman can experience multiple orgasm on a single occasion	26 (61.9)	46 (92)
16. More the length of penis, more pleasure in intercourse.	17 (40.5)	27 (54)
17. Clitoris is a very sensitive female sexual organ.	22 (52.4)	27(54)
18. Passage of Dhatu leads to weakness.	07 (16.7)	05 (10)
19. Night emission lead to weakness.	11 (26.2)	06 (12)
20. Masturbation causes sex problem or mental illness in future	06 (14.3)	10 (20)
21. Homosexuality is always a sexual peresion or a disease.	03 (07.14)	02 (04)

* 5 $X^2 = 10.527$, $df = 1$, $P < 0.01$

* 13 $X^2 = 10.587$, $df = 1$, $P < 0.01$

* 14 $X^2 = 24.419$, $df = 1$, $P < 0.01$

* 15 $X^2 = 10.445$, $df = 1$, $P < 0.01$

Table – 4 shows number of persons correctly responding on modified Derogatis Sexual Function Inventory Knowledge Subscale (DEROGATIS, 1976). There are conspicuous deficits in almost all areas of knowledge about human sexuality. If 30 % or less correct responses for an item is taken as a measure of gap in knowledge, Dhat Syndrome patients had poor knowledge on items 1, 2, 8, 18, 19, 20 and 21

These items relate to – advisability of intercourse while woman is menstruating, simultaneous orgasm as indicator of good sexual relationship, prohibition of oral sex on the ground that it spreads STDs, Homosexuality always a perversion or a disease. The remaining three items are realte to Dhatu, nocturnal emissions and masturbation.

The control group had deficits on the following itmes : 1, 2, 3, 6, 8, 12, 18, 19, 20, 21.

Dhat Syndrome patients score on modified DSFI knowledge subscale ranged from 5 to 11, with mean score 7.57 (1.71) and the control group had score range 4 to 15, with mean score 8.98 (2.31). Thus, Dhat Syndrome had lower knowledge about sexuality compared to control group ($t = 3$, 208, $df = 90$, $P > 0.01$)

Dhat syndrome patients and control group differed statistically significantly on items 5, 12, 14, 15. On all these items, Dhat Syndrome patients had marked ignorance as compared to control group. These items are related to sexual drive and age, sexual desire and gender, refractory perior after orgasm in man and multiorgasmic potential in female.

TABLE – 5
PERCENTAGE ‘YES’ RESPONSE TO SELECTED ITEMS OF
INVENTORY OF ATTITUDES TO SEX
(EYSENCK, 1971)

No.	Items	INDEX (%)	CONTROL (%)	‘P’ VALUE
6	I think only rarely about sex	14.3	46	$p > 0.01$
7	sometimes it has been a problem to control my sex feelings.	28.6	56	$p > 0.05$
22	My love life has been disappointing	42.9	10	$p > 0.01$

25	I have felt guilty about sex experiences	54.8	28	p>0.05
32	I have strong sex feeling but when I get a chance I can't seem to express myself	83.3	40	p>0.01
35	Thought about sex disturb me more than they should	47.6	24	p>0.05
47	I like to look at sixty pictures	69	46	p>0.05
58	I feel more comfortable when I am with my own sex....	78.6	48	p>0.01
60	I worry a lot about sex	61.9	14	p>0.01
66	I am embarrassed to talk about sex.	52.4	28	p>0.05
77	I have been involved with more than one sex affair at the same time	14.3	38	p>0.05
88	The dual standard of morality is natural, and should be continued.	88.1	64	p>0.05

When Attitudes Toward Sex of Dhat Syndrome patients were compared to normal controls, statistically significant difference was seen on items 6, 7, 10, 17, 18, 22, 25, 29, 30, 32, 35, 47, 53, 58, 59, 60, 61, 66, 76, 77, 79, 81, 83, 87, 88 or 'Inventory of Attitudes to Sex' (Eysenck, 1970).

Dhat Syndrome patients reported disappointing love life more frequently, worries about sex, lower sex contact problems, strong sex feelings but inability to express, disturbing sex thoughts, inhibiting parental influences regarding sex, embarrassment in talking about sex. Normal controls reported more frequently several affairs simultaneously. virginity is valued by both the groups although both groups like impersonal sex. Both groups do not condone premarital sex, however both groups consider dual standards Of morality for the sexes natural. More than 90% Dhat Syndrome patients and more than 80% control population agreed that masturbation is unhealthy. Although on knowledge subscale of modified DSFI, both groups have considerable deficits, majority do not support sex education for their children.

Earlier work by SINGH et al (1987) demonstrated the possibility of a relationship between better Knowledge and liberal attitudes. AVASTHI et al (1992) used sex knowledge and Attitude Questionnaire in Hindi, but they found that it failed to discriminate patients with psychosexual dysfunction from normal controls on both sex knowledge and attitude.

Further studies are needed to establish the influence of knowledge and attitudes on the causation and/or perpetuation and even on overall human sexual behavior.

5. SUMMARY AND CONCLUSIONS

In the prospective study of Dhat Syndrome patients attending general hospital psychiatry outpatients, 42 patients were interviewed. Details regarding sociodemographic data, clinical features like duration and frequency of passage of Dhat, burning micturition, frequency of micturition, nocturnal emission, association with other sexual dysfunctions like premature ejaculation and erectile impotence etc. were enquired. Associated symptoms were also noted. Patients view regarding causation of the disorder was explored. All patients also completed General Health Questionnaire – 28, Beck

Depression Inventory (Abridged Version), Zung Self-Rating Anxiety Scale, Modified Derogatissexual functioning inventory knowledge subscale and inventory of attitudes to sex. All patients had urinalysis and VDRL Test. Control group of 50 subjects completed General Health Questionnaire – 28, DSFI knowledge subscale and inventory of Attitudes to sex.

The data gathered was tabulated and analysed for statistically significant difference between the groups by "CHI Square" test and 't' test. The results are as under :

1. Dhat Syndrome patients were young with age range 19-46 years with mean age 26.69 (7.1), vat majority were migrants (73.8%), married (59.5%), skilled workers (76.2%), with secondary or above education (40.5%) and monthly income more than Rs. 1000 (54.8%).
On sociodemographic factors the control group differed statistically significantly only regarding domicile and occupation. The majority of control group hailed from Gujarat (74%), there were less skilled workers (42%) and more shopkeepers/clerks/govt. servants (36%) and as well as students (12%) compared to the Index group.
2. Out of 42 patients, 35 (83%) had chief complaint of passage of Dhat while 7(16.7%) had nocturnal emission. In more than seventy percent the duration of complaints was more than one year. Passage of Dhatu and nocturnal emissions were reported by 20 (47.6%) patients each. Thirteen (32.5%) patients had burning micturition, frequency of micturition and their urinalysis showed pus cells, only 2 (4.8%) patients had positive V.D.R.L. test.
3. All patients attributed Dhat Syndrome to semen loss, almost two third to masturbation and almost one fifth to premarital relationship and about 15% to extramarital or commercial sex.
4. Association of Dhat Syndrome to other psychosexual dysfunctions was quite low compared to previous studies – premature ejaculation and erectile impotence were reported by 7 (16.7%) and 1 (2.4%) patient respectively. Over concern with nocturnal emissions was seen in half the patients.

5. Reported associated symptoms were weakness (100%), guilt (59.5%), sadness of mood (57.1%), insomnia (42.9%), anxiety (38.1%), poor appetite (35.7%), impairment in work (33.3%), pessimistic thoughts (30.9%), Headache (23.8%), forgetfulness (23.8%), tension (21.4%), constipation (16.7%), deathwish/suicidal ideation (14.3%) and poor concentration (4.8%), Guilt feeling are reported more frequently in this series.
6. On GHQ-28, 32 (76.2%) scored 5 or more in the index group suggesting minor psychiatric morbidity, while in the control group only 6(12%) scored 5 or more on GHQ. Index group had statistically significant higher GHQ score.
7. On, BDI, half of Dhat Syndrome patients score 8 or more suggestive of clinical depression while on Zung SRA scale 5 (11.9%) patients scored above 50 suggestive of clinical anxiety disorder.
8. on DSFI knowledge subscale, Dhat Syndrome patients scored significantly lower compared to the control group. Among the seven items on which knowledge deficits were marked in these patients three were related to Dhat, Nocturnal emissions and masturbation.
9. Responses to Attitude towards sex reveal disappointing love life, worries about sex, strong sexual feelings but inability to express, restrictive parental influences and nonpermissive overall attitude.

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