

## RESEARCH

# Somatoform disorders and the subtypes: do differences exist?

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## Abstract

**Background:** Psychiatric diagnoses, especially somatoform disorders, are based on phenomenology, i.e. the subjective experience of the symptoms by the patient. The concept of “medically unexplained symptoms” (MUS) is now getting away with much focus on the symptoms per se rather than its explanation by some medical illness.

**Aim of the study:** To study the symptom profile of somatoform disorders and to see its variability in relation to different subtypes of the disorder.

**Materials and methods:** Hundred consecutive patients of somatoform disorders, diagnosed clinically based on the tenth revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10) criteria, were chosen after applying various inclusion and exclusion criteria. The Post Graduate Institute of Medical Education and Research (PGI) Health Questionnaire N-2 was used to evaluate symptoms of the patients. Data was analysed with chi-square test.

**Result:** Patients of somatization disorder (SD) have significantly higher prevalence of symptoms related to eyes ( $p=.0412$ ) and higher complaints of hot sensation in the body ( $p=.0007$ ) as compared to undifferentiated somatoform (UD) disorder and other somatoform disorders. Hypochondriacal ideas are significantly less in UD and SD.

**Conclusion:** Although traditionally, subtypes of somatoform disorders are supposed to have differences in the phenomenology, there is considerable overlap between them in clinical practice. It may mean that all somatoform disorders are virtually same and there may be no need to have many subtypes.

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Somatoform disorders or “medically unexplained symptoms” (MUS) are a group of disorders which share three things in common between them: multiple medical symptoms, repeated help-seeking for these symptoms,[1] and extensive investigations have ruled out any organic disease which can explain the symptoms.[2] The word “somatization” and “somatoform” is derived from the Greek word ‘*soma*’ meaning body. These disorders are classified into: somatization disorder (SD), undifferentiated somatoform disorder (UD), hypochondriacal disorder (HD), somatoform autonomic dysfunction (SAD), persistent somatoform pain disorder (SPD), other somatoform disorder, and somatoform disorder, unspecified.[3] Somatoform disorders are very common disorders and in primary care settings, it has been found that 15 to 20% of patients suffer from somatoform disorder.[4-6] The symptoms not only bother the patients a lot but physicians also. Patients with unexplained symptoms make more visits to physicians, ask for

unnecessary and costly investigations, undergo unnecessary procedures, and have more hospitalisations.[7,8] Similarly, lack of findings on repeated investigations lead to therapeutic nihilism in the clinicians.[9] The chronic nature of illness is a great burden not only on the functioning of the patient but also on the health-care utilisation and economy.

What more interesting has become is that the term ‘somatoform disorder’ has been changed to ‘somatic symptom disorder’. The basic shift in concept is that now even if the patient has some genuine medical illness and he is excessively preoccupied which causes significant emotional, cognitive, or behavioural changes, then he can be diagnosed with this disorder. This has far reaching consequences in that even if a genuine medical illness is present, psychological factors should not be overlooked. Another recent change is that the older subtypes of somatoform disorder have been removed in the fifth edition of the Diagnostic and Statistical Manual of Mental

Disorders (DSM-5). This change is brought about by better phenomenological understanding of this disorder.[10]

In clinical practice, sometimes it becomes very difficult to differentiate between different somatoform disorders due to overlap of symptoms. Thus, this study tries to find out if the subtypes of somatoform disorders can be differentiated on the basis of symptomatology.

## Materials and method

**Place of study:** This study has been conducted on patients attending Psychiatry outpatient department (OPD) as well as patients admitted in the Department of Psychiatry of Gauhati Medical College and Hospital (GMCH). GMCH is a tertiary care institute situated in Guwahati, and receives patients both from Assam as well as neighbouring states of North-East India.

**Period of study:** The period of study extended from November 2013 to August 2014.

**Selection of study sample:** Hundred patients diagnosed clinically based on the tenth revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10) criteria,[3] to be suffering from somatoform disorder were chosen by serial sampling, subject to fulfilment of selection criteria.

**Selection criteria:** Both male and female patients were selected. Patients suffering from other psychiatric disorders such as schizophrenia, psychosis, bipolar disorder, moderate or severe depression, primary diagnosis of anxiety disorders, mental retardation, as well as suffering from physical illness which could explain the symptoms of the patients were excluded. Illiterate patients were also excluded because they were unable to read the self-reported questionnaire.

**Consent and ethical consideration:** Written informed consent was taken from the patient and guardian both, in front of a witness. The study is approved by the Institutional Ethics Committee of GMCH.

## Materials and tools used

**Semi-structured proforma:** A semi-structured proforma was prepared to document the socio-demographic data, diagnosis of the patients.

**ICD-10:[3]**ICD-10 is a medical classification list by the World Health Organization (WHO). Chapter F of ICD-10 defines and explains diagnostic criteria of mental and behavioural disorders. The code ranges from F00 to F99. The codes for different somatoform disorders fall between F45.0 to F45.9.

**Modified Kuppaswamy's scale for estimating socioeconomic status:[11]** Kuppaswamy's scale is widely used to determine the socioeconomic status of Indian

families. The scale consists of three items namely: education of the head of the family, occupation of the head of the family, and total family income (in Rs) per month.

**Post Graduate Institute of Medical Education and Research (PGI) Health Questionnaire N-2:[12]** This questionnaire is developed by Wig and Verma in Hindi and English. The scale consists of 60 questions to be responded by patients themselves. First 50 questions are about physical and mental health status of the patient. Next ten questions are lie questions and check answers of social desirability. If a patient score five or more on lie scale, then he fails for other questions also. Although the scale was developed to check neuroticism in patients, its questions related to different physical and mental health components can be used to study the symptomatology of our patients in this study. The symptom clusters fall into: eye symptoms, gastrointestinal symptoms, disturbance of sleep, weakness and fatigue, pain in body, complaints in head, hot sensation in the body, urinary symptoms, disturbance of attention, memory complaints, anxiety (somatic), anxiety (psychological), fear/phobia, obsessive thoughts, depressive symptoms, hypochondriacal ideas, and somatic preoccupation. Some questions related to ear, nose, and throat (ENT) complaints, and neurological complaints were additionally included to make the questionnaire more comprehensive. The questionnaire was translated in Assamese to meet the local needs of the patients.

**Study design and statistical analysis:** This is a cross-sectional observational study. It is an exploratory study and no hypothesis is put forward. The socio-demographic data are shown using descriptive statistical methods. Comparison of the variables is done using chi-square test to find out two-tailed probability of chance (p-value) as per the requirement of the study.

## Results and discussion

The results are shown in tables 1 to 4.

### Socio-demographic data

In this study, 50% (n=50) of patients were in the age group 18-39 years, 43% (n=43) were in the age group 40-59 years, and seven per cent (n=seven) patients were in the age-group 60-79 years. The minimum age in the sample was 20 years, while maximum age was 75 years. Mean age was 39.36 years. Fifty two per cent of patients in the sample were males, while 48% were females. Male:female ratio was 1.08. Almost equal percentages of patients belonged to both Hinduism and Islam (51% vs 49%). There was no patient belonging to other religion. Maximum numbers of patients in the study were married (75%). Next large group was unmarried patients (16%), followed by widows (eight per cent). Only one patient was

**Table 1. Descriptive analysis of socio-demographic data of the sample**

Socio-demographic profile	% n=100
<b>Age-group (years)</b>	
18-39	50
40-59	43
60-79	7
<b>Sex</b>	
Male	52
Female	48
<b>Religion</b>	
Hindu	51
Muslim	49
<b>Marital status</b>	
Married	75
Unmarried	16
Widow/ separated	9
<b>Education</b>	
Up to primary	50
Middle school and matriculation	30
Higher secondary and above	20
<b>Occupation</b>	
Unemployed	46
Employed	54
<b>Socioeconomic status</b>	
Upper-middle	15
Lower-middle	36
Lower	49
<b>Locality</b>	
Rural	78
Urban	22
<b>Type of family</b>	
Nuclear	56
Joint	44

married but separated. In this study, 50% (n=50) of patients were educated up to primary school, 30% (n=30) up to class eight or ten, 20% (n=20) had studied till higher secondary or beyond. Forty six per cent (n=46) of patients were unemployed. Unemployed group consisted of those who did not contribute to family income, and included students and housewives. Among the employed, self-employed had the highest somatoform disorders (34%).

Private employees were seven per cent, while Government employees constituted 13% of sample. Forty nine per cent (n=49) of patients belonged to lower socio-economic class, 36% (n=36) belonged to lower-middle class, while 15% (n=15) belonged to upper-middle socioeconomic class. There was no patient belonging to upper class. Seventy eight per cent patients lived in rural areas, while 22% lived in the urban areas. Fifty six per cent of patients in the sample lived in nuclear families, while 44% lived in joint families.

### Symptom-profile

The symptoms observed in this study can be conveniently divided into physical and psychological symptoms. The physical symptoms/symptom clusters have following frequencies: eye symptoms like heaviness, burning

**Table 2: Descriptive analysis of symptom-profile of the sample**

Symptom/symptom cluster	% n=100
Eye symptoms	46
Ear, nose, and throat (ENT) symptoms	21
Gastrointestinal symptoms	83
Disturbed sleep	70
Weakness and fatigue	86
Neurological symptoms	43
Pain in body	54
Complaints in head	84
Hot sensation	63
Urinary symptoms	35
Disturbance of attention	31
Memory complaints	44
Anxiety (somatic)	66
Anxiety (psychological)	87
Phobia/fear	27
Obsessive thoughts	58
Depressive symptoms	62
Hypochondriacal ideas	25
Somatic preoccupation	66

sensation, and watering from eyes (54%); ENT symptoms like uneasy sensation, coming of hot air (21%); gastrointestinal symptoms like poor digestion, poor appetite, belching, gaseous distension, heaviness, uneasy sensation, increased frequency of urge to pass stool, vomiting (83%); weakness and fatigue (86%); neurological symptoms like tingling, numbness, pins and needle sensations, pulling sensation (43%); pain at various sites of body (54%); complaints in head like heaviness, headache, uneasy sensation, hot sensation (84%); hot sensation in body (63%); genitourinary complaints like burning micturation, difficulty in passing urine (35%); and somatic symptoms of anxiety such as palpitation, sweating, thirst and dryness of throat (66%).

The frequencies of psychological symptoms are as follows: disturbed sleep (70%); disturbance of attention (31%); memory-related complaints (44%); psychological symptoms of anxiety (87%); phobia (27%); obsessive symptoms (58%); depressive symptoms (62%); hypochondriacal ideas (25%); and somatic preoccupation (66%).

All the symptoms were present in UD, SD, as well other somatoform disorders when combined together.

**Table 3: Type of somatoform disorders in the sample**

Type of somatoform disorder	% (n=100)
Undifferentiated somatoform disorder (UD)	42
Somatization disorder (SD)	43
Hypochondriacal disorder (HD)	7
Somatoform autonomic dysfunction (SAD)	6
Persistent somatoform pain disorder (SPD)	2

**Table 4: Relationship between symptom-profile and sub-type of somatoform disorder**

Symptomatology	UD (n=42)		SD (n=43)		Other somatoform disorders (n=15)		p value	Chi-square
	n	%	n	%	n	%		
Eye symptoms	15	35.7	26	60.5	5	33.3	<b>.0412</b>	6.380
Ear, nose, and throat (ENT) symptoms	8	19	12	27.9	1	6.66	.2029	3.191
Gastrointestinal symptoms	34	80.9	36	83.7	13	86.7	.8678	.2836
Disturbed sleep	29	69	32	74.4	9	60	.5677	1.132
Weakness and fatigue	35	83.3	40	93	11	73.3	.1348	4.009
Neurological symptoms	19	45.2	21	48.8	3	20	.1408	3.921
Pain in body	19	45.2	29	67.4	6	40	.0605	5.609
Complaints in head	35	83.3	41	95.3	8	53.3	<b>.0007</b>	14.631
Hot sensation	23	54.8	30	69.8	10	66.6	.3406	2.154
Urinary symptoms	12	28.6	18	41.9	5	33.3	.4337	1.671
Disturbance of attention	11	26.2	16	37.2	4	26.7	.5064	1.361
Memory complaints	20	47.6	17	39.5	7	46.7	.7355	.6145
Anxiety (somatic)	26	61.9	31	72.1	9	60	.5310	1.266
Anxiety (psychological)	35	83.3	41	95.3	11	73.3	.0600	5.626
Phobia/fear	11	26.2	15	34.9	1	6.66	.1045	4.516
Obsessive thoughts	22	52.4	26	60.5	10	66.6	.5729	1.114
Depressive symptoms	24	57.1	31	72.1	7	46.7	.1513	3.777
Hypochondriacal ideas	7	16.7	8	18.6	10	66.6	<b>.0003</b>	16.382
Somatic preoccupation	26	61.9	26	60.5	14	93.3	.0525	5.895

UD=Undifferentiated somatoform disorder, SD=Somatization disorder

The symptomatology reported by many earlier studies are not exhaustive, some just mentioning the symptom occurrences without their frequencies. One study reports following symptoms and their frequencies: fainting- 33.3%; menstrual problems- 33.3%; head complaints- 57.4%; body pain- 60.1%; palpitation- 25.6%; genito-urinary- 25%; abdominal complaints- 84.4%; fatigue- 18.7%; and insomnia- 17.4%. These symptoms were also accompanied by psychological distress in the form of anxiety and depressive symptoms.[13]

In a Sri Lankan study, the symptoms most commonly present were: low backache (54%); chest pain (including back of the chest) (40%); pain in the limbs (38%); abdominal pain (22%); headache (34%); pain in the joints (31%); numbness in various body parts (29%); fatigue (28%); bloating of the abdomen (21%); faintish feeling (13%); loss of appetite (ten per cent); burning sensation over various body parts (12%); sleep disturbance (seven per cent); pain along the spine (four per cent).[14]

Sreevani[15] investigated gender related differences in somatic symptoms and severity of depression. In women, constipation and back pain scores were higher; but, no significant differences were observed among men and women in terms of depression scores and total somatic symptom scores.

**Types of somatoform disorders**

Taking help of the current ICD-10 diagnostic criteria in this study, 43% of patients were diagnosed with SD; 42% with UD. Patients with HD, SAD, and SPD were less in numbers (seven, six, and two per cent, respectively). Since the number of patients in the last three groups was less, they are merged together for the purpose of statistical analysis.

In a previous study on 92 subjects having somatoform disorders, the main diagnosis was UD (70 subjects, 76.6%), followed by SD (nine patients, 9.5%), and then SPD (eight subjects, 8.7%), while five subjects (5.4%) fulfilled criteria for HD.[16] In yet another study, distribution of

the types of somatoform disorders revealed that UD and SAD were two most prevalent somatoform disorders with 33 (29.5%) cases for each, followed by 24 (21.4%) cases of SPD, 17 (15.2%) cases of SD, and only two (1.8%) cases of HD. The rest three (2.7%) cases were of other somatoform disorders.[17]

**Relationship between symptoms and somatoform subtypes**

All the 19 symptoms/symptom clusters included in this study were present in UD and SD groups. Although rest of the somatoform disorders are clubbed together for statistical analysis, individually all the 19 symptoms were present once again in the HD patients. In SAD, there were no symptoms related to eye, ENT, neurological system, pain in the body, impairment of attention, and phobia/fear. There were two patients of SPD and both did not have symptoms related to ENT, phobia/fear, obsession, or depression.

When comparing each individual symptom/symptom

clusters in the three study groups, it is found that significant difference exists for only symptoms of eye, head, and hypochondriacal ideas. Eye symptoms are maximum in SD followed by UD and other somatoform disorders. Complaints in the head follow a similar trend. Hypochondriacal ideas are mostly found in the group designated as other somatoform disorders, which consists of patients having HD, and it is followed by SD and UD. The current diagnostic criterion does not clearly differentiate between UD and SD. Although it mentions that symptoms in the SD should be present for two years, but a general consensus that symptoms should be present in many organ systems in SD does not look conclusive as per this study. However, presence of two statistically significant symptoms in SD does point to the fact that numbers of symptoms are more in SD. Presence of significantly higher hypochondriacal ideas in the other somatic disorders group points to the fact that this symptom is characteristic of HD.

### Summary and conclusion

In this study, we acknowledge that understanding phenomenology of somatoform disorders is not an easy task. Our study finds significant differences between the three groups in three symptom domains. Presence of hypochondriacal ideas in the group consisting of other somatoform disorders does point to the fact that this symptom is distinct for HD. However, a small sample size in this group does cast a doubt on this finding. Between UD and SD, no conclusive differences in the symptomatology are found. This has many implications. First, sub categorising somatoform disorders may not be absolutely necessary as they may represent a single disorder with common features. Secondly, it also supports the abolition of sub categories in the recent diagnostic and statistical manual by the American Psychiatric Association (DSM-5).

### Limitations of this study

This study has certain limitations. First, it did not include those patients who were illiterate. It cannot be denied that the percentage of such patients is quite large. Second, the questionnaire used to assess symptoms was translated only in Assamese. The catchment area of the hospital where the study is conducted, consists of many people whose first language is Bengali. Third, there are small numbers of patients in HD, SAD, and SPD groups.

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