

Assessing Psychosocial Issues, Perceived Stress and Anxiety among Patients of Somatic Symptom Related Disorder: A Cross-Sectional Study**Akshat Varma¹, Surabhi Pandit², Amrendra Kumar Singh³, Dheerendra Kumar Mishra⁴, Manju Rawat⁵, Sneha Shukla⁶, Umesh Pathak^{7*}**¹Medical Officer Psychiatry, 5 Air Force Hospital, Jorhat, Assam, India²Senior Resident, Department of Psychiatry, Shyam Shah Medical College, Rewa, MP³Assistant Professor, Department of Psychiatry, Government Medical College, Vidisha, MP⁴Assistant professor, Department of Psychiatry, Shyam Shah Medical College Rewa, MP⁵Postgraduate Resident, Department of Psychiatry, Shyam Shah Medical College Rewa MP⁶Postgraduate Resident, Department of Pathology, NSCB Medical College Jabalpur, MP⁷Senior Resident, Department of Psychiatry, Birsa Munda Govt Medical College, Shahdol, MP

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Corresponding author: Dr. Umesh Pathak

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Abstract:

Background: Somatic symptom and related disorder is a new category in DSM V including diagnoses of somatic symptom disorder, illness anxiety disorder, conversion disorder, psychological factors affecting other medical conditions, factitious disorder and other specified and unspecified somatic symptom and related disorders. A number of factors contribute to this disorder including genetics, biological and psycho-social vulnerabilities. Variations in symptom presentation are likely the results of the interaction of multiple factors within cultural contexts that affect how individuals identify and classify bodily sensations, perceive illness and seek medical attention for them.

Aims: The present study aims to identify various psychosocial issues related to Somatic Symptom and related disorders, find association between stress and anxiety among these patients; as well as to explore their defense mechanisms.

Methodology: 50 individuals attending Psychiatry OPD in SSMC, Rewa were interviewed, Somatic Symptom scale and Life Event Scale were applied to delineate the required data for the study. Inclusion Criteria- Individuals between 15-60 years and criteria as per DSM V for Somatic Symptom and related disorders. Exclusion - Any other psychiatric or physical illness. Required interventions were given in the form of psychotherapy and pharmacotherapy.

Result: A female predilection was noted among the study population with 72% patients being females, youth unemployment and marital conflicts were issues of concern. Traumatic life events were present in several individuals. The most common somatic symptom observed was Headache. High degree of stress and neurotic defense was noted among the study participants.

Conclusion: This study is in conformation with bio-psycho-social model of somatic symptom disorder and gives a direction to psychological interventions in somatic symptom disorder.

Keywords: Somatic symptoms, psychological stress, anxiety.

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Introduction

Somatic symptom and related disorders is a newly added entity in the DSM V. It has been defined as a constellation of various previous known psychiatric disorders which include Somatic Symptom Disorder, Illness Anxiety Disorder, Conversion Disorder, Psychological Factors Affecting Other Medical Conditions, Factitious Disorder and Other Specified and Unspecified Somatic Symptoms and Related Disorder[1]. Somatic presentation of mental disorders as well as physical disorders should be conceptualized using a biopsychosocial

model[2]; which includes genetic, biological vulnerability, environmental influences, as well as psychological and behavioural elements. Variation in symptom presentation are the likely results of the interaction of multiple factors within cultural contexts that affect how individuals identify and classify bodily sensations, perceive illness and seek medical attention for them. A complex process of increased sensitivity to pain, proprioceptive acuity, early traumatic experiences, learning factors and psychological elements[3] play a pivot role in the

genesis of somatic symptoms. All these together convey a diminished ability to express emotional laden feelings. Psychological factors; traits such as suggestibility, dramatic demeanour, flair and flamboyance are all related to the classic notion of hysteria(4). As it goes without stating, what lies in common in all the above-mentioned disorders that are within the bracket of Somatic Symptom and Related disorder is the presence in Somatic Symptoms. The illness comes with an overwhelming impairment in the patient's life owing to the somatic symptoms that are manifested leading to a significant deterioration in his/her day-to-day life[5]. The association of stress in the etiology of somatic symptoms is of striking importance, as well as the anxiety and depressive symptoms that come along with the disorder[6]. The cultural aspect of life-stressors seems to be of great clinical relevance; in this article we emphasize on the array of psychosocial issues, perceived stress and anxiety among patients with Somatic Symptom and Related Disorder.

Materials and Methods

This cross-sectional observational study was conducted in the outpatient and the inpatient section of Department of Psychiatry, Shyam Shah Medical College and associated Sanjay Gandhi Memorial Hospital, Rewa (M.P). Ethical clearance was obtained from the Institute Ethics Committee and written informed consent was obtained from the participants. Present study is a.

Sample Size

All patients attending the outpatient as well as inpatient section of the department were screening for the diagnosis of Somatic Symptom and Related Disorder as per DSM V. A total of 50 patients were selected after a written consent for their participation in the study. Individuals between 15-60 years and meeting criteria as per DSM-V for Somatic Symptom and related disorders were included. Patients with acute severe medical emergencies were excluded.

Tools

- 1) Somatic Symptom scale[7]- for assessment of somatic symptoms and their severity.
- 2) Perceived stress scale[8]- for assessment of stress quotient in the concerned patient.
- 3) Defense Style Questionnaire[9]- for assessing the defense mechanism of the patient.
- 4) State-Trait Anxiety Inventory Scale[10]- to assess the anxiety level of the patient.

Statistical method

Descriptive statistics of variables of interest are presented. The mean and standard deviation (SD) are presented for continuous variables. Data analysis was undertaken using the software package 'SPSS version 22' (IBM Corp. Released 2013. IBM SPSS Statistics for Windows, Version 22.0. Armonk, NY: IBM Corp.USA).

Results

Demographics and Socioeconomic Profile (Table 1)

Total number of participants included in the study (N= 50). Mean age of the study population was 31.9 years (SD \pm 6.9). 72% of the patients were females (n=36) whereas 28% were males (n=14). 56% patients were married (n=28), 40% were single (n=20) and 4% were separated/divorced (n=2). 86% of the individuals were Hindus (n= 43) and 14% were Muslims (n=7). Majority of the individuals were educated; 50% were educated up to Intermediate (n=25,) 28% were Graduates (n=14) and 10 % were illiterate (n=5). Majority of the study population was unemployed; 28% were employed (n=14), 56% were unemployed (n=28) and 20% were students (n=10). Socioeconomic status as per Kuppaswamy SES (2020) was – 8% upper middle class (n=4), 32% lower middle class and 60% upper lower class (n=30). 60% individuals dwelled in urban area (n=30) whereas 40% were from rural area (n=20). 66% were from nuclear family (n=33) and 34% belonged to extended/joint family type (n=17).

Table 1: Distribution of Demographics and Socioeconomic profile (N=50)

Variable	N (%)
Mean Age	31.9 years; SD \pm 6.9
Gender	
Female	36 (72%)
Male	14 (28%)
Religion	
Hindu	43 (86%)
Muslim	7 (14%)
Marital Status	
Single	20 (40%)
Married	28 (56%)
Separated/Divorced	2 (4%)
Education	
Intermediate	25 (50%)

Graduates	14 (28%)
Illiterate	5 (10 %)
Socioeconomic Status	
Upper Middle Class	4 (8%)
Lower Middle Class	16(32%)
Upper Lower Class	30 (60%)
Locality	
Urban	30 (60%)
Rural	20 (40%)
Family Type	
Nuclear	33 (66%)
Extended/Joint	17 (34%)

Family related history (Table 2)

Family history of Psychiatric disorder was present in 20% individuals (n=10); comprising of generalised anxiety disorder (n=4), social anxiety disorder (n=3) and somatic symptoms disorder (n=3). Family history of substance use disorder was observed in 26% individuals (n=13); all 13 patients reported history of alcohol use disorder in father or brothers.

Factors related with somatic symptoms (Table 2)

Past history of traumatic life events was noted among the study population. 26% patients complained of childhood emotional abuse and neglect (n=13), 20% of chaotic life events (n=10) and 14% of sexual abuse (n=7). Various somatic

symptoms were reported by patients of which 60% patients experienced multiple somatic complaints (n=30). Most prevalence somatic symptom in the study population was headache which was present in 56% patients (28) followed by GI disturbances in 28% patients (n=14) and sleep disturbance in 20% patients (n=10). Psychosocial issues were prevalent in almost all patients in the study. 24% patients had conflicts with family member (n=12), 20% patients had stressful marriage (n=10), 16% had monitory issues (n=8), 14% had sex related issues (n=7) and 4% had recent demise of family member (n=2).

Patients also revealed that they experienced significant lack of support from family, friends and even spouse. 66% individuals reported lack of emotional support (n=33) and 34% reported presence of adequate support (n=17).

Table 2: Factors related with Somatic Symptoms

Factors	N (%)
Past history of traumatic life events	
Childhood emotional abuse and neglect	13 (26%)
Chaotic life events	10 (20%)
Sexual abuse	7 (14%)
Somatic Symptoms	
Headache	28 (56%)
GI disturbances	14 (28%)
Sleep disturbance	10 (20%)
Psychosocial issues	
Family conflicts	12 (24%)
Stressful marriage	10 (20%)
Monitory issues	8 (16%)
Sex related issues	7(14%)
Recent demise of family member	2 (4%)
Lack of Emotional Support	
Yes	33 (66%)
No	17 (34%)

3.4 Assessment of severity of somatic symptoms, perceived stress, anxiety and defense style (n=50) (Table 3) Somatic symptom scale (SSS) was used to assess severity of somatic symptoms; 60% patients scored high (n=30), 26% scored medium (n=13) and 14% scored low (n=7). Perceived Stress Scale (PSS) was used to assess the stress caused by the illness among patients; 7

patients had high stress (14%) and 86% had moderate stress (n=43). Defense Style Questionnaire (DSQ) was administered to find the predominant defense response among the patients; 48% patients had a neurotic response (n= 24) followed by 34% patients who had immature defense response (n=17). State Trait Anxiety Inventory (STAI) was implemented

upon the study population to quantify associated anxiety among them; 66% patients expressed high

(n=33) whereas the remaining 34% had moderate anxiety (n=17).

Table 3: Assessment of severity of somatic symptoms, perceived stress, anxiety and defense style (n=50)

Scales	N (%)
Somatic symptom Scale	
High	30 (60%)
Medium	13 (26%)
Low	7 (14%)
Perceived Stress Scale	
High	7 (14%)
Moderate	43 (86%)
Defense Style Questionnaire	
Neurotic	24 (48%)
Immature	17 (34%)
State Trait Anxiety Inventory	
High	33 (66%)
Moderate	17 (34%)

Correlation between Somatic Symptoms with perceived stress and anxiety

As evident from the data collected; patients expressed significant somatic symptoms and associated high perceived stress as well as high on STAI. A positive correlation was found between Somatic Symptom Scale and Perceived Stress Scale using Pearson correlation (p-value .002) and a positive correlation between Somatic Symptom Scale and State Trait Anxiety Inventory using Pearson correlation (p-value .022).

Discussion

The presence of somatic symptoms in psychiatric as well as medical disorders are dully noted in today's practice and the need to understand the complexity behind them is of great importance. To interpret and explore upon the significance of perceived stress and anxiety, a cross-sectional study using convenience sampling was carried out in the Dept. of Psychiatry, Shyam Shah Medical College and Associated Sanjay Gandhi Memorial Hospital over a course of 6 months. The aim of this study was to assess the presence of perceived stress and associated anxiety in patients with somatic symptoms. Defense mechanisms used by the patients were also assessed.

Socio-demographic factors

A female predilection was noted among the study population with 72% patients being females, similar findings have been noted in literature of conversion disorder[4] and somatization disorder[11], although patients with somatic symptoms in patients with stress-related exhaustion showed no gender difference[12].

Marital conflicts might cause significant impact on the mental health of an individual[13]. Although 56% of patients were married but 20% of them reported stressful marital relationship which might

have led to the surfacing of somatic symptoms. Youth unemployment has previously been noted to present with increased functional somatic symptoms and similar data is reflected in this study as well, with 50% individuals in the study being unemployed[14].

Factors related with Somatic Symptoms

The most common somatic symptom appreciated by patients in the study group was Headache, with 56% patients having headache as the most striking and discomforting symptom; similar finding was noted by Skapinakis et.al in their research on somatic symptoms.[15].

Traumatic life events as an etiological factor have always been a point of discussion when it comes to Somatic Symptom and Related Disorders, and have been challenged in the past. In this study a strong support for traumatic life effects playing a crucial role in the genesis of somatic symptoms have surfaced; with 60% individuals reports the same, similar results were reported by Nicholson et. al in reference to conversion disorder as well[16]. High incidence of child neglect and poor emotional support was reported by patients in the study, as high as 26%; similar finding have been depicted in the work of Spertus et.al[17].

Sexual abuse either in childhood or during adult have a moving effect on the psyche of an individual; be a man or woman. Much has been researched about the impact of sexual abuse in being a predictor for future somatic symptoms[18], 14% individuals reported a history of sexual abuse in the past and now presenting with somatic symptoms years later, all were females.

Somatic Symptoms and their association with perceived stress and anxiety

Stress has been reported as a predictor and causative factor for somatic symptoms[19]. In this

study a strong correlation between somatic symptoms and perceived stress was depicted using Pearson's correlation (p-value .002) between Somatic Symptom Scale and Perceived Stress Scale, similar interpretation has been noted in previous studies using Perceived Stress Scale on individuals with somatic symptoms[19], as well as among nurses who showed increased stress perpetuating psychosomatic complaints[20].

An overlap of symptoms between anxiety and somatization such as abdominal pain, headache, insomnia, chest pain, dizziness and dyspepsia has been reported earlier. In this study we found a correlation between somatic symptoms and anxiety using Pearson's correlation (p-value .022) between Somatic Symptom Scale and State-Trait Anxiety Inventory.

Defense style used by patients with Somatic Symptoms

Higher neuroticism is noted in patients with somatic symptoms[21], in this study 48% individuals demonstrated neurotic defense style and 34% showed immature defense style.

Conclusion

The data gathered from this study suggests a significant role of past traumatic history, psychosocial stressors, gender predisposition and even unemployment in the genesis of somatic symptoms. The close relation of particular defense styles used by the patients with somatic symptoms also explain certain relation with similar personality traits, which should be evaluated in all patients with somatic symptoms. With the propagation of symptoms, addition of anxiety into the picture makes the interventions and management more difficult leading to a prolonged course of illness and poor response on treatment. A fair early identification of anxiety and its management can go a long way in cutting short the duration of somatic symptoms. More detailed and sophisticated inventories in the future can be implored to further evaluate these factors and eventually help in making a better model for the management of somatic symptoms.

References:

1. American Psychiatric Association. Diagnostic and statistical manual of mental disorders (5th ed.). Washington, DC: Author. 2013.
2. Borrell-Carrió F, Suchman AL, Epstein RM. The Biopsychosocial Model 25 Years Later: Principles, Practice, and Scientific Inquiry. *Ann Fam Med*. 2004 Nov;2(6):576–82.
3. Haug TT, Svebak S, Wilhelmsen I, Berstad A, Ursin H. Psychological factors and somatic symptoms in functional dyspepsia. A comparison with duodenal ulcer and healthy controls. *J Psychosom Res*. 1994 May;38(4):281–91.
4. Ali S, Jabeen S, Pate RJ, Shahid M, Chinala S, Nathani M, et al. Conversion Disorder— Mind versus Body: A Review. *Innov Clin Neurosci*. 2015;12(5–6):27–33.
5. D'Souza, R. S., & Hooten, W. M. Somatic Syndrome Disorders. In *StatPearls*. StatPearls Publishing. Updated 2021 Jul 18.
6. Albert M, Tiatri S, Yulianti D. Relationship Between Perceived Stress and Physical Symptoms with Somatic Symptoms Disorder as a Moderating Variable: Study on Medical Student. *Atlantis Press*. May 20, 2020; 433-438.
7. Gierk B, Kohlmann S, Kroenke K, Spangenberg L, Zenger M, Brähler E, et al. The somatic symptom scale-8 (SSS-8): a brief measure of somatic symptom burden. *JAMA Intern Med*. 2014 Mar;174(3):399–407.
8. Cohen S. Perceived stress in a probability sample of the United States. In: *The social psychology of health*. Thousand Oaks, CA, US: Sage Publications, Inc; 1988. p. 31–67.
9. Andrews G, Singh M, Bond M. The Defense Style Questionnaire. *J Nerv Ment Dis*. 1993;181(4):246–56.
10. Spielberger, C.D., Gorsuch, R.L., Lushene, R., Vagg, P.R. and Jacobs, G.A. *Manual for the State-Trait Anxiety Inventory*. Consulting Psychologists Press, Palo Alto. 1983.
11. Obimakinde AM, Ladipo MM, Irabor AE. Familial and socio-economic correlates of somatisation disorder. *Afr J Prim Health Care Fam Med*. 2015 May 11;7(1):746.
12. Glise K, Ahlborg G, Jonsdottir IH. Prevalence and course of somatic symptoms in patients with stress-related exhaustion: does sex or age matter. *BMC Psychiatry*. 2014 Apr 23;14(1):118.
13. Choi H, Marks NF. Marital Conflict, Depressive Symptoms, and Functional Impairment. *J Marriage Fam*. 2008;70(2):377–90.
14. Brydsten A, Hammarström A, Strandh M, Johansson K. Youth unemployment and functional somatic symptoms in adulthood: results from the Northern Swedish cohort. *Eur J Public Health*. 2015 Oct 1;25(5):796–800.
15. Skapinakis P, Araya R. Common somatic symptoms, causal attributions of somatic symptoms and psychiatric morbidity in a cross-sectional community study in Santiago, Chile. *BMC Res Notes*. 2011 May 26;4:155.
16. Nicholson TR, Aybek S, Craig T, Harris T, Wojcik W, David AS, et al. Life events and escape in conversion disorder. *Psychol Med*. 2016 Sep;46(12):2617–26.

17. Spertus I, Yehuda R, Wong C, Halligan S, Seremetis S. Childhood emotional abuse and neglect as predictor of psychological and physical symptoms in women presenting to primary care practice. *Child Abuse Negl.* 2003 Nov 1;27:1247–58.
18. tein MB, Lang AJ, Laffaye C, Satz LE, Lenox RJ, Dresselhaus TR. Relationship of sexual assault history to somatic symptoms and health anxiety in women. *Gen Hosp Psychiatry.* 2004 Jun;26(3):178–83.
19. Albert, Mario & Tiatri, Sri & Yulianti, Debora. (2020). Relationship Between Perceived Stress and Physical Symptoms with Somatic Symptoms Disorder as a Moderating Variable: Study on Medical Student. 10.2991/assehr.k.200515.075.
20. Humaida IAI. Relationship between Stress and Psychosomatic Complaints among Nurses in Tabarjal Hospital. *Open J Med Psychol.* 2012 Jul 18;1(3):15–9.
21. Hyphantis T, Goulia P, Carvalho AF. Personality traits, defense mechanisms and hostility features associated with somatic symptom severity in both health and disease. *J Psychosom Res.* 2013 Oct;75(4):362–9.