

ORIGINAL ARTICLE

CHILDHOOD SOMATOFORM DISORDERS AND ITS ASSOCIATED STRESSORS

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Abstract

Aim: To study the clinical and socio-demographic profile of somatoform disorders and its associated stressors among pediatric population in a rural setting.

Settings and Design: This cross-sectional study was done from Jan 2015 to June 2015 at rural tertiary care teaching hospital.

Methods and Materials: Fifty children presenting with physically unexplained symptoms during the study period were assessed. Complete physical and psychiatric assessment was done and diagnosis was made using DSM-IV TR criteria. Patient Health questionnaire-15 (PHQ-15) was used for recording presenting symptoms and severity. Data were analyzed with Statistical Package for social sciences (SPSS 17) and association between different variables was determined using Chi-square test.

Results: Male: female ratio was 24:26. Forty-two (84%) of our patients were from rural background. Most common presenting symptom was fainting spells (28%) followed by pain in abdomen (20%). Stressors were elicited in 64% patients and most common stressor was strained interpersonal relations (20%) in family. Females presented with significantly more severe illness ($p=0.024$).

Conclusions: Psychosocial stressors especially interpersonal relations are important factor which needs to be evaluated while encountering patients with somatoform disorder.

Keywords : pediatric, somatoform, rural.

Introduction

Somatoform disorders are recognized by physical symptoms suggestive of a medical condition that are neither medically explained, nor by direct effects of a substance. (1) Though medically unexplained, these are valid illnesses suggestive of an underlying psycho-social stress. Lack of proper understanding about somatoform disorders and its presenting features among the health professionals may expose these children to frequent under/over treatment, unnecessary investigations and referrals. This is not only stressful for the child and family but also a strain on our limited health resources. (2) It is argued that somatisation is one of the most common ways for psychopathology to present in pediatric primary care. (3) Moreover, these symptoms going unrecognized in childhood can lead to adult psychiatric illnesses and complications. (4-6) Although literature about somatoform disorders does exist in adults, there is a definite paucity among paediatric population in India. We therefore undertook this study to determine the profile of paediatric somatoform disorders, its socio-demographic characteristics and associated stressors in Indian children from a rural background.

Patients and Methods:

After approval from institute ethics committee, a cross-sectional study was conducted in the department

of pediatrics and psychiatry at a rural medical college from north India over a period of 6 months from January 2015 till June 2015. All inpatient and outpatient children till 18 years of age presenting with physically unexplained symptoms during the study period were assessed after obtaining a written informed consent from parents along with assent from children above 7 years of age. A detailed history about presenting complaints, medical and psychiatric history, socio-demographic background (as per modified Kuppaswamy scale and birth, developmental, personal and family history was recorded from the patient and parents/guardians. (7) A complete systemic examination and psychiatric evaluation of all the patients was done by a pediatrician and psychiatrist respectively. Exploration for stressors in the child's domestic or school environment was done. Relevant investigations as indicated were done to rule out organic illness. The data was recorded on a semi-structured proforma. The final diagnosis was made as per DSM-IV-TR criteria. (1) Patient Health questionnaire-15 (PHQ-15), (8) which is a widely used screening tool for somatic symptoms, was used for recording presenting symptoms and severity. Severity was calculated by assigning scores of 0, 1, and 2 to the response categories i.e. not at all, bothered a little and bothered a lot. PHQ-15 scores of 5, 10, and 15 represent cut-points for low, medium, and high somatic symptom severity, respectively. Data were analyzed with Statistical Package for social sciences (SPSS 17) and association between different variables was determined using Chi-square test.

Results

A total of 50 patients (26 – female, 24- male) were diagnosed as somatoform disorders during the study period. The socio-demographic variables were comparable between males and females (Table 1). Majority of our patients were from the rural background ($n=42$, 84%) compared to urban population ($n=8$, 16%). The mean age was 11.6 years (range 5-16 years) and adolescent age group consisted of maximum number of patients ($n=43$, 86%). The most common diagnosis in the study period was somatoform disorder- not otherwise specified ($n=16$, 32%), followed by conversion disorder ($n=13$, 26%), somatoform pain disorder ($n=11$, 22%) & somatoform disorder- undifferentiated ($n=10$, 20%). Thirty- four (68%) scored low (PHQ-15 score < 10), and of those scoring medium ($n=11$, PHQ-15 score 10-14) to high ($n=5$, PHQ-15 score ≥ 15), 75% were females. Overall PHQ-15 score was significantly higher among female patients ($P= 0.024$). Twenty four (42%) patients had long duration of illness (> 6 month) while 38% had illness duration of < 1 month. Furthermore, PHQ-15 score showed significant though weak positive correlation with age ($r=0.277$, $P=0.05$). The presenting symptoms are depicted in table 2. On clinical evaluation, stressors were elicited in 32

Table 1: Socio-demographic profile of patients

Variable	Male (n=24)	Female (n=26)	Total	p value
Age (Mean± SD)	11.25±2.65	12.04±2.28	11.66±2.48	-
Age group				0.239
Preadolescent (n=7)	5	2	7	
Adolescent (n=43)	19	24	43	
Locality				0.45
Rural	19	23	42	
Urban	5	3	8	
Family type				0.282
Joint	14	12	26	
Nuclear	10	14	24	
Socioeconomic status				0.946
Upper	0	0	0	
Upper middle	3	4	7	
Lower middle	11	12	23	
Upper lower	7	8	15	
Lower	3	2	5	

Table2: Presenting symptoms in somatoform disorders

Variable	Presenting symptoms	Frequency
Pain abdomen	10	37
Backache	0	26
Pain in limbs	3	26
Headache	5	24
Chest pain	6	22
Dizziness	0	22
Fainting attacks	14	19
Palpitation	0	19
Hyperventilation	6	18
Constipation, loose stools	0	18
Nausea, Gas, Indigestion	2	11
Feeling tired/ low energy	0	10
Trouble sleeping	0	8
Abnormal sound (cooing)	1	1
Truncal ataxia	1	1
Hiccups	1	1
Unilateral paralysis	1	1

(64%) patients. Most common stressor was strained interpersonal relations in family seen in 10 (20%) patients. Other stressors were school related stress (n=8), physical illness (n=6), separation from either parent including death (n=3), illness of family member (n=3) and household work (n=1), death of grandfather (n=1). Family history of psychiatric illness was seen in 16 % children (alcohol dependence-4, somatoform disorder-3, and depression-1).

Discussion

Presenting symptoms in somatoform disorders may vary in accordance with socio-demographic profile and cultural milieu of the population. In our study,

fainting attacks followed by pain in abdomen were the two most common presenting symptoms. This was in contrast to some of the previous studies where pseudo-seizures were the predominant feature. (9-11) However, our results were supported by certain other studies from the past. (12,13) Contrary to other studies we found that majority of patients had more than 2 symptoms indicating that in Indian setting probably poly-symptomatic presentation is more common. (14) Majority of our patients were from the lower middle and lower income group. Other studies have also reported lower socioeconomic status to be associated with higher levels of somatic symptoms in children, (15,16) which can be explained by the strain of ongoing

hardships to achieve higher social and financial status. As seen in previous studies, (17) our sample consisted of mainly adolescents (86%), though the minimum age of presentation was a 5 year old child who presented with truncal ataxia. Females formed the majority (56%) in the adolescent group and presented with significantly more severe illness. This could be explained by pressures of puberty and an inhibitive emotional and social surrounding for females prevalent in rural north India. (18,19) Additional responsibility of household chores on the girl child could well be an additional factor. Finding of more severe illness among female has been reported previously. (20) Higher symptom burden with advancing age is another important finding of our study similar to earlier report. (21) It emphasizes need for early intervention to minimize the burden of illness. Psycho-social stressors play an important role in etiology of somatoform disorders. In our study, 64% of the children had identifiable stressors. Family dysfunction and school related stressors emerged as two most common associated factors. Similar to our findings, previous studies have highlighted dysfunctional families as one of the important predictor in somatoform disorder. (19,22,23) A recent study reported school related stressor as most common among patient of conversion disorder, (24) while other reported stress in interpersonal relations as most common among patients with somatoform disorder. (25,26) These findings underline the importance of exploration of home and school environment in these patients for effective management.

Long duration of illness among majority of patients in the sample (44% had illness for more than a year) support the notion that somatoform disorders are frequently under diagnosed by primary care physicians and pediatricians. This delay in diagnosis not only burdens limited health resources in a developing country like ours but also increases fear and anxiety among children and parents for some undiagnosed grave illness. Our study had limitations of being an exclusively hospital based study accounting for mostly referred patients without follow up. However, it provides an important insight into pattern of somatoform disorders among children especially from the rural background. Larger population based studies with proper follow up are therefore recommended to get complete picture of these under recognized and over-investigated disorders. Through this study, the authors endorse the concept of team approach between a psychiatrist, a pediatrician and the parents of the child for the timely diagnosis and management of these disorders but also to prevent its recurrence.

Conclusion

We conclude that somatoform disorder is equally present among both sexes in children though females present with more severe illness. Further it is evident that psychosocial stressor (especially related to interpersonal relations) are found in these patients and their exploration may prove useful in management of these patients.

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Conflict of Interest : None

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