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Original Research

A study of presenting symptoms of conversion disorder in patients attending the Psychiatry OPD of a Tertiary Care Hospital in Eastern India

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ABSTRACT:
Aim: Transient conversion symptoms are common, but the precise prevalence of the disorder is unknown. This study aims not only to identify the prevailing pattern of presentation but also to establish any influence of socio demographic factors on the patterns of presentation of Conversion Disorder. **Methods:** It was a cross sectional observational study. A semi-structured proforma based on DSM-5 was used to assess the study subjects and to collect the sociodemographic data. The data collected was analyzed using the statistical software package IBM SPSS Statistics Version 25, 2017. **Results:** Pattern of presentation showed that the predominant presentation was with motor symptoms 194 (62.6%), mixed symptoms were found in 60 (19.4%) and sensory symptoms were seen in 56 (18.l %) of the study subjects. **Conclusions:** The study confirmed that the most common presentation is that of motor symptoms and it also succeeded in proving that the demographic factors do have a significant effect on the pattern of symptomatic presentation.
Keywords: Conversion, Presentation, Prevalence.

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INTRODUCTION

Conversion Disorder (Functional Neurological Symptom Disorder) belongs to a new category in DSM-5 called Somatic symptom disorder and other disorders with prominent somatic symptoms. Most physicians use the alternative terms of "functional" (referring to abnormal CNS functioning) or "psychogenic" (referring to a theorized etiology) to describe the symptomatology of conversion disorder (functional neurological symptom disorder). In conversion disorder, one may encounter one or more symptoms of various types. Motor symptoms may present as weakness or paralysis; abnormal movements, like tremor or dystonic movements of the limbs and body; abnormalities of gait and posture including abnormal limb posturing. **[1,2,3,5]**

There may be abnormalities of the sensory system presenting with symptoms like altered, reduced, or absent skin sensation, vision, or hearing. There may be episodes of abnormal limb jerking with impaired or loss of consciousness which may appear like a genuine seizure disorder commonly referred to as pseudo-seizures. There may be episodes of decreased responsiveness resembling syncopal attack or even coma. Other types of symptoms may include reduced or total lack of speech, disturbance in articulation, a sensation of a lump in the throat, and double vision.**[7,8,9,10]**

Short lasting conversion symptoms are common but the exact prevalence of conversion disorder is not known. This is in part due to the fact that the diagnosis requires expert opinion in tertiary care where it is found in around 5% of referrals to neurology department. The incidence ofl persistent conversion disorder symptoms is estimated to be around 2–5/100,000 per year. **[6]**

However the prevalence rates vary widely across the world. Studies conducted in India have reported

prevalence of Conversion Disorder for inpatient as 31% and for outpatients as 6-11 %. Thus the statistics show considerably higher prevalence in our part of world. Any symptom involving the neurological system can be found in this disorder. The high prevalence of conversion disorder and deficient research work in our country demand urgent attention. Keeping in view the varying prevalence, we aimed to identify whether the pattern of presentation also varies considerably. It was assumed that the socio-demographic factors might be responsible for this variation. This study aims not only to identify the prevailing pattern of presentation but also to establish any influence of socio demographic factors on the patterns of presentation. **[15,16]**

METHODOLOGY

The study was conducted in the Department of Psychiatry of Hi-Tech Medical College & Hospital, Bhubaneswar, Odisha during the period October, 2018 to March, 2019. A total of 310 patients of both genders within age range of 18 to 60 years were enrolled in the study after duly taking their written informed consent. The study was cleared by the Institutional Ethics Committee of the college.

A semi-structured proforma based on DSM-5 was used to assess the study subjects and to collect the socio-demographic data. The data collected was analyzed using the statistical software package IBM SPSS Statistics Version 25, 2017. Mean and standard deviation (SD) were computed for all the quantitative variables (e.g. age). Categorical variables (such as gender, education) and the outcome variable (i.e. various Patterns of Presentation) were measured in frequencies and percentages. Stratification was done with regard to gender, age group and educational status, for all the outcome variables (i.e. various patterns of presentation) in order to see the impact of these on the outcome variables by using chi-square test. P-value less than 0.05 were considered as significant.

RESULTS

Out of 310 patients in the study sample females comprised of 74.8% (232) and males were 25.2% (78) of the sample. Ages of the patients were stratified into groups of 10 years intervals. Results revealed that majority (208; 67.1 %) of patients belonged to the age group of 18 years to 25 years of age. Those amongst group of 26 years to 35 years of age were 72 (23.2%), and the group of 36 years to 45 years comprised of 30 patients (9.7%).

Minimum age was 18 years in this study. No patient was found to be above 45 years of age in the study population making the maximum age to be 45 years. Out of 310 patients 95 (61.3%) were single, 57 (36.8%) were married and 3 (1.9%) were widowed however none of the patients had a history of divorce or separation. As per educational status of patients 154 patients (49.70%) had primary education, 28 (9%) were educated till middle, 68 (21.9%) were matriculate, and 36 (11.6%) had no formal education. Occupation of majority of the patients was homemaker i.e. 162 (52.3%), next highest number i.e. 92 (29.7%) was of students, 34 (11%) were labourers, 10 (3.2%) were professionals and 12 (3.9%) were jobless **(Table 1).**

Table 1: Socio-demographics (n= 310)

Socio-demographics	Frequency	Percentage
Gender		
Female	232	74.80%
Male	78	25.20%
Age		
18yrs to 25yrs	208	67.10%
26yrs to 35yrs	72	23.20%
36yrs to 45yrs	30	9.70%
Marital Status		
Single	190	61.30%
Married	114	36.80%
Widowed	6	1.90%
Educational status		
Primary	154	49.70%
Middle	28	9.00%
Matriculation	68	21.90%
Intermediate	12	3.90%
Graduate	12	3.90%
No formal education	36	11.60%
Occupation		
Student	92	29.70%
Homemaker	162	52.30%
Labourer	34	11%
Professional	10	3.20%
Jobless	12	3.90%

Pattern of presentation showed that the predominant presentation was with motor symptoms 194 (62.6%), mixed symptoms were found in 60 (19.4%) and sensory symptoms were seen in 56 (18.l %) of the study subjects. The study analyzed the effect modification of frequency of different patterns of presentation by stratifying gender, age, marital status, level of education and occupation. It was found that male patients had more motor symptoms as compared with females (i.e. 79.5% in males versus 56.9% in females), female patients had more sensory symptoms as compared with males (i.e. 19.8% in females versus 12.8% in males) and females had more mixed symptoms as compared with males (i.e. 7.7% in males versus 23.3% in females), X2 = 6.836, p= 0.033 **(Table 2).**

The effect modification of age on the pattern of presentation revealed that motor symptoms were highest amongst the patients belonging to age group of 36 years to 45 years (i.e. 100% in age 35yrs to 45 yrs versus 61.5% in age group of 18yrs to 25yrs versus 50% in age group 26yrs to 35yrs), sensory symptoms were highest in age group of 26yrs to 35yrs (i.e. 25% in age group of 26yrs to 35yrs versus 19% in

Socio-demographics	Motor symptoms (with weakness or paralysis, abnormal movements, swallowing symptoms, speech symptoms, attacks or seizures)	Sensory symptoms (with anaesthesia or sensory loss, special sensory symptoms)	With mixed symptoms
Gender			
Female	56.90%	19.80%	23.30%
Male	79.50%	12.80%	7.70%
Age			
18yrs to 25yrs	61.50%	18.30%	20.20%
26yrs to 35yrs	50.00%	25.00%	25.00%
36yrs to 45yrs	100.00%	0.00%	0.00%
Marital Status			
Single	57.90%	20.00%	22.10%
Married	68.40%	15.80%	15.80%
Widowed	100.00%	0.00%	0.00%
Educational status			
Primary	50.00%	16.70%	33.30%
Middle	100.00%	0.00%	0.00%
Matriculation	76.50%	23.50%	0.00%
Intermediate	100.00%	0.00%	0.00%
Graduate	50.00%	0.00%	50.00%
No formal education	33.30%	27.80%	38.90%
Occupation			
Student	56.50%	17.40%	26.10%
Homemaker	63.00%	22.20%	14.80%
Labourer	100.00%	0.00%	0.00%
Professional	0.00%	0.00%	100.00%
Jobless	50.00%	33.30%	16.70%

Table 2: Pattern of Presentation of Conversion Disorder in Relation to Various Socio-Demographic Factors

age group of 18yrs to 25yrs versus 0% in age group of 36yrs to 45yrs. Mixed symptoms were most common in the age group of 18yrs to 25yrs (i.e. 21% in age group of 18yrs to 25yrs versus 9% in age group of 26yrs to 35yrs versus 0% in age group of 36yrs to 45yrs ($X^2 = 11.489$, $p = 0.022$) **(Table2).**

The effect modification of marital Status showed that motor symptoms were most common amongst widowed (i.e. 100% in widowed versus 68.4% in married versus 57.9% in single). Sensory symptoms were most common amongst single patients (i.e. 20% in single versus 15.8% in married versus 0% in widowed). Mixed symptoms were most common amongst single (i.e. 21%in single versus 9% in married VS 0% in widowed),. X.2 = 3.544, p = 0.471 **(Table2).**

Effect modification of educational status over pattern of presentation revealed that motor symptoms were most frequent amongst those having education till middle (100%) and those educated till intermediate (100%). Sensory symptoms were most frequent amongst those having no formal education (27.8%), mixed symptoms were seen most commonly amongst graduates (50%) followed by those having no formal education (38.9%) and those educated till primary (33%), $X^2 = 34.707$, $p = 0.001$) **(Table 2)**

The effect modification of occupation over pattern of presentation revealed that motor symptoms were most frequent amongst laborer (100%), followed by homemaker (63%), students (56%), jobless (50%) and 0% amongst professionals. Sensory symptoms were found to be most frequent amongst jobless (i.e. 33% in jobless versus 22% in homemaker versus 17% in students versus 0% in labourers and professionals). Mixed symptoms were most frequent amongst professional (100% in professionals versus 26% in students versus 16% in jobless versus 14% in homemaker versus 0% in labourers), ($X^2 = 34.945$, $p = 0.007$) **(Table 2).**

DISCUSSION

In this study out of 310 patients, majority comprised of females, young adults, unmarried, having no formal education, and home makers. The findings of our study are in accordance with the already existing literature. A study done earlier in India showed that 85.7% patients of Conversion Disorder presented with motor symptoms.**[15,16]** A similar study conducted in Pakistan replicated the finding of high prevalence of motor symptoms (48%) followed by unresponsiveness (41%).**[5]** The present study has also reported a presentation with motor symptoms (62.6%) being the

commonest form of presentation. Although in all of the mentioned studies we find a preponderance of motor symptoms but at the same time it is also very clear that the relative ratios of the symptom pattern vary considerably. The variation became even more obvious when we stratified the sample into groups of various socio-demographic factors. Thus, the study confirmed that the most common presentation is that of motor symptoms and it also succeeded in proving that the demographic factors do have a significant effect on the pattern of symptomatic presentation.

LIMITATIONS

This study was limited by a relatively small sample size, short duration and a cross-sectional design. Larger studies with robust methodology and design are urgently required to study this widely prevalent but understudied mental disorder.

CONCLUSION

Individuals with conversion symptoms may have substantial disability. The severity of disability can be quite similar to that experienced by patients with comparable medical diseases. Continued research into this disorder will help in improved clinical decision making at the primary health care level. Community strategies can be devised for spreading awareness about mental health issues like conversion disorder leading to early identification and effective mitigation.

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