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Stressors are Correlated with the Development of Conversion Disorder Presenting with Non-epileptic Events

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Abstract

Introduction: *To study the socio-demographic and psychosocial correlates in patients with conversion disorder presenting with nonepileptic events and discuss its interventional implication.* ***Materials and Methods:*** *This cross-sectional descriptive study was carried out in a tertiary care hospital of Brahmman Baria Medical College from January 2018 to January 2019. 151 consecutive patients with conversion disorder satisfying the inclusion and exclusion criteria were selected. They were interviewed using semi-structured socio-demographic profile proforma, Holmes and Rahe stress scale for the exploration of psycho-social stressors. The data were entered on MS excel, analyzed by SPSS-version 16.0.* ***Results:*** *The psychosocial stressors were clearly identified in all patients. Almost ninety five (94.70%, n=143) out of the total 151 subjects had a history of stressors, while in the rest 4.95% no stressors could be established. The commonest stressors were Troubles with in-laws (26.49%), Death of close family member (11.92%) and Increase in argument with significant others (10.59 %).* ***Conclusion:*** *Significantly higher number of the patients presented with the stressor of troubles with in-laws, when assessed on the Holmes and Rahe Social Readjustment Rating Scale. Detection of exact nature of correlates has immense potential for therapeutic as well as preventive field.*

Keyword: *Psychosocial correlates, Conversion disorder, Non epileptic events.*

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Introduction

The term conversion disorder was introduced by Sigmund Freud, who hypothesized that the symptoms of conversion disorder reflect unconsci-ous conflict[1]. Conversion disorder is a loss or alternation in sensory or voluntary function, that cannot be fully explained by known patho-physiological mechanism[2]. One of the common presentations of conversion disorder is "Non-epileptic events" also called "pseudo seizures", "psychogenic", "non-epileptic" are clinical events that resemble epileptic seizures but are not associated with abnormal cortical electrical discharges[3,4]. Non-epileptic seizures are thought to be the result of an unconscious psychological conflict or other stressors, which is converted into symbolic somatic symptoms that relieves anxiety and protect the conscious self from stressful emotions. The symptoms also provide considerable secondary gain to the individual, as the sick role generates attention and sympathy. Because the illness is preceded by conflicts or other stressors[1], finding the relevant stressors would be of immense potential not only for therapeutic but also for preventive purposes. Stress can be real, symbolic or imagined. Our body reacts to stress to minimize its impact. More is known about physiological response to acute stress than chronic stress. Many stressors occur over a prolonged period of time or may have long lasting repercussions. For example loss of spouse or children in young age, unexpected death of significant persons in one's life, torture or sexual assault may lead to prolonged emotional disturbance in people[17].

Conversion disorder among children is a relatively rare condition in the developed countries but several epidemiological and clinical studies conducted in India have found the condition to be very common with a prevalence rate as high as 31% among inpatients admitted to Psychiatry department. Conversion disorder is more common in girls than boys[18].

This study was conducted to detect psychosocial correlates in patients with conversion disorder presenting with non-epileptic events so as to have a better insight into its phenomenology and management, particularly in the socio-cultural context of the area covered by the research centre.

Materials and Methods

This cross-sectional descriptive study was conducted at a tertiary care medical college of Bangladesh. The study sample comprised of patients who presented with Non-epileptic events and were diagnosed with conversion disorder from January 2018 to January 2019 in psychiatry O.P.D. of the medical college. The diagnosis of conversion disorder was made according to the criteria laid down by DSM-V.

All patients irrespective of age and gender satisfying the inclusion and exclusion criteria were included in this study sample. Patients presenting with conversion disorder with underlying co-morbid psychiatric disorder were excluded from the study.

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Detail psychiatric history, mental status examinations and relevant investigations were conducted on all patients. Socio-demographic data were collected by using semi-structured socio-demographic profile proforma. Then using Holm's and Rahe Social Readjustment Rating Scale[5] was adminis-tered on all patients to identify the stressors. The data were entered on MS excel 2007 and analyzed by SPSS- version 16.0.

Results

The study population was 151 patients. The age of subject ranged from 10-50 years, with mean of 24.28 years. Out of 151 patients, 124 (82.12%) were females and 27 (17.89%) were males. Among all the patients (n = 52, 34.43%) were single and (n = 99, 65.57%) were married. Majority of the patients n = 71, 47.02% were illiterate, n = 43, 28.47% were primary educated, n = 27, 17.88% were matriculate, n = 8, 5.3% had higher secondary education and n=2, 1.32% were graduate. Occupationally, out of 151 patients, n = 12, 7.94% were employed and n = 49, 32.45 % were unemployed and n = 90, 59.60% were house wives. 94.70% (n = 143) out of 151 patients had history of stressors while in the rest 5.30% (n = 8) no stressors could be detected. Based upon the history, the commonest stressors were troubles with in-laws (n = 40, 26.49 %), Death of close family member (n = 18, 11.92 %), Increase in argument with significant others (Viz. husband/boyfriend/ girlfriend etc.) (n = 16, 10.59%) respectively. The detailed list can be seen in Table-I.

Discussion

The relationship between epilepsy and hysteria has been debated for many centuries. In recent decades (with the introduction of ambulatory EEG recordings, simultaneous video-monitoring and post-ictal serum prolactin measurements) neu- rologists and neuropsychiatrists have confidently recognised that a considerable proportion of patients attending their epilepsy clinics suffer from seizure disorders that are not epileptic but occur as a symptom of psychopathology. There are two groups of such patients, those with pseudoseizures alone and those in whom the pseudoseizures occur concur- rently with epilepsy[19].

The results of this study shows that conversion disorder can occur at any age being most common in adolescents and young adults although some studies suggest a peak onset in the mid to late 30s[6,7]. Interestingly, plenty of works suggested that it is the pseudoseizure (nonepileptic event) type which is commonest in this population[8,9].

In India, high occurrence of conversion disorder has been reported in young adults, from poor low-income, joint families, and significantly higher in females[20]. Also, higher prevalence has been seen in illiterates, married housewives being the largest group[21]. But less is known from this region about the clinical presentations and socio-demographic variables in conversion disorder.

It is an established fact now that conversion disorder is more common in people with lower education level and its incidence decreases with increasing level of education[10]. In a similar study on conversion disorder, only 5% of the patients were university graduates, 21% had secondary school, 44% preparatory school, 22% primary school level education and 8% were illiterate[11].

Surprisingly, our study also reports 5 cases of nonepileptic events which occurred few days prior to marriage and one of them presented with sudden attack in the night after engagement but it is unlike the study of Mc Connell et al who reported five cases of pseudo seizures (nonepileptic events), occurring on or immediately before the wedding day[12]. The major psychosocial stressors among patients of this category were premarital relation-ship coupled with the existing strict socio-cultural norms which most probably resulted in conflicts leading to the event.

Although there is no obvious consensus about the relationship of conversion disorder with marital status but some studies have reported married population to be more prone[10,13]. On the other hand a Libyan study reported that the percentage of married patients suffering from conversion disorder was only 15% and 25% in males and females respectively[11].

Generally, conversion disorder is characterized by the sudden onset of symptoms in clear relation with the stress[14] and this observation is further supported by the results of our study. We observe thirteen categories of stressors which may have been reported earlier too but with different order and frequency. The varying pattern of psychosocial correlates appears to be a silent indicator of impact of modernization on the phenomenology of conversion disorder in a developing country like India. In children and adolescent the most common dissociative symptom are pseudoseizure and there are body of literature which suggests that outcome of dissociative disorders in this population is better when pseudoseizure is the presenting symptom[15]. Early diagnosis and presence of precipitating factors are associated with a favourable outcome[1]. Although our results shows that psychosocial stressors were present in a large proportion of patients who presented with Non-epileptic events with a diagnosis of conversion disorder but this shouldn't be considered

Table-I: Observed stressors in the sample (n=151).

S. No.	Observed stressors	No. of Patients	%
1	Trouble with in-laws	40	26.49
2	Death of a close family member	18	11.92
3	Increase in argument with significant others	16	10.59
4	Personal injury or illness	13	8.60
5	Change in living condition	12	7.94
6	Spouse begins working outside home	12	7.94
7	Change in health of Family	11	7.28
8	Marriage	05	3.31
9	Gain of new family member esp. a baby girl	05	3.31
10	Loan or Mortgage	04	2.64
11	Change in financial status	03	1.98
12	Trouble with boss	02	1.32
13	Fired from job	02	1.32
14	Nil	08	5.3

enough particularly in the sense that identification of the exact nature of stressors is very crucial for comprehensive management of such patients.

It is well known that insight oriented psycho-therapy or behavior therapy facilitates improvement. The most important feature of the therapy is a relationship with a caring and confident therapist. With patients who are resistant to the idea of psychotherapy, it can be suggested that the psychotherapy will focus on issues of stress and coping. Any implication to the patient that he or she is malingering is very counterproductive[16]. Hypnosis, anxiolytics, behavior therapy and relaxation exercises are effective in some cases and their judicious use when the stressors are known precisely is more likely to further improve the efficacy.

Strength and Limitation of The Study

A sample with varying nature of psychosocial stressors relevant to contemporary socio-cultural system is the strength of this study. Secondly, one important utility of finding the exact nature of psychosocial correlates would be in the field of preventive psychiatry. A prior scientific awareness about implication of these correlates would help not only mental health professional but also the NGOs working for the cause of community mental health and allied social activity in delivering a quality service at the grass root level.

Although this study has many more strengths, it also has some limitations. Primarily this is a tertiary care, single centre work with small sample size because of which it lacks extrapolation to the community at large. As it's a cross sectional, descriptive study, it lacks follow-up for future outcomes. Administration of an indigenous and extended version of psychosocial stress rating scale could have helped in detecting more exact nature of psychosocial stressors. Despite of its limitation the study has implication for future research, particularly carrying out a community based large sample study with appropriate randomization and control would be of great value.

Conclusion

Psychosocial stressors are correlated with the development of conversion disorder. Both genders tend to develop symptoms of conversion disorder after stressful events. Significantly higher number of the patients presents the stressor of Troubles with in-laws.

Detection of exact nature of correlates seems to have immense potential for therapeutic as well as preventive field.

Conflicts of Interest: None.

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References

1. Sadock BJ, Sadock VA. Kaplan, Sadock's Synopsis of psychiatry. Lippincott Williams, Wilkins. 10th ed. 2007: 638-42.

2. American Psychiatric Association. Diagnostic and statistical manual of mental disorder. 4th ed TR. Washington D.C: American Psychiatric Association; 2002.

3. Ozkara C, Dreiffus FE. Differential diagnosis in pseudoepileptic seizures. Epilepsia. 1993; 34: 294-8.

https://doi.org/10.1111/j.1528-1157.1993.tb02414.x

PMid:8453940

4. Leser RP. Psychogenic seizures. Neurology. 1996; 46: 1499-507.

https://doi.org/10.1212/WNL.46.6.1499

PMid:8649537

5. Holmes T, Rahe RH. The social adjustment rating scale. J Psychosom Res. 1967; 11: 213-8.

https://doi.org/10.1016/0022-3999(67)90010-4

6. Deveci A, Taskin O, Dinc G, Yilmaz H, Demet MM, Erbay-Dundar P, et al. Prevalence of pseudoneurologic conversion disorder in an urban community in Manisa, Turkey. Soc Psychiatry Psychiatr Epidemiol 2007; 42: 857-64.

https://doi.org/10.1007/s00127-007-0233-9

PMid:17639308

7. Stefánsson JG, Messina JA, Meyerowitz S. Hysterical neurosis, conversion type: clinical and epidemiological considerations. Acta Psychiatr. Scand. 1976; 53: 119-38.

https://doi.org/10.1111/j.1600-0447.1976.tb00066.x

PMid:1251758

8. Srinath S, Bharat S, Girimaji S, Seshadri S. Characteristics of a child inpatient population with hysteria in India. J Am Acad Child Adolesc Psychiatry. 1993; 32: 822-25.

https://doi.org/10.1097/00004583-199307000-00017

PMid:8340304

9. Grattan-Smith P, Fairley M, Procopis P. Clinical features of conversion disorder. Arch Dis Child. 198; 63: 408-11.

https://doi.org/10.1136/adc.63.4.408

PMid:3365011 PMCid:PMC1778839

10. Subramanian D, Subramanian K, Devaky MV, Vergheese A. A clinical study of 226 Patients diagnosed as suffering from hysteria. Indian J Psychiatry. 1980; 22: 63-8.

11. Pu T. Mohamed E, Imam K, eI- Roey AM. One hundred cases of hysteria in Eastern Libya: a socio-demographic study. Br J Psychiatry. 1986; 148: 606-9.

https://doi.org/10.1192/bjp.148.5.606

PMid:3779235

12. McConnel H, Valeriano J, Brillman J. Prenuptial seizures: a report of five cases. J Neuropsychiatry Clin Neurosci. 1995; 7: 72-5.

https://doi.org/10.1176/jnp.7.1.72

PMid:7711496

13. Mathur RS. Hysterical reaction in a section of Indian Soldiers. Indian J Psychiatry. 1975; 17 : 179-90.

14. Kendell RE, Zaelley AK. Companion to Psychiatric studies. London: Churchill livingstone. 1993: 67.

15. Prabhuswamy M, Jairam R, Srinath S, Girimaji S, Seshadri SP. A Systematic Chart Review of Inpatient Population with Childhood Dissocia-tive Disorder. J. Indian Assoc. Child Adolesc. Ment. Health. 2006; 2(3): 72-77.

16. Sadock BJ, Sadock VA, Ruiz P. Kaplan, Sadock's Comprehensive Textbook of Psychiatry. Lippincott Williams, Wilkins. 9th ed. 2009 : 1943-4.

17. Kallivayalil, R.A. Understanding Stress Disorders. Kerala Medical Journal. 2009; 2(3).

18. Malhi, P. and Singhi, P. Clinical characteristics and outcome of children and adolescents with conversion disorder. Indian pediatrics. 2002; 39(8): 747-751.

19. Lelliott, P.T. and Fenwick, P. Cerebral pathology in pseudoseizures. Acta neurologica scandinavica. 1991; 83(2): 129-132.

https://doi.org/10.1111/j.1600-0404.1991.tb04661.x

PMid:1902011

20. Vyas JN, Bharadwaj PK. A study of hysteria-AN analysis of 304 patients. Indian J Psychiatry. 1977; 19:71-4.

21. Saxena S, Pachauri R, Wig NN. DSM-III diagnostic categories for ICD-9 hysteria: A study of 103 cases. Indian J Psychiatry. 1986; 28: 47-9.