

DEMOGRAPHIC PROFILE, TEMPERAMENTAL CHARACTERISTICS AND STRESSFUL LIFE EVENTS IN ADOLESCENTS WITH DISSOCIATIVE DISORDER

Sandip Dutta¹, Amitava Dan², Utpal Barman³, Koushik Nandi⁴

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Corresponding Author:
Dr. Koushik Nandi,
Email: drkoushik123@gmail.com

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¹Senior Resident, Department of Psychiatry, Burdwan Medical College & Hospital, West Bengal, India.

²Associate Professor, Department of Psychiatry, Burdwan Medical College & Hospital, West Bengal, India.

³Senior Resident, Department of Psychiatry, Jalpaiguri Govt. Medical College & Hospital, West Bengal, India.

⁴Consultant Psychiatrist, Basirhat District Hospital, West Bengal, India.

Abstract

Background: Temperamental characteristics and presence of stressful life events are considered to be important predisposing factors for occurrence of dissociative symptoms in vulnerable adolescents. The aim of this study is to examine the socio-demographic profile, pattern of temperamental characteristics and stressful life events in adolescents with dissociative disorder. **Materials and Methods:** It was cross-sectional observational study. Among all adolescent (10-19 years) new patients with dissociative disorder (as per ICD-10, DCR) attending the Psychiatry OPD of a tertiary care hospital, 50 cases were recruited for the current study. All patients were assessed one-time on Life Events Scale for Indian Children (LESIC) to assess the pattern of stressful life events and on Temperament Measurement Schedule (TMS) to assess temperamental variability. **Result:** In the study sample, dissociative disorder was more common among females 46(92%) compared to males 4(8%). Mean score of total stressfulness score as per LESIC was 139.58±47.99. In TMS factor I (Sociability) mean score for the item of 'approach withdrawal' was 3.04 ±1.02, 'adaptability' was 2.60±1.05, 'threshold of responsiveness' was 2.38±0.75 respectively and Sociability Average Score was 2.68 ±0.82. In factor II (Emotionality) the mean score for item of 'mood' was 2.87 ± 0.76, 'persistence' was 2.74 ± 0.81 respectively and Emotionality Average Score was 2.81 ±0.64. For factor III (Energy) of TMS the mean score for the item of 'activity level' was 2.32±0.61, 'intensity' was 2.61±0.81 respectively and Energy Average Score was 2.46 ±0.62. Mean score for 'distribution' was 2.32±0.81 and 'rhythmicity' was 2.37±0.92 respectively in factor IV and factor V of TMS. **Conclusion:** Adolescents with vulnerable temperament may develop conversion symptoms when subjected to stress. Parents and teachers should be aware of the influence of temperament and stressful life events on the behaviours exhibited by children. This will help to understand children and their illness in a better way.

INTRODUCTION

Adolescents and young adults are particularly vulnerable to dissociative disorders. This is especially true for women who come from a rural background and have a poor socioeconomic status.^[1] Dissociation might thus be used to express one's self. Furthermore, the development of dissociative symptoms as a coping mechanism may be explained by a higher level of economic stress faced by persons from low socioeconomic position.

Dissociative disorder in children is uncommon until the age of five & it is more common in girls.^[2]

The recently conducted National Mental Health Survey (2015–16) had revealed, in a community representative population, the prevalence of mental morbidity in adolescents aged between 13 and 17 years to be 7.3% in India.^[3] The proportion of patients diagnosed with dissociative disorders in India ranged between 1.5–15.0 per 1000 outpatients and between 1.5–11.6 per 1000 inpatients.^[4] The prevalence rate of dissociative disorder in child and

adolescent group in India has been reported to be 12.5%.^[5]

Temperament refers to individual differences in behavioural characteristics of children. These individual differences appear early during childhood and are stable to a certain extent.^[6] Vulnerability to child psychopathology is determined by a temperament that is characterized by high levels of emotionality/neuroticism and low levels of effortful control.^[7]

Onset of conversion disorder may be associated with stress or trauma, either psychological or physical in nature. The potential etiological relevance of this stress or trauma may be suggested by a close temporal relationship.^[8]

Psychotherapy is often used to treat dissociative disorders, with the objective of assisting the person in integrating many identities and gaining control over the dissociation process and symptoms. Because it requires remembering and learning to deal with previous trauma, therapy may be lengthy and challenging.

MATERIALS AND METHODS

It was Cross-sectional observational study. Among all adolescent (10-19 years) new patients with dissociative disorder (as per ICD-10, DCR) attending the Psychiatry OPD of a tertiary care hospital, along with their parents during the study period (1 year), the first case of dissociative disorder of every week, fulfilling the study selection criteria

RESULTS

Sample description of the study population:

Age & Sex distribution among study population (Table 1): Age distribution in most of the cases found in age group of 14-15 and 16-17 years. In age group 13-14 years consisted only 5(10%) female cases. In 14-16 years of age group male were 1(4.3%) & female were 22(95.7%). In 16-17 years of age group Male were 3(13.6%) & 19(86.4%) female respectively. Female were predominantly high than male cases. The mean age of males was 17.25 ± 1.50 & Female was 16.19 ± 1.34 .

Table 1: Age & Sex distribution (N=50)

Age in year	Male		Female		Total	
	No	%	No	%	No	%
13-14	00	0.0	05	100.0	05	10.0
14-15	01	4.3	22	95.7	23	46.0
16-17	03	13.6	19	86.4	22	44.0
Total	04	8.0	46	92.0	50	100
Mean Age	17.25±1.50		16.19±1.34		16.28±1.37	

was selected for the current study i.e., 50 cases were recruited for the current study. Possibility of neurological illness explaining the dissociative symptoms was ruled out by neurological consultation and relevant investigations (e.g., neuro-imaging, EEG etc.). Subjects with other psychiatric illness, known organic disorder, mental retardation and chronic major physical illness was excluded from the current study. At Psychiatry OPD, all 50 patients were assessed one-time (of total individual assessment time of approximately 1 hour) on Life Events Scale for Indian Children (LESIC) to assess the pattern of stressful life events and on Temperament Measurement Schedule (TMS) to assess temperamental variability. Data was analyzed by appropriate statistical methods. Research proposal was approved by the Institutional Ethics Committee (IEC) of the institution.

Study Selection Criteria

Inclusion Criteria

- 1) Aged between 10-19 years
- 2) With diagnosis of Dissociative Disorder (code F44) as per DCR version of ICD-10
- 3) Giving informed consent
- 4) To read and write Bengali

Exclusion Criteria

- 1) With major psychiatric illness other than dissociative disorder.
- 2) With mental retardation.
- 3) With known organic disorder or chronic major physical illness.

Other demographic characteristics of study population (Table 2):

In Demographic characteristics we found in Religion, Hindu were more in number (56 %). Most (46%) of the participant's head of the family were educated up to Middle school, followed by high school (44%). In occupational status of the patient's head of the family, majority (62%) were clerical, shop owner, farmer group. In most (68%) of the cases, their family income was up to Rs. 4810-8009 per month, belonging to nuclear family (52%) from rural areas (82%).

Table 2: Demographic characteristics (N=50)

Demographic characteristics	Variables	No of cases	Percentage
Marital status	Married	09	18.0
	Unmarried	41	82.0
Religion	Hindu	28	56.0
	Muslim	22	44.0
Educational Status of Head of the Family	Profession or Honours	00	0.0
	Graduate or post graduate	00	0.0
	Intermediate or post high school diploma	04	8.0
	High school	22	44.0

	certificate		
	Middle school certificate	23	46.0
	Primary school certificate	01	2.0
	Illiterate	00	0.0
Occupational Status of Head of the Family	Professional	00	0.0
	Semi-professional	03	6.0
	Clerical, Shop owner, Farmer	31	62.0
	Skilled worker	07	14.0
	Semi-skilled worker	07	14.0
	Unskilled worker	02	4.0
	Unemployed	00	0.0
Family Income	>32050	00	0.0
	16020-32049	00	0.0
	12020-16019	01	2.0
	8010-12019	07	14.0
	4810-8009	34	68.0
	1601-4809	08	16.0
	≤1600	00	0.0
Family type	Nuclear	26	52
	Extended/joint	24	48
Type of Locality	Urban	09	18
	Rural	41	82

Distribution of clinical variables among study population (Table 3):

In Distribution of clinical variables among study population, we found mean & SD value of age at onset of dissociative disorder (in years) was 15.66 ± 1.33 and duration of dissociative disorder (in months) was 5.20 ± 6.07 . History of suicidal attempts was in 24% cases and mean & SD value of number of suicidal attempts was 1.50 ± 0.67 . In 52% of patients had H/O hospitalization(s) for psychiatric illness in the past with mean & SD value of number of hospitalization(s) was 1.92 ± 1.26 .

Table 3: Distribution of clinical variables (N=50)

Clinical variables	Mean	SD	
Age at onset of dissociative disorder (in years)	15.66	1.33	
Duration of dissociative disorder (in months)	5.20	6.07	
	No of case	Percentage	
H/O suicidal attempt(s) in the past	Yes	12	24
	No	38	76
Number of suicidal attempts (among the attempters)	Mean	SD	
	1.50	0.67	
	No of case	Percentage	
H/O hospitalization(s) for Psychiatric illness in the past	Yes	26	52
	No	24	48
Number of hospitalization(s) (among those who needed)	Mean	SD	
	1.92	1.26	

Distribution of Total Stressfulness Scores of Life Event Scale for Indian Children (LESIC) in study population (Table 4): In the current study the mean total stressfulness score as per Life Events Scale for Indian Children (LESIC) was 139.58 ± 47.99 .

Table 4: Life Event Scale for Indian Children (N=50)

LESIC	Mean	SD
LESIC Total stressfulness score	139.58	47.99

Distribution of different factors of Temperament Measurement Schedule (TMS) among the study population (Table 5):

For the items of the factor I (Sociability) of TMS mean score for APPROACH WITHDRAWAL was 3.04 ± 1.02 , for ADAPTIBILITY was 2.60 ± 1.05 , for THRESHOLD OF RESPONSIVENESS was 2.38 ± 0.75 and Sociability Average Score was 2.68 ± 0.82 . For the items of the factor II (Emotionality) of TMS the mean score for MOOD was 2.87 ± 0.76 , for PERSISTENCE was 2.74 ± 0.81 and for Emotionality Average Score was 2.81 ± 0.64 . For the items of the factor III (Energy) of TMS the mean score for ACTIVITY LEVEL was 2.32 ± 0.61 , for INTENSITY was 2.61 ± 0.81 and Energy Average Score was 2.46 ± 0.62 . For the items of the factor IV (Distractibility) of TMS the mean score for DISTRIBUTION was 2.32 ± 0.81 . For the item of the factor V (Rhythmicity) of TMS the mean score for RHYTHMICITY was 2.37 ± 0.92 .

Table 5: Distribution of Temperament Measurement Schedule (TMS) Factor I: Sociability item scores among the study population (N=50)

TMS Factors-I Sociability Item Scores	Mean	SD
APPROACH WITHDRAWAL	3.04	1.02
ADAPTIBILITY	2.60	1.05
THRESHOLD OF RESPONSIVENESS	2.38	0.75
Sociability Average Score	2.68	0.82
TMS Factor II: Emotionality Item Score		
MOOD	2.87	0.76
PERSISTENCE	2.74	0.81
Emotionality Average Score	2.81	0.64
TMS Factor III Energy Item Scores		
ACTIVITY LEVEL	2.32	0.61
INTENSITY	2.61	0.81
Energy Average Score	2.46	0.62
TMS Factor IV Distractibility Item Score		
DISTRACTIBILITY	2.32	0.81
TMS Factor V Rhythmicity Item score		
RHYTHMICITY	2.37	0.92

DISCUSSION

In this study, age of the patients ranged from 10 to 19 years. The sociodemographic analysis of the patients showed that the mean age of the female in

this study was 16.19±1.34 years & mean age of the male was 17.25±1.50 years. Age distribution among study population maximum number of the cases found in 14-15 & 16-17 years of age group. In age group 13-14 years consisted only 5(10%) female cases. In 14-16 years of age group male were 1(4.3%) & female were 22(95.7%). In 16-17 years of age group Male were 3(13.6%) & female were 19(86.4%) respectively.

In the study sample, dissociative disorder was more common among females 46(92%) compared to males 4 (8%). In this study female were predominantly high than male cases. Bagadia et al^[11] conducted a study in which incidence of hysteria is 78% in females and 22% in males. Deka et al conducted a study in which conversion disorder is more common in females (92.5%).^[12]

In demographic characteristics we found in religion, Hindu were more (56%) in number. Most of the participant's head of the family learned up to middle school followed by high school. Occupational status of the patient's head of the family was clerical, shop owner, farmer mostly. In most of the cases their family income was Rs. 4810-8009 per month belonging to rural nuclear family. Reddy et al studied 55 patients and also reported that 76.36% of their study samples were from rural background while only 23.64% had an urban background.^[13]

In Demographic characteristics we found in marital status, unmarried were higher than married women. Can be explained as our study population between age 10 to 19 years. Similar kind of study conducted by Mascarenhas et al^[14] reported dissociative disorders were found to be more frequent among females and this preponderance was seen across two decades, but this difference was not statistically significant ($p=0.905$). Dissociative disorder was found to be more common in those aged less than 25 years, with primary education, married & belonged to rural location of residence and Hindu by faith. The socio-demographic variables associated with dissociative disorders were similar across these two decades. Statistical analysis suggests that the chances of being affected by dissociative disorder over these years were not dependent on any of the sociodemographic variables studied.

In the current study we have examined the temperamental characteristics of the adolescents with dissociative disorder. Factor wise scores for the current study was described in the result section. Similar kind of studies are also available in the literature. Raghutaman et al analysed temperament of 30 children and adolescents having the diagnosis of either Dissociative (Conversion) disorder or somatoform disorder were compared with temperament of 30 matched normal control group. Temperament was assessed by using Temperament Measurement Schedule (Malhotra, 1982). In reference to our findings, they found that children with somatoform disorder and Dissociative (conversion) disorder had characteristic temperaments of low activity, low emotionality, low

rhythmicity and low distractibility.^[16] Krishnakumar et al conducted another study among the age group below 12 years diagnosed with dissociative disorder in which children with conversion disorders had significantly low score on threshold of responsiveness, compared to the children in the control group, indicates that these children are more sensitive to environmental changes. Low score on the emotionality dimension shows that they have a predominantly negative mood (angry, annoyed, discontented or irritable) and that they do not take serious effort to complete the tasks they are engaged in (Low persistence).^[17] Reddy et al also found similar observation in their study.^[18]

Most of the patients in this current study had several stressful life events in their recent and past life with mean score of total stressfulness score as per LESIC was 139.58 ± 47.99, which is quite significant in respect to other studies available in the literature. In a study done by Reddy et al^[18] all the patients in the study had an underlying psychosocial stressor preceding dissociation, but precipitating factor with temporal association to present dissociative episode was observed in 83.64% of the total sample. In another study done by Singh et al, assessing for the stressful life events in the previous year on higher age group, it was observed that dissociative patients had a mean of 4.34 stressful life events which is significantly higher than 1.90 events seen in normal individuals.^[19]

CONCLUSION

Results indicate that children with characteristic temperament develop conversion symptoms when subjected to stress. Temperament is probably acting as a vulnerability factor for development of conversion disorder in children. Parents and teachers should be aware of the influence of temperament on the behaviours exhibited by children. This will help to understand children and their behaviour in a better way. While planning strategies to help children cope with life stresses, the temperamental characteristics need to be taken in to consideration. Temperamental characteristics also influence the management of children with psychological and emotional disorders.

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