

Dissociative Experiences and Stressful Life Events in Dissociative Disorders - A Cross Sectional Study

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Abstract *Background:* Unconscious defenses and dissociative experiences have always been related to stressful life events. A stressful life event has a role to play both in normative and pathological dissociation. These events can be desirable and undesirable and both acute and chronic events can lead to dissociative phenomena *Aims:* To assess the dissociative experiences and type of stressful life events and also to correlate the events with dissociative disorders. *Methodology:* A detailed history was obtained along with the application of Dissociative Experiences Scale (DES) and Presumptive Stressful Life Event Scale (PSLES) to know the type of dissociative experiences and the type of stressors. Their correlation was studied using SPSS-20 software. The scores of dissociative experiences and stressful life events were also calculated to find any relation between the scores and the type of dissociative presentation. *Results:* The majority of people diagnosed with dissociative disorders were females, although there is no gender difference in the DES scores. The mean age of presentation is 25.21±9.12 years. We found out that any subtype of patients can have any score on DES scale. The PSLES scores did not determine the type of dissociative presentation (subtype). *Conclusion:* Dissociative experiences are related to stressful events in last year, and it acts as a precipitating factor for people with poor coping mechanisms. The scores do not predict the subtype of dissociation.

Keywords Stressful Life Events, Trauma, Dissociative Experiences, Dissociative Disorder

1. Introduction

Dissociation is interpreted as an unconscious defense mechanism which involves the separation of behavioral and mental processes from the rest of psychological activities of the person. There is a disturbance in some functions of mind such as personal identity, memory, perception, motor behavior and consciousness. This can be sudden, gradual, chronic or transient and the signs and symptoms of the disorder that are often preceded by some kinds of psychological trauma. These states sometimes are linked to psychological trauma, which includes history of emotional neglect & pain or physical and sexual abuses [1]. It is thought to be a defense mechanism against profuse fear, pain or helplessness which a stressful event produces [2]. These events trigger the beginning of strong emotions and exert a shattering effect on mind (psychic trauma) [3]. Many studies have investigated the emotional processes in people showing high degree of dissociative phenomena [4]. Stressful life events are often related to many types of physical and psychiatric illnesses and have intense effects on the course and prognosis of the disease [5]. Although a lot of evidence from studies and extreme life situations has suggested that there is a common link between stress and illness but proof regarding the effects of commonly occurring stressful events are not very clear. Moreover, there are various issues regarding the measurement of association of stressful life events and illness as there exist a lot of differences across cultures.

2. Materials and Method

This study was a hospital based cross sectional study that included 100 patients. Purposive method of sampling was used for sample collection. Sample size was calculated by referencing cross-sectional studies on this topic in India. A recent study included 118 subjects [6] and another from northern India included 60 subjects [7]. Both male and female patients were included who were diagnosed with any subtype of dissociative disorders as per ICD-10. Patients in the age range of 10 to 50 years and those willing to give written informed consent were included. Those with h/o medical, neurological and gynecological illness (except diabetes, hypertension and hypothyroidism), mental retardation and major psychiatric illness (except anxiety, personality disorder and depressive disorder) & comorbid substance use (except nicotine and caffeine) were excluded.

Tools:

1. A Semi-structured performa which includes the socio-demographic variables and clinical variables of patients like dissociative symptoms, diagnosis according to ICD-10, alternate treatment history, psychiatric co-morbidity, medical illnesses associated, duration of illness and significant family and past history.

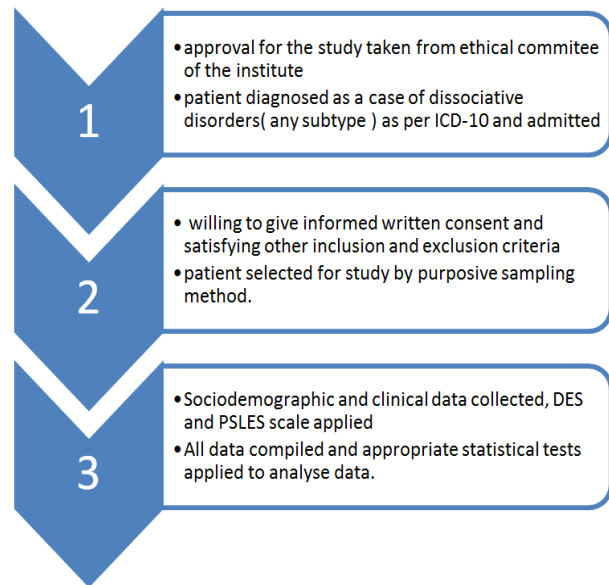
2. Dissociative Experiences Scale –II

This measures the dissociative phenomena in clinical and normal populations reliably. The items of this scale were devised using data from clinical practice, interviews and other similar scales and also after consultation with many experts in the field of dissociation. This is a 28-item self-report questionnaire. The mean of the items ranges from 0 to 100 and is called DES score [8].

3. Presumptive Stressful Life Events Scale (PSLES)

It was designed based on an open ended questionnaire along with using social readjustment rating schedule of Holme's and Rahe on a sample of Indian population. The type of stressful events experienced by the Indian population was also studied and the scale was also standardized for two time spaces – for one year and for life time [9].

Procedure:



Statistical analysis: The statistical analysis” was done with “Statistical Package for Social Sciences-20” (SPSS20). The socio-demographic “variables” (both continuous and discrete data) were summarized’ with” the help of “frequency, percentages” and mean and “standard deviation” using descriptive statistics, Mann Whitney U test, Kruskal –wallis test, ANOVA.

3. Results and Discussion

In our study we analyzed 100 patients with dissociative disorder. Socio-demographic profile collected from each patient is tabulated below.

Table 1. Age distribution of the study population

Age range in years	N(%)	Mean Age \pm SD
<15	17(17%)	25.21 \pm 9.122
15-29	53(53%)	
30-44	27(27%)	
>44	4(4%)	

Table 2. Socio-demographic and clinical characteristics of the population under study (N=100)

Sl. No	Variables	Percent	
1	Sex	Male	27 (27%)
		Female	73 (73%)
2	Domicile	Urban	46 (46%)
		Rural	54 (54%)
3	Marital status	Married	41 (41%)
		Unmarried	59 (59%)
4	Living with family	Yes	98 (98%)
		No	2 (2%)
5	Religion	Hindu	97 (97%)
		Muslim	3 (3%)
6	Medical co-morbidity	Present	23 (23%)
		Absent	77 (77%)
7	Psychiatric comorbidity	Present	21 (21%)
		Absent	79 (79%)
8	Alternative treatment	Taken	10 (10%)
		Not taken	90 (90%)

In this sample, the majority of people diagnosed with “dissociative disorders” were females. The subjects were from both urban and rural areas equally. In this study, the lowest age of a patient was 11 years and the maximum was of 50 years. The mean age of the sample was 25.21 ±9.12 years (Table 1). 23% of the patients were diagnosed with medical co-morbidity (hypertension, diabetes and hypothyroidism) and 21% had some psychiatric co-morbidity. Only 10% of the patients had taken alternative treatment for the same disorder.

Paucity of Indian studies makes it difficult to generalize the results of any study on the whole population as the cross cultural differences play an important part in the expression of dissociative phenomena [10]. In our study the population mainly belonged to the state of Odisha. Among them 27% of subjects were males and 73% females. There is not much difference in the urban and rural share of patients (table 2). A recent study by Soma Shekar Reddy et al., shows that dissociative disorders were commonly seen in “adolescents, females” and in people belonging to low socioeconomic status coming from rural areas. In our study it was found that the percentage of married individuals was 41% and unmarried was 59% which was almost similar to the study by SomaShekar Reddy et al. [11]. Another study from Saudi Arabia, shows that 80% of the patients with dissociative disorders were below ‘30’ years of age [12].

Another finding in our study was that 98% of the patients were living with their families indicating a strong support system of Indian culture. This might be a factor which perpetuates the dissociative disorder by providing

emotional gains. Our sample had 97% of Hindu population and only 3% muslims which was in accordance to the demographic profile of Orissa to some extent [13]. The conditions like hypothyroidism, diabetes and hypertension may have a confounding effect on the cognitive functioning and can influence dissociative phenomena [14] 23% of our patients had one or other medical co-morbidities from among these three diseases. In a study, depression was found with dissociative disorder as a comorbidity in 33.3% of subjects, border line in 9.8% & histrionic personality in 7.8% of the subjects. Dissociative disorders were “frequently associated” with neuro-psychiatric co-morbidity [15]. Studies from developed countries have specially reported a high rate of co-morbid personality disorder [16]. In a study on “pseudo - seizure subjects”, personality disorder was found in 62.0% of the cases and depressive episode was found with dissociative disorder in 33.3% cases [17]. In a similar study conducted in Istanbul, they found the prevalence of borderline personality disorder was 8.5%. A significant percentage of population (72.5%) of the borderline personality disorder group had a dissociative disorder co-morbidity in their study [18].

In our study, 10% of our sample population had taken alternative form of treatment from faith healers which were unexpectedly low, contrary to the belief that faith healing practices are quite prevalent in this part of country [19]. In a study which investigated the similar topic of health seeking behavior and attribution in patients of dissociative disorders, the findings showed that the response of the participants to the treatment by faith healers was much higher (52.63%) than towards “medical & psychosocial” treatments (33.33%) [20]. In a similar study in Delhi about the health seeking behavior of general population, it was found that faith healers were important treatment providers, specifically in regard to treatment of less privileged and less resourceful people [21].

Patients with the diagnosis of F44.7 were 50% which was the highest number in this sample and 21% presented with dissociative convulsions (F44.5). None of the patients were diagnosed with dissociative fugue (F44.1), dissociative anaesthesia and sensory loss (F44.6) and other dissociative disorders (F44.8) in this sample population. It was assessed whether the DES scores vary within different subtypes of dissociative disorders in the sample or not. All the patients were independently examined and all had different values of DES scores with the minimum score of 3.50 and maximum of 56.74 and a mean of 12.05 ±8.07. The purpose was to check if the dissociation as a phenomena is independent of the subtype diagnosed in the patient. In other words, a person having a particular dissociative subtype doesn’t mean he has scored in particular range (Figure 1). A patient with any amount of score can present with any type of dissociative disorder.

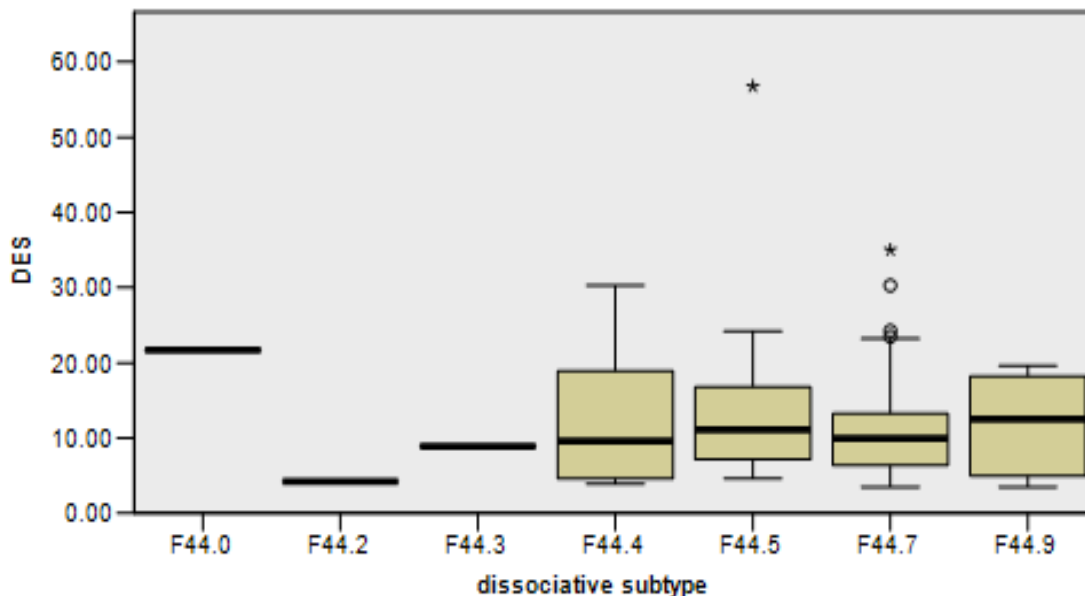


Figure 1. DES Scores and dissociative disorder sub types

Independent-Samples Mann-Whitney U Test

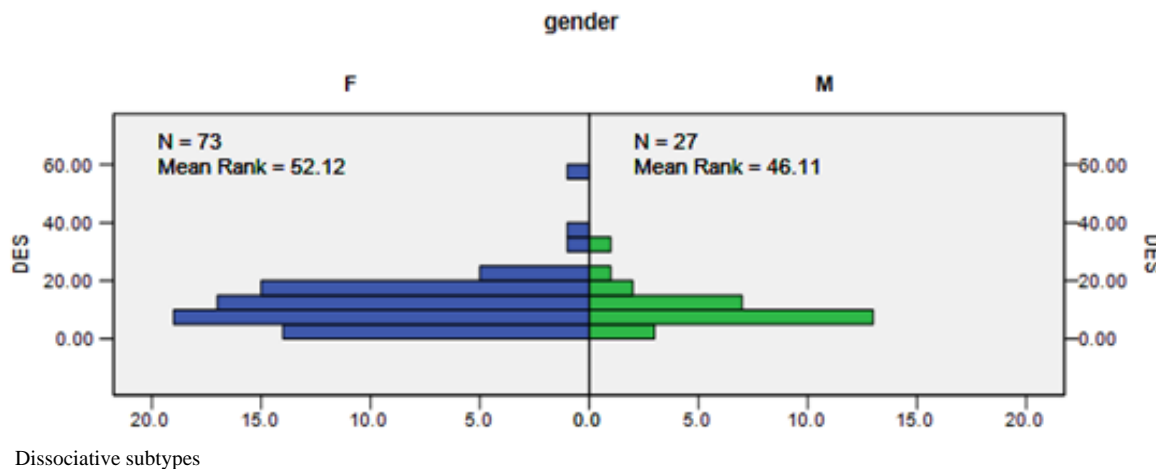


Figure 2. DES Score comparison in both gender

In this test, Kruskal –wallis test for independent samples was performed on the data to check if the DES scores vary within different subtypes of dissociative disorders in the sample or not. The degrees of freedom were 6 and the p value was 0.535. This means that the distribution of DES scores is same across all subtypes of dissociative disorders. The test does not show significant differences across samples.

The distribution of DES scores was same across categories of gender in our study (Figure 2). The p value for this test was 0.357 showing no significant difference between genders.

In Indian studies, Dissociative motor disorders & dissociative convulsions are the most commonly seen disorders. Unlike the Western studies the dissociative identity disorders are rarely diagnosed in India; instead of that trance and possession disorders are commonly seen in

the Indian setting in majority of studies, indicating cross-cultural differences. In a study, 893 patients were diagnosed with dissociative disorder over 10 years. Out of them majority were, diagnosed with dissociative motor disorder (43.3% outpatients, 37.7% inpatients), followed by dissociative convulsions (23% outpatients, 27.8% inpatients) [10].

The DES scale measures the normative imaginative thinking involvement also (like proneness to fantasy, immersion in daydreaming and absorption). It is a good measure of dissociative psychopathology and fantasy access across the so called continuum of dissociation [22]. The patients in our study had a minimum DES score of 3.50 and the highest found in a patient was 56.74, the mean score was 12.05±8.07. Most of the studies have taken DES score cut off value as 30 [17]. Though few subtypes had DES scores more than 30 but the mean in our study was

less than 30. From here we can conclude that DES score does not have significance across the subtypes of dissociative disorders. We did not find much of literature which investigates the distribution of DES score amongst various subtypes of dissociative disorder. Although we found a study which investigated the pattern of dissociation in clinical and non-clinical populations. In this study, they found higher mean scores in some diagnostic groups. Generally, in studies, the inference that dissociation is associated with or contributory to primary psychopathology of a given diagnostic subgroup is based on the analysis of group median or mean score data [24]. Diagnostic groups with higher group means are considered to be more dissociative than those with lower group means. But there is a possibility that within a given diagnostic group, there are some highly dissociative patients who are principally responsible for elevating the group's mean scores on the dissociation measure. If certain diagnosis contains a relatively large percentage of highly dissociative patients, the group mean will be spuriously inflated by these outliers [23]. Similarly, high percentage of women in dissociative disorder samples increases overall female scores. In a study, separate one factor (gender) analysis of variance (ANOVAs) for each diagnostic group revealed no significant effect of gender in any group [23].

We also found out that any subtype patients can have any score on DES scale. This scale is a measure of

dissociative phenomena on a continuum and not a measure of subtype of dissociative disorder. Also, we found out that there are no gender differences in the samples as far as distribution of DES scores is considered although mean score of females is more which is due to the more number of females in the sample.

The distribution of PSLES score was same across categories of dissociative subtypes (Table 3). Kruskal-wallis test was applied and as the results show here, any difference in distribution across subtypes was non-significant (P value was 0.576).

Table 3. Distribution of type of stressful life events

N=100	Desirable events	Undesirable events	Ambiguous events	Total events in one year
Mean	0.45	2.84	0.55	3.84
Std.error of Mean	0.74	0.12	0.08	0.17
Median	.00	3.00	0.00	3.50
Mode	0	2	0	3
Std.deviation	0.74	1.19	0.80	1.75
Range	4	6	4	10
Min	0	0	0	1
Max	4	6	4	11

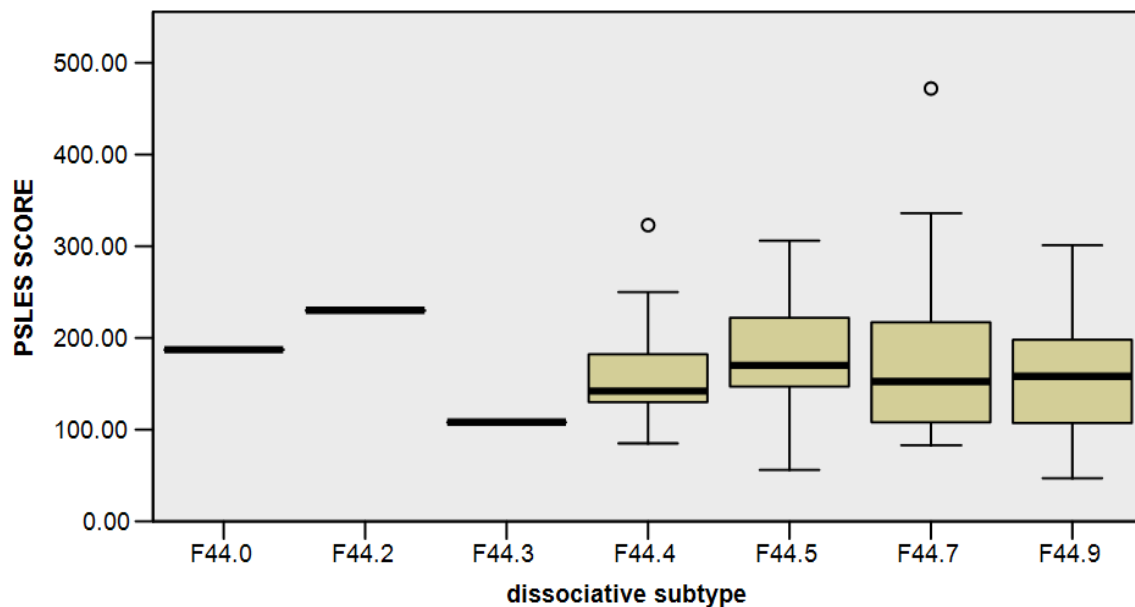


Figure 3. PSLES Score and Dissociative disorder subtypes

In our study all the patients were suffering from dissociative disorders and the “average” number of events occurring in “last one year” for our sample was 3.84 ± 1.75 which is significantly higher than the average for normal Indian population. The mean undesirable events were 2.84 ± 1.19 which was also higher than normal average. The high frequency of stressful nature events over a short span of time may have a collective effect in producing illness equivalent to that produced by quantitatively more stressful events over longer period of time [24]. Our study also shows that these events were clustered or had occurred in higher frequency within last one year and may be a cause of defective coping mechanisms and dissociative phenomena in such patients. Literature has shown that events “accumulated over the last one-year are related” to dissociative presentation. A study done in USA reported that stressful life events when assessed, were seen more often in “cases” with dissociative convulsions as compared to the controls [25]. Another similar study conducted in Sweden showed that the ‘average number of life-events’ occurring in the “last one year” was “2.7” among the patients with Dissociative disorders in comparison to “1.67” in the control group [19]. It suggests not only the stressor faced by the patients immediately prior to the illness but also the stressful life events faced by them throughout life contributes to the development of dissociative disorders. It appears that when individuals who are facing multiple stressful events in their life are challenged by another bigger stressor, they may develop a “dissociative illness”. In another study, all subject had an underlying psychosocial stressor which preceded dissociation, but the precipitating factor with time related association to present as dissociative episode was observed in 83.64% of the sample. This was ‘significantly’ higher than that reported in a previous study (52.50%) by Subramanian et al. [26].

4. Conclusions

Stressful life events particularly the presence of higher valence of undesirable events in past one year precipitate dissociative phenomena or make a person prone to develop dissociation due to impaired coping in face of intolerable stress. Although the mean DES scores were found to be higher in females but there was no statistical significance across the gender. There was no significant difference of PSLES score distribution in subtypes of dissociative disorders.

5. Limitations and Future Directions

One major limitation of the current study was its cross sectional design. A lack of prospective design failed to pick up any changes during the course of treatment. Our patients might not be the representative of overall population of patients with dissociative disorders. Study can be done on a

larger population.

It can be done in patients having pathological dissociation and should exclude confounding factors and exclude all medical and psychiatric co-morbidities.

Potential Conflicts of Interest

There is no potential conflict of interest.

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