



The relationship of dissociative experience, alexithymia, and non-suicidal self-harming behavior

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Abstract

Introduction: Nonsuicidal self-injury (NSSI) is the deliberate injury to body tissue without any suicidal intent, which is culturally or socially unacceptable. It includes a range of behavior such as cutting or scratching of the skin, self-battery, and self-poisoning.

Objective: The objective of the study is to find out relationships between NSSI, specific psychological traits (such as alexithymia and dissociation), and sociodemographic factors.

Materials and Methods: The study was conducted at the Department of Psychiatry, LAMGMC and associated hospital Raigarh Chhattisgarh and involved patients reported in the department of psychiatry both as outpatient and inpatient, with a history of self-harming behavior (between 18 and 60 years of age) (N = 500). The study was done by the use of Inventory of Statements about Self-Injury (ISAS), Dissociative Experience Scale (DES), and Toronto Alexithymia Scale (TAS).

Results: The majority of the subjects with NSSI are adult, female, and unemployed. NSSI is associated with dissociative symptoms, alexithymia, anxiety, depression, substance abuse, tension-type headache, and type B personality.

Conclusion: Dissociative symptoms and alexithymia are highly correlated with NSSI.

Keywords: dissociation, alexithymia, impulsivity, self-harming behavior, nonsuicidal self-injury

1. Introduction

Nonsuicidal self-injury (NSSI) is the deliberate injury to body tissue without any suicidal intent, which is culturally or socially unacceptable. It includes a range of behavior such as cutting or scratching of the skin, self-battery, and self-poisoning^[1]. Cutting is generally done on the arms but self-injurers quite often damage other parts of their body as well.

Diagnostic and Statistical Manual of Mental Disorders (DSM-V) included self-injury and NSSI in Section 3 as a separate diagnostic entity^[2].

It is relatively common among adolescents, representing a significant health issue among this age group. Among them, only about one in eight adolescents go to the hospital for treatment^[3]. In the general population, NSSI is reported by 17% of adolescents, 13% of young adults, and 5% of adults over 25 years of age^[4]. Most research indicates a female preponderance in the clinical population of NSSI cases^[5].

Several psychological and psychiatric morbidity (e.g., anxiety and depression) have been linked with the onset and/or repetition of NSSI behavior^[6]. Individuals report a range of motives for self-injurious behavior, including emotional regulation, self-punishment, and anti-dissociation are the most consistently reported^[7].

Brunner *et al.*^[8] found significant associations with symptoms of depression and anxiety in adolescents who engaged in self-harming behavior. They also concluded that self-injurious behavior strongly indicate psychological problems that require immediate professional attention^[8]. The onset of NSSI behavior

in teenagers with depression may be a way to seek relief from depressive symptoms^[9].

Along with psychiatric morbidity, psychological traits such as alexithymia and impulsiveness have also been correlated with NSSI. Alexithymia is a personality construct featuring a subclinical inability to identify and describe emotions in the self^[10].

Some authors have observed a significant relationship between NSSI and alexithymia and found that more severe clinical presentations of NSSI were associated with higher levels of alexithymia^[11,12].

Most of the researchers have concluded that persons with self-injurious behavior perceive themselves as more impulsive in answering self-report questionnaires^[13,14], though other studies using behavioral measures of impulsiveness found no differences compared to the general population^[15,16].

1.1 Aim of this study

There is a significant lacuna in this field and a better understanding of NSSI comorbidities needed to improve our ability to assess, treat, and prevent self-injuring behavior. Our study is a small step toward the future with the aim to conduct a more in-depth analysis of the broad array of psychological and psychiatric correlates of NSSI.

The main objectives of our study are to find out relationships between NSSI, specific psychological traits (such as alexithymia and dissociation), and sociodemographic factors. To find out the importance of the lack of the ability to manage and

communicating negative emotions as one of the mechanisms behind NSSI.

A better understanding of the role of alexithymia and impulsiveness as NSSI correlates would help for better management and planning interventions for primary and secondary preventions.

2. Materials and Methods

2.1. Subjects

The study was conducted at the Department of Psychiatry, LAMGMC and associated hospital Raigarh Chhattisgarh from August 2017 to December 2018 and involved patients reported in the department of psychiatry both as outpatient and inpatient, with a history of self-harming behavior (between 18 and 60 years of age) (N = 500).

Patients with self-harming behavior having at least one recent act of self-harming behavior (within a week) and amenable for interviews were included in the study. Patients with vision or hearing impairments, intellectual impairment, severe medical complications were excluded from the study. Informed consent was obtained from patients and healthy controls before data collection.

2.2. Measures

Self-injurious behavior was assessed by the Inventory of Statements About Self-Injury (ISAS). The frequency and functions of NSSI were measured using the ISAS [17]. The first section of the ISAS measures the lifetime frequency of 12 NSSI behaviors performed "intentionally (i.e., on purpose) and without suicidal intent." The second section of the ISAS assesses 13 functions of NSSI that fall into two superordinate categories: intrapersonal and interpersonal functions. Each subscale is assessed with three items rated on a scale from 0 = not at all relevant to 2 = very relevant to the one's experience of NSSI. The intrapersonal and interpersonal superordinate scale scores are created by averaging the relevant subscale scores. The subscale and superordinate scale scores range from 0 to 6. In this study, self-harming behavior was defined as direct, deliberate harm to one's body with or without a conscious intent to die.

Dissociative symptoms were assessed by the Dissociative Experience Scale (DES) [18], an instrument that measures the frequency and severity of dissociative experiences. The DES has adequate test-retest reliability, excellent split-half reliability, and good clinical validity [19].

To assess alexithymia, the Toronto Alexithymia Scale (TAS), a 26-item, psychometrically sound measure, was used. A cutoff score of 74 or higher indicates alexithymia. A factor analysis of the TAS yielded four factors: the ability to identify feelings and bodily sensations, externally oriented thinking, ability to communicate feelings, and the ability to daydream [20].

2.3. Statistical Analysis

The statistical analysis of data was performed using statistical package for social sciences for Windows (version 21). Data were calculated for descriptive study and shown as mean (± SD) and as a percentage (%).

3. Results

The present study was conducted in 500 samples reported in the

department of psychiatry, both as outpatient and inpatient. Table 1: reveals that the mean age (N=500) is 30.18 (SD=11.48).

Table 1: showing mean and standard deviations of categorical variables using in the study

Name of variables	Total (N)	Mean	SD
Age (years)	500	30.18	11.48
Sex	500	1.96	0.19
Education	500	2.61	0.97
Occupation	500	1.91	0.28
Habitat	500	1.16	0.36
Marital status	500	1.34	0.51
Religion	500	1.72	1.21
Family type	500	1.78	0.41
SES	500	1.22	0.41

Table 2: shows the demographic details of the sample and it reveals that most of the samples are female (N=480; 96%), education level up to primary & middle (N=205; 41%), and high & higher-secondary (N=185; 37%) was higher than the other level of education. Unemployed person were profoundly affected (N=455; 91.0%) than other, majority of them were residing in rural area (N=420; 84.0%), belongs to Hindu religious (N=350; 70%), living in joint family (N=390; 78%), and belongs to low socioeconomic status (N=390; 78%).

Table 2: showing subcategory in demographic variables represented on mean, SD and percentage

Name of variables	Number of subjects (n)	Percent (%)
Sex		
Male-	20	4.0
Female-	480	96.0
Education		
Illiterate-	45	9.0
Primary & middle-	205	41.0
High & Higher secondary-	185	37.0
Undergraduate-	30	6.0
Other-	35	7.0
Occupation-		
Employed-	45	9.0
Unemployed-	445	91.0
Habitat-		
Rural-	420	84.0
Urban-	80	16.0
Marital status-		
Married-	340	68.0
Unmarried-	150	30.0
Other-	10	2.0
Religion-		
Hindu-	350	70.0
Muslim-	40	8.0
Sikhkha-	20	4.0
Christen-	80	16.0
Other-	10	2.0
Family type-		
Nuclear-	110	22.0
Joint-	390	78.0
Socioeconomic status-		
Low-	390	78.0
Medium-	110	22.0

Table 3: shows the DES and GHQ score of the sample, and it reveals that the mean DES score of the sample is 60.44 (SD=13.71), mean TAS score 53.34 (SD=3.2) and mean GHQ score is 6.96 (SD=1.21).

Table 3: showing mean and standard deviations of continuous variables used in the study

Name of variables	Total (N)	Mean	SD
DES	500	60.45	13.71
GHQ	500	6.96	1.21
TAS	500	53.34	3.2
Anxiety	500	0.94	0.23
Depression	500	0.90	0.30
Insomnia	500	0.89	0.31
Tension-type headache	500	0.90	0.30
Substance abuse	500	0.84	0.36
Epilepsy	500	0.15	0.35
Personality pattern	500	2.08	0.59

Table 4: shows the subcategory in variables represented, it reveals that out of 500 sample, 94% (N=470) having anxiety, 90% (N=450) having depression, 89% (N=445) having insomnia, 90% (N=450) having tension-type headache, 84% (N=420) having substance abuse, 15% (N=75) having epileptic seizures, and most of them showing Type-B personality pattern (64%; N=320).

Table 4: showing subcategory in continuous variables represented on percentile rank

Name of variables	Number of subjects (n)	Percent (%)
Anxiety-		
Not present-	30	6.0
Present-	470	94.0
Depression-		
Not present-	50	10.0
Present-	450	90.0
Insomnia-		
Not present-	55	11.0
Present-	445	89.0
Tension-type headache-		
Not present-	50	10.0
Present-	450	90.0
Substance abuse-		
Not present-	80	84
Present-	420	16.0
Epilepsy-		
Not present-	425	85.0
Present-	75	15.0
Personality type-		
Type-A	70	14.0
Type-B	320	64.0
Type-C	110	22.0

4. Discussion

We conducted this study expecting clinical subjects to present psychopathological symptoms with particular interest toward alexithymia and dissociative symptoms. Nonsuicidal self-injury (NSSI) is a significant health issue, especially among adolescent age group peoples. Psychological issues and personality types are correlated with a high frequency of NSSI.

Our study reveals that the majority of the patients with self-injurious behavior are adults with a mean age of 30 years (range: 11-45 years), which confirms that the onset of NSSI is generally around 14 years of age [21]. However, our study shows a higher mean age compared to another study [22], which is due to lack of awareness about the problem and the nature of the service provided at our neuropsychiatry unit, which primarily deals with adult patients.

Our study population showed a marked difference in the prevalence of NSSI by sex (96% females compared to 4% males). This finding is in line with previous studies that found a greater tendency for females to be involved in NSSI (F: M ratio of 3:1) [22, 23].

Majority of the subjects were educated up to primary and middle standard (41%), unemployed (91%), living in rural areas (84%), belongs to Hindu religion (70%), living in joint family (78%), and belongs to low socioeconomic status (78%). Unemployment and low socioeconomic status is a significant risk factor for NSSI, though the findings may be due to our study population who are living in rural areas and primarily working as farmer or labor for their living. These findings are correlated with other studies that have similar results [21, 22, 23].

Our study reveals that the study subjects having a high DES score (mean 60.44), having possible alexithymia (mean TAS score 53.34), and a high GHQ score (mean 6.96). These findings show that dissociative symptoms, alexithymia, and poor health are correlated with NSSI. People with dissociative symptoms and alexithymia use NSSI as a method to get in touch with reality and to express their pain and negative emotions [20, 21].

Patients with NSSI having significant psychological comorbidities such as anxiety (94%), depression (90%), insomnia (89%), tension-type headache (90%), substance abuse (84%), epileptic seizures (15%), and Type-B personality pattern (64%). Psychological comorbidities are the significant risk factor for NSSI, which patients use as a method of relief from their problems and conflicts. Substance abuse and the person with type B personality having more impulsivity, which makes them prone to NSSI [19, 20, 21, 22].

5. Conclusion

Most of the patients with NSSI are adult, female, unemployed, residing in a rural area, and less educated.

They have significant health issues, having dissociative symptoms, and possible alexithymia. Patients with NSSI were also having other psychological comorbidities such as anxiety, depression, substance abuse, insomnia, and type B personalities. They use NSSI as a method of coping for their conflicts and negative emotions.

Limited sample size, selective sample population which cannot be generalized, and lack of control group are the limitations of our study, which can be overcome in future studies.

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7. Conflict of Interest

The author(s) declared no potential conflicts of interest concerning the research, authorship, and publication of this

article.

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