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Comparison of alexithymia in somatoform and chronic physical disorders: a cross sectional study

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Abstract

Background: It has been found that patients with somatoform disorders commonly have difficulties in recognizing and expressing their emotions, which plays important role in treatment outcome. Again chronic physical disorders are also influenced by emotional factors and vice-versa. Considering these fact, we compared alexithymia in patients with somatoform disorders and chronic physical illness.

Methods: This cross sectional observation study was conducted in north-east India. Group I consisted of 30 patients diagnosed as somatoform disorder using ICD-10 and group II consisted of 30 patients with chronic physical illness which were selected after matching with first group. Toronto Alexithymia Scale (26 items) was applied on both groups after obtaining informed consent. Statistical analysis was done using SPSS version 23.0.

Results: Prevalence of alexithymia was found to be very high in patients with somatoform disorder (64%) as compared to chronic physical illness (36%).

Conclusion: The study showed that alexithymia can be considered as risk factor to develop somatoform disorders. Alexithymia predisposes the subject to develop longer lasting somatic illnesses and also it has high impact on treatment outcome. So assessment of alexithymia in patients of somatoform disorder can help us for optimum management.

Keyword: Alexithymia, Somatoform disorder, Chronic physical illness, Toronto Alexithymia Scale, Somatization

Introduction

Somatic complaints are common human experience. In primary care settings, 26% patients present with functional somatic symptoms across all ethno cultural groups.[(1)] Somatization is defined as the propensity of a patient to experience and report somatic symptoms that have no pathophysiological explanation, to misattribute them to disease, and to seek medical attention for them.[(2)] The prevalence of somatoform disorders differs from culture to culture. According to Kroenke et al, (2006) these are among the most prevalent mental disorders seen in the general medical settings.[(3)]

Somatization is more common among patients of non-western cultures.[(4)] Cultural factors and traditional belief systems have significant role in patients' behavior. In many conservative societies as in India, expression of emotions is considered taboo. Gender assigned roles and the change that is happening owing to the Global Village Phenomenon may evoke mixed emotions that might not find appropriate platform for expression. So these suppressed emotions are expressed in the form of somatic symptoms as these are more socially acceptable.

A large number of factors have been studied to account for the phenomenon of somatization including personality traits, environmental factors and biological factors. Besides all these, one more important factor in the etiology of somatoform is alexithymia. It was found that these patients commonly had difficulties in recognizing and expressing their emotions. These ideas were elaborated by P. Sifenos and J. Nemiah, who introduced the term **Alexithymia** in the early 1970s. The word alexithymia stems from Greek terms 'a' meaning lack, 'lexis' meaning word, and 'thymos' meaning emotion, therefore, the literal definition of alexithymia is '**a lack of words for emotion**'.[(5)]

More comprehensive definitions of alexithymia generally refer to four key components.[(6,7)]

1. difficulty in identifying and distinguishing between feelings and bodily sensations;
2. difficulty in describing feelings;
3. reduced daydreaming; and
4. externally oriented thinking.

Alexithymia has been linked to a number of other disorders, including depression, panic disorder, eating disorders, and post-traumatic stress disorder.[(8)] In other words, alexithymia is now broadly regarded as a risk factor for a number of psychiatric and medical disorders.[(7)]

Numerous studies have found that alexithymia and physical illness are linked and patients with physical illness are more alexithymic than controls.[(9-11)] A possible mechanism is that, alexithymic individuals fail to process and modulate emotions which may lead to states of prolonged sympathetic arousal and elevated plasma noradrenaline levels resulting in development of chronic physical diseases.[(12)]

Very few studies have correlated alexithymia with somatization and there is scarcity of data in Indian subcontinent which have different ethnocultural background. This research attempts to compare

alexithymia in Somatoform and Chronic Physical Disorders and to find out correlation of alexithymia with different socio-demographic variables.

Material and Method

This cross sectional, observational study was conducted in Tertiary Care Specialty Psychiatry Hospital in North-East India after getting approval from Institutional Ethics Committee. Informed consent was obtained from all participants. Total 60 participants were recruited by purposive sampling. Group I consisted of 30 patients, who were diagnosed as somatoform disorder by International Statistical Classification of Diseases and Related Health Problem Tenth Revision (ICD-10). Group II consisted of 30 individuals having non-communicable diseases like diabetes mellitus, hypertension and bronchial asthma. Second group was selected after matching age, sex, socioeconomic status and education with first group.

Inclusion criteria: Patients of age group: 18-60 yrs, irrespective of their gender, with a total duration of illness more than 2 years who gave informed consent were considered for the study.

Exclusion criteria: Those having identified co-morbid organic brain disorder, substance use disorder, seizure disorder, mental retardation and pregnant and lactating woman were excluded from study.

Tools: Both groups were applied semi-structured pro forma to collect information about socio-demographic profile of the patients.

ICD 10 was used for diagnosing Somatoform Disorders. Patients with Chronic Physical Disorders were recruited on prior information available while interviewing and it was validated with appropriate clinical tests.

Alexithymia among both the groups was assessed by using Toronto Alexithymia Scale (TAS)-26 items (Talor, Ryan & Bagby 1985).

Statistical analysis: Data analysis was done using Statistical Package for Social Sciences (SPSS) version 23.0 (SPSS South Asia Pvt Ltd, Bangaluru, Karnataka, India)

Results

Group I consisted of 30 patients diagnosed as somatoform disorder and Group II consisted of total 30 individuals having non-communicable diseases (diabetes mellitus-13, hypertension-12 and bronchial asthma-5). Both the groups were matched for age, sex, socioeconomic status and education. However there was difference about religion of the participants in the group.

Out of 30 subjects in each group, 7(23.33%) were male and 23(76.66%) were female. The mean age of patients with somatoform disorder was 34.43 years (SD=7.83) while it was 37.53 years (SD=7.91) for control group [Table 1] with no significant difference between them.

Table 1: Comparison of mean age and duration of illnesses

	Somatoform Disorder (Group I)	**Chronic physical Disorder (Group II)**	**p value**
Mean age of participants (in years)	34.43 (SD=7.83)	37.53 (SD=7.91)	p=0.133
mean duration of illness (in years)	4.7 (SD=4.94)	4.5 (SD=3.75)	p=0.861

In group I, 29(96.67%) subjects were Muslim and only 1(3.33%) subject was Hindu. While in group II, 18 subjects (60%) were Hindu and 12 subjects (96.67%) were Muslim. Table 2 shows that the two groups were comparable as per their education and socio-economic status. There was none from upper socio-economic status in both the groups.

Table 2: Socio-demographic variables of two groups

		Somatoform Disorder	**Chronic physical Disorder**
Sex	Male	7(23.33%)	7(23.33%)
	Female	23(76.66%)	23(76.66%)
Socioeconomic status	Low	17(56.66%)	23(76.66%)
	Middle	13(43.33%)	7(23.33%)
Education	Primary	5(16.66%)	3(10%)
	High school	22(73.33%)	24(80%)
	Matriculate	3(10%)	3(10%)
Religion	Hindu	1(3.33%)	18(60%)
	Muslim	29(96.67%)	12(40%)

Table 1 also shows the mean duration of illness in patients with somatoform disorder was 4.7 years (SD=4.94) while it was 4.5 years (SD=3.75) in patients of chronic physical illness. The difference between mean duration of illness in two groups was not significant (p=0.861).

19 out of 30 participants of group I and 7 out of 30 participants of group II scored above the cutoff value of 74 on the Toronto Alexithymia Scale. Hence the prevalence of alexithymia was 64% in patients of somatoform disorders and it was 24% in patients of chronic physical disorders. When chi square test was applied, significant difference was found between the two groups (p=0.0042)[Table 3].

Table 3: comparison of alexithymia between two groups

Variables	Somatoform disorder N=30	Chronic physical illness N=30	df	X^2
Alexithymia present (score > 74)	19 (64%)	7 (24%)	1	8.213** p=0.0042
Alexithymia absent (score < 74)	11 (36%)	23 (76%)		

There were total 41 Muslim participants in both the groups out of which 22(53.66%) were alexithymic. Out of total 19 Hindu participants, only 4(21%) were alexithymic. Muslim participants were significantly alexithymic ($p<0.05$).

The mean TAS score in Group I was 71.63(SD=15.09) and it was 58.77 (SD=16.88) for Group II. When independent t test was applied, the difference between mean scores of two groups was significant (p=0.003)[Fig. 1].

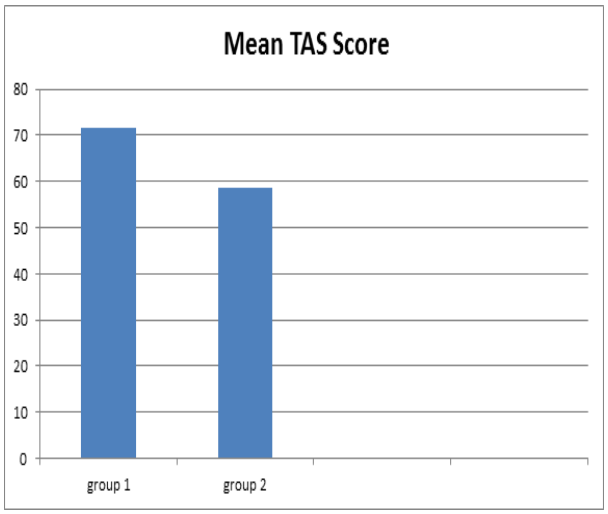

Fig. 1: Mean TAS

Relationship between total TAS score and age of the subject was analyzed using Pearson correlation analysis. Pearson correlation value (0.537) indicates positive and highly significant correlation between total TAS score and age of the subject (sig.2-tailed=0.002).

Similarly, relation between total TAS score and total duration of illness was analyzed. Pearson correlation value (-0.346) is suggestive of negative correlation between TAS score and total duration of illness.

Discussion

In our study there were 30 subjects in each group. Both groups were matched for age, sex, socioeconomic status and education. Around 96.67% patients of somatoform disorder were Muslims. This shows that religion may be a significant factor for Somatoform Disorder. Among patients of chronic physical illness 60% were Hindu and 40% were Muslims which is in line with demography of the region.

Alexithymia was found in 53.66% Muslim and 21% Hindu participants. Migration from neighboring country is concern for the North-East India and is considered a major socio political issue in the whole region. A large section of migrated people are Muslim. Hence this may be result of a complex interplay of migration, mental health issues of migrant population with Alexithymia. Moreover our findings regarding difference about religion of two groups may be due to cultural differences in expression of feelings. Wierzbicka concludes that there are cultural differences in the way people think and describe their feelings. Some cultures encourage talking about feelings whereas other cultures avoid such talk.[13]

Around 57% subjects were from lower and 43% were from middle socioeconomic status in Group I while 77% subjects were from lower and 23% were from middle socioeconomic status in Group II. Majority of respondents belonged to the low socioeconomic status because somatoform disorder is inversely related to social position and occurs most often among peoples of low income. We did not find any people from high income group. This may be explained by the usual service user profile of the study centre which is a Government Mental Hospital where all the services are free of cost.

In both the groups, majority of patients, 43.33% in somatoform disorder group and 50% in Chronic Physical Disorder group were studied up to high school. 30% subjects from each group were studied up to secondary school. Only 10% subjects in each group were studied above class 10. This can be explained due to reason that majority of subjects in the current study belonged to low socioeconomic status. Our results are in accordance with other studies which indicate that alexithymia is inversely related to less education and income.[14,15]

We found Alexithymia to be more significantly associated with Somatoform Disorder than to Chronic Physical Disorders. The mean TAS score in somatoform group was significantly higher too. This finding is in accordance with several other studies who have demonstrated the existence of an association between alexithymia and somatization. Sifneos in 1973, found high prevalence of alexithymia in psychosomatic patients as compared to general population.[16] but there is relative lack of data regarding comparison with Chronic Physical Illnesses.

Similarly, many studies using TAS have revealed that individuals with somatization score higher on various domains of alexithymia.[17,18] This may be because of such individuals show a striking difficulty in recognizing and verbalizing their feelings and discriminating between emotions and bodily sensations.

Lane & Schwadz in 1987 and Krystal in 1988, concluded that alexithymic individuals are more prone to develop symptoms of somatisation because they are psychologically ill equipped.[19,20] According to Rastogi et al (1976) in Indian scenario, somatic complains are more socially accepted hence these individual express emotional distress in the form of somatisation.[21]

In persons with somatization disorder the alexithymic characteristics might be

a. innate, or
b. might be a response to trauma experienced before the onset of the physical symptoms, or
c. might be a response to the pain and disability of the illness itself.

Our findings regarding comparison of alexithymia between two groups are in accordance with a study by Rubino *et al.* in which group of psychiatric patients scored significantly higher on TAS than a group of physically ill patients like bronchial asthma and duodenal ulcer.[22]

We tried to find out relationship between total TAS score and age of the subject. Pearson correlation value (0.537) indicates positive and highly significant correlation between total TAS score and age of the subject. This is in accordance with research of Martinez-Sa´nchez et al (1998), who followed up subjects over a period of time to see changes in alexithymia with age. They finally concluded that alexithymia is a stable personality trait and possession of it predisposes the individual to develop somatic illnesses.[23] Similar results by Salminen et al (1984) further supports the findings of current study.[24]

We tried to analyze relationship between alexithymia and total duration of illness. Pearson correlation value (-0.346) is suggestive of negative correlation between TAS score and total duration of illness. This finding, although surprising, is not incomparable.

In his study, Freyberger (1977) tried to find out whether alexithymia is always a primary personality trait or it can be developed due to other factors as a secondary phenomenon. He concluded that patients who have a longer duration of a physical illness may develop alexithymic characteristics due to associated depression and stress. He called this type of alexithymia as secondary alexithymia.[25] But because our study is cross-sectional, we are unable to draw conclusions about the causality of the relationship found between alexithymia, somatoform and physical disorders. Prospective studies that begin before the onset of the disease are needed to determine whether alexithymia is a predisposing risk factor for these disorders or a reaction to these disorders.

To find out whether secondary alexithymia can be influenced by any treatment modality, Beresnevaite (2000), in his study selected group of patients, in whom alexithymic features may be a state reaction to high psychological distress. He found that group psychotherapy leads to increased emotional awareness and, consequently, reductions in level of alexithymia over a period of time.[26]

This study concludes that association of alexithymia is high in patients with somatoform disorder and it can be considered as a risk factor to develop somatoform disorders.[27] Alexithymia is a primary personality trait that may predispose the subject to develop longer lasting somatic illnesses. But individuals may also develop alexithymic characteristics as a secondary state phenomenon, due to associated anxiety and depression due to the stress associated with any chronic health issues. Alexithymia is a predictor of therapy treatment outcomes and alexithymics may respond to cognitive and behavioral approaches.[28] Hence presence of alexithymia could have significant impact on treatment outcome of the patient.

Conclusion

Assessment of alexithymia in patients of somatoform disorder and also in chronic physical disorders would help us for it's better management. As most of these patients visit general hospital settings, medical doctors may be imparted basic training in recognizing and managing such issues for better outcome. Moreover strengthening of the consultation-liaison work between psychiatrists and specialists in other clinical will help reducing the functional impairment and economic burden associated with these groups of disorders resulting in better quality of life. This study is a hospital based study where subjects are chosen on purposive sampling method so generalization of its findings needs to be done with caution. A large community based study in collaboration with a culture study department may give us interesting findings in this regard.

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