

Study of Stressful Life Events and Alexithymia in Patients of Somatoform Disorders

Abstract

The present study was carried out to examine stressful life events and alexithymia in patients of somatoform disorders. A sample of 102 patients diagnosed by a Psychiatrist as somatoform disorder were matched with 116 normal controls and assessed using 20-Item Toronto Alexithymia Scale (Hindi translation by Pandey, Mandal, Taylor and Parker, 1996) and Presumptive Stressful Life Events Scale (Singh, Kaur and Kaur, 1983). Results revealed significantly more life events in the past 2-3 years in the lives of the patients as compared to the controls. There was a significant relationship between alexithymia and undesirable life events as perceived by the patients especially for those which were impersonal and which were ambiguous.

Keywords: Somatoform Disorder, Alexithymia, Life Events.

Introduction

Somatization is the expression of emotional discomfort and psychosocial stress in the physical language of bodily symptoms (Barsky, et al., 1990). Lipowsky (1988) c.f. Venugopal, Isaac, and Chaturvedi (2006) defines it as "the manifestation of psychological difficulty or distress through somatic symptoms, a tendency to experience and communicate somatic distress and symptoms unaccounted for by pathological findings, to attribute them to physical illness and to seek medical help".

The presence of physical symptoms that suggest general medical conditions are present, but they are not fully explained by general medical conditions, by the direct effects of a substance, or by another mental disorder. Yet symptoms cause clinically significant distress or impairment in social, occupational, or other areas of functioning (DSM – IV TR, American Psychiatric Association, 2000). Somatoform disorders are sub classified into various types namely Somatization Disorder, Undifferentiated Somatoform Disorder, Pain Disorder, Hypochondriasis, Body Dysmorphic Disorder, Conversion Disorder. The ICD-10 (WHO, 1992) classificatory system does not include Conversion Disorder and Body Dysmorphic Disorder but has an additional category of Somatoform Autonomic Disorder.

The mechanisms underlying somatization are not well understood. However, the following factors contribute:

1. Physiological arousal: Stressed or anxious patients experience heightened arousal and sensations.
2. Societal attitudes: "Physical" symptoms are more acceptable than psychological symptoms in the society. And are thus more commonly expressed.
3. Alexithymia: Some patients are unable to distinguish between emotional (cognitive anxiety) and physical pain. Persons who do not express emotions in words are described as alexithymic.

The physical complaints are somatic idioms for emotional distress (Lipowski, 1988; Kellner, 1990). It remains uncertain, however, why some patients minimize the affective component of emotions and selectively complain about the somatic accompaniments of emotional states (Kellner, 1990, Katon, Kleinman and Rosen, 1982), while others do not.

Several clinicians and researchers have suggested that the tendency to develop functional somatic symptoms might also be associated with the personality trait of alexithymia (Wickramasekera, 1986, Taylor, Bagby, and Parker, 1999).



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Sifneos introduced alexithymia as a part of the 11th European Conference on Psychosomatic Research, way back in 1972. Deriving from the Greek 'a' for lack, 'lexis' for word and 'thymos' for emotion, it literally means 'no words for mood', referring to the individuals' difficulty in describing their emotional state. The Alexithymic trait encompasses cognitive and affective characteristics, in particular,

1. Difficulty in identifying and communicating subjective feelings
2. A constricted imaginative life
3. And a tendency to focus on the concrete details of external events (Taylor, Bagby, and Parker, 1991).

These characteristics are thought to reflect a deficit in the capacity to construct mental representation of emotions which are essential for modulating states of emotional arousal through such cognitive processes as reflection, fantasy, activity, and the verbal communication of feelings to other people (Lane and Schwartz, 1987).

Higher levels of alexithymia have been found to be associated with the diminished ability to experience pleasure in social situations (Prince and Berenbaum, 1993) and with growing up in homes in which there was little open communication (Berenbaum and James, 1994). It is not that alexithymics do not have emotions; rather they have difficulty identifying and communicating their emotions. There is a lack of coherence in their communication (Berenbaum and Stacey, 1996). Empirical evidence supporting an association between somatic complaints and the concept of somato sensory amplifications is present (Barsky and Wyshak, 1990). Perez, Barsky, Vago, Baslet and Silbersweig (2015) highlighted convergent visceral-somatic processing, and reviewed neuroimaging studies in somatoform disorders. Neural correlates of cognitive-affective amplifiers were found to be integrated into a neurocircuit framework for somatosensory amplification. Somatosensory amplification they concluded, may, in part, develop through stress-mediated aberrant neuroplastic changes and the neuromodulatory effects of inflammation.

The American Institute of Stress (2018) defines stress as "a condition or feeling experienced when a person perceives that demands exceed the personal and social resources the individual is able to mobilize." It is the sum total of responses including physical, emotional, cognitive, and behavioral, to any stimulus, both intrinsic and extrinsic, which is appraised as challenging or alarming. Distress occurs when an individual experiences unpleasant stressors like excessive job demands, conflict with co-workers' /family members, financial problems, fears, unrealistic expectations, and repetitive thought patterns (Torkington, 2012). Norman, Mcfarlane and Streiner (1985) had concluded that stressful life events, although not related to specific disorders, appeared to increase one's overall susceptibility to illness, and are related to both physical and mental health. Steptoe (1991) noted in a review that a variety of

experimental, clinical and epidemiological research strategies provide evidence, linking stressful life events to illness and health; and it accounts for a modest 9 % of the variance.

Alexithymic individuals and somatization individuals frequently attend the primary health centers (Joukamaa et al, 1995). Some alexithymic patients who are distressed are not able to speak about their emotional problems, and therefore, they depend on somatization and frequently visit various outpatient health care services. Thus, a need was felt to assess alexithymia and psychological distress of the patients attending the psychiatric outpatient department to seek help for somatic complaints. the nature of symptoms i.e. the presentation of the disorder has been reported to vary with cultures, for instance, somatic symptoms may present as Dhat in India or as "ataque de nervios" in Latin America or as "Hot and Cold" syndromes in Puerto Ricans. Similarly, alexithymia with its evolution from the clinical observation of clients undergoing psychoanalytic psychotherapy in North America and Western Europe, might be a highly culture specific concept. In this context, the present study has been conceptualized. There is a need to explore the relationship between somatoform disorders and alexithymia in the Indian context. While the role of internal factor of alexithymia is undoubtedly important, the perception of the external factor of perceived stressful life events would provide a better understanding of the patients and would help in planning the psychosocial management of somatoform disorders which tend to have a chronic course of illness.

Aim of the Study

1. To study the effect of stressful life events on patients suffering from somatoform disorders and their normal controls.
2. To find relationship of alexithymia with life events in patients suffering from somatoform disorders and their normal controls.

Hypothesis

1. It is expected that perceived stressful life events would be significantly more in somatoform disorder patients as compared to their matched normal controls.
2. It is expected that perceived stressful life events would have a significant relationship with alexithymia in somatoform disorder patients as compared to their matched normal controls.

Tools

20 - Item Toronto Alexithymia Scale (TAS)

(Pandey, Mandal, Taylor, and Parker, 1996): It is a self - report measure of alexithymia as a personality construct. Using a measurement - based approach to construct validation, Taylor, Bagby, Ryan, and Parker (1990) initially developed the Toronto Alexithymia Scale. Its improved and revised version, the twenty item Toronto Alexithymia Scale (Bagby, Parker and Taylor, 1994) was later introduced measuring a stable and replicable three factor structure of alexithymia namely, Ability to recognize own emotions, Ability to communicate

feelings, Externally oriented cognitive style. The Hindi translation used in the present study has high correlation with the original ($r=0.85$), has a Cronbach's alpha of 0.72 and test-retest reliability of 0.83. It is a five point Likert Scale having 4 of the 20 items, negatively worded. It provides a score on each factor as well as a total alexithymia score. Higher score indicates more alexithymia.

Presumptive Stressful Life Event Scale (PSLE)

(Singh, Kaur and Kaur, 1983): It is a checklist of common life events experienced as stressful by the Indian population making it highly culture specific and valid for our sample. It has 51 items which are further classified as, Personal or impersonal i.e., the degree of dependence on the individual's action (24 and 27 items, respectively), Desirable or undesirable or ambiguous (10 and 32 and 9 items, respectively). Further, the number of stressful life events experienced in the past one year is analyzed. It is a reliable and valid test for Indian patients and has been effectively used with anxiety neurosis patients (Sharma and Ram, 1987).

Sample

The data of patients was collected from qualified Psychiatrists who referred the consecutive cases diagnosed as suffering from somatoform disorders to the investigator. To be included in the study the patient diagnosed as somatoform disorder had to be between 18 and 65 years of age. If he had history of major medical disorders or a concurrent diagnosis of psychosis, organic brain syndrome or mental retardation or hailed from broken or single parent family, he was excluded. The normal sample was matched with the patient sample on age, gender, education, occupation, marital status, family, income and residential area, using Chi-square test. The latter was collected from the general population and was screened for normalcy using the General Health Questionnaire. Individuals scoring more than 3 on General Health Questionnaire were excluded. Patients and the controls were assured confidentiality, and an informed consent was obtained with an option

to opt out of the study. The final sample comprised of 102 patients and 116 normal controls.

Results and Discussion

Results as presented in table I (a) reveal that on an average in the past 2-3 years, patients had 8-9 life events ($SD=3.88$) while controls had 6-7 life events ($SD=3.43$) as measured by the PSLE. This difference was statistically significant ($t=4.56$, $p<0.01$) implying that the number of events experienced by the patients were significantly higher than those experienced by their normal controls. The correlation between the number of life events and alexithymia was however, statistically insignificant ($r=0.192$, $p<0.10$) although it was very near to it (obtained $r=0.192$, expected $r=0.194$, $p<0.05$). But some effect of life events on alexithymia was indicated which was statistically significant at 90% level.

Some of the earlier studies have tended to evaluate the number of life events in the past one year, or they have considered the lifetime stress scores. In the current study, however, past 2-3 years were considered. The reason was that during the pilot work in the counselling sessions it became evident that the patients were preoccupied and distressed with events which extended to about 3 years. And, hence, the change was incorporated, so that the events which are having an impact on the patients are all considered.

Significant difference in the total number of stressful events faced by patients of somatoform disorder in comparison to matched controls is in line with the findings reported by Shekhar et al. (1983) in psychiatric outpatients, by Geetha and Sekar (1995) in patients with functional somatic symptoms, by Gautam and Kamal (1990) in neurotic patients, by Spurrell and McFarlane (1995), by Tojek et al. (2000) in psychogenic seizures and by Kapfhammer (1998) in factitious disorders with somatic illness. It is, however, repeatedly emphasized that the number of events are not as significant as is the quality or nature of the events. Particularly emphasized is the desirable- undesirable classification.

Table I (A)
Effect of Life Events on Somatoform Disorders

Type of Life Events	Patients (N=102)		Controls (N=116)		t-value
	Mean	SD	Mean	SD	
Total number	8.86	3.88	6.60	3.43	4.56**
Desirable	2.25	1.45	2.69	1.52	-2.15*
Undesirable	4.79	2.66	2.52	2.17	6.96**
Ambiguous	2.00	1.23	1.40	1.34	3.44**
Impersonal	4.68	2.36	3.13	2.03	5.21**
Personal	4.32	2.30	3.45	2.02	2.99**
Perceived Positive	2.25	1.89	3.28	2.14	-3.75**
Perceived negative	5.89	3.40	2.52	2.23	8.76**
Perceived neutral	0.87	1.17	0.81	1.37	0.36 (NS)

N.S.: Nil significant **t**: $p \leq 0.05$ ******: $p \leq 0.01$

In the present study, the patient and the control group were significantly different in the number of desirable, undesirable and ambiguous life events experienced by them (Table I (a)). The desirable life events were significantly higher ($t= -2.15$, $p \leq 0.05$) in the control group than the patient group, while the undesirable ($t=6.96$, $p \leq 0.01$) and the ambiguous

events ($t=3.44$, $p \leq 0.01$) were significantly higher in the patient group. Thus, in the present study, patients of somatoform disorders experienced significantly higher number of undesirable and ambiguous stressful life events and significantly lesser number of desirable stressful life events in past 2-3 years as

compared to the matched control of normal individuals.

Saxena et al. (1983) found the desirable as well as the undesirable life events to be more prevalent in the patients than in the controls. However, Rao (1997) concluded from her review that the "loss" events were perceived as being negative and beyond control, and tended to peak prior to onset of neurotic symptoms. Also Vinokurand Selzer (1975) reported that the self-reported tensions and distress and emotional disturbances were present primarily due to accumulation of undesirable life events.

ZimmermannTansella, Donini, Lattanzi, Siciliani, Turrina and Wilkinson(1991) also showed on logistic regression models that importance of undesirable life events and social problems were the predictors for emotional distress.

The findings of the current study reported were based on the categorization given by the authors of the PSLE, as standardized on the Indian population. Keeping in view the conclusion by Rao (1997) that event occurrence in itself is not stressful but how it is perceived and appraised is of significance the personal appraisal of respondents has been evaluated. Gadzella (1994) empirically reported that the appraisal of the events by the individual is more significant than the events per se. The events may be under-appraised or over appraised based on the significance that the event merits to that particular individual; due to the interpretations made by him regarding personal (current and future) implications. Further, several intervening variables available to the individual, like social support, personality and life situations, would affect a change on the impact and significance of life event on the person. Coyne and Downey (1991) in their review too, had emphasized the importance of classes of events in determining the disorder to be precipitated. They found that loss events preceded depression, and danger events preceded anxiety. Realizing the significance of personal perception of events as reported in the literature, this was incorporated in the present study. Although the categorization of PSLE was culture specific, it was still felt by the present investigator that individual difference in the perception may be present, and consequently the significance of an event would be different. Hence, the respondents were asked to rate each life event in terms of its effect on them personally, in terms of desirability, undesirability, and ambiguity. The results here were in concordance with authors division on the desirable and undesirable life events. Particularly, based on the personal significance, the patients had statistically significant lower number of positive life events ($t = -3.75$, $p < 0.01$) and significantly larger number of negative life events ($t = 8.76$, $p < 0.01$). However, there was no significant difference on the number of life events which were personally perceived as ambiguous ($t=0.36$, $p>0.05$).

The lack of difference found on the events perceived as ambiguous adds weight to the earlier discussion where it was concluded that the number of events is not as important as the weightage given to them at the personal front. The ambiguous events by virtue of being neither positive nor negative, lose their significance in providing positive or negative effect, respectively; thus becoming insignificantly related to the somatoform illness. These events are neither wanted nor unwanted and hence do not carry much weight. Miller and Lefcourt (1983) found the significance of social intimacy, along with the presence of many previous negative or few previous positive life change events in the genesis of emotional disturbance. Thus, where an event has ambiguous impact, it becomes only an added number to the event list but is not significant in precipitating (negative impact) or in buffering (positive impact) the effects of life change. This explains the insignificance found between the control and the patient scores on personally perceived ambiguous events. Since, on the categorization of authors there is a significant difference between patients and controls on ambiguous events; it is worth exploring whether the events enumerated in it actually have a definite valence for the respondents in the personal perception criteria. This is beyond the scope of the current paper.

The authors have also categorized the life events in to personal and impersonal types. There were statistically significant differences between the patient and the control groups on the number of life events experienced which were personal ($t=2.99$, $p<0.01$) and those which were impersonal ($t=5.21$, $p<0.01$) in their characteristics. In both the categories the patients experienced greater number of events. It has been reported that along with the desirability dimensions which signifies the willfulness of that event; it is also important to note the predictability and controllability on an event to realize its stressfulness. The degree to which an event is predictable and controllable will affect the magnitude of the stress related to it. The personal life events would be more stressful than the impersonal because the former carry much more significance to the individual. However, the chronicity of impersonal may have a cumulative effect which can be significantly negative to the health outcome (Irpai, Avasthi, and Sharan, 2006).

On the whole, in the present study the life events, whether they were desirable or undesirable, personal or impersonal and their total number were all significantly higher in the patients than the normal controls. Ambiguous events as classified by the author of the test were significantly higher in patients, but there was no difference between the two groups when the ambiguity was assessed by the respondents themselves. In the current study the impact of stressful life events on somatoform disorder patients is evident.

Table Ix (B)
Correlations of Alexithymia with Life Events

Life Events	Factor 1		Factor 2		Factor 3		Total	
	Patient	Control	Patient	Control	Patient	Control	Patient	Control
Desirable	0.025	-0.215*	0.052	-0.228*	-0.142	0.032	-0.024	0.189*
Undesirable	0.229*	0.127	0.193	0.112	-0.126	0.084	0.157	0.142
Ambiguous	0.311**	-0.118	0.344**	-0.112	-0.107	0.017	0.272**	-0.100
Impersonal	0.267**	-0.053	0.261**	-0.006	-0.135	0.001	0.203*	-0.032
Personal	0.162	-0.039	0.159	-0.119	-0.132	0.128	0.102	-0.017
Perceived positive	-0.024	-0.194*	0.048	-0.269**	-0.107	0.015	-0.040	-0.198*
Perceived Negative	0.333**	0.131	0.274**	0.194*	-0.104	0.107	0.259**	0.182
Perceived Neutral	-0.068	-0.117	-0.059	-0.128	-0.105	0.018	-0.106	-0.104
Total Number	-0.277**	-0.083	0.225	-0.093	-0.142	0.086	0.192	-0.047

*: $p \leq 0.05$

** : $p \leq 0.01$

Studying the relationship of stressful life events with alexithymia (Table I-b), it became evident that in the healthy normal controls there was consistent negative correlation, which was statistically significant, between alexithymia scores and the number of desirable life events as measured by the scale ($r = -0.189, p \leq 0.05$) and as perceived by the respondents ($r = -0.198, p \leq 0.05$). Further, the significance was maintained on factors 1 and 2 while factor 3 was not related to stressful life events. This, too, was consistent for factor 1 on scale measure ($r = -0.215, p \leq 0.05$) and on self-perception ($r = -0.194, p \leq 0.05$), and also for factor 2 ($r = -0.228, p \leq 0.05$ and $r = -0.269, p \leq 0.01$, respectively). All other correlations were insignificant. This implies that in the general population, presence of desirable or wishful life events is associated with improved recognition and expression of emotions, and with the overall alexithymia personality trait.

In somatoform patients there was a statistically significant positive correlation of the total number of life events with factor 1 ($r = 0.277, p \leq 0.01$) and with factor 2 ($r = 0.225, p \leq 0.05$). But total alexithymia score failed to reach statistical significance although it was close to the significant value (recorded $r = 0.192$, expected $r = 0.195, p \geq 0.05$). This implies that the increased number of life events is associated with increased inability to differentiate and express emotions, two aspects of alexithymia personality trait.

Also the undesirable events measured by the scale ($r = 0.229, p \leq 0.05$), and as perceived by the patients ($r = 0.333, p \leq 0.01$) were significantly correlated with factor-1 of alexithymia. The perceived undesirable events were also significantly related with factor-2 ($r = 0.274, p \leq 0.01$) and with the total ($r = 0.259, p \leq 0.01$) scores on the Alexithymia Scale. Impersonal events were significantly correlated with factor 1 ($r = 0.267, p \leq 0.01$), factor 2 ($r = 0.261, p \leq 0.01$) and total scores ($r = 0.203, p \leq 0.05$) of alexithymia. The results revealed significant positive correlation between the scale described ambiguous events and factor 1 ($r = 0.311, p \leq 0.01$), factor 2 ($r = 0.344, p \leq 0.01$) and the total alexithymia scores ($r = 0.272, p \leq 0.01$).

These results, on one hand indicate a need for reevaluation of the types /categorization of the life events as given by the authors, and on the other hand

highlight the impact of perceived negative life events on alexithymia.

Similar results have been reported by Butow et al. (2000) in breast cancer development; by Marcenaro et al. (1999) in rheumatoid arthritis. Only two published studies were found wherein alexithymia and somatic symptoms in relation to life events were studied, and in both the studies negative life events were found related to somatic symptoms but no relationship with alexithymia was reported (Geetha and Sekar, 1995; Tojek et al. 2000). In both the studies, sample size was small (30 females; and 25 patients with 33 controls; respectively). The design was also not robust. Hence the current study has added significantly to the related literature.

Effect of early life traumatic experiences on the development of alexithymia are well described by the psychoanalytic theorists, since the inception of the construct (Nemiah, 1977, Sifneos, 1977, McDougall, 1982, Taylor, 1984, Rickles, 1986). Their explanations are within the framework of defense mechanisms and fixations at the early stages of development. The results can also be viewed in terms of stressful life events during adulthood related to the psychosocial model of inadequate coping. This based on the work by Spurrelland McFarlane (1995) where they employed statistical methods to the model to study the intervening role between number of life events and subsequent psychiatric symptomatology using Impact of Event Scale scores. It was found that the impact of events accounted for the reporting of psychiatric symptoms following adversity. The dimension of cognitive intrusion was found to be mediating this effect, with cognitive avoidance occupying a subsidiary, reactive role. There was also evidence of specific relationship between intrusion and anxiety and somatic subscales of GHQ, while avoidance had a relation with depression.

It would be worth consideration whether the relationship of cognitive intrusion with somatic symptoms was further being mediated through alexithymia.

Also, Lipowski(1988) explaining somatization stated that the tendency to experience and communicate somatic distress and symptoms unaccounted for by pathological findings, and to attribute them to physical illness, becomes manifest in response to psychosocial stress brought about by life

events and situations that are personally stressful to the individual. However, the somatizing persons usually do not recognize it and may explicitly deny a causal link between their distress and its presumed source. This is because they respond primarily in a somatic rather than a psychological mode, regarding their symptoms as indicative of physical illness. Keeping in view the above, role of alexithymia can be regarded at the juncture of forming the casual link and making the interpretations in the somatic rather than emotional point of reference. Inamdar, Arizwaseem, and Lalita(2016) found similar findings and also proved its mediating effect in outcome.

Vingerhoets et al. (1995) described alexithymic individual as one who has serious restrictions in his coping repertoire, both concerning problem focused coping and emotion focused coping. Coping acts as a moderating factor in the stressor - disease relationship. When these factors are present united in an individual, he is at a serious risk for development of somatic - psychiatric disorders whenever he is exposed to a serious life stressor.

Taylor et al. (1992) concluded that alexithymic individuals are prone to symptoms of emotional turmoil as well as to somatization because they are not well equipped psychologically. Alexithymic individuals display and spontaneously use words related to emotions, but they are unable to elaborate on their feelings, and are unable to link them with accompanying somatic sensations or with fantasies and memories. It is a psychological deficit, rather than a defense. It reduces the alexithymic individual's capacity to cope with stressful experiences. When faced with stressful experiences, alexithymic individuals attempt to cope with undifferentiated states of unpleasant emotional arousal through impulsive and acting out behavior, like substance abuse and excessive dependency on other people, or through somatization. In normals coping with stressful life events is by sharing with significant others and thus have an experience of ventilation or catharsis; and may also result in solutions of problems from others who have already faced such situations. In case of alexithymics who are poor in articulation of emotions and feelings they are likely to be more adversely affected by stressful life events. While normals giving vent to their feelings, restore a balanced emotional state. De Vroeghe, Lars et al.(2018) also reported greater prevalence of alexithymia in patient population although outcome of therapy did not significantly depend on it. Nakao and Takeuchi(2018) similarly did multiple regression analysis showing that the total number of somatic symptoms were significantly associated with the degree of perceived psychosocial stress, alexithymia, somatosensory amplification, and depression. Also, structural equation models indicated links between excessive adaptation (via perceived psychosocial stress, alexithymia, and somatosensory amplification) and the total number of somatic symptoms. They concluded that the association between psychosocial stress and reported somatic symptoms is mediated by

alexithymia and somatosensory amplification in psychosomatic patients.

Conclusion

To sum up, most theories have indicated that the stressful life events act as triggers to inadequate coping in alexithymic individuals leading to the expression of emotions in somatic terms. The present study found this association as being more evident when the events are greater in number are perceived as undesirable, are impersonal and ambiguous. It may be worthwhile to explore its corollary that in the advent of positive life events the coping mechanisms may be improved.

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