

LIFE EVENTS AND SOMATOFORM DISORDERS

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ABSTRACT

Presumptive Stressful Life Events Scale (PSLES) was administered to 69 physically ill, 23 patients with somatoform disorders and 45 patients with psychiatric disorders other than somatoform disorders who sought medical help in primary health care settings. The 137 patients were cluster analysed in order to obtain the patterns of distribution of 39 life events. Five clusters emerged. All the patients in cluster V had somatoform disorders and life events had a significant occurrence and discrimination.

Key Words : Life events, somatoform disorders, primary health care

The association between stressful life events and mental disorders is well established (Paykel, 1974). It is interesting to know whether certain life events are associated with specific mental disorders. Bereavement leading to depressive disorder is well known. Sharma and Ram (1988) reported that four life events like major purchase or house construction, failure in examination, appearing for an interview and getting engaged or married were found to be significantly more in 74 patients with anxiety neurosis as compared to 47 control individuals. Kulhara and Rao (1986) found more undesirable life events in patients with obsessive compulsive disorder than in controls. Bhatti and Channabasavanna (1985) found stress in educational area to be related to hysteria and anxiety.

A few studies have been done about life events and somatization disorder. Morrison (1989) studied childhood sexual histories of adult women with somatization disorder and found that sexual abuse was one of many life events in their early childhood. Robinson et al. (1990) concluded in their study on life events and family history in children with recurrent abdominal pain that these children were more likely to come from families where recurrent

painful illness was a parental feature and that adverse life events constituted a significant trigger factor affecting the expression of symptoms than the controls. Craufurd et al. (1990) found a significant excess of adverse life events before the onset of back pain in those with definite onset back pain of uncertain cause compared with those with a specific diagnosis. Walker et al. (1992) showed the risk for life time diagnosis of major depression, panic disorder, phobia and somatization disorder and current major depression and somatoform pain disorder, was significantly higher in women with severe childhood sexual abuse. Geetha & Sekhar (1995) studied alexythymia, life events and coping skills in rural women with functional somatic symptoms (FSS) and compared with rural women without FSS, and found that the FSS group had higher number of total life events especially in the areas of family, finance and marital-sexual areas. They had more desirable and anticipated stress than undesirable and un-anticipated events. Katte (1995) compared patients having undifferentiated somatoform disorder with patients having dysthymia and found that both groups did not differ statistically on the total number of life events during the

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past one year and also on desirable, undesirable, ambiguous, personal and impersonal life events. He found that patients with dysthymia scored higher stress scores than patients with somatization disorder.

The present study was carried out as part of the WHO International Study on Somatoform Disorders. This study is being carried out by WHO in 11 countries including India, Italy, Zimbabwe, USA, Brazil (Isaac et al., 1995; Janca et al., 1995). As part of phase II of the study, 1526 patients who sought medical help in 4 primary health care set up in Anekal and Bangalore were screened by 'Screener for Somatoform Disorders' (see appendix). Patients who reported of having more than 3 out of 12 symptoms bothering them during the previous 6 months or one symptom lasting for more than one month, were included in the study. The treating doctor was asked to opine whether the symptoms were medically explainable or not. Patients with 'medically unexplained' symptoms were administered Somatoform Disorder Schedule (SDS) and sections of Composite International Diagnostic Interview (CIDI) on anxiety, depression and alcohol/ substance abuse (SDS is available on request from the authors/ WHO). Every 10th patient with medically explained symptoms was also administered these instruments. 120 patients with medically unexplained symptoms and 95 patients with medically explained symptoms were studied. Detailed evaluation of these patients was done by psychiatrists.

The aims and objectives of the present study were (a) to study the life events reported by these patients with medically unexplained or medically explained symptoms, (b) to identify profiles of these reported life events by cluster analytic approach and relate them to clinical diagnostic groups with specific reference to somatoform disorders.

MATERIAL AND METHOD

Presumptive Stressful Life Event Scale

(PSLES) (Singh et al., 1984) was administered by a trained research worker to 141 patients recruited for WHO International study of Somatoform Disorders. 71 patients of this cohort (50%) had 'medically explained' symptoms. 70 patients had 'medically unexplained' symptoms. 23 out of them were found to be suffering from somatoform disorders and 45 from psychiatric disorders other than somatoform disorders (ICD-10 classification). PSLES consists of 51 items of 9 broad groups of stressful life events. The patient was asked to report these life events occurring during the past one year.

On an average, patients with 'medically explained symptoms' reported 2.1 life events, patients with somatoform disorders reported 2.5 life events and patients with psychiatric disorders other than somatoform disorders reported 3.5 life events.

Out of 141 cases, 4 cases in which no stressful life event was reported were excluded. Out of 51 items of PSLES, 12 items were not reported by any of the patients and they were excluded. Seven popular hierarchical cluster analysis methods (Reddy, 1994) each with both the euclidian distance and correlation coefficient were employed to classify 137 patients each measured on 39 items. Each of the 14 classifications (7 methods each with two measures of proximity) were evaluated for their recovery of clinical diagnostic groups. Validation was also provided by correlating the profiles with various demographic factors. The profiles were characterised by the items which significantly discriminated the clinical condition. The computer program 'HIER' was executed with a mini-computer with unix operating system. Among all the classifications, the one with the ward method with euclidian distance had the highest recovery (72%), was selected as the best method for the data that was used. This classification with five clusters is presented on demographic variables along with clinical diagnosis (Table 2).

RESULTS

TABLE 1
STRESSFUL LIFE EVENTS IN THREE CLINICAL DIAGNOSTIC GROUPS (FIGS. IN %)

LIFE EVENTS	PHYSICALLY ILL (69)	PSYCHIATRIC DISORDERS (45)	SOMATOFORM DISORDERS (23)	TOTAL (137)
1. Change of residence	26*	18	9	20
2. Family conflicts	3	20*	13	10
3. Marital conflicts	-	13*	-	6
4. Excessive alcohol used by family members	4	13*	9	8
5. Gain of new family members	3	11*	-	5
6. Trouble at work with colleagues	-	11*	4	4
7. Beginning/ending school	-	9*	-	3
8. Conflict with in-laws (other than dowry)	-	7*	4	3
9. Change in social activities	-	4*	-	1
10. Failure in examination	-	4*	-	1
11. Large loans	19	16	30*	20
12. Son/daughter leaving home	-	2	13*	3

The figures in parenthesis represent no of patients

*significant to cluster

The 5 Clusters are as follows :

Cluster I : It consists of 43 patients (31% of the cohort) out of which 41 (95%) had medically explained symptoms (physically ill) and only 2 patients with somatoform disorders. All were housewives.

Cluster II : It consists of 34 patients (25% of the cohort), all females. Out of these, 25 (74%) patients had psychiatric disorders other than somatoform disorders and 9 (26%) had somatoform disorders. 97% of this cluster were housewives.

Cluster III : It consists of 41 patients (30% of the cohort) ; out of these, 23 (56%) patients had physical illness. 15 (37%) had psychiatric disorders other than somatoform disorders and

3 (7%) had somatoform disorders. 71% were males. All were employed.

Cluster IV : It consists of 13 (10% of the cohort) patients. 85% were students. 54% were females. 39% had physical illness and 39% had psychiatric disorders and 22% had somatoform disorders.

Cluster V : It consists of only 6 patients and all were suffering from somatoform disorders. They were less educated, aged 41 years and above. 67 were females. 50% of them were housewives.

The stressful life event which significantly discriminated the clusters and occur more than once are given in table 3.

Only one event 'change of residence' was significantly present in cluster I. Thus this cluster may be designated as 'Physical Illness Related Events (PRE)'.

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TABLE 2
CLINICAL DIAGNOSIS AND OTHER CHARACTERISTICS OF FIVE CLUSTERS (FIGURES IN %)

VARIABLES	CLUSTERS (number of patients in each cluster is given in the bracket)					
	I (43)	II (34)	III (41)	IV (13)	V (6)	Total (137)
Diagnosis						
Physical illness	95*	-	56	39	-	50
Psychiatric	-	74	37	39	-	33
Somatic	5	26	7	22	100	17
Age						
Up to 20 yrs	-	-	-	54	-	6
21 - 40 yrs	51	56	44	46	-	47
41-60 yrs	49	44	56	-	100	47
Gender						
Male	-	-	71	46	33	27
Female	100	100	29	54	67	73
Education (in years)						
Up to 5	-	-	5	8	67	15
6 - 10	19	15	54	23	17	61
11 - 15	72	79	41*	69	17	24
Marital Status						
Married (including widowed)	9	6	-	92	-	10
Never married	100	97	100	8	100	90
Occupation						
Employed	-	3	100	15	33	33
House-wives	100	97	-	-	50	58
Students & unemployed	-	-	-	85	17	9

*significant to cluster

5 events related to marital and in-law conflicts were significantly presented in cluster II which may be designated as Marital Conflict Related Events (MRE).

Cluster III was associated with trouble with colleagues as well as illness of family members which may be designated as 'Work Related Events' (WRE).

Cluster IV was associated with un-employment, major personal illness and family conflicts which may be designated as 'Unemployment Related Events' (URE).

Cluster V had seven ambiguous life events related to loans, pilgrimage, son/daughter getting married/ leaving home. These are

'Somatoform Disorder Related Events' (SRE).

DISCUSSION

The findings in the present study seem to be valid as judged by the significant occurrence of clinical diagnosis in three of the five clusters. Again they differ with respect to external variables such as age, gender, education, marital status and occupational groups. Since 22 item (as against 12 items according to the traditional approach) have significantly discriminated the groups, internal validation have been achieved. Since the sample size is sufficiently large and different methods of clustering have been employed, the profiles of events seems

TABLE 3
STRESSFUL LIFE EVENTS IN EACH OF THE FIVE CLUSTERS
(FIG. IN %)

LIFE EVENTS	I PRE (43)	II MRE (34)	III WRE (41)	IV URE (13)	V SRE (6)	TOTAL (137)
1. Change of residence	28*	18	17	23	-	20
2. Prophecy of astrologer /palmist	2	12*	-	-	17	4
3. Conflict with in-laws(other than dowry)	-	9*	2	-	-	3
4. Marital conflicts	-	9*	7	-	-	4
5. Sexual problems	-	9*	7	-	-	4
6. Beginning/ending school	-	9*	2	-	-	3
7. Illness of family members	12	18	24*	8	17	17
8. Trouble with colleagues /superiors	-	-	10*	8	17	4
9. Failure in examination	-	-	5*	-	-	2
10. Major personal illness/injury	33	29	34	62*	-	34
11. Self/family members unemployed	2	9	5	31*	17	8
12. Family conflicts	5	12	7	31*	17	10
13. Excessive alcohol used by family members	-	15*	10	15	-	8
14. Change in social activities	-	-	2	8*	-	-
15. Pregnancy of wife (wanted/unwanted)	-	-	2	8*	-	2
16. Going on pleasure trip /pilgrimage	28	24	24	23	67*	27
17. Large Loans	14	9	27	31	50*	20
18. Son/daughter leaving home	-	3	-	8	33*	3
19. Marriage of daughter /dependent son	19	6	10	6	33*	12
20. Trouble with neighbours	2	3	5	-	17*	4
21. Robbery/theft	-	-	2	-	17*	2
22. Change of sleep habits	5	6	5	-	17*	5

The figures in paranthesis represent no of patients

*significant to cluster

to be meaningful.

In order to characterise the profiles by events which significantly discriminated the

clinical diagnostic groups, the list of such item in three clinical groups are presented in table 1. It may be noted that only 12 item had significant discrimination power in the traditional approach.

It is interesting to note that only one life

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event is associated with physical illness related cluster (PRE) and it is validated by the traditional approach. The clustering of prophecy of astrologer/palmist and marital and in-laws conflict is very much meaningful. According to the traditional approach, all the events are related to psychiatric disorders. In cluster III, trouble with colleagues, superiors and subordinates, and failures in examination were related to psychiatric disorders and illness of family members had no significant discrimination between clinical conditions. In cluster IV, items on unemployment and major personal illness had no clinical discrimination and family conflict was a psychiatric event. Most of the SRE events are ambiguous in nature covering family, social, financial and health aspects. The five life events identified by the cluster analytic approach are : going on pleasure trip/pilgrimage, marriage of daughter/dependent son, trouble with neighbours, robbery or theft and change of sleep habits. Though these events occur in all other clusters at various levels, the clusters denoted as SRE with 6 patients had significant occurrence and discrimination of life events and hence none of the patients could be classified in any other groups (Table 3). Patients with somatoform disorders had low education. But other factors like, age, sex, occupation were not significantly related to this disorder.

Concluding, the fifth cluster (SRE) had all the patients suffering from somatoform disorders. Five life events - going on pleasure trip/pilgrimage, marriage of daughter/dependent son, trouble with neighbours, robbery/theft and change of sleep habits had significant occurrence and discrimination. Though they were seen in other cluster, the clustering of these events was seen only in this cluster.

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APPENDIX

SCREENER FOR SOMATOFORM DISORDER

- A. In the past 6 months, have you had a lot of trouble because of any of the following problems :
CIRCLE YES OR NO FOR EACH ITEM
- | | |
|---|--------|
| 1. Headache..... | YES NO |
| 2. Feeling your heart pounding in your chest..... | YES NO |
| 3. Churning, butterflies or discomfort in your stomach..... | YES NO |
| 4. Excessive gas or bloating..... | YES NO |
| 5. Back pain..... | YES NO |
| 6. Dizziness..... | YES NO |
| 7. Heaviness or lightness in your head..... | YES NO |
| 8. Dry mouth | YES NO |
| 9. Being tired all the time | YES NO |
| 10. Pain in your arms or legs..... | YES NO |
| 11. Trouble sleeping..... | YES NO |
| 12. Unpleasant numbness or tingling sensation | YES NO |
- B. Have any of these problems lasted for a month or more? YES NO
IF THREE OR MORE YES IN A1-A12, OR B=YES, ASK PHYSICIAN TO ANSWER C.
- C. TO BE ASSESSED BY PHYSICIAN:
Are the symptoms circled YES in A1-A12
due to physical disease? YES NO UNCERTAIN

IF YES, DO NOT INCLUDE RESPONDENT IN THE STUDY

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