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A COMPARATIVE STUDY OF LIFE EVENTS IN DEPRESSION AND MANIA

P.N. SURESH KUMAR, JNANAMAY DAS, D.J. BAGCHI & HEM RAJ PAL

ABSTRACT

This prospective study was aimed at a qualitative and quantitative analysis of life events in depression and mania and to find out any correlation between the severity of life events and magnitude of illness. Forty two patients with first episode mania and thirty patients with first episode depression, satisfied the DSM III R Diagnostic Criteria were interviewed using Presumptive Stressful Life Events Scale, Hamilton Depression Rating Scale for depression, Modified Manic State Rating Scale for mania and a questionnaire concerning sociodemographic and clinical profile. Life events were experienced by 87% of depressives and 81% of manics. There was no difference in the quantitative and qualitative profile of life events except that desirable life events and events like major physical illness or injury were significantly higher in depressives. Financial loss/problems were the commonest events experienced by the two groups. There was no correlation between the severity of life events and magnitude of illness. The implications of these findings are discussed in Indian context.

Key Words : Life events, depression, mania

Life change could act as stressor causing physiological arousal and enhanced susceptibility to illnesses (Selye, 1956). Life event research is one of the ways of systematically studying the relationship between stress and illness. A positive relationship between stressful life events and subsequent psychiatric illness and the illness magnitude has been observed (Wyler et al., 1971; Paykel, 1974). A review of literature of life events shows that majority of studies have been conducted on depressive disorders but very few in relation to mania. Although mania secondary to somatic illness or a chemical substance is being increasingly recognized, the role of life events in mania remains ill explored (Krauthammer & Klerman, 1978).

Most of the research has used a life event inventory to measure stress and to estimate its effects. Early work was limited to case-control studies in which retrospective reports about life events were obtained from psychiatric patients and from controls, thereby lowering the reliability of information. Utilization of simple event count as a means of quantification has also been criticized as being too simplistic and the use of weighted score is a further refinement of the procedure (Saxena & Mohan, 1982). Some studies have taken multiple episodes into consideration which also may have a dubious effect when considering the newly developed paradigm of kindling and behavioural sensitization (Post & Weiss, 1989). Lastly, many of the studies in our country have utilized western scales with local translations and modifications (Prakash et al., 1980; Chatterjee et al., 1981; Bhatti & Channabasavanna, 1985). In the absence of utilization of proper scale consisting items more relevant and standard-

ized for our culture, the results of these studies are questionable.

Considering the methodological limitations of the previous studies and the growing awareness of psychosocial aspects both in the etiology and management of affective disorders it is imperative to explore further into this aspect.

The present study was designed to fulfil the following aims :(i) A qualitative and quantitative analysis of life events in two major affective disorders; mania and depression. (ii) To identify any correlation between the severity of life events and the magnitude of illness.

MATERIAL AND METHOD

All patients attending the outpatient department of Central Institute of Psychiatry, Ranchi during the period August 1994 to October 1994 with a probable diagnosis of first episode mania or depression were screened by one of the investigating team (D.J.B). The diagnosis was confirmed by further clinical interview based on DSM III R criteria. Finally 42 patients of first episode mania and 30 patients of first episode depression were taken up for the study. The information regarding the sociodemographic characteristics and clinical profile were documented in a specially designed proforma. Presumptive stressful Life Event Scale (PSLES) containing 51 items constructed and validated by Singh et al. (1984) was employed to evaluate the stressful life events which occurred within one year of the onset of affective episode. It was administered by one of the authors (PNSK) to elicit the details regarding life events both from the patient and from accompanying relatives of the patients. It is a semistructured interview schedule which can rigorously categorize the events independent of illness and is one of the most reliable instruments specially designed for Indian population.

The severity of affective episode was assessed by another author (JD), who was blind to the assessment of life events, administering Modified Manic State Rating Scale (Blackburn, et al., 1977) and Hamilton Depression Rating Scale (Hamilton, 1986) for mania and depression respectively. All the assessments were done on the same day of consultation. If the patients condition did not allow detailed interview, further clarification was done either with the help of relatives or close friends accompanying the patients.

The data were analysed and compared between depression and mania. Statistical significance was calculated by student's t-test and Chi-square test (with Yates correction) wherever applicable. The correlation of severity of life events with magnitude of illness was assessed by Pearson's correlation coefficient.

RESULTS

The sample comprised of 42 patients of first episode mania and 30 patients of first episode depression. Comparison of sociodemographic and clinical profile shows that depressives were older ($P < 0.01$) and had later onset of affective illness ($p < 0.05$) (Table 1).

Life events were experienced by 81% of manics and 87% of depressives; 35.7% of manics had 3 or more life events and 50% of depressives had 3 or more life events. Both manics and depressives had comparable number of desirable and undesirable life events and personal and impersonal events (Table 2).

Comparison of the weighted total life event score, score for undesirable events, personal/impersonal events and ambiguous events did not show any significant difference between manics and depressives. The score for desirable life events was significantly higher ($P < 0.05$) in depressives (Table 3).

Out of 51 life events in the PSLE, financial loss or problem was experienced most frequently (25.6%) followed by illness of family member (20%), major physical illness or injury (16.7%), self or family member unemployed (10.3%) and lack of son (9.0%). Other events were experimented by lesser numbers (Table 4). Comparison of individual life events showed that only major physical illness or injury was significantly higher in depressives (Major

TABLE 1
SAMPLE CHRACTERISTICS

	Mania (N = 42)	Depression (N=30)	Significance P
Mean age (yrs)	25±6.1	36±5.7	t=4.03, p < 0.01
Mean age of onset	25±8.5	35.7±7.5	t=3.95, p < 0.05
Gender (% male)	76.2	70.0	NS
Marital status (% married)	54.5	71.9	NS
Domicile (% rural)	71.4	63.3	NS
Religion (% hindus)	94.7	93.3	NS
Mean education (yrs)	7±4.2	8.9±3.6	NS
Employment (% employed)	88.1	73.3	NS
Family history (%)	52.1	56.6	NS

TABLE 2
FREQUENCY OF LIFE EVENTS EXPERIENCED BY DEPRESSIVES AND MANICS

Life events	Mania (N = 42)		Depression (N=30)		X^2	Significance Significance
	N	(%)	N	(%)		P
None	8	(19)	4	(13.3)	0.411	NS
One	7	(16.7)	5	(16.7)	0.008	NS
Two	18	(42.9)	8	(26.7)	0.948	NS
Three or more	15	(35.7)	15	(50.0)	1.47	NS
Desirable	13	(31.0)	9	(30.0)	0.2668	NS
Undesirable	59	(140.5)	55	(183.3)		
Personal	35	(83.3)	28	(93.3)	2.73	NS
Impersonal	47	(102.0)	38	(186.7)		

physical illness/injury-depression N=9, mania N=4, $X^2 = 4.18$, $p < 0.05$).

Analysis of correlation between the weighted total life events score and the total number of life events in relation to Hamilton Depression Rating Score and Modified Manic State Rating Score did not show any significant relationship (Table 5).

DISCUSSION

The present study reveals certain important findings. Life events were experienced by a significant proportion of manics and depressives. A qualitative and quantitative comparison of life events did not show any significant difference between mania and depression except the score desirable life events and events like major physical illness or injury in depression. Ambelas (1987) has reported that pleasurable events are very rare before manic episode.

Life events are well being associated with the onset of depressive disorders (Paykel et al., 1969; Cadoret, 1972; Bidzinska, 1984). Events involving "loss", "separation" or "hazard", "exit" and "interpersonal arguments" have been shown to precede the inception of depressive illness (Paykel et al., 1969; Beck and Worthen, 1972; Jacob et al., 1974). Indian workers (Prakash et al., 1980; Chatterjee et al., 1981) have found that depressives experienced numerically more life events than schizophrenics and the events pertain to the death of family members. There are only anecdotal reports linking manic episodes to major life events. The reported incidence vary between 28% to 60% (Classidy et al., 1957; Patrik et al., 1978; Ambelas, 1979; Dunner et al., 1979; Sclare & Creed, 1990). Studies from India (Singhal et al., 1984; Lakhera et al., 1995) also reported a high rate of life events in mania.

Present study shows that among all the life events, financial loss or problem was the commonest event experienced by both depressives and manics. Western studies (Ambelas, 1979; Bidzinska, 1984) have reported high rate of bereavement, marital and family conflicts, health problems, emotional and ambitional failures, lack of success and work load as the major events in mania. Singhal et al. (1984) reported death of first degree relative, economic crisis, failure in achievement and death of spouse as the most frequent events reported by manics. In a recent study reported from India (Lakhera et al., 1995) financial problem was the most

TABLE 3
QUANTITATIVE ANALYSIS OF LIFE EVENTS EXPERIENCED BY MANICS AND DEPRESSIVES

	Mania Mean ±SD	Depression Mean ±SD	t- value
Total score	107.81±79.09	126±66.05	1.490
Desirable	40.46±7.86	45.77±7.25	2.969*
Undesirable	54.34±6.68	53.6±6.03	0.504
Personal	48.86±11.35	51.39±7.96	1.237
Impersonal	50.45±9.50	51.37±9.45	0.496
Ambiguous	34.2±8.08	36.6±10.43	1.054

* $p < 0.05$

TABLE 4
FREQUENCY AND TYPE OF LIFE EVENTS EXPERIENCED BY DEPRESSIVES AND MANICS

Life events	Depression N	Mania N
Financial loss or problems	11	09
Illness of family member	06	08
Major physical illness or injury*	09	04
Self or family member unemployed	04	04
Lack of son	04	03
Death of close family member	03	02
Marital conflicts	02	03
Sexual problems	03	02
Change in working	03	02
Change in residence	02	03
Trouble at work with colleagues /superiors/subordinates	02	02
Excessive alcohol/drug abuse by family members	02	02
Family conflct	01	02
Large loan	02	01
Major purchase and / or construction of house	02	01

* $p < 0.05$

TABLE 5
CORRELATION OF LIFE EVENTS NUMBER AND WEIGHTED LIFE EVENT SCORE WITH MANIA AND DEPRESSION SCORE

	LE score	Total LE number
Mania score	0.0291 (NS)	0.0131 (NS)
Depression score	- 1.028 (NS)	- 0.0307 (NS)

frequent event experienced by manics. The minor variations in different studies could be due to the use of different scales for the assessment of life events and the difference in the duration for the assessment of life events (life time versus life events occurred within 6 months). India being a poor country, financial problems are found quite often among our patients, this may be the reason for the high incidence of the same in this study. Compared to Western culture, patients in our country belong to joint family setup, majority hail from rural background and they are less ambitious with regard to life. This could be the reason for the significant difference in life event profile between Indian patients and Western patients. Singh et al. (1984) have reported that in our population, an individual experience a mean of two life events without having any adverse effect on his physical or psychological health.

Previous studies have reported a positive correlation between the severity of life events and illness magnitude (Wyler et al., 1971). However, our observation did not show any relationship between the severity of life events and magnitude of illness either in depression or in mania. This discrepancy may be due to the sample heterogeneity (inclusion of both inpatients and outpatients) or the adoption of one year period for the assessment of life events.

Before concluding, some of the methodological limitations of the present work need to be mentioned here. The scale used to assess the life events was based on a semistructured interview method, there remained the possibility of the bias of the interviewer and the respondent. Inspite of that, semistructured interview is the best available and convenient method for data collection. Moreover, personal events can be easily obtained by this method. This study used one year cut off period for the assessment of life events prior to the affective episode. There are reports of clustering of life events, 3-6 months prior to the onset of depression and mania (Paykel, 1969; Leff et al., 1979; Venkoba Rao and Nammalvar, 1976). As the patients have difficulty in recalling the accurate date of life events, an attempt to correlate life events at different periods of time was not attempted in this study.

Finally, the findings suggest that life

events have a nonspecific but major responsibility for the presentation of affective disorder. Whatever be that overall cause of affective disorder, life events would be an important component which could have precipitated, modified or aggravated the basic pathophysiological process. The knowledge regarding the role of life events in these disorders would certainly help in holistic treatment and for timely intervention which may be helpful in preventing, postponing or reducing the intensity of illness.

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**P.N. SURESH KUMAR, M.D., D.P.M., D.N.B. (Psych.), MNAMS, Lecturer, Department of Psychiatry, Medical College, Calicut, JNANAMAY DAS, M.D., D.P.M., Resident in Psychiatry, D.J. BAGCHI, D.P.M., D.N.B. (Psych.), Resident in Psychiatry, HEM RAJ PAL, M.D., Assistant Professor of Psychiatry, Central Institute of Psychiatry, Ranchi. (*M-26 (A) 62, Malaparamba Housing Colony, Calicut 6730009)*

Correspondence