

LIFE EVENTS AND DEPRESSION

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SUMMARY

The life events occurring in a 6 month period preceding onset of illness in 50 OPD primary depressives were inquired into by a Life Events Inventory and compared with those in a corresponding time period of 50 matched controls. The relation between life events and the depth of depression at initial interview was also studied. The results are analysed and the probable pitfalls discussed.

Taking the cue from psychoanalytic literature (Freud, 1917) research workers for sometime past have been interested in the relationship between depression and losses of various types which consequently led to extensive studies regarding life events and depression. Apart from a few dissenting voices (Hudgens *et al.*, 1967; Winokur and Pitts, 1964; Thompson and Hendrie, 1972), there has been a fair degree of concordance among workers regarding the frequency of life events preceding depression as compared to a normal controlled population as also the relative excess of undesirable events ('exits' from the social field) (Paykel *et al.*, 1969; Paykel *et al.*, 1971; Iifeld, 1977). But these observations have to be corroborated by studies in our country because of the considerable difference in the socio-cultural set up. Indian studies are rather few (Venkoba Rao, 1970; Venkoba Rao and Nammalvar, 1976), and hence we decided to look in to this aspect.

METHODOLOGY

50 untreated primary depressives (according to St. Louis Diagnostic Criteria of Feighner *et al.*, 1972) within the age range 15-55 years and without any past

H/O mental illness were selected from OPD patients of the unit of psychiatry, R. G. Kar Medical College, Calcutta. Only those patients were selected where agreement existed between two psychiatrists examining the case independently. Maximum duration of illness allowed was 6 months.

A suitably matched control population was selected from the relatives of patients attending ENT OPD of the same hospital, after they had been examined by the same two psychiatrists and designated as free of psychopathology.

Administration of Interviews : On the date of selection, demographic data were collected for both the groups. For the normal controls, the incidence of Life events was probed into in the same sitting with a Life Events Inventory. For the depressives, information regarding life events was obtained at a separate interview a few weeks later when the patient himself admitted of improvement following treatment. On the other hand, on the date of selection, their depth of depression was assessed by the Hamilton Scale. Time period covered for life events was six months preceding the onset of illness for the depressives and preceding the date of interview for the controls.

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METHODOLOGICAL TOOLS

(1) A slightly modified Bengali version of the Life Events Inventory developed by Tennant and Andrews (1976).

(2) Hamilton Psychiatric Rating Scale for Depression.

OBSERVATIONS

TABLE 1A—*Distribution of Depressives according to age and sex*

Age (Years)	Male	Female	Total
15—24	7	7	14
25—34	3	11	14
35—44	7	13	20
45—54	1	1	2
Total	18	32	50

TABLE 1B—*Distribution of controls according to age and sex*

Age (Years)	Male	Female	Total
15—34	7	5	12
25—34	3	14	17
35—44	6	11	17
45—54	1	3	4
Total	17	33	50

TABLE 2—*Distribution of Depressives and Controls according to marital status*

	Single	Married	Widow/ Widower	Divorcee
Depressives (N=50)	10	37	2	1
Controls (N=50)	13	35	2	..

Table-2 shows that married subjects comprise a majority in both the groups.

TABLE 3—*Category wise break-up of life Events of Depressive and Controls*

Category	De- pres- sives	Controls
1. Health ..		
A. Personal ..		
(a) Medical ..	11	11
(b) Surgical ..	6	..
(c) Obs. & Gynaecological ..	15	2
	32	13
B. Of others ..	7	4
Total ..	39	17
2. Bereavement ..	10	5
3. Interpersonal & Social		
(a) Negative ..	32	9
(b) Positive ..	5	7
(c) Others ..	5	3
Total ..	42	19
4. Education ..	6	4
5. Occupation ..	10	6
6. Moving House ..	2	3
7. Financial ..	10	11
8. Miscellaneous ..	10	6
Grand Total ..	129	71

TABLE 4—*Comparison of Total number of life events among depressives and controls*

	Total No. of Life Events	Mean	S.D.
Depressives (N=50)	129	2.58	± 2.0712
Controls (N=50)	71	1.42	± 1.3892

$t=3.29$, $d.f.=98$, $p<0.001$.

TABLE 5—Distribution of life events among depressives and controls

	Depressives (N=50)	Controls (N=50)
Life Events present ..	41	34
Life events absent ..	9	16
$X^2=2.60$, N.S.		
0-1 Life event ..	17	30
2 Life events ..	10	10
3 & more life events ..	23	10

 $X^2=8.72$, $p<0.05$.

TABLE 6—Distribution of different life events among depressives and controls

Category	De- pressives (N=50)	Controls (N=50)
1. Personal Health related events		
Medical ..	9	11
Surgical ..	3	0
Obs. & Gynaecological ..	9	2
Nil ..	29	37
$X^2=8.60$ $p<0.05$.		
2. Bereavement		
Close Family Members ..	6	0
Others ..	3	4
Nil ..	41	46
$X^2=6.40$, $p<0.05$		
3. Interpersonal, Familial and Social		
Positive ..	2	6
Negative ..	20	8
Uncategorised ..	4	2
Nil ..	24	34
$X^2=9.72$, $p<0.05$.		
4. Occupational		
Positive ..	0	1
Negative ..	9	3
Uncategorised ..	1	1
Nil ..	40	45
$X^2=4.28$, N.S.		

5. Financial

Slight Trouble ..	4	4
Severe Trouble ..	6	4
Improvement ..	0	3
Nil ..	40	39

 $X^2=3.40$, N.S.

Miscellaneous Events

Positive ..	0	1
Negative ..	8	4
Others ..	0	1
Nil ..	42	44

 $X^2=3.46$, N.S.

(Educational events and moving house not analysed due to small data sample).

TABLE 7—Association of Life Events with Demographic Factors in Depressives

Category	Demographic	Depressive reporting the event	Depressives not reporting the event
Personal Health Related Events			
<i>Age in years</i>			
15—24 ..	4	10	
25—34 ..	8	6	
35—44 ..	8	12	
$X^2=2.38$, N.S.			
<i>Sex</i>			
Male ..	7	11	
Female ..	14	18	
$X^2=0.09$, N.S.			
Bereavement			
<i>Age in years</i>			
15—24 ..	3	11	
25—34 ..	3	11	
35—44 ..	2	18	
$X^2=1.08$, N.S.			
<i>Sex</i>			
Male ..	4	14	
Female ..	5	27	
$X^2=0.26$, N.S.			
Interpersonal & social events			
<i>Age in years</i>			
15—24 ..	6	18	
25—34 ..	9	5	
35—44 ..	10	10	
$X^2=1.36$, N.S.			

Inter-personal & Social Events	Sex			
	Male	..	8	10
Female	..	18	14	
$X^2=0.56$, N.S.				
Marital Status				
Single	..	5	5	
Married	..	19	18	
$X^2=0.0$, N.S.				

(Those between 45-54 years and widow/widower and divorcees not included due to too small sample size).

TABLE 8—Correlation between Life Events and initial Hamilton Score (H.S.), of depressives (arranged according to serial number)

Life Events	H.S.	Life Events	H.S.	Life Events	H.S.
1	24	2	19	3	25
0	18	3	17	0	22
3	25	0	20	0	21
2	19	1	27	4	29
1	18	5	19	2	20
0	19	0	16	4	28
3	18	2	23	8	24
8	33	6	26	6	37
5	22	2	35	0	33
3	28	2	18	2	24
4	19	1	21	1	35
1	26	0	23	1	29
6	28	1	23	2	33
4	24	2	24	4	29
4	25	4	21	5	25
2	24	3	24	2	21
3	24	0	29

Coefficient of correlation (r)=0.77.
Significance : High.

ANALYSIS OF THE DATA AND DISCUSSION

Before analysis of the data and discussion of their significance, it will be useful to point out the probable pitfalls of a study like this based on interviews.

One is the possibility of subjective distortion of facts though annulled to an appreciable extent by interviewing the patient after improvement of this condition. Then comes the troublesome question of cause or consequence as posed by Hudgens *et al.* (1967) and Morrison *et al.* (1968). Attempts were made to minimize its impact by recording events strictly relating to a period prior to symptomatic onset. But there still remains the problem of incipient illness. Finally there remains the possibility whether the events reported by the depressed patients might have been part of a habitual pattern which could be equally apparent if interviewed at any other time period. Such patterns might be affected by age, sex, socio-cultural factors etc.—but these have been controlled in this study. Besides, though considerably influencing interpersonal events and their like, it could have been scant import on events occurring primarily to others like death or serious illness of family members.

With these reservations a brief discussion is attempted. The total number of life events experienced by the depressives shows a highly significant excess over those of the controls in the 't' test. But significantly enough, there is little difference in the number of persons in either group with at least one life event occurring (41 against 34 out of 50 each). It is in the clustering of events in the two groups that significant difference occurs—with the occurrence of 3 or more life events being more than double in the depressives compared to the controls. We may surmise then that it is not the mere occurrence of an event or two but multiple events following one another in a short span of time that adversely affects the individual, which is similar to that of Venkoba Rao (1976).

Among the different categories of life events, statistically significant excess among depressives was seen in only three—personal

health related events, bereavement and interpersonal & social events. Among the other categories, there was excess of events among the depressives except in two (Moving House and Financial Events) but it was not statistically significant. Of the statistically significant ones, bereavement is already widely acclaimed as an important antecedent to depression. The one category which interested us most is the significant excess of personal health related events. Some medical illnesses (viral infections in particular) are universally recognised predecessors of depression. But in this study, surgical (6 against 0) and obstetric & gynaecological (15 against 2) events also played an important role. Of course, one can argue that with so many females in the child bearing age (15—45 years) among depressives (31 out of 50) it is expected that they would show a prevalence of events related to reproductive functions. But it is to be noted that females of the same age group equally predominate the controls (30 out of 50).

A study of correlation between life events and depth of depression at presentation is a relatively untreaded field. Certainly, with depression being an illness with a natural history of its own, factors other than life events may come into play in modifying its intensity when the examiner first meets the patients—factors which could not be controlled in this study. But one great modifier of the clinical picture, namely drug treatment, was eliminated selecting only untreated patients. With the coefficient of correlation being quite

high (0.77, to be precise) a further probe is called for.

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