LIFE EVENTS, PHYSICAL ILLNESS AND PSYCHIATRIC MORBIDITY

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SUMMARY

Sixty patients of pulmonary tuberculosis selected through a specified selection procedure from T. B. Hospital, Bikaner, were assessed by P. S. E. (Present State Examination). An open ended life event schedule was used to record the life events of past one year, which had some impact on the patient. Results indicate that the patients who had experienced life events had significantly more psychiatric symptom scores as compared to those who did not report any life event (p<.001). Further analysis showed that the significant difference were among the patients, who had more than one life events as compared to those who had no life event or only one life event (p<.01). Implications of the findings are discussed.

On scanning the literature one finds only few studies concentrating on Psychosomatic medicine in our country. In addition to clinical description some have been pre-occupied with the personality factors associated with psychosomatic illnesses. Recently, it is being stressed that the concept of psychosomatic illness should be broadened to include patients where there is co-existence of physical and psychic problems. Talking in the same vein, Lipowski (1975) states “whether we talk of psychosomatic medicine, of organic brain syndromes or of psychosocial aspect of physical illness, we are looking at different facets of the same basic theme, namely the interplay between man as a psychobiological unit and his environment as it pertains to health and disease”.

Contribution in the field of psychosomatic medicine from this country has been rather meagre. Different workers have dealt with the specific disease groups, viz. Diabetes mellitus (Bagadia et al., 1974), Bronchial asthma (Ramchandran et al., 1974 and Desai et al., 1978), Skin disorders (Srivastava et al., 1975), Pulmonary tuberculosis (Moudgil and Pershad, 1972; Verma, 1974; Dubey, 1975; Purohit et al., 1978; Yadav et al., 1980; Tandon et al., 1980 and Mathai et al., 1981) and in soldiers hospitalized for physical illness (Mathur, 1977) and rarely in combined groups (Sethi et al., 1978).

For a more comprehensive study and understanding of psychosomatic disorders, investigators have utilized a number of techniques such as detailed history and important event of life (Brown, 1967; Caffery, 1970 and Lester et al., 1973). Unfortunately this approach has not been followed in this country, probably because of non-availability of culturally standardized instruments for the assessment of life events and psychological state.

The present paper is part of a larger study on “psychiatric morbidity in pulmonary tuberculosis”. In this communication.

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tion our aim is to discuss the relationship between psychiatric morbidity and recently experienced life events in subjects suffering from pulmonary tuberculosis. We hypothesize that subjects who had experienced life events during past one year would have higher degree of psychiatric morbidity as compared to those who have not experienced such life events.

MATERIAL AND METHOD

The sample was selected from the hospital for tuberculosis and chest diseases, Bikaner. This is a 175 bed strength hospital situated right in the campus of Medical College Hospital. It caters to the need of the patients of north-west districts of Rajasthan and adjoining districts of Punjab and Haryana states. After a pilot study on 20 patients a decision for screening of patients before inclusion in the study was taken. The following categories of patients were not included in this study:

1. The patients who had a previous admission to a T.B. Hospital.
2. The patients who were more than 50 years of age.
3. The patients whose General condition was considered to be poor by the treating physician.
4. The patients who were taking anti-T.B. drugs at the time of assessment or during the preceding one month.
5. The patients whose duration of illness was more than two years.
6. The patients who were suffering from high grade fever at the time of assessment.
7. The patients who were having concomitant other physical illness.
8. The patients who gave a history of previous psychotic illness or drug abuse.

1-2 patients out of approximately five admissions, who met these screening criteria were included each day in the study. Thus selection of 60 patients sample took about 3 months time. A matched control of 30 subjects (15 male and 15 female) was also taken for the sake of comparison.

The following instruments were used for the assessment:

1. Present state examination (P.S.E.) schedule (Brief version translated in Hindi at PGI, Chandigarh). It consists of a structured interview schedule that focusses on symptoms that have occurred during the past one month (Wing et al., 1967 and 1974).
2. An open ended Life event schedule to record the life events which the patient had experienced during the past one year. The questions related to following areas were enquired for completion—birth and death, accident and ill health, housing problem, job problem, financial problem, legal problem, relationship problem, any other problem which patient wants to tell. Only when patient was seriously affected by the event, it was recorded as present (subjective report).

Analysis of variance (ANOVA) was carried out to find out the real differences among various life event groups (See Table 3). Difference between individual groups was tested by using student 't' test.

OBSERVATIONS AND RESULT

Sample characteristics:

A total of 60 subjects were taken for the study. Out of these 9 were in the age group 15-24 years, 30 in the 25-34 years age group, 20 in the 35-40 years age group and remaining 11 were above 44 years of age. Forty were male and 20 were female. Fifty subjects were married, 8 unmarried and 2 widow. Education wise 44 were illiterate, 12 educated up to primary and 4 had passed matric. Fifty one were Hindus and 9 were Muslims. Fifty one lived in rural areas and 9 in urban areas.
A matched control group of normal non-patient healthy relatives was also taken for the sake of comparison (N=30).

**Table 1**: P.S.E. symptoms score in Proband and Control subjects

| Group      | P.S.E. symptom score |
|------------|----------------------|
|            | Male Mean±s.d.       |
| Control    | 4.4±4.2              |
| Proband    | 14.5±10.7            |
|            | Female Mean±s.d.     |
|            | 2.9±1.7              |
|            | 18.9±9.6             |

For male — t=4.84, p <0.001.
For female — t=6.88, p <0.001.

**Table 2**: Life events and sex wise P.S.E. symptom score

| Groups                          | P.S.E. symptom score |
|---------------------------------|----------------------|
|                                 | Male Mean±s.d.       |
| Patients who had                |                      |
| not experienced any life event  | 9.1±8.1              |
| Patients who had                | 10.1±7.0             |
| experienced life events         |                      |
|                                 | 19.2±10.8            |
|                                 | 24.1±9.2             |

For male — t=3.31, p <0.01;
For female — t=3.72, p <0.001.

Two groups differ significantly. Females score more as compared to their control subjects (p <0.01) than the male subjects (p <0.01).

**Table 3**: Frequency of life events and P.S.E. symptom score in patients of pulmonary tuberculosis.

| Life event group | No. of patients | %     | PSE Score Mean±s.d. |
|------------------|-----------------|-------|---------------------|
| No life event    | 29              | 48.4  | 9.5±7.7             |
| One life event   | 6               | 10.0  | 7.8±7.7             |
| Two life events  | 8               | 13.3  | 22.9±6.8            |
| Three life events| 12              | 20.0  | 24.8±9.9            |
| Four or more life events | 5 | 8.3 | 24.4±9.9 |

To check the significance of difference among these five life event groups "Analysis of variance" (ANOVA) was carried out. (F=13.04, p<0.01). Differences between individual groups were found out by 't' test. Results indicate that there are no significant differences between Group one (No life event) and Group two (one life event), but group one differ significantly from Groups 3, 4 and 5 (p<.001, .001 and .01 respectively). Group 2 also differ significantly from Group 3, 4 and 5 (p<.01, .01 and .02 respectively). There are no statistically significant differences between group 3, 4 and 5; and between Group 4 and 5.

**DISCUSSION**

Using different assessment procedures authors from India have reported psychiatric morbidity in pulmonary tuberculosis ranging from 28 to 55 per cent. Yadav *et al.* (1980) report 26 per cent neurotic problems from T. B. demonstration centre, Agra; using I.C.D. criteria of diagnosis. *Tandon et al.* (1980) report 32 per cent depression using Hamilton rating scale for assessment in a sample of 100 cases from out patient clinic of T. B. Hospital, Allahabad. Purohit *et al.* (1978) using a self rating scale of depression (Zung) on 96 male patients from Udaipur, report 54 per cent depression. Mathai *et al.* (1981) using I.C.D. diagnosis criteria report 24.2 per cent neurotic problems from a T.B. Hospital.

Studies reviewed above relate psychopathology to duration of illness. In all above reports, the sample consisted of chronic patients without using any screening procedure and taking into consideration other variable such as life events and therefore, to relate psychiatric symptoms to duration of illness is not justifiable.

In the present study P.S.E. have been used for the assessment of psychiatric state, which focuses on symptoms pertaining to various areas such as anxiety, depression, sleep and appetite disturbances, and other
nonspecific symptoms etc. We consider that if a patient has symptoms related to all six P.S.E. subgroups, he is having a diagnosable psychiatric disorder. By that criteria 41.6 per cent of patients of pulmonary tuberculosis have one or other diagnosable psychiatric disorder and in need of psychiatric help (Gupta et al., 1981). Table 3 shows that 41.6 per cent of patients with pulmonary tuberculosis have reported more than one life event in preceding one year. These are thus the patients who have got symptoms related to all the six P.S.E. subgroups of symptoms. Using statistical test of significance (t—test) on the data of P.S.E. score among five life events groups, it is concluded that patients who have experienced more than one event in preceding one year (41.6%) have significantly more psychiatric symptoms as compared to those who have experienced either no life event (48.4%) or have experienced only one life event (10%) in the past one year (present illness has not been counted a life event). It may also be observed from Table 3, that the patients who have the largest number of life events (four or more) score slightly less on P.S.E. This is paradoxical finding which may be due to tendency of some of the patients to report more adverse events in the past. Similar reports of impact of life events on various types of physical illness are available from western literature (Brown and Harris, 1978). The findings of the present study are also consistent with the norms obtained from an Indian study which reports that an average individual experiences, an average of the two common stressful events in a year without suffering any obvious psychological disturbance (Singh et al., 1981). Our hypothesis is thus retained.

Females are probably affected more by the life events (Table 2). Probably, this may be explained by excessive vulnerability of female population for psychiatric illness in general (Gove and Tudor, 1973).

Implications of findings of present study are apparent. These patients with physical illness who are presently living in the stressful conditions are in need of psychiatric consultation and help. More studies in this area taking life events into considerations are thus urgently needed. This approach provides a rational basis for organizing consultation services to these patients and could be useful for teaching psychiatry to undergraduate medical students.

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