PREVALENCE OF PSYCHIATRY MORBIDITY IN AN URBAN COMMUNITY OF PONDICHERRY

K.C.PREMABALAJAN, M.DANABALAN, R.CHANDRASEKAR, D.K.SRINIVASA

SUMMARY

A cross-sectional study on psychiatric morbidity was conducted in an urban area of Pondicherry between October 1988 and July 1989. A sample of 225 families covering 1115 people of all ages was selected by simple random technique. The prevalence rate was 99.4 per 1000, the prevalence among children being 58.6 per 1000. It was found that age, education, occupation and marital status had significant correlation with mental morbidity. Out of 90 cases detected among adults, psychosis formed 20%, neuroses 47% and alcohol dependence syndrome constituted 30%. Among children two conditions commonly identified were mental retardation and nocturnal enuresis.

INTRODUCTION

Epidemiological data on mental morbidity are required for National Health Planning, now that mental health has been included as a component of Primary Health care. Some of the studies conducted in India have identified that mental illness are of public health importance (Surya, 1963; Sethi, 1967; Dube, 1970; Verghese, 1973). These estimates however suffer from some methodological problems. For instance, Surya (1963), studied only major psychiatric illness whereas Sethi (1967) interviewed only the heads of the family for identifying the mental morbidity in the family. Further, there are no recent epidemiological data as these studies were conducted 2-3 decades ago. To understand the changing trends, it is necessary to conduct studies in different parts of the country. With this in view, the present study was designed with the following objectives:

1. To study the prevalence of psychiatric morbidity in an urban community.
2. To describe the socio-demographic variables such as age, sex, education, occupation, marital status and family structure of psychiatric cases in the community.

MATERIALS AND METHODS

This study was conducted between October 1998 and July 1989 in the area of the Urban Health Centre, Jawaharlal Institute of Postgraduate Medical Education and Research (JIPMER), Pondicherry. The residents mostly belong to the middle and low income groups. All the families registered at the Urban Health Centre formed the study universe. A sample of 225 families covering about 115 people of all ages was selected by a simple random technique, making use of the family list available in the centre. Persons aged below 13 years were taken as children in the study.

The study was conducted by making a house-to-house survey using a pre-tested questionnaire, which was a modified form of the Indian Psychiatric Survey Schedule and designed in consultation with one of the authors, a consultant Psychiatrist. All the members of the selected families were contacted in their homes and the questionnaire was administered individually providing as much privacy as possible in a field situation. For children, the informants were either the mother or father. Those cases identified through the questionnaire as having psychiatric symptoms, were subsequently evaluated clinically by a psychiatrist. The diagnosis was made based on the International Classification of Diseases (Ninth Revision).

RESULTS

It was possible to contact 1066 (95.6%) of the 1115 people included in the study. In the surveyed population of 273 children and 763 adults, 106 cases were identified, giving an overall prevalence of 99.4/1000. The prevalence of psychiatric morbidity among adults and children were 113.5 and 58.6 per 1000 respectively. The highest rate of psychiatric morbidity (242.9/1000) was found in the 41-50 (years) age group and the lowest rate (38.2 /1000) in the 13-20 age group (Table 1).

TABLE 1

| Age Group | Population studied | No.of Cases | Prevalence per 1000 | Total |
|-----------|--------------------|-------------|---------------------|-------|
|           | M | F | M | F |            |            |
| 0-12      | 131 | 142 | 9 | 7 | 68.7 | 49.3 | 58.8 |
| 13-20     | 114 | 95 | 8 | 6 | 63.1 | 38.2 |
| 21-30     | 115 | 110 | 5 | 5 | 43.5 | 45.5 | 44.0 |
| 31-40     | 60 | 62 | 8 | 12 | 133.5 | 193.5 | 138.0 |
| 41-50     | 54 | 53 | 8 | 18 | 148.1 | 339.6 | 242.9 |
| 51-60     | 41 | 43 | 12 | 8 | 292.7 | 166.0 | 238.0 |
| 60        | 24 | 22 | 4 | 4 | 166.7 | 181.8 | 173.9 |
| Total     | 539 | 527 | 46 | 60 | 85.3 | 113.9 | 99.4 |

M = Male  F = Female

Psychiatric morbidity (242.9/1000) was found in the 41-50 (years) age group and the lowest rate (38.2 /1000) in the 13-20 age group (Table 1).

Gender and Psychiatric Morbidity: Females showed a higher prevalence (113.9 /1000) compared to males (85.3 /1000), but the difference was not statistically significant.

Educational Status: The highest rate of mental morbidity was found among those who did not have any schooling. There was a corresponding decrease in the mental morbidity with increase in the educational status (Table 2).

Occupation and Psychiatric Morbidity: Psychiatric disturbance among adults was studied in relation to their occupation. The highest prevalence was noted among the housewives (202 /1000) followed by unskilled workers (150 /1000) (Table 3).
TABLE 2
Education and Psychiatric Morbidity

| Educational Status       | Number studied | Psychiatric Morbidity |
|--------------------------|----------------|-----------------------|
| No Schooling            | 182            | 43                    | 23.6 |
| Primary                  | 275            | 33                    | 12.0 |
| Upper Primary            | 149            | 12                    | 8.7  |
| High School              | 253            | 15                    | 5.9  |
| Higher Secondary/Collage | 65             | -                     | -    |
| Higher Education         | 12             | 1                     | 8.3  |
| (Prof., Professional)    |                |                       |      |
| Total                    | 936            | 104                   | 11.1 |

Chi square = 35.44; p < 0.001
Children under 13 years excluded.

TABLE 3
Occupation and Psychiatric Morbidity

| Occupation            | Number Studied | Psychiatric Morbidity |
|-----------------------|----------------|-----------------------|
| Professional          | 15             | 1                     | 6.8   |
| Skilled workers       | 108            | 10                    | 9.2   |
| Unskilled workers     | 180            | 27                    | 15.0  |
| Housewives            | 189            | 39                    | 20.2  |
| Retired               | 16             | 2                     | 12.2  |
| Unemployed            | 128            | 10                    | 7.8   |
| Students              | 106            | -                     | -     |
| Others                | 52             | 2                     | 3.8   |
| (Clerks, Shop owners) |                |                       |       |
| Total                 | 783            | 90                    | 11.4  |

Chi square = 41.66; p < 0.001
Excluding children.

Income and Psychiatric Illness: No significant difference was noted among the various income groups.

Family Structure and Psychiatric Morbidity: Though the prevalence of psychiatric morbidity seemed to be more in nuclear families (10.6%) as compared to joint families (8.8%), the difference was not statistically significant.

Marital Status and Mental Morbidity: In adult males as well as females, morbidity was higher in the married group (16.9%) compared to those who were single (3.2%). Widows had the highest morbidity (21.7%).

PREVALENCE OF VARIOUS PSYCHIATRIC CONDITIONS:

The prevalence of psychosis was found to be 22.6 per 1000 (Table 4). The two main conditions identified were Schizophrenia and Manic depressive psychosis with a prevalence of 2.5 per 1000 and 20.2 per 1000 respectively. The prevalence of neuroses was 52.9/1000. The prevalence rates for various categories of neurosis are shown in Table 5. It is seen from the table that there is a higher prevalence of neuroses among females (56.1/1000) as compared to males (32.8/1000). When other sociodemographic correlates were considered, it was found that 74.59% neuroses cases were seen in those with no schooling or only primary education and that housewives had the highest morbidity among the various occupational groups.

Anxiety state was more common in the 13-30 yrs group whereas depressive reaction was more in the 30-50 yrs group.

TABLE 4
Prevalence of Various Psychiatric Conditions among Adults

| Diagnosis                      | No. of cases | Prevalence/1000 |
|--------------------------------|--------------|-----------------|
| Total                          | 537          | 90.6            |
| Anxiety                        | 278          | 48.2            |
| Depression                     | 274          | 46.3            |
| Hysteria                       | 1            | 0.2             |
| Total                          | 537          | 90.6            |

Chi square = 41.66; p < 0.001
Excluding children.

TABLE 5
Prevalence of Psychiatric Morbidity among 273 Children

| Diagnosis                | Number of Cases | Prevalence/1000 |
|--------------------------|-----------------|-----------------|
| Total                    | 16              | 58.6            |
| Mental Retardation       | 5               | 18.3            |
| Nocturnal Enuresis       | 11              | 40.3            |
| Total                    | 16              | 58.6            |

Chi square = 35.44; p < 0.001
Children under 13 years excluded.

TABLE 6
Prevalence of Alcohol Dependence Syndrome among 273 Children

| Diagnosis                | No. of Cases | Prevalence/1000 |
|--------------------------|--------------|-----------------|
| Total                    | 6            | 22.2            |
| Alcohol Dependence       | 5            | 18.3            |
| Other                    | 1            | 0.4             |
| Total                    | 6            | 22.2            |

Chi square = 35.44; p < 0.001
Children under 13 years excluded.

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The prevalence of psychosis was found to be 22.6 per 1000 (Table 4). The two main conditions identified were Schizophrenia and Manic depressive psychosis with a prevalence of 2.5 per 1000 and 20.2 per 1000 respectively. The prevalence of neuroses was 52.9/1000. The prevalence rates for various categories of neurosis are shown in Table 5. It is seen from the table that there is a higher prevalence of neuroses among females (56.1/1000) as compared to males (32.8/1000). When other sociodemographic correlates were considered, it was found that 74.59% neuroses cases were seen in those with no schooling or only primary education and that housewives had the highest morbidity among the various occupational groups.

Anxiety state was more common in the 13-30 yrs group whereas depressive reaction was more in the 30-50 yrs group.
In the present study, the prevalence of schizophrenia was 2.5 per 1000 and this is comparable to the figures of 2.2 and 2.6 per 1000 reported by Sethi (1967) and Verghese (1973), respectively. Our study showed a high prevalence of manic depressive psychosis (20/1000) compared to 3/1000 reported in the Vellore study. Neurotic disorders constituted 47% of the total number of cases detected. On further analysis, it was observed that anxiety neuroses were seen more in the younger age group (20-30 yrs) whereas depressive disorders were identified in slightly older age groups (30-50 yrs). Alcohol dependence syndrome was found to be a major social problem in the study area, affecting 7% of the adult males. This may be partly due to the easy availability and low cost of alcoholic drinks in Pondicherry. The equation of relief of pain or tiredness with intake of alcohol is another important factor for the high prevalence among unskilled workers.

Regarding childhood psychiatric disorders, moderate to severe mental retardation was found to affect 2% of the children and was in agreement with the figure of 1-2% projected by the W.H.O. (1977). Children belonging to the nuclear families had higher morbidity. Similar observations were made by Verghese (1973) and Lal (1977).

To conclude, the prevalence of psychiatric morbidity of ten percent observed in the present study clearly indicates that mental illness is an important health problem in urban Pondicherry. Certain socio-demographic variables such as age, education, occupation and marital status were found to influence the occurrence of mental illness. Being a descriptive study, we are not in a position to generalize how the above factors affect the mental health of an individual; for this, in-depth studies are needed. The relationship between the high occurrence of alcohol dependence in males and major depressive illness in females needs to be explored further. Similar epidemiological studies should be conducted in different parts of the country, in order to further understand the variation not only in the prevalence, but also in the nature and presentation of the various psychiatric disorders.

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