A STUDY OF PSYCHIATRIC MORBIDITY OF THE ELDERLY POPULATION OF A RURAL COMMUNITY IN WEST BENGAL

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ABSTRACT

A door to door field-survey was conducted in two villages by a team of psychiatrists with the aim of assessing the mental morbidity of the population. The present communication is restricted to the mental morbidity of the elderly population aged 60 years and above. The total sample comprised 183 persons (male 85, female 98). Majority of the families (44.2%) belonged to class IV according to Pareek and Trivedi's scale. Sixty one percent of the elderly population was mentally ill. Women had a higher rate of morbidity than men (77.6% and 42.4% repetitively). The overwhelming majority of the affected persons were depressives. Rate of dementia was low.

Key Words : Field-survey, elderly population, psychiatric morbidity, rural community

The number of elderly people is growing very fast in both developed and developing countries. The fall in the birth rate and rising life expectancy are the two main factors behind this unprecedented growth of the grey sector of human society. The rapid change in social structure and in traditional value system will have a tremendous impact on the well being of these senior citizens as well as on the equilibrium of the society itself. Against this backdrop it is reasonable to expect that the mental health problem of the elderly will grow more in the years to come.

The western response to this task was expressed as a spurt in research activities in different aspects of psychiatry of old age. The development of screening instrument of detection of cognitive impairment in old age was an early effort in this direction. In 1975, Folstein and his associates published the 'Mini Mental State' a practical method for grading the cognitive state of patients for the clinicians (Folstein et al., 1975).Further refinement and standardisation of screening scale followed in eighties (Yesavage et al., 1983; Roth et al., 1986). Copeland et al. (1986) came up with a compu-

terised diagnostic system and case nomenclature for elderly subjects and thereby improved the objectivity and comparability of studies in this area. Simultaneously epidemiological studies were undertaken to assess the pattern and extent of mental morbidity in the elderly (Blazer and Williams,1980; Copeland et al., 1987; Banerjee, 1993). Comorbidity is the "hallmark" of geriatric illness. This notion was explored and strengthened by many field-surveys (Harrison et al., 1990; Lindesay, 1990; Life et al., 1993) in the nineties. Of all patients of dementia, 50 to 60 percent have dementia of the Alzheimer's type (DAT) (Kaplan et al., 1994). DAT has, therefore, received a great deal of attention from research workers. The natural history, clinical genetics, familial factors and epidemiological aspects of DAT have been studied in details (Heston et al., 1981; Whalley et al., 1982; Hymen et al., 1984). Studies on the resources, needs and outcomes in community-based care of the elderly were made in many Western countries in the recent past (Davies et al., 1990; Lawson et al., 1991; Banerjee & MacDonald, 1996). These studies, created database which helped in the estima-

tion of public health burden of the geropsychiatric population.

The Indian response, on the other hand, was rather tardy. Pathak (1978) noted that there have been few publications on the health problems of those aged sixty and above in India. Fewer are those based on the mental health of the aged in the subcontinent (Krishnan Nair, 1980). Venkoba Rao (1987) laments that geriatric medicine in India is yet to acquire an important place and psychiatric illness in the elderly has not attracted the attention it deserves.

Nevertheless, a few studies conducted in the recent past have been directed specifically at the psychiatric illness of geriatric population (Venkoba Rao et al.,1972; Ramachandran and Sarada Menon, 1980; Venkoba Rao, 1979; 1981; 1987; Prasad et al., 1996). All these studies are based on patients who attended hospitals or geropsychiatric clinics. Field-surveys of geriatric population, though rare, have however, been attempted by Ram Chandran et al. (1979), Venkoba Rao and Madhavan (1982) and Shaji et al. (1996). While the first group of studies gives. an indication of the sociodemographic variable and pattern of illness of those who seek help in hospitals and clinics, the second kind of studies and field-surveys involving the total population of all age-groups are likely to be the true index of the extent and pattern of mental morbidity of the elderly population of a community. Though a large number of field surveys, both rural and urban, have been conducted in our country for the assessment of the extent of mental morbidity, they differ in varying degrees from one another in their methodology (Dube, 1970; Elnager et al., 1971; Thacore et al., 1975; Nandi et al., 1975; 1977; 1980; Mehta et al., 1985; Sachdeva et al., 1986; Premarajan et al., 1993; Shaji et al., 1995). This methodological heterogenicity is probably one of the reasons for the wide variations in mental morbidity reported by these studies.

We had, therefore, decided to pay a close look at the real extent of mental morbidity among the elderly population of a community. Accordingly we conducted a door to door survey of mental morbidity of the whole population of two villages. The present communication is restricted to the assessment of mental morbidity of elderly population aged sixty years and above of these two villages in the context of some bio-social variables.

MATERIAL AND METHOD

A group of voluntary workers conducted a pilot study as an exercise to train themselves in the use of the tools of the survey and to get themselves acquainted with the villagers. The aim of the study was made clear to the villagers through a number of group meetings organized with the active help and participation of the significant persons of the locality so that doubts and prejudices might be dispelled. They were assured that strict secrecy and anonymity would be maintained about the facts divulged by them during interview and examination.

All the families of two villages viz. Gambhirgachi and Paharpur comprised our sample. Both these villages are fairly similar to each other in their demographic, socioeconomic and cultural characteristics. The language used by the villagers as well as the survey teams was Bengali so that there could be no communication gap or barrier between the two.

Four schedules were used to collect the data. They were-

(1) The household schedule- This records the size and structure of the family, age, sex, education, occupation and marital status of each member of the family.

(2) The case-detection schedule (in Bengali)- It contained 78 questions which led to the identification of all possible mental illnesses. The schedule was prepared in consultation with six other psychiatrists (not members of the team). After incorporating their views, the final draft was prepared.

(3) The case-record schedule-contained all relevant informations regarding the case detected through the case detection schedule and recorded the findings of examination and final diagnosis. For an operational definition of a case, the definition mentioned in the WHO Technical Report Series (1960) No. 185 was taken as a model. Minor modification to this definition was made in consultation with six psychiatrists and the modified version was accepted and used in the survey (Appendix). For the formulation of a diagnostic criterion for each disease the same procedure was followed-only those who were suffering at the time of examination were accepted as a case, except when the diagnosis was hysteria or epilepsy. In these instances attacks during the last one year was sufficient.

(4) Socioeconomic status schedule as developed by Pareek and Trivedi (1966) was used in the survey to determine the socioeconomic status of each family. This scale is standardized for use in rural areas.

The core of the design of study was a door to door enquiry of each family as a unit and each individual member separately. The data were first collected from the head of the family and again from each adult member of the family, so that all the facts were obtained. Whenever a probable case was detected, a thorough examination, both physical and psychiatric, was made by two psychiatrists of the team separately and diagnosis was made independently. In the event of divergence of opinion, the case was re-examined and an agreed diagnosis was reached. The cases of divergence of opinion were very few. The psychiatrists had a high level of inter-rater agreement.

Data were mostly presented in two-way tables and possible association between the two factors was tested for significance using the standard X^2 tests.

RESULTS

There were 183 persons aged 60 years and above in the surveyed population.There were 85 males and 98 females, a slight female preponderance. This is true for each age-group. In both the groups, majority belonged to category of 60 to 64 years. The distribution of persons in each age-group was almost similar in both the sexes.

TABLE 1
DISTRIBUTION OF TOTAL POPULATION
ACCORDING TO AGE & SEX

Age(in years)	Male (n=85)	Female (n=98)
60 - 64	40 (47.0)	37 (37.7)
65 - 69	26 (30.6)	29 (29.6)
70 - 74	8 (9.4)	14 (14.3)
75-79	5 (5.9)	9 (9.2)
80 +	6 (7.1)	9 (9.2)

Figures in parentheses are parcentages

Table 2 describes the distribution of morbidity according to age, sex and marital status. It was observed that there were signifi-

TABLE 2
DISTRIBUTION OF MORBIDITY ACCORDING TO
SOCIO-DEMOGRAPHIC VARIABLES

Age (in years)	Normal (n=71)	Morbid (n=112)
60 - 64	34 (47.9)	43 (38.4)
65 - 69	24 (33.8)	31 (27.7)
70 - 74	4 (5.6)	18 (16.1)
75-79	7 (9.9)	7 (6.2)
80 +	2 (2.8)	13 (11.6)
	$X2=10.25$, d.f.=4, p<.05	
Sex		
Male	49 (69.0)	36 (32.1)
Female	22 (31.0)	76 (67.9)
	$X^2=23.75$, d.f.=1, p<.001	
Marital Stauts		
Married	53 (74.6)	41 (36.6)
Widowers	18 (25.4)	71 (63.4)
	X2= 25.17, d.f. = 1, p<.001	

Figures in parentheses are parcentages

cantly more morbid population in the age group 70-74 and 80- onwards as compared to normal population (X^2=10.25;d.f.=4;p<0.05). Similarly, significantly more females were sick as compared to males (X^2=23.75;d.f.=1;p<0.001). Further, it was observed that significantly more widowed population was sick as compared to married population (X^2=25.17; d.f.=1;p<0.001).

The rate of total mental morbidity was as high as 612/1000 population. Depression was over whelmingly the commonest illness of old age in this sample, the rate being 522/1000 population (101 cases out of 112 were diagnosed as cases of depression). Women have a higher rate of depression- 704/1000 population. The rate of dementia was 16 per thousand population.

TABLE 3
PREVALENCE OF MENTAL MORBIDITY BY
DIAGNOSTIC ENTITY

Diagnosis	Rate per thousand		
	Male	Female	Total
Depression	376	704	552
Schizophrenia	24	10	16
Anxiety	0	20	11
Mental Retardation	0	10	5
Dementia	12	20	16
M.D.P. Mania	12	0	75
O.B.S	0	10	5

DISCUSSION

According to the 1981 census of India there were 43 million people aged 60 years and above. It has been projected that the number will touch 60 millions mark in 2000 A.D.(Venkoba Rao, 1987). In our present study we found that 61% of the elderly population (60 years and above) were mentally ill. If this rate is projected on the national figure of the number of elderly population in 2000 AD, mentally ill persons aged 60 years and above comes around 36 million i.e. more than the total population of Greater Bombay, Calcutta and Delhi taken together. In this context it must be noted that prevalence figures are largely a function of the methods employed.

In a community study conducted near Madras, Ramachandran and Sarada Menon (1980) estimated the prevalence of mental disorder in those aged 50 years and above at 34.9%. Banerjee and MacDonald (1996), in a survey of mental morbidity in an elderly (65 years and above, home care population in Lewisham, U.K., rated mental disorder by the use of GMS/AGECAT system and found that 46% of this population was mentally ill. By the use of AGECAT computer algoritheu, diagnostic data are produced from it (Copeland et al., 1986). Home care was defined as the receipt of a home help, which is arranged by the local health authority, with the aim of maintenance of individuals within their own households rather than in institutional settings. In the sample under study women outnumbered men and the rate of morbidity was significantly higher in women (Table 3). This is in conformity with the findings of many studies conducted in our country (Mehta et al., 1985; Premarajan et al., 1993; Shaji et al., 1995). One of the plausible reasons for higher rate of morbidity in women might be the extremely high rate of depression in our sample. Of 112 mentally ill persons, as many as 101 were depressives. The F:M of prevalence of depression was 2:1. Ramachandran and Sarada Menon (1980) found depression in 24.1% of population aged 50 years and above. Indeed, the commonest illness amongst the elderly population, as reported by many field-surveys conducted in India and abroad, was depression. Banerjee and MacDonald (1996), in their Lewrisham study, found depression in 26% of their sample comprising persons aged 65 years and above. Lindesay (1990) surveyed an urban elderly community in London and detected depression in 27% of the population. Life et al. (1993) reported an almost twofold increase (43%) in the prevalence of depression in a group of British elderly persons living in their own home while practical help is offered by outsiders in their daily living.

A significant finding which may have a

social-psychological perspectives is the high rate of morbidity amongst the widowed persons (Table 2). Stressful factors like isolation and low socioeconomic status are closely associated with widowhood.

In our study, as in the study reported by Venkoba Rao and Madhavan (1982), the prevalence of dementia or organic brain syndrome is quite low. In a sample of 183 persons ,three persons (1.6%), were diagnosed by us as cases of dementia (Table 3). Venkoba Rao and Madhavan (1982) found six cases of organic brain syndrome in a sample of 686 persons (i.e. 0. 88%). Ramachandran and Sarada Menon (1980) reported 3.2% as the rate of dementia. Shaji et al. (1996) made a door to door survey of rural area in Kerala and found that 3.39% of the population (aged 60 years and above) were cases of dementia. They also referred to a rural survey conducted near Madras (using the GMS/AGECAT package). This latter study reported the prevalence of dementia to be 3.6%, probably the highest rate reported by any field-survey conducted so far in India, by rigorous methods of screening and diagnostic criteria. White (1992) reviewed cross-cultural research on the epidemiology of dementia and came to the conclusion that estimated rates of dementia were somewhat lower in Asian countries than those reported from Europe and the USA. Kaplan et al. (1994) have noted that 5% of Americans over the age of 65 years suffer with severe dementia, and 15% have mild dementia. Banerjee and MacDonald (1996) detected dementia in 15% of a British population aged 65 years and above. Lindesay's study on an urban elderly population (in the U.K.) revealed dementia in 24% of the subjects (Lindesay, 1990).

These wide variations in the prevalence of an organic illness is quite intriguing and it deserves a careful scrutiny.

In a rural community in Kerala, Shaji et al. (1996) found that patients of dementia of Alzheimer's type (DAT) had an increased occurrence of dementia in their families. Several case control studies conducted in the west have confirmed the increased risk for dementia in the first and second degree relatives of DAT patients (Heston et al., 1981, Wholly et al., 1982; Heyman et al., 1984).

Another feature that complicates the life of the mentally ill elderly person is his greater vulnerability to comorbidity in the restricted sense of the coexistence of both physical and mental illness in the same person at the same time. We found that in our sample, 41.9% of the mentally ill persons were also physically ill. Most of these cases had more than one physical illness. Venkoba Rao (1987) reported that in a sample of a geropsychiatric clinic population 26% had both physical and mental illness. Sixty-seven percent of this clinic sample had physical handicap (cataract, hearing problem etc.). He notes that these rates are significantly higher than those found in a control group. Prasad et al. (1996) studied the sociodemographic and clinical profile of elderly patients (60 years+) attending the OPD of NIM-HANS, Bangalore and found that 70% had associated physical disorders and 38% had multiple physical disorders. Venkoba Rao and Madhavan (1982) studied the elderly population of a semiurban area and found that 57% of the mentally ill group had physical illness.

It is therefore evident that the health care needs of the elderly are multifaceted. A system that ensures a comprehensive health care will have to be developed for this purpose.

We should not; however, lose sight of the fact that provision of health facility does not necessarily ensure its adequate utilization. There are many barriers to utilization of health facility by the community -more so by the aged persons. Apart from their limited morbidity, narrowing source of information and inadequate awareness of treatability of mental disorders, the aged ill persons are likely to have poor family support and social integration.

"The basic philosophy of geriatric research is neither the prevention of old age, nor a mere addition of years but to enable more

people to reach the currently attainable life span with minimum disability" (Venkoba Rao, 1987).

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Appendix

Operational definition of a case: A manifest disturbance of mental functioning specific enough in clinical character to be consistently recognisable as conforming to a clearly defined standard pattern and severe enough to cause at least partial loss of working or social capacity or both of a degree which can be specified in term of decrease in quality and/ or quantity of work or of taking legal or other social action.

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