PSYCHIATRIC DISORDERS IN MEDICAL IN-PATIENTS-
A STUDY IN A TEACHING HOSPITAL

ABHAY K. DE & PADMAKALI KAR

ABSTRACT

The rate of psychiatric morbidity in medical in-patients suffering from chronic physical illness is reported to be quite high. In this study, patients with chronic medical illness showed psychiatric morbidity at the rate of 52.5%. According to DSM-IV criteria, the most common diagnosable psychiatric disorder was depressive disorder- 25% mild, 65% moderate and 10% severe. There were significant differences in rates of psychiatric morbidity by age, sex and type of physical illness. This study emphasises the need for close collaboration between psychiatrists and physicians in the comprehensive care of these patients.

Key Words: Psychiatric disorders, medical in-patients, teaching hospital

Several studies have drawn attention to the association between physical and psychiatric disorders in patients attending medical facilities. However, much of this comorbidity goes undetected and uncared for. This is a potent cause of chronic suffering which could have been otherwise avoided. Brody (1980) in a study of general medical clinics in an American hospital found that one-third of psychiatric problems went undetected in medical patients. Maguire et al. (1974) carried out a study among medical inpatients in an English hospital. They found psychiatric disorders in about 25% of the patients, about half of which was unrecognised. Katon & Sullivan (1990) concluded that 6% of patients in primary care treatment settings and 11% of medical in-patients have major depression compared with a 3% incidence in the general population.

Psychiatric morbidity has been reported to be very high (5-53%) in primary health care units in developing countries including India (Chowdhury et al., 1975; Nikapota et al., 1981; Srinivasan & Suresh, 1990; Shibagautham et al., 1980; Sriram et al., 1987; Shamasunder et al., 1986; Sen & Williams, 1987) where there is no special provision to tackle such morbidity. High prevalence of psychiatric morbidity was also reported by Srinivasan & Suresh (1990) in general OPD of a rural hospital in Madras (53%) and Krishnamurthy et al. (1981) in general OPD population (36%), Agarwal et al. (1990) in Gynaecological OPD (49.9%) and Shukla & Srivastava (1983) in dental OPD (44%). Sriram et al. (1987) reported 10.4% psychological problems among general OPD patients of a hospital in south India. Studies regarding the rate of psychiatric morbidity in chronic medical in-patients show variable results, so we decided to study the psychiatric morbidity among physically ill in-patients in the context of some biological and clinical variables.

MATERIAL AND METHOD

Patients admitted in the "cold" ward of the department of medicine, N.R.S. Medical College and Hospital, Calcutta, between 21st June, 1996 and 20th August, 1996 and aged between 15 yrs. and 65 yrs. constituted our
sample. These patients were suffering from chronic medical illnesses. The diagnosis of each case was made in the department of medicine. The sample consisted of 40 patients (20 males and 20 females).

Tools: (i) General health questionnaire (GHQ-36 P) was administered to the patients, this questionnaire was originally devised by Goldberg (1985) and consisted of 60 questions. Later it was condensed to a 36-item questionnaire. GHQ-36 P is a variant of this 36-item questionnaire which is specifically designed for physically ill patients. We used the Bengali version of GHQ-36 P which has been socially and culturally validated. (ii) The diagnostic and statistical manual- 4th edition (DSM-IV) was used for arriving at a diagnosis of the psychiatric illness. (iii) A proforma was used to record the findings of each case.

Informed consent was taken in each case before the GHQ was administered. The questionnaire was administered on the third day of admission or thereafter, so that the patient might adapt to the ward set-up. The literate patients were given the questionnaire and asked to tick the responses which they considered to be most appropriate. Questions and responses were read out to the illiterate patients and they were asked to indicate the appropriate response. Scoring was done according to set procedures. For each response which was adjudged to be clinically significant a score of “1” was given. The scores were added up to find out the total score obtained by the patient. A score of ‘5’ was taken as the cut-off score. Those who scored 5 and above were psychiatrically evaluated. A control group matched for age and sex was taken from amongst the friends who visited these patients. The mental morbidity in this group was found to be insignificant.

RESULTS

The sample was divided into 5 groups according to age. The highest number of patients were in the 16-25 years and 26-35 years age-group. They constituted 30% and 32.5% of the total sample respectively.

Out of the total sample of 40, 36 patients i.e. 90% scored 5 or above and 4 patients i.e. 10% scored below the cut-off score when the GHQ-36 P, was administered to them. Since the number of patients who scored below the cut-off point was small, all of the patients were psychiatrically evaluated instead of taking a random sample.

Table 1 shows that out of 20 male patients 13 i.e. 65% were found to be afflicted by psychiatric illness, while out of an equal number of female patients i.e. 8, 40% were found to be afflicted by psychiatric illness. This male preponderance was however insignificant.

Table 2 shows that the youngest and the eldest age groups showed the greatest vulner-

| TABLE 1 |
| MORBIDITY DISTRIBUTION ACCORDING TO SEX |
| Sex | Total | Psychiatric morbidity |
| | | Present | Absent |
| Male | 20 | 13 (65%) | 7 (35%) |
| Female | 20 | 6 (40%) | 12 (60%) |

| TABLE 2 |
| MORBIDITY DISTRIBUTION ACCORDING TO AGE |
| Age (in years) | Total | Psychiatric morbidity |
| | | Present | Absent | % of psychiatric morbidity |
| 16-25 | 12 | 7 | 5 | 58.3 |
| 26-35 | 13 | 6 | 7 | 46.15 |
| 36-45 | 9 | 4 | 5 | 44.4 |
| 46-55 | 3 | 2 | 1 | 66.7 |
| 56-65 | 3 | 2 | 1 | 66.7 |
TABLE 3
MORBIDITY DISTRIBUTION ACCORDING TO
PHYSICAL ILLNESS

| Physical illness | Total | Psychiatric morbidity | % of psychiatric morbidity |
|------------------|-------|-----------------------|---------------------------|
|                  |       | Present | Absent |                  |
| Hepatic          | 10    | 4       | 6      | 40               |
| Haematological   | 8     | 4       | 4      | 50               |
| Endocrinological | 4     | 3       | 1      | 75               |
| Connective-tissue| 6     | 3       | 3      | 50               |
| Renal            | 2     | 2       |        | 100              |
| Others           | 10    | 5       | 5      | 50               |

ability to psychiatric illness. About 58.3% of the patients in the youngest age group and 66.7% of those in the eldest age group had psychiatric morbidity.

Table 3 shows that patients suffering from diseases affecting the connective-tissues, hepatic and haematopoetic systems showed high rates of psychiatric morbidity. About 50% of patients suffering from connective-tissue and haematological disorders and 40% of patients suffering from hepatic disorders were affected by psychiatric illness. Though the percentage of psychiatric morbidity in patients suffering from endocrinological and renal disorders was very high, it must be noted that the size of the sample in these two groups was very small.

Out of the 40 patients studied, 21 i.e. 52.5% were having psychiatric illness. Of these 21 patients having diagnosable psychiatric illness, almost all except one (he had panic disorder) were depressives -25% mild, 65% moderate and 10% severe.

Table 4 shows that higher the GHQ score higher the rate of psychiatric morbidity. Out of the 13 patients who scored between 5-15, only one patient (7.7%) was found to be psychiatrically ill, while all the 10 patients who scored between 26-36 were psychiatrically ill. GHQ scores also correlated with the severity of depression.

DISCUSSION

A large proportion of the chronically ill medical patients who were undergoing treatment in the cold ward of the department of medicine of a teaching hospital in Calcutta were diagnosed to be psychiatrically ill. High rates of psychiatric morbidity among medical in-patients was also reported by Singh et al. (1979).

In the present study we found higher rates of psychiatric morbidity in male patients compared to female patients. However, this was not found to be statistically significant. Sriram et al. (1986) has reported a psychiatric morbidity rate of 45.7% among males and 64.2% among female patients who attended the general medical OPD of a general hospital. Bagadia et al. (1986) had also reported a higher psychiatric morbidity rate in women (25%) compared to men (14.4%) among the medical out-patients. The difference in morbidity rate in the present study and other studies could be explained on the basis of the setting (indoor or outdoor), sample selection and diagnostic criteria for psychiatric illness.

The rate of psychiatric morbidity among the physically ill was high (52.5%) in this study. The eldest age groups (48-55 yrs &
56-65 yrs) showed the highest rates of psychiatric morbidity. These patients were mostly depressives. Singh et al. (1979) in their study on depression in medical in-patients had found the highest rate of psychiatric morbidity (55%) in the 46-55 years age group. Sriram et al. (1986) had reported a similar observation. There is a possibility that physical illness and disabilities may cause the elderly patients to complain multiple somatic complaints, a major component of depressive symptomatology. But the results of a study carried out by Berkman et al. (1986) indicated that physical disabilities among the elderly are not a major threat to the validity of the diagnosis of depression. High comorbidity for physical and psychiatric disorders in later life has also been suggested by Pitt (1991), Copeland et al. (1987), Lindesay et al. (1989) and Livingston et al. (1990). Physical illness has long been identified as a major factor in later-life depression (Post, 1962; Murphy, 1982). The depression may be manifestation of adjustment disorder or the major depressive illness may have been precipitated by the stress of physical illness, but occasionally it is intrinsic to the physical disorder. Therefore, it might be expected that the prevalence of depression in general hospital wards would be a good deal higher than in the community but not all studies agree to this. According to different studies, the prevalence of depression among the elderly in general hospital wards has been found to vary from 5% (Bergmann & Eastham, 1974) to more than 40% (Magni et al., 1985). The variation may be due to various reasons such as different screening instruments, different cut-off points on the same instruments or different diagnostic criteria applied.

High rates of psychiatric morbidity were observed in the patients suffering from endocrinological disorders (75%) (see table 3). Singh et al. (1979) have reported high rates of psychiatric morbidity (62%) among the diabetics. Though the aim of our study does not encompass the establishment of causal association, this in an important area of speculation and future research. In some cases psychiatric morbidity and physical illness exist concurrently, independent of each other, in some they are induced by the stress of the physical illness, while in other cases, the psychiatric symptoms are inherent to the disease processes. In certain illness such as carcinoma of the pancreas mental morbidity precedes the onset of physical symptoms and these patients often present with symptoms of depression. Occasionally the feature of depression may be an intrinsic part of the physical illness-endocrine diseases such as Cushing's syndrome (Cohen, 1980; Haskett, 1985), hypothyroidism (Tappy et al., 1987) and hyperparathyroidism (Mc Allion & Paterson, 1989), occult carcinoma (Whitlock & Siskind, 1979) and stroke where the cerebral lesion is in the anterior left hemisphere. (Robinson et al., 1984).

In conclusion, it may be pointed out that psychiatric morbidity associated with chronic medical illness often goes undetected. In a study carried out by Fulop et al. (1987) at the Mt. Sinai hospital in New York in 1984 mean length of hospital stay was found to be shorter in most medical in-patients who received psychiatric intervention, compared to controls. Querido (1959) in an earlier study found that presence of psychiatric disorders interfered with the recovery from physical illness. Korff et al. (1992) reported in their study that there is an enormous opportunity for cost reduction through effective psychiatric intervention. If it was possible to identify and treat every physically ill patient suffering from depression and decrease the resultant disability, there would be enormous savings in terms of both direct (e.g. physical, hospital and pharmaceutical) costs and indirect ones (e.g. loss of labour, loss of production, family burden).

The conclusions of this study should, however be interpreted cautiously as the sample is rather small and confined to the medical indoor of a tertiary care centre. Physically ill patients admitted in other wards in other types of hospitals may augment our ideas about the true nature of the comorbidity (i.e. coexisting psychiatric and physical
illnesses).

ACKNOWLEDGEMENT

The authors express their gratefulness to Professor Gauranga Bandyopadhyay, Head of the Department of Psychiatry, N.R.S. Medical College, Calcutta, who initiated and guided this study.

REFERENCES

Agarwal, P., Malik, S.C. & Padubidri, V. (1990) A study of psychiatric morbidity in gynae­
cology out patients clinic Indian Journal of Psychia­
try. 32. 57-63.

Bagadia, V.N., Ayyar, K.S., Lakdawala, P.D., Seth, S.M., Acharya, V.N. & Pradhan, P.V. (1986) Psychiatric morbidity among patients attending medical out-patient department Indian Journal of Psychiatry. 28, 139-144.

Bergmann, K. & Eastham, E.J. (1974) Psychogeriatric ascertainment and assessment for treatment in an acute medical ward setting. Age Ageing. 3, 174-188.

Berkman, L.F. & Berkman, C.S. (1986) Depressive symptoms in relation to physical health and functioning in the elderly. American Journal of Epidemiology. 124. 372-388.

Brody, D.S. (1980) Physician recognition of behavioural, psychological and social aspects of medical care Archives of Internal Medicine, 140, 1286-1289.

Chowdhury, A.K.M.N., Salim, M. & Sakeb, N. (1975) Some aspects of psychiatric morbidity in the out-patient department of a general hospital, Bangladesh Medical Research Council Bulletin, 1, 51-59.

Cohen, S.I. (1980) Cushing’s syndrome : a psychiatric study of 29 patients. British Journal of Psychiatry, 136, 120-124.

Copeland, J., Dewey, M. & Wood, N. (1987) Range of mental illness among the elderly in the community. Prevalence in Liverpool using the GMS-AGECAT package British Journal of Psychiatry. 150, 815-823.

Fulop, G., Strain, J., Hammer, J.S. & Lyons, J.S. (1987) Psychiatric and medical comor­bidity. length of stay American Journal of Psychiatry. 144 878

Goldberg, D. (1985) Identifying psychiatric illness among general medical patients British Medical Journal, 291. 161-162.

Haskett, R.F. (1985) Diagnostic categorisation of psychiatric disturbance in Cushing’s syn­drome American Journal of Psychiatry. 142, 911-916.

Katon, W. & Sullivan, M.D. (1990) Depression and chronic medical illness. Journal of Clinical Psychiatry. 51 (suppl 6), 3-11.

Korff, M.V. & Omel, J. (1992) Disability and depression among high utilisers of health care . a longitudinal analysis. Archives of General Psychiatry. 49, 91-100

Krishnamurthy, S., Shamasunder, C., Prakash, O. & Prabhakar, N. (1981) Psychiatric morbidity in general practice : a preliminary report in Indian Journal of Psychiatry. 23, 40-43.

Lindesay, J., Briggs, K. & Murphy, E. (1989) The Guy’s age concern survey prevalence of cognitive impairment, depression and anxiety in an urban community British Journal of Psychiatry, 155, 317-329.

Livingston, G., Hawkins, A. & Graham, N. (1990) The Gospel Oak study : prevalence rates of dementia, depression and activity limitation among elderly residents in inner London Psychological Medicine, 20, 137-146.

Maguire, G.P., Julien, D.L., Hawton, K.E. & Bancraft, J.H.J. (1974) Psychiatric morbidity and referral in two general medical wards British Medical Journal, 1. 268-270.

McAllion, S.J. & Paterson, C.R. (1989) Psychiatric morbidity in primary parathyroidism Postgraduate Medical Journal, 65, 628-631

Magni, G., Delco, D. & Schifano, F. (1985) Depression in geriatric and adult medical in-patients
Murphy, E. (1982) The social origins of depression in old age. British Journal of Psychiatry, 141, 135-142.

Nikapota, A.D., Patrick, A. & Fernando, L.H.S. (1981) Aspects of psychiatric morbidity in the outpatient population in Sri Lanka. Indian Journal of Psychiatry, 23, 219-223.

Pitt, B. (1991) The mentally disordered old person in the general hospital ward. In: Studies on general hospital psychiatry, (Eds.) Judd, F.K., Burrows, G.D., Lipsitt, D.R., Amsterdam: Elsevier.

Post, F. (1962) The significance of affective disorders in old age. Maudsley monographs 10, London: Oxford University Press.

Querido, A. (1959) Forecast and follow-up: an investigation into the clinical, social and mental factors determining the results of hospital treatment. British Journal of Preventive and Social Medicine, 13, 334-339.

Robinson, R.G., Kubos, K.L. & Starr, L.B. (1984) Mood disorders in stroke patients: importance of lesion location. Brain, 107, 81-93.

Sen, B. & Williams, P. (1987) The extent and nature of depressive phenomenon in primary health care: a study in Calcutta, India. British Journal of Psychiatry, 151, 486-493.

Singh, G., Sachdev, J.S. & Kaur, H. (1979) Prevalence of depression among medical in-patients. Indian Journal of Psychiatry, 21, 274-278.

Shamasunder, C., Krishna Murthy, S., Prakash, O., Prabhakar, N. & Subha Krishna, D.K. (1980) Psychiatric morbidity in a general practice in an Indian city. British Medical Journal, 292, 1713-1716.

Shivagautham, K.S., Kapur, R.L. & Shamasunder, C. (1980) Psychiatric morbidity and referral in general practice of Bangalore city. Indian Journal of Psychiatry, 22, 295.

Shukla, G.D. & Srivastava, R.P. (1983) A psychiatric study of cases attending dental OPD of a teaching general hospital. Indian Journal of Psychiatry, 25, 198-202.

Srinivasan, T.N. & Suresh, T.R. (1990) Nonspecific symptoms and screening of non-psychiatric morbidity in primary care. Indian Journal of Psychiatry, 32, 77-82.

Sriram, T.G., Shamasunder, C., Mohan, K.S. & Shanmugham, V.S. (1986) Psychiatric morbidity in the medical out-patients of a general hospital. Indian Journal of Psychiatry, 28 (4), 325-328.

Sriram, T.G., Kumar, K. & Molly, S. (1987) Minor psychiatric disturbances in primary health care: a study on their prevalence and characteristics using a simple case detection technique. Indian Journal of Psychiatry, 23, 212-226.

Tappy, L., Randen, J.P. & Schwed, P. (1987) Prevalence of thyroid disorders in Psychogeriatric patients. Journal of American Geriatric Society, 35, 526-531.

Withlock, F.A. & Siskind, M. (1979) Depression and cancer: a follow-up study. Psychological Medicine, 9, 747-752.