Students' Corner

Liaison psychiatry and depression in medical inpatients

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Abstract

Objective: To assess the frequency of depression among hospitalized patients, the socio-demographic variables associated with depression and the number of cases referred by physicians to Psychiatry.

Methods: A cross-sectional study was carried out at the Aga Khan University Hospital Karachi. An anonymous Urdu version of the WHO-developed self-reporting questionnaire (SRQ) was administered to inpatients meeting the inclusion criteria. Data was analyzed by SPSS version 13.0.

Result: Of the 225 patients approached, 178 completed the questionnaire (men= 45.2%, women = 54.8%). The mean age of the sample was 45.2 years. Out of the total 30.5% of patients were identified as having probable depression, among which housewives were more likely to be depressed compared to others (p=0.031). Among variable comparison, there with secondary school education or below and those with psychiatric co-morbidities, showed significantly greater prevalence of depression (p=0.003) and (p=0.005) respectively. Attending physicians correctly diagnosed 7 (13%) patients and referred only 3 patients to Psychiatry over the previous month.

Conclusion: The prevalence of depression among inpatients is comparable to that in the general population. Being a housewife, level at or below secondary school education and having a past psychiatric history are significant factors associated with depression in medical inpatients. A very small number of depressed cases were referred to a psychiatrist (JPMA 57:159;2007).

Introduction

Depressive disorders have long been established as a serious public health concern and are projected to become the second most serious form of disability in the world by the year 2020.[1]

Studies assessing depression in medical in-patients show wide variability with most reporting the prevalence of depression to be in the range of 15-40%[2-5] for one time with some reporting lower rates of 3-5%.[6,7] However, these figures are either higher or at least comparable with rates in general population. In other words, depression is a common disorder among hospitalized adults, especially those of the older age group who are suffering from malignancy, ischaemic heart disease, diabetes mellitus, neurological diseases or other chronic and debilitating diseases.[8-11] Depression has been associated with adverse outcomes during hospital stays, including increased risk of morbidity and mortality and reduced recovery rates from illness and disability.[12,13]

The recognition or detection of depressive symptoms and syndromes in medical in-patients is of importance because this may respond to treatment, and thereby reducing some of the clinical complications or difficulties in diagnosis and treatment of the patient's primary ailment. Despite this, depression is consistently under-diagnosed and under-treated by physicians in general medical patients. In a study carried out in Nigeria, physicians recognized only 2.8% of the mental disorders.[13] This might be because either the symptoms of depression are not recognized by the physicians, or they might be considered secondary to the patient's general medical condition.

The estimated prevalence of depression in the general population in Pakistan has been reported to be from 10-25% in males and 25-66% in females.[14-16] Few studies in Pakistan[4,5] have investigated the prevalence of depression or the role of liaison psychiatry[17] in inpatients. No study has attempted to study the associations between depression in inpatients and various socio-demographic factors.

The objectives of this study were to study the frequency of depression in hospitalized patients, to investigate socio-demographic factors associated with depression and to examine the number of depressed cases that were recognized by the primary attending teams and referred for a psychiatric opinion.

Patients and Methods

This was a cross-sectional study carried out at the Aga Khan University Hospital (AKUH) Karachi over a one day period. AKUH is a 496 bedded private teaching hospital offering outpatient and inpatient care in all major surgical and medical specialties. Psychiatry services include a 15 bed ward, daily outpatient clinics and a 24 hour psychiatry cover (by the on-call resident and consultant) for the emergency and consults from general wards.

The research team consisted of seven undergraduate medical students undergoing psychiatry clerkship. We used the Self-Reporting Questionnaire (SRQ) to screen medical inpatients for depression. The SRQ has been developed by the World Health Organization (WHO) and is widely being used as a screening tool for depression in Pakistan and other developing countries.[18] It is a self-administered questionnaire including nine somatic and eleven psychological symptoms. All questions are dichotomous (Yes/No) for simplicity. We utilized a validated Urdu version of the SRQ.[19] A cut-off score 8/9 was employed since it provided a sensitivity of 80% and a specificity of 85.4%. Informed verbal consent was obtained from every patient and questions were read aloud to all the patients regardless of their educational background in order to maintain consistency. Questions included socio-demographic variables while information on diagnosis and hospital stay was obtained from the patient's file. Complete anonymity was maintained.

Patients admitted to the hospital for at least a 24 hours duration were included in the study. Those admitted to the paediatric ward (patients less than 15 years of age), psychiatry ward, labour room, intensive care unit, coronary care unit and the special care unit were excluded. Also excluded were patients who did not know Urdu or English, patients who refused consent, or those who were not in a condition to respond.

SPSS Version 13.0 was used to analyze the data. Chi-square test was the statistical test employed.

Results

A total of 225 patients matched our inclusion criteria, out of which 178 (79%) completed the interview. Of those excluded, 19 were in the operating or labor room, while the rest had language difficulties or refused to participate in the study.

Of the 178 patients, 45% were males and 55% females. The mean age of the sample was 45.2 $\pm$ 19.2 years. Overall 30.5% (54) patients were identified as having probable depression (females 36%; males 24%).

Occupational status was significantly associated with depression (p = 0.031). Housewives were more likely to be depressed compared to other occupations (Table 1).

Education level was also significantly associated with depression (p =0.003). People with secondary education or below showed a significantly greater prevalence of depression than those who were relatively more educated (Table 1).

There was no significant association between depression and age, marital status, number of children, income level, being on subsidized care, bed status (general, semi-private or private) or primary disease.

Table 1. Frequency of depression with respect to occupation.

		Percentage % depressed (count)	p-value
Occupation	Unemployed	15.4 (2)	NS
	Unskilled labor	27.3 (3)	NS
	Business	14.3 (2)	NS
	Professional	31.3 (10)	NS
	Housewife	42.7 (32)	0.031*
	Other	31.3 (5)	NS
Education	Secondary & below	23 (50%)	0.003*
	Post-secondary	31 9 (24%)	NS

NS: not significant

Table 2. Prevalence of depression among patients with various co-morbid conditions along with their primary disease.

	Status of depression		
Comorbid conditions	**Yes- % (count)**	**No- % (count)**	**p-value**
Hypertension	27.1 (13)	72.9 (35)	NS
Ischaemic heart disease	10.0 (1)	90.0 (9)	NS
Diabetes	27.0 (10)	73.0 (27)	NS
Endocrine	33.3 (2)	66.7 (4)	NS
Asthma/COPD	50.0 (5)	50.0 (5)	NS
Psychiatric	70.0 (7)	30.0 (3)	0.005*
Other	43.5 (10)	56.5 (13)	NS

NS: not significant

Table 2 shows the prevalence of depression among patients with various co-morbid conditions. Of these, only psychiatric co-morbidities (p-value = 0.005) were shown to have a statistical association with depression among patients.

We did not find any association between depression and type of admission (emergency or elective), number of days in the hospital, number of previous admissions, smoking status or drug abuse status.

Of the 54 patients diagnosed as having probable depression, only 7 (13%) had been diagnosed by the primary team as having depression. Medical records showed that on the day the study was conducted, only 3 patients were referred to psychiatry. In fact a total of only 25 patients had been referred to psychiatry in the month preceding the day of the study.

Discussion

Our study has shown the frequency of depression among hospital inpatients to be 30.5%. These figures are comparable to other community based studies in Pakistan where the prevalence of depression has been reported to be from 10-25% in males and 25-66% in females.[14-16,20] However, our figures are somewhat lower compared to other studies of medical inpatients in Pakistan, which show prevalence of 39.26%[4] and 36.9%.[5]

In a meta-analysis carried out by Mirza and Jenkins[20] on eleven studies investigating factors associated with depression in Pakistan, gender, marital problems, lack of support, financial difficulties and low educational levels were found to have statistically significant positive associations with depression. Other factors identified by some studies include age, lack of autonomy and unemployment. Our study found no significant association of age, gender, marital status, or income level with the presence of probable depression. However, we have noted an association between education and depression.

Our study showed significantly higher depression among housewives (42.7%) when compared to other occupations. This was also recognized as an associated factor by Ali et al.[20] Some other associated factors cited by meta-analysis include: women living in joint households[16], lack of autonomy, financial dependence and arguments with husbands or in-laws. All these may play a part in the higher prevalence of depression found among housewives in our study. One study[14] showed that patients who were unemployed were likely to have significantly higher depression compared to employed individuals. However, our study did not have a similar result. This may very well be because only two of the patients were unemployed. This not only reflects the socio-economic strata that visit AKUH, but also prevents us from concluding any association between unemployment and depression.

We did not find an association between depression and co-morbid conditions like hypertension, ischaemic heart disease, diabetes, endocrine abnormalities and asthma/COPD. This is in spite of the fact that some of these conditions are either known risk factors of depression or vice versa.[9,12] However, past psychiatric history had a significant association with current depression status.

Our study did not show any association between the mean number of previous admissions or the number of days in hospital although other studies that have reported length of hospital stay being significantly associated with depression.[4,21]

Depression among medical inpatients remains under-recognized and under-diagnosed. In our study the primary medical team were able to recognize depresson in 7 (13%) of the 54 patients. In a study carried out in Nigeria[13] physicians were able to recognize only 2.8% of all mental disorders. Another study in Glasgow[22] showed upto 61% of depressed patients identified by the study were not receiving any psychotropic medications. Similarly, a study in Italy[23] showed that non-psychiatric doctors were able to pick up only 50% of cases of psychiatric disorders.

The fact that only 3 patients had been referred to psychiatry shows even after the diagnosis of depression, referral rates to psychiatry remain low. The referral rate in our center was found to be low, but still better than rates reported in Italy[23] or in another private medical college of Pakistan.[8] These low referral rates may reflect the physicians' inability to recognize depression, their wish to treat the patient themselves or reluctance on part of patients for seeking psychiatric help, due to stigma

Conclusion

The prevalence of depression among medical inpatients is comparable to that in the general population. Being a housewife, undereducated and having a past psychiatric history are factors associated with depression in medical inpatients. A very small number of depressed cases are referred to a psychiatrist.

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