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The Frequency of Psychiatric Disorders among Patients Attending Semi-Urban and Rural General Out-Patient Clinics in Kenya

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Summary: The prevalence of psychiatric morbidity (PM) was studied among general hospital out-patients in a rural and in a semi-urban area of Kenya. There were no significant differences in the demographic features of psychiatric patients from the two areas, so the results were pooled: this gave a PM prevalence rate of 29 per cent among 388 patients. Anxiety and depression were the most frequent diagnostic categories. Alcoholism was more common in the rural than in the semi-urban area. There was no sex difference in the prevalence of PM and possible reasons for this, which is in contrast to western findings, are discussed.

Psychiatric symptoms could be readily elicited when present. Patients showing them had been ill longer than non-PM patients.

The study suggests that clinic staff not psychiatrically trained should be able to identify and treat psychiatric morbidity, even when it is presented as somatic illness.

Research work in African populations has now produced a considerable body of evidence to indicate that mental disorders may be as common here as in the West, (Giel *et al*, 1968; Giel and Van Luijk, 1969; German, 1972; Harding *et al*, 1980). Indeed in Ethiopia psychiatric illnesses were more frequently seen in the hospitals than infectious diseases (Giel and Van Luijk, 1969), and Mbanefo (1971) in a private practice study in Nigeria diagnosed psychiatric disorders as often as malaria.

Using standard methods of case identification and interviews, Orley and Wing (1979) reported that a quarter of the adult population of two small villages in Uganda had psychiatric disorders, and age or sex did not significantly affect this prevalence rate. Other studies, such as those of Smartt (1956) in East Africa, Holmes and Speight (1975) from Tanzania, German and Arya (1969) from Uganda, and McEvoy and McEvoy (1976) and Ndetei and Muhangi (1979) from Kenya, have also highlighted the frequency of psychiatric disorders among different samples using various research methods, the most recent study being that of Harding *et al* (1980) in four developing countries.

There were several features common to all these studies. Not less than 20 per cent of patients seeking medical help had psychiatric morbidity (PM) and almost all of these presented their complaints in terms of somatic pains or vague ill-defined symptoms. Most of the PM patients were treated for physical illnesses and the local treating clinicians did not always realise the magnitude of psychiatric morbidity or its presentation, so that many patients received only symptomatic treatment, or underwent fruitless investigations frequently reported as normal. Very often PM patients continued to attend medical clinics for long periods, without much benefit to themselves.

In Kenya, Ndetei and Muhangi (1979) studied private patients and their findings may be unrepresentative of the Kenyan situation. The authors conducted the present study to estimate the point prevalence and presentation of PM among adults attending general out-patient or filter clinics in a rural hospital (Kisii) and two semi-urban hospitals (Nyanza-Kisumu) in Kenya. As more than 80 per cent of Kenyans live in rural and semi-urban areas and have free access to local hospitals, the authors believe that the findings of this work will help to give a fair picture of the prevalence, presentation and demographic factors of PM in these populations, and provide data for a comparison between semi-urban and rural Kenyan samples which has not hitherto been possible.

Patients and Methods

The research teams shared out-patient clinics with regular medical and nursing staff at Kisii district hospital, serving a rural population, and at two district

hospitals (Old Nyanza General Hospital and New Nyanza Provincial Hospital) in Kisumu which serve a predominantly semi-urban population.

A two-stage screening procedure for identification of patients with psychiatric morbidity (PM) was adopted. Patients were initially interviewed using the Self Reporting Questionnaire (SRQ, Harding *et al*, 1980) and by a psychiatrist using the Standard Psychiatric Interview (SPI) described by Goldberg *et al* (1970). In its initial validation, where 65 controls matched for age, sex and education were compared with 61 Kenyatta National Hospital patients with known psychiatric disorders (Dhadphale and Ellison, 1982), this procedure had a specificity of >93.3 per cent and a sensitivity of 89.2 per cent. Final year medical students, with the same cultural and linguistic background as the two populations studied, explained the purpose of the study to patients who were screened and collected their biodemographic data. No one refused to participate. Subsequently, general physicians using the SRQ identified possible psychiatric cases, who were then reviewed by the psychiatrist and the diagnosis confirmed with SPI and ICD-8 criteria (WHO, 1965). Non-psychiatric patients were treated according to their physical illness and not reviewed by the psychiatrist, as the sensitivity of the SRQ did not improve by a further review during validation.

Patients between 18 and 55 years of age were entered into the study by random selection from outpatient queues (non-diagnostic queue-based triage). Those who were acutely ill or otherwise needing emergency care were excluded (3 per cent). Physical examination, haemogram, urine analysis, thin smear examination for malaria and stool examination for ova and cysts were routinely performed for all patients, and additional laboratory and radiological investigations were done if indicated. PM patients were treated with appropriate psychotropic medication.

Results

Of the 188 patients seen at Kisii 48 (26 per cent) had PM. This compares with 61 (30.5 per cent) of the 200 patients screened at Kisumu, and the difference is not significant (χ^2 = 1.18. 1 df). Further, there was no significant difference in the total samples between Kisii and Kisumu with respect to education, marital status, family size, socio-economic class and sex. In the total sample, and also for each area considered separately, there was no difference between psychiatric and non-

TABLE I

Age distribution of PM and non-PM patients using pooled data from Kisumu and Kisii

Age (Years)	18–25	26–35	36–55	Total	
PM	45 (22.2%)	28 (32.2%)	36 (39.6%)	109**	(28.6%)
Non-PM	158 (77.8%)	59 (67.8%)	55 (60.4%)	272***	(71.4%)
Total	203 (53.3%)*	87 (22.8%)*	91 (23.9%)*	381	(100%)

χ^2_2 = 10.012, P <.01

* Horizontal percentages are of the entire sample
** Three missing observations (age)
*** Four missing observations (age)

TABLE II

Diagnostic categories of PM patients

	Anxiety	Depression	Manic-Depressive Psychosis	Schizophrenia	Alcoholism	Total
International Classification of Diseases, 8th Revision	300.0 300.2	300.4	296.0 296.2	295	291.1 303	
KISII	13 (27.1)*	12 (25.0)	8 (16.7)	3 (6.3)	12 (25.0)	48 (100%)
KISUMU	20 (32.8)	24 (39.3)	11 (18.0)	3 (4.9)	3 (4.9)	61 (100%)
Total	33 (30.2)	36 (33.0)	19 (17.4)	6 (5.5)	15 (13.7)	109 (100%)

*Figures in parenthesis are horizontal percentages.

psychiatric patients with respect to the above categories. With the exception of alcoholism, which was commoner in Kisii, there was no difference in the distribution of the diagnoses assigned to the PM patients in the two centres.

A hundred and eighty-two patients were men, of whom 56 (31 per cent) had PM. Fifty-three of the 206 women had PM (26 per cent). The difference between the sexes is not significant ($\chi^2 = 1.01$, df = 1).

The *age distribution* of the pooled sample (Table I) showed a significant difference between PM and non-PM patients, with more PM cases arising among the older patients ($P < .01$). Table II shows the frequency of PM in each area and in the total sample as well as the distribution of diagnostic categories. The difference in frequency between the two areas was just significant at the 5 per cent level, but this was clearly due to the higher rate of alcoholism in Kisii which itself was significant at the 0.01 per cent level ($\chi^2 = 9.12$). Among the psychoneurotic patients 82 per cent complained of fatigue and sleep disturbance scored as moderate to severe in the SPI. Three patients scored 2 points on "histrionic" behaviour on the SPI, but were also either moderately anxious or depressed, and were classified accordingly.

The *duration of illness* (Fig 1.) showed a markedly and significantly different pattern for PM as compared with non-PM patients ($\chi^2 = 55.29$, $P < .001$). A high proportion of the PM patients, 64 per cent, complained of symptoms lasting for more than three months, whereas a similar proportion of non-psychiatric patients (62 per cent) described their symptoms as lasting less than one month.

Discussion

In this study the SRQ could readily be administered by medical students trained to do so and was accepted by all patients interviewed. The psychiatrists took approximately 20 minutes to complete the SPI, and thus up to 20 psychiatric cases could be evaluated during one working day. Harding *et al* (1980) have discussed these screening instruments. We are in agreement with their assessment of the advantages of the SRQ, although we had to add "bewitchment" as a symptom to Part I of the SPI.

As there was no significant difference between the rural and semi-urban study areas as far as the demographic variables (including tribe) and diagnostic categories (except alcoholism) were concerned, the data from both samples were pooled. The higher incidence of alcoholism in the sample from Kisii (rural) than from Kisumu (semi-urban) is a local cultural feature and is consistent with the findings of an earlier study in Kisii (Otieno *et al*, 1979). There does not appear to be any other difference between semi-urban and rural populations in the prevalence rate and demographic or diagnostic features of PM. Our failure to demonstrate any distinction between psychiatric and non-psychiatric patients with respect to literacy, socio-economic class, education and tribe also in-

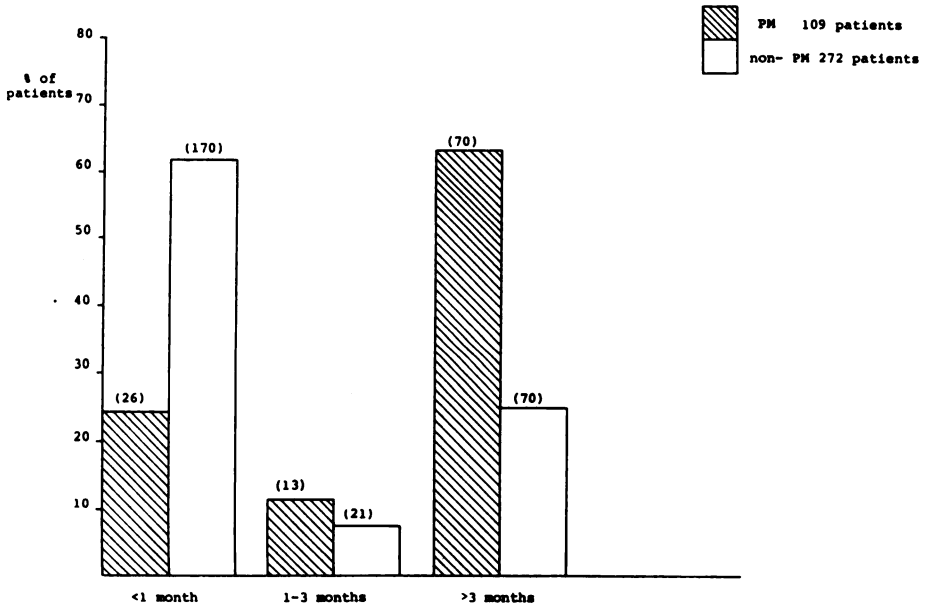

FIG 1.—Duration of illness in PM and non-PM patients.

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dicates that PM is not confined to an educated urbanised population.

One notable finding of this study is the *absence* of a sex difference in PM, which is similar to the finding of Giel *et al* (1968) in Ethiopia, but contrasts with Western studies almost invariably showing that women exhibit more PM than men (Shepherd *et al,* 1966; Gove, 1978). This raises questions relating to contrasts between Western and African societies. For example, it is possible that there *is* more PM in African women than African men but that women do not attend hospitals (the present study was based on a clinic population). If this is true, then a sex difference would be found in a community survey. Orley and Wing (1979) did such a survey in Uganda but did not find any sex difference.

Again, PM might be more common in African women than in African men but the women might not admit to it. Such a view would contrast sharply with the findings from Western countries, where admission of psychiatric symptoms is less acceptable for men (see review by Briscoe, 1982). Perhaps in African societies there is a culturally defined attitude of acceptance of discomfort and pain by women. This may well apply to the reporting of psychological symptoms; Ananth (1978) has suggested that a similar attitude in Indian women is responsible for the absence of sex difference among depressed patients in the Indian culture.

A further possible explanation is in terms of social role. In the West, there is evidence that women who remain at home and are not employed have higher levels of depression and other psychological symptoms (Brown and Harris, 1978). Reasons for this include isolation and the unfulfilling nature of domestic duties (Briscoe, 1982). The role of women in African societies is quite different: very few of them are in employment (none, in our sample) but the life of the African housewife is not such as to allow for boredom and isolation. She fulfils the traditional role of bringing up children and looking after other family members in addition to tending crops and farm animals and other such duties. It might be said such a life style does not allow time to get depressed. However, the role of the African housewife is changing rapidly as African society adopts western values. It may be that in the not too distant future African women, like their western counterparts, will have more PM than African men.

The diagnostic categories of PM in Kenya, however, reflect the same predominance of psychoneuroses as has been observed in developed countries (Shepherd *et al,* 1966).

Although most PM patients presented with somatic symptoms, psychiatric symptoms could be readily elicited when they were specifically questioned about their emotional state. This finding was also evident in other recent studies (Harding *et al,* 1980; Acuda, 1982) though it is in sharp contradiction to Ndetei and Muhangi's observations (1979). In our sample, for example, 72 per cent of patients admitted to being depressed, sad or unhappy during the interview.

Similarly, in a general practice study in Britain (Goldberg and Blackwell, 1970) patients with hidden psychiatric morbidity often presented with physical complaints. The authors presented possible reasons for this observation, which in fact, in the African context became more relevant; for example, the patient's belief that he was expected to produce physical complaints, the greater acceptability of physical disease and the increased awareness of chronic physical symptoms during a period of emotional stress.

The significantly greater frequency of older PM patients in this sample, also observed by Giel *et al* (1968) in a rural and urban population of Ethiopia, could be due to the cumulative effect on point prevalence of a chronic disease.

The findings of our study have a number of implications. Their overall similarity to those of a community-based study of two village populations in Uganda (Orley and Wing, 1979) suggests that out-patient surveys with well defined methods of case definition and identification can reflect the magnitude of PM in East African communities.

Together with the findings of previous research (Dhadphale and Ellison, 1982) this study suggests that about one-quarter of all patients who present at general hospital clinics have substantial psychiatric morbidity, much of which goes unrecognised and untreated at present.

The training of clinical officers and doctors in the recognition and treatment of PM patients would clearly be an important contribution to community mental health. In the present series of studies, we have identified some factors predictive of PM—(i) longer duration of illness, (ii) frequency of visits to clinics (Dhadphale and Ellison, 1982), (iii) lack of response to treatment. Other factors remain as yet unidentified. Whereas it is possible that a proportion of individuals with PM do not attend the clinics at all, the similarity between the present clinic-based prevalence and the community-based prevalence rate of Orley and Wing (1979) suggest the number of PM patients who could be missed by a clinic study rather than a community-based approach is small, and unlikely to justify the extra cost needed in identifying them (Isaac and Kapur, 1980).

The findings thus suggest an appproach to the mental health of the community reminiscent of the conclusions of Shepherd *et al* (1966), who identify the most important personnel as being pre-existing primary health care workers—GPs in the west, and in our

case clinic doctors or clinical officers. The mental health specialist may not be the best person to treat patients in the community (Shepherd, 1982) but he can certainly use his skills in training clinical staff to render more efficient mental health care.

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