Objective: To study the sociodemographic and clinical characteristics of treated psychiatric patients in a rapidly developing Arab society as well as the contribution of sociocultural factors to the observed trends. Design: Retrospective study of consecutive first time admissions over a 2-year period. Setting: Medical wards of Al-Ain District General Hospital, Al-Ain, United Arab Emirates. Subjects: 857 patients aged 12-80 years who were admitted into psychiatric beds (located in medical wards) over a 2-year period. Diagnostic Setting: Ninth revision of the International Classification of Diseases (ICD-9), 1978. Results: A total of 857 first-time admissions consisting of 60.5% males and 39.5% females was studied. The majority (43.3%) were United Arab Emirates (UAE) nationals, followed by other Arabs (36.1%) while non-Arabs constituted 20.6% of the sample. The two main diagnostic categories were affective psychoses (23.3%) and schizophrenia (19.3%). Alcohol and drug dependence accounted for 9.8% and hysteria was diagnosed in 8.6% of the patients. The majority (85.4%) were young persons below 40 years of age and only 10.6% were admitted through law enforcement agencies. A breakdown of diagnostic groups in relation to nationality showed significant differences in relation to hysteria (p<0.0001), other neuroses (p<0.05), alcohol and drug dependence (p<0.0001) in all of which UAE nationals predominated; non-fatal deliberate self harm (p<0.0001) was more common amongst UAE nationals and non-Arabs; and puerperal psychosis (p<0.0005) which occurred predominantly in other Arab women. Conclusions: Patients falling within the various nosological groups of the International Classification of Diseases were represented amongst the psychiatric in-patients of this facility. Sociocultural factors play an important role in determining the nature of psychiatric morbidity as well as the pattern of utilization of mental health facilities in the community, and recognition of this fact should be of strategic importance in future mental health care planning.


Several studies have been made of various aspects of in patient psychiatry in the Middle East,\textsuperscript{1-5} but there is a dearth of such reports from the United Arab Emirates (UAE). Given the current tempo of development, urbanization, and rapid sociocultural transformation as well as the effect these putative agents of stress could have on the mental health of the individual, surveys of psychiatric morbidity in various population groups are necessary. One easily applicable method is the study of hospital statistics on treated psychiatric morbidity. Although limitations to the use of such data as indices of incidence or prevalence of psychiatric disorder have been recognized, they nevertheless have value in the study of severe psychiatric illness\textsuperscript{6} by indicating the nature and variety of such illness;\textsuperscript{7} thus providing baseline statistics of interest to local psychiatric services as well as help in the design of future population surveys.\textsuperscript{5} Furthermore, the utility of hospital data-derived studies is enhanced by the increased probability of making a 'correct' diagnosis since for every patient such a diagnosis is made after an extensive interview and mental state examination by a psychiatrist.\textsuperscript{8} It has been suggested that for developing countries, hospital data might probably continue to form the basis of future prevalence studies until improved circumstances which include data processing facilities, comprehensive and reliable demographic data, permit more definitive population surveys to be carried out.\textsuperscript{9}

In this paper we present some data on the first ever study of demographic and clinical characteristics of patients admitted to the psychiatric wards of Al Ain Hospital, hoping to elucidate important features of the nature of treated psychiatric morbidity in this part of the world.

**Material and Methods**

The survey included all patients admitted to acute admission beds in the psychiatric wards of Al Ain District General Hospital during the 2-year period 1 January 1990 to 31 December 1991. Only the first admission was considered in the case of patients who had readmissions during the study period. The case notes of these patients were examined retrospectively for demographic data and diagnoses, and extracts made on a standard form. Patients received treatment under the medical care of four psychiatrists who had similar training and experience. Personal details such as age, sex, nationality and legal status on admission were noted. In terms of nationality, the patients were grouped into three broad categories, viz: UAE nationals, other Arabs, and non-Arabs—the last two being expatriate groups. Diagnosis was in accordance with nomenclature of the ninth revision of the International Classification of Diseases.\textsuperscript{10} Discharge diagnoses were obtained from the records. Data so obtained were analysed statistically. A Mantel–Haenszel $\chi^2$ test was employed to measure the significance of differences between groups, using the statistical package for the Social Sciences.\textsuperscript{11} General comparison of prevalence of diagnostic categories was made between the three nationality groups.

**Results**

**Age and sex**

During the period under study there were altogether 1087 admissions of which 230 were readmissions. Therefore, a total of 857 single admissions was accepted for the survey. These consisted of 518 males and 339 females—a ratio of 1.5:1. The majority (81%) of the patients were in the actively productive age range of 20–49 years. The largest group consisted of those aged 20–29 years (40.9%), while those aged 60 years and above accounted for only 2% of the total sample. The mean age ($\pm$ SD) of the whole sample was 29.3 ($\pm$ 10) years, being 29.7 ($\pm$ 10.7) years for males and 28.8 ($\pm$ 8.7) years for females, with a range of 12–80 years.

**Nationality**

An examination of the sample according to nationality showed a statistical difference significant at 3% level of confidence ($\chi^2 = 7.45; \ df = 2; \ p < 0.03$), with a preponderance of UAE nationals (43.3%), other Arabs (36.1%) and non-Arabs (20.6%). The male:female ratio for the three nationality groups ranged from 1.2:1 for other Arabs and 1.6:1 for UAE nationals to 2.1:1 for non-Arabs.

**Legal status on admission**

About 10.6% of the sample were brought into hospital under police escort and surveillance, while the legal status on admission was voluntary for 89.4%. Significantly more males than females were admitted through the law enforcement agencies ($p < 0.0001$).

**Diagnostic categories**

The most common diagnosis made was affective psychosis (23.3%), followed by schizophrenia (19.3%), other psychoses (13%) and depressive neurosis (10%). About 9.8% presented with alcohol and drug misuse, which was exclusively a male preserve, with a preponderance of UAE nationals over their expatriate counterparts ($p < 0.0001$). Heroin misuse was more common among national patients, while most of the expatriates involved misused alcohol. The category
Table 1
Distribution of patients according to diagnosis, nationality and sex

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Nationality</th>
<th>UAE</th>
<th>Other Arabs</th>
<th>Non-Arabs</th>
<th>p value</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>35</td>
<td>21</td>
<td>43</td>
<td>27</td>
<td>24</td>
<td>15</td>
</tr>
<tr>
<td>Affective psychosis</td>
<td>36</td>
<td>29</td>
<td>51</td>
<td>37</td>
<td>35</td>
<td>12</td>
</tr>
<tr>
<td>Other psychoses</td>
<td>24</td>
<td>14</td>
<td>25</td>
<td>16</td>
<td>25</td>
<td>8</td>
</tr>
<tr>
<td>Anxiety neurosis</td>
<td>17</td>
<td>9</td>
<td>11</td>
<td>6</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Depressive neurosis</td>
<td>20</td>
<td>12</td>
<td>13</td>
<td>8</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>Hysteria</td>
<td>8</td>
<td>7</td>
<td>9</td>
<td>17</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Other neurosis</td>
<td>12</td>
<td>2</td>
<td>7</td>
<td>4</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>Deliberate self harm</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Alcohol and drug dependence</td>
<td>6</td>
<td>-</td>
<td>9</td>
<td>-</td>
<td>7</td>
<td>-</td>
</tr>
<tr>
<td>Other non-psychotic states</td>
<td>4</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Puerperal psychosis</td>
<td>0</td>
<td>3</td>
<td>-</td>
<td>7</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>No psychiatric diagnosis</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>-</td>
<td>NS</td>
</tr>
<tr>
<td>Total</td>
<td>227</td>
<td>144</td>
<td>171</td>
<td>138</td>
<td>120</td>
<td>57</td>
</tr>
</tbody>
</table>

‘other psychoses’ was a mixed group consisting of paranoid states, acute transient psychosis, schizoaffective disorder, and organic brain syndromes; while ‘other neuroses’ included hypochondriasis, obsessive compulsive disorder, and phobic states. Because of its frequency in this sample, hysteria was listed separately. As shown in Table 1, significant differences occurred in relation to hysteria (p<0.0001), other neuroses (p<0.05), alcohol and drug dependence (p<0.0001) in all of which UAE nationals predominated. Deliberate self harm (p<0.0001) was more common amongst UAE nationals and non-Arabs, and puerperal psychosis (p<0.005) in which other Arab women were predominantly (p<0.0001) represented. Hysteria was diagnosed in 8.6% of the sample. It was more common in females than males and significantly more common against UAE nationals and other Arabs than persons of non-Arab origin (p<0.0001). Conversion states were seen more often than dissociative states. Stressful working conditions in the environment, marital, interpersonal and intergenerational conflicts at home were commonly associated precipitating factors. Non-fatal deliberate self-harm was more common in females than males, with the majority being below 30 years of age. Interpersonal conflict within the family was the commonest precipitating factor among the females, while for males socioeconomic adversity and mental disorder were important trigger factors. The females most commonly ingested household cleaning materials or took an overdose of drugs, while males resorted to wrist slashing and drug overdose.

Discussion

The male:female ratio of 1.5:1 obtained in this study is similar to the figure of 1.4:1 reported from Saudi Arabia.5 A male preponderance in in-patient psychiatric populations is fairly common in developing countries6,12 in contrast to observations from Western industrialized nations where the tendency is towards a female preponderance in hospital statistics.13-16,20 It has been suggested that this difference might be culture-related. The more passive nature of women, a greater tolerance for odd behaviour in its womenfolk by society, and the tendency for families to opt for more private treatment for their mentally ill females further contribute to their smaller representation in the psychiatric hospital populations of such societies.12 Violence or aggressive behaviour as a cause for psychiatric consultation is usually more threatening and socially more disruptive in males than females. It has, therefore, been felt that aggressive behaviour in males as part of the manifestations of a more general psychological disturbance may lead to their being over represented amongst psychiatric hospital patients.17

The observed high proportion of young persons is similar to the pattern commonly reported in developing countries of Asia and Africa,5,18,19 but in contrast to reports from the more industrialized nations of Europe where statistics on psychiatric populations have usually shown a preponderance of females and persons aged over 40 years.16,20,21 Several factors could be responsible for this finding. One possibility is the relative youth of the background population from which the patients are derived. Another factor is the intellect-enhancing effect of education as a result of which the young have become more willing to seek psychiatric opinion than the older citizens who are more inclined to consult with traditional healers (Al Muttawas). Expatriate workers are generally selected on the basis of relative youth and good health and those that belong to the lower socioeconomic groups generally come without their spouses and families. They have to contend with
occasional distress arising from difficulties in employment, lesser earning power, acculturation and linguistic problems, dislocation from their own culture and separation from kith and kin. Young people tend to be less mature emotionally and their ability to cope with stress is less enduring than that of their elders; so when confronted with situations of socioeconomic or cultural conflict, they are more likely than the latter to suffer psychological breakdowns. Furthermore under-representation of the aged might be a reflection of Islamic teaching and Arab cultural practice which enjoin relatives to show utmost respect and care for them within the family setting.

It appears that while hysterical symptoms are almost a nonentity at present in industrialized countries they are still quite often encountered amongst psychiatric populations of developing countries: a high prevalence of hysteria amounting to as much as 10% has been reported in Sudan and 10.9% from Egypt. A point prevalence study in Lebanon found hysteria constituting about 22.4% of all neurotic disorders, while 8.3% of all first attenders at an out-patient clinic in Libya suffered from hysteria and prevalence rates of 6.3% and 5% have been observed in two different centres in Saudi Arabia. An observed fall in the 6% prevalence rate of hysterical neurosis in the United Kingdom has been attributed to a positive change in the attitude of patients to mental illness. Non-Arab females involved in non-fatal deliberate self-harm (DSH) were housemaids. Most of them were new economic migrants who could not communicate effectively with their employers. Proficiency in communicative language has been shown to reduce the odium of acculturative stressors in depression, thus acting as a 'cushion' against stress in a new cultural environment. Unlike their male counterparts, outlets for friendly social interaction are not easily available to the young, non-Arab housemaids who may then develop a more profound sense of alienation and social isolation which is known to correlate highly with suicidal behaviour.

Secret drinking could be a problem in societies where total abstinence from alcoholic beverages is demanded and so there is a great need for including items relating to the hazards of substance misuse in the health education programmes of such communities. It is not clear why puerperal psychosis should occur more frequently amongst migrant Arab women. Although women in Eastern societies have been credited with a culturally defined attitude of acceptance towards pain and discomfort, it would appear this attitude yields in the face of overwhelming stress induced by psychophysiological mechanisms during pregnancy and childbirth, resulting in psychiatric disturbance in the puerperium. However, objective conclusions can only be made after studying a larger sample of such patients, when the likely effect of various sociocultural and even biological variables could be examined. Admissions under security escort accounted for 10.6% of the patients. This is in contrast with the figures of 65% and 58% reported for patients coming under this admission mode in Uganda and Zambia, respectively. In the economically less fortunate countries of the developing world, psychiatric care has remained largely custodial as against the more tolerant and open type of care now obtainable in economically more fortunate nations.

Among those grouped under ‘other psychoses’ were 51 (6%) patients with the diagnosis of acute transient psychosis. This disorder has variously been designated acute excitement state, acute psychotic episode or transitory situational disturbance. The patients were predominantly of Asiatic (non-Arab) origin, young and mostly unskilled labourers. They commonly presented with subtle changes in the level of consciousness characterized by perplexity and clouding, sleeplessness, and in some cases aimless wandering. Aggressive behaviour, hallucinations, loss of insight and delusions of a predominantly paranoid nature commonly completed the clinical picture and in the majority of them there was evidence of a preceding psychosocial stress. The symptoms tended to be short-lived, with the patients recovering rapidly within a short period following admission into hospital, suggesting the unlikelihood of schizophrenia. The specific aetiological factors operating in this condition are as yet unclear, but it has been suggested that subtle and subclinical forms of organic conditions such asavitaminosis, malnutrition, and anaemia might influence the development of symptoms indistinguishable from those of organic psychoses when patients suffering from them are exposed to psychological stress.

We suggest, in addition, that this symptom-complex may well be a culture-related response to psychological stress occurring in less sophisticated persons with a basic predisposition to such reactions.

In conclusion, this survey shows the presence of patients within the various nosological groups of the International Classification of Diseases amongst the psychiatric population of this hospital. The records show a high default rate from follow-up appointments. This may be related to the rapid transition from traditional folk ways to modern scientific living through which the region is currently passing. Traditional healers are
time-honoured partners in the art of mental healing in developing countries and cannot be without wisdom and efficacy in some cases. However, concerted efforts should now be made to inculcate in the citizenry a greater awareness of the even more efficacious relief from mental distress derivable from scientifically based therapies available at modern health care facilities.

References