

## A Comparison of Hospital and Community Cases of Psychiatric Disorder: I. Clinical Pattern and Socio-Demographic Characteristics

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This study re-examines the pattern and sociodemographic associations of psychiatric disorder of the Dubai Community Psychiatric Survey (Ghubash et al., 1991). The exact instruments, and the same inclusion criteria were applied by the author to 42 consecutive outpatient female referrals. The findings of the community survey are largely replicated. In female citizens of the UAE, psychiatric morbidity is mainly comprised of depressive disorders (52%) followed by anxiety disorders (21.5%). Severe forms of these disorders are met with in the hospital cases. Psychiatric morbidity in this population is not associated with a particular age group, level of education, employment, social class, having children, number of children, living in extended versus a nuclear family, or loss of either parent before the age of 15 years. Among the elements of the vulnerability model of Brown and Harris (1978), the protective effect of having confiding relationships has been substantiated in the hospital sample. Psychiatric morbidity was significantly associated with a postmarital status, approached significance in polygamously married subjects, and is significantly associated with being a citizen of non-Arab ethnic origin. The latter finding probably reflects disadvantaged social status.

(Egypt. J. Psychiat., 1992, 15: 114-129).

### Introduction

Community surveys have conclusively indicated that the bulk of psychiatric morbidity consists of minor affective and neurotic disorders namely depression and anxiety (Schwab and Schwab, 1978, Shepherd, 1978). Although the prevalence of these disorders varied widely in the earlier studies (Dohrenwend and Dohrenwend, 1969), comparable methods of case identification have yielded in the last two decades converging estimates of point prevalence indicating that between 4-8% of men and 8-15% of women in the general population suffer from a form of psychiatric disorder (Lloyd and Bebbington, 1986). Most of these studies were carried out in

Europe and North America. Studies in African (Orley and Wing, 1979) and Asian (Cheng, 1986) populations yielded higher estimates of psychiatric morbidity.

The problem with epidemiological surveys of psychiatric disorders in the community is that they are often constituted of milder disorders, are probably more socially responsive, and that the method of case definition i.e. the threshold used for defining a case may vary widely leading to spurious estimates of morbidity. The principle disadvantage of hospital based studies is that they do not count cases that remain untreated in the community. The process of referral may complicate the estimation of prevalence. As Bebbington (1988) suggests, epidemiological studies relying on treated preva-

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lence cannot avoid a double threshold for case recognition, the first being determined by the factors affecting the referral process itself. Availability of a nearby hospital may increase the numbers of patients referred for treatment as Stromgren demonstrates (Kacha, 1987). Attitudes towards mental illness, underprivileged social status, and a lack of social support all affect overall utilization of available psychiatric services (Tischler et al., 1975). However, by virtue of the fact that they are comprised of the severer cases, and that the onset can be clearly defined, hospital based studies give more accurate estimates of incidence and consequently give better associations with social correlates of morbidity. They allow the study of the less common disorders that would otherwise require extensive extramural surveys, and circumvent to a degree the problem of case definition leaving it to the degree of distress forcing the subject to seek help. In brief, it may be stated that community surveys provide a more accurate estimate of the prevalence of disorder, while hospital based studies provide clearer insight into the pattern of morbidity.

A comparison of a community sample with a hospital sample from the same population avoids the shortcomings of a single approach. It also provides additional insights into the nature of psychiatric disorders, and the differential effects of social adversity.

The present study has been designed with these principles in mind. It is a sequel to the Dubai Community Psychiatric Survey (Ghubash et al., 1991) which comprised a cross-sectional survey of 300 women assessed through a random sample of households in the seven districts of Dubai. The survey was conducted between February 1989 and March 1990. The present study includes 42 additional women, a consecutive series of new cases referred to the outpatient clinic of the Psychiatry Department at Rashid Hospital. The subjects were assessed using the exact instruments of the earlier

survey, but with a different clinician carrying out the assessments. The study compares the pattern of psychiatric disorder, the effects of recent experience of life events on psychiatric morbidity, and the relationship between rapid sociocultural change affecting the community and psychiatric morbidity in a different sample of subjects, namely consulting patients. The aim is to check and compare whether hospital patients will differ substantially in the pattern and severity of psychiatric disorder, and in the effects of adversity on the rate of disorder.

### Subjects and Method

The society of Dubai is markedly heterogeneous in terms of ethnicity and consequently social and cultural values. In order to study a homogeneous sample only female nationals were included. Even the national population of Dubai is heterogeneous. Therefore subjects of non Arab descent were included if the family resided in the region for at least 30 years. Subjects between the ages of 15 and 65 were included, and subjects suffering from mental retardation or organic mental disorders were excluded since these are presumed to be less socially responsive disorders. All subjects were assessed through a semi-structured interview comprised of the following four instruments.

- 1) The full version of the Present State Examination (PSE), 9th edition, was used to detect psychiatric symptomatology (Wing et al., 1974) and to establish case status by applying the CATEGO-ID Programme (Wing and Sturt, 1978)

- 2) The Life Events and Chronic Difficulties Schedule, LEDS (Brown and Harris, 1978) was used to document exposure to life events during the six months prior to assessment.

- 3) A range of demographic, family and social information was collected from each subject through a standard survey questionnaire. These were supplemented by questions covering vulnerability factors relevant to depression in

females (Brown and Harris, 1978), alcohol or drug abuse in the family, past and family history of psychiatric disorder, state of health, and awareness about psychiatric service.

4) The Sociocultural Change Questionnaire (SCQ) (Ghubash et al., 1992) was used to assess and quantify the type and extent of individual changes in behaviour and attitudes that correspond to social changes affecting the community. Specifically, SCQ was devised to obtain a quantitative assessment of the degree to which female subjects have experienced changes in living circumstances, values and attitudes away from traditional values and lifestyles and toward a more open and modern lifestyle.

Because of the time consuming nature of the study instruments, almost all subjects were interviewed at least on two occasions. The total interview time ranged between 3 and 4 hours. The present study focuses on the pattern of psychiatric morbidity and sociodemographic associations in hospital cases compared to community cases and noncases (controls).

#### Measurement of Psychiatric Morbidity: The PSE-ID-CATEGO System

There are three Arabic translations of the PSE (Okasha and Ashour, 1981, Al-Khani, 1986; Abdel-Mawgoud, 1986). The three versions, differ considerably. Al-Khani translated the schedule and instructions into classical Arabic which made his version more appropriate for the subjects of the community survey. Slight modifications of examples in the schedule were required for the present study, e.g., probes for situational phobias such as the effect of being in the Souk (bazaar), rather than on a crowded train. Impaired concentration (item 20), which is usually rated in relation to literate tasks such as reading a newspaper were, supplemented by the examples of listening to the radio or watching television because literacy was limited for many subjects.

Wing and his colleagues (1974) emphasize that since no aetiological information or past history information is included in the PSE, the classes derived from the use of the PSE cannot be regarded as diagnoses. However, within certain limits, they are equivalent to the clinical categories of the ICD-9 (WHO, 1978).

The original application of PSE was for studies of psychiatric in- or out-patients for which CATEGO provided a reasonable allocation of subjects to categories. However, its use was extended to general populations where many of the symptoms elicited by the PSE are frequent CATEGO classes that may not be useful if based on the existence merely of a few neurotic symptoms; for this reason, another programme called the Index of Definition (ID-Wing and Sturt, 1978) was designed to specify the degree of certainty with which a subject can be regarded as a "case". The ID is divided into 8 levels, whereby, each successive level implies an increasing degree of confidence in the case definition.

Level 1 is defined by the absence of PSE symptoms. Levels 2 and 3 indicate non-specific neurotic symptoms. Level 4 is characterised by the presence of specific neurotic symptom like anxiety or depressed mood, or by non-specific neurotic symptoms with a score of 10 or more. Level 5 is called the "threshold level" for defining cases. Levels 6-8 represent "definite disorders". Usually the cut-off point in community surveys is set at level 5, with those at levels 1-4 characterized as non-cases, while those at levels 5-8 are classified as cases. This case definition was followed in the present study. Its flexibility means that the PSE-CATEGO-ID system can be used for a wide variety of purposes. This flexibility is also necessary in view of the uncertainty surrounding the status of minor affective disorders and the practicalities of their sub-classification.

## Measurement of Social class

In the current study, social classification based on a woman's own most recent occupation was not feasible because of the very high percentage of females who are not employed in this society and, consequently, in the sample. Instead, the profession of the household head and the monthly income of the household provide indicators for social and economic class, along the following lines: (a) professional and administrative; (b) civil servants and bureaucrats, including those employed in the private sector; (c) Skilled workers, either currently or before, e.g., carpenters, policemen, fishermen; (d) Unskilled workers e.g., drivers and guards; and (e) the unemployed household heads who are a recent development resulting from a prevalence of social security benefits available to U.A.E. citizens. This classification does not fully reflect social status, since the latter remains heavily dependent on tribal and ethnic origin.

## Measurement of Confiding Relationships

Assessment of presence or absence of intimate interpersonal relationships has held an important place in the evaluation of vulnerability to psychiatric disorders in epidemiological studies (Brown and Harris, 1978). In the current study the presence of confiding relationships required a different method of assessment because of the cultural context, where the presence of confiding relationships was established through direct questioning along the following lines:

(a) Availability of a person with whom the subject can talk freely about her worries and problems; (b) the relationship of the confidant to the subject (e.g., relative, friend of the same sex, friend of the opposite sex); (c) the frequency with which the subject meets with the confidant (e.g., daily, weekly, monthly); and (d) effects of the relationship with the confidant, with specific at-

tention as to whether it is relaxing or not. The subject was also asked to identify the person who was closest to her from a list which included husband, family members, and friends, with a provision for more than one choice. Subject responses were analyzed qualitatively rather than quantitatively, with questions (c) and (d) constituting checks for (a) and (b).

## Results

The distribution of hospital and community samples according to the Index of Definition (ID) is illustrated in table 1. Four subjects (9.5%) in the hospital sample were not classified as cases, 38.1% were classified at the threshold level of disorder compared to 17.7% of the community sample, and a total of 52.4% were classified as definite cases compared to 5% of the community sample. The percentage of threshold, and definite cases from the total community cases is 77.9% and 22.1% respectively. The results clearly indicate that hospital referred subjects have severer forms of psychiatric disorder than cases detected in a community survey. Threshold cases in the community exceed definite cases by a ratio of 3.53 to 1, while they are 0.73 to 1 definite case in the hospital.

The distribution of hospital and community cases according to the CATEGO programme into classes and ICD-9 coding categories is illustrated in table 2. Depression-related diagnoses are the most common categories in both samples accounting for 60% of the total morbidity in the community cases and 52% of the hospital cases. Anxiety disorders come second and account for 19% of the total morbidity in the community sample compared to 21.5% in the hospital group. The pattern of neurotic and affective morbidity in the hospital sample confirms the earlier results of the community survey that depression is more prevalent than anxiety in UAE women. Manic disorders, paranoid disorders, and to a lesser extent schizophrenia are more common in the hospital (16.6%) than

**Table 1**  
*Distribution of Hospital and Community Samples According to Index of Definition*

| Index of definition                | Community cases |              | Hospital cases |              |
|------------------------------------|-----------------|--------------|----------------|--------------|
|                                    | N               | %            | N              | %            |
| (1) No psychiatric symptoms        | 32              | 10.7         | 0              | 0            |
| (2) Non-specific neurotic symptoms | 97              | 32.3         | 0              | 0            |
| (3) Non-specific neurotic symptoms | 41              | 13.7         | 2              | 4.8          |
| (4) Specific neurotic symptoms     | 62              | 20.7         | 2              | 4.8          |
| <b>Total non-cases</b>             | <b>232</b>      | <b>77.3</b>  | <b>4</b>       | <b>9.5</b>   |
| (5) Threshold cases                | 53              | 17.7         | 16             | 38.1         |
| (6) Definite cases                 | 12              | 4.0          | 19             | 45.2         |
| (7) Definite cases                 | 2               | 0.7          | 2              | 4.8          |
| (8) Definite cases                 | 1               | 0.3          | 1              | 2.4          |
| <b>Total cases</b>                 | <b>68</b>       | <b>22.7</b>  | <b>38</b>      | <b>90.5</b>  |
| <b>Total sample</b>                | <b>300</b>      | <b>100.0</b> | <b>42</b>      | <b>100.0</b> |

**Table 2**  
*Diagnostic Breakdown of Hospital and Community Cases According to CAT EGO Classes and ICD-9 Coding Categories*

| ICD-9 Category                                                    | CAT EGO class | ICD9 Code      | Community Cases |      | Hospital Cases |      |
|-------------------------------------------------------------------|---------------|----------------|-----------------|------|----------------|------|
|                                                                   |               |                | N               | %    | N              | %    |
| Manic-depressive psychosis, depressed type or neurotic depression | R             | 296.1<br>300.4 | 19              | 27.9 | 4              | 9.5  |
| Anxiety states                                                    | A             | 300.0          | 12              | 17.6 | 7              | 16.7 |
| Phobic states                                                     | A             | 300.2          | 9               | 13.2 | 2              | 4.8  |
| Neurotic depression                                               | O?N           | 300.4          | 9               | 13.2 | 15             | 35.7 |
| Manic-depressive psychosis, depressed                             | D?            | 296.1          | 8               | 11.8 | 3              | 7.1  |
| Affective psychosis, unspecified                                  | D?            | 296.9          | 5               | 7.4  | 0              | 0    |
| Manic-depressive psychosis, manic type                            | M             | 296.2          | 4               | 5.9  | 3              | 7.1  |
| Other paranoid states                                             | P             | 297.8          | 1               | 1.5  | 3              | 7.1  |
| Schizophrenia: Catatonic* paranoid@                               | O             | 295.2          | 1*              | 1.5  | 1@             | 4.4  |
| Total                                                             |               |                | 68              | 22.7 | 38             | 90.5 |
| Unclassified subjects                                             | ---           | -----          | 232             | 77.3 | 4**            | 9.5  |

\*\* Clinician diagnosis: one anxiety state, one arecent hysterical conversion, and 2 neurotic depression

**Table 3**  
*Psychiatric Morbidity and Demographic Variables*

|                     | Noncases |      | Community Cases |      | Hospital Cases |      | X <sup>2</sup> | P     |
|---------------------|----------|------|-----------------|------|----------------|------|----------------|-------|
|                     | N        | %    | N               | %    | N              | %    |                |       |
| Age Groups          |          |      |                 |      |                |      |                |       |
| 15-24               | 76       |      | 21              | 30.9 | 15             | 35.7 | 1.79           | N.S.  |
| 25-34               | 32.8     |      | 22              | 32.4 | 9              | 21.4 |                |       |
| 35-44               | 67       |      | 12              | 17.7 | 9              | 21.4 |                |       |
| 45-54               | 28.9     |      | 7               | 10.3 | 5              | 11.9 |                |       |
| 55-64               | 40       | 17.2 | 6               | 8.8  | 4              | 9.5  |                |       |
|                     | 28       | 12.1 |                 |      |                |      |                |       |
|                     | 21       | 9.1  |                 |      |                |      |                |       |
| Educational level   |          |      |                 |      |                |      |                |       |
| Illiterate          | 82       | 35.3 | 27              | 39.7 | 17             | 40.5 | 9.29           | N.S.  |
| Primary             | 26       | 11.2 | 9               | 13.2 | 4              | 9.5  |                |       |
| Preparatory         | 33       | 14.2 | 8               | 11.8 | 11             | 26.2 |                |       |
| Secondary           | 51       | 22.0 | 16              | 23.5 | 8              | 19.1 |                |       |
| University          | 40       | 17.3 | 8               | 11.8 | 2              | 4.8  |                |       |
| Employment          |          |      |                 |      |                |      |                |       |
| Employed            | 75       | 32.3 | 15              | 22.1 | 16             | 38.1 | 3.72           | N.S.  |
| Unemployed          | 157      | 67.7 | 53              | 77.9 | 26             | 61.9 |                |       |
| Total               | 232      | 100  | 68              | 100  | 42             | 100  |                |       |
| Marital Status      |          |      |                 |      |                |      |                |       |
| Single              | 66       | 28.5 | 17              | 25.0 | 11             | 26.2 | 15.35          | <0.00 |
| Married             | 146      | 62.9 | 38              | 55.9 | 19             | 45.2 |                |       |
| Postmarital         | 20       | 8.6  | 13              | 19.1 | 12             | 28.6 |                |       |
| Polygamous marriage | 14       | 9.6  | 9               | 23.7 | 3              | 15.8 | 5.53           | <0.07 |
| Monogamous marriage | 132      | 90.4 | 29              | 76.3 | 16             | 84.2 |                |       |

the community sample (8.9%) even though the latter is composed of outpatient referrals.

There are considerable differences within the coding categories of depression between the two samples. The community sample includes more cases allocated to the manic-depressive category compared to the hospital sample which contains an excess of neurotic depressions. Anxiety states have a similar frequency in both samples, while phobic states in the hospital sample are almost one third those of the community sample.

The age distribution of hospital cases (table 3) closely resembles that of the

community cases with the exception of the 25-34 year age group. The proportion of hospital cases in this age group is considerably less than in the community cases (21.4% and 32.4% respectively). The differences in age group distribution as a whole are not statistically significant which indicates a lack of association between age and psychiatric morbidity in women. Younger subjects, however, are more frequently represented in hospital cases (35.7%).

There is no significant differences in employment status of females between the three groups. The lesser proportion of employed women in the community cases (22.1%) is actually offset by an ex-

**Table 4**  
*Psychiatric Morbidity and Social Variables*

|                              | Noncases |      | Community Cases |      | Hospital Cases |      | $\chi^2$ | P     |
|------------------------------|----------|------|-----------------|------|----------------|------|----------|-------|
|                              | N        | %    | N               | %    | N              | %    |          |       |
| Arab                         | 152      | 65.5 | 37              | 54.4 | 17             | 40.5 | 10.51    | <0.01 |
| Other                        | 80       | 34.5 | 31              | 45.6 | 25             | 59.5 |          |       |
| Type of family:              |          |      |                 |      |                |      |          |       |
| Extended                     | 120      | 51.7 | 38              | 55.9 | 24             | 57.1 | 0.66     | N.S.  |
| Nuclear                      | 112      | 48.3 | 30              | 44.1 | 18             | 42.9 |          |       |
| Biological Children          |          |      |                 |      |                |      |          |       |
| none                         | 6        | 4.0  | 4               | 8.7  | 4              | 12.9 |          |       |
| 1-5                          | 142      | 94.0 | 40              | 87.0 | 27             | 87.1 | 4.21     | N.S.  |
| 6+                           | 3        | 2.0  | 2               | 4.3  | 0              | 0.0  |          |       |
| Loss of father before age 15 |          |      |                 |      |                |      |          |       |
| yes                          | 58       | 25   | 14              | 20.6 | 13             | 31   | 1.5      | N.S.  |
| No                           | 174      | 75   | 54              | 79.4 | 29             | 69   |          |       |
| Loss of mother before age 15 |          |      |                 |      |                |      |          |       |
| Yes                          | 36       | 15.5 | 9               | 13.2 | 7              | 16.7 | 0.29     | N.S.  |
| No                           | 196      | 84.5 | 59              | 86.8 | 35             | 83.3 |          |       |
| Total                        | 232      | 100  | 68              | 100  | 42             | 100  |          |       |
| Confiding relationships*     |          |      |                 |      |                |      |          |       |
| Yes                          | 169      | 82.4 | 55              | 87.3 | 23             | 65.7 | 7.32     | <0.05 |
| No                           | 36       | 17.6 | 8               | 12.7 | 12             | 34.3 |          |       |

\* The presence of confiding relationships could not be ascertained in 39 subjects.

cess of such cases in the hospital sample (38.1%). Women of preparatory education are overrepresented in the hospital sample compared to the community sample. The highest proportion of cases is detected in the illiterate subjects (40.5%), but this is not a significant finding since their proportion in noncases is correspondingly high (35.3%).

The proportion of postmarital status in community cases (19.1%) is more than double that of noncases (8.6%), a difference that was found to be statistically significant in the earlier survey. The higher proportion of postmarital

status is even more magnified in hospital cases which are more than three times the proportion in noncases (28.6%). The differences are highly significant ( $P < 0.005$ ). The excess of psychiatric morbidity in polygamously married subjects detected in the community cases is demonstrated in the hospital sample but the difference only approaches significance ( $P < 0.07$ ) since the number of subjects in this category was small in the hospital sample.

As previously mentioned, social status and sources of economic comfort are not based on the same parameters preval-

ent in the West. A look into social status and consequently economic opportunity in a traditional society may be gathered from the influence of belonging to different ethnic and tribal backgrounds (table 4). In the community sample a moderate excess of cases was found in subjects of non-Arab ethnic origin. This difference is more apparent in the hospital sample so that the distribution of subjects of Arab versus non Arab origin is reversed between noncases (40.5%) and hospital cases (59.5%). The excess morbidity in subjects of non Arab origins is statistically significant ( $P < 0.01$ ). The profession of the head of the household was not associated with an excess of psychiatric morbidity ( $X^2 = 6.92, df = 6, N.S.$ ). In the hospital sample a higher proportion of subjects came from a family headed by an employee (29.7%), skilled or unskilled worker (29.7%) as compared to a businessman (21.6%), and unemployed head of household (18.9%).

A detailed analysis of the association between family structure and psychiatric morbidity was undertaken in the present study (table 4). No association was found between living in extended versus nuclear family ( $X^2 = 0.66, N.S.$ ), the absence of children in the household, or their number when present, and psychiatric morbidity. The previous association in the community survey between having no biological children and psychiatric morbidity was not upheld in the present study ( $X^2 = 4.21, N.S.$ ).

There are little differences between the proportions of those who lost either parent in the community cases, hospital cases, and noncases.

In the community sample, there was no association between the presence of a confiding relationship and psychiatric morbidity. This finding is reversed in the present study, since a significant proportion of subjects (34.3%) reported that they lacked such a relationship ( $P < 0.05$ ).

## Discussion

The design of the present study gives the opportunity of replicating the findings of the community survey in the same population of subjects, namely citizen females of a traditional Arab society. Simultaneously, the utilization of a second investigator checks a potential source of bias within the community survey, which is the investigator threshold for scoring PSE symptoms and gives an additional opinion about clinical diagnosis. Comparison of the socio-demographic associations in the two samples would in addition speak of the variables related to consultation or non consultation.

### Pattern of Psychiatric Disorder:

The first finding derived from this study is that cases of psychiatric disorder consulting the clinician are severer forms of disorder than those detected in a community survey. This finding states a logical argument, namely that the magnitude of distress rather than other variables motivates the patient to seek treatment. It agrees with the opinion of several investigators (e.g. Bebbington, 1986) and calls for more stringent criteria for case identification in community surveys.

The pattern of psychiatric morbidity confirms the findings of the community survey in that depression is the most common form of psychiatric morbidity in Dubai females. This finding is different from the findings in community surveys in the mediterranean region (Carta et al., 1991) indicating a higher prevalence of anxiety rather than depression, and agrees with the relative prevalence of these disorders in European and North American studies (e.g. Bebbington et al., 1981). It is difficult to give a social explanation for this findings beyond the argument that depression is a disorder associated with loss, helplessness, while anxiety is related to threat and competitive striving. The nature of social stress



influencing women in the UAE is more likely to be of the former kind rather than the latter, since the majority is free from competitive, economic and social striving.

A high proportion of phobic disorders was detected in the community survey, while 2 cases were found in the hospital series. This finding confirms the opinion that although prevalent, the majority of individuals affected do not seek treatment (American Psychiatric Association, 1987).

There is an appreciable difference in the allocation of cases to diagnostic categories of depression in hospital and community cases. The CATEGO programme placed a majority of depressive disorders in the community in the uncertain boundary between neurotic depression and the depressed phase of manic depressive illness. In the hospital sample, the majority of depressives are included directly in the category of neurotic depression which is the more likely placement in view of the relative prevalence of these disorders.

The process of case identification according to the PSE-CATEGO-ID computer program approximates clinical thinking only to a certain extent (Hodiamont et al., 1987). It does not allow the clinical judgement of the interviewer to incorporate additional historical information, or assign more weights to more important symptoms, to reflect their duration and influence on the total level of distress. The process of formulating diagnosis through conscious and subliminal clinical cues is abandoned. In this study, differences between the algorithmic method, that the PSE-CATEGO-ID program utilised to assign cases, and the traditional-clinical method are reflected in differences between the cases assigned by the researcher and the cases assigned by the program. Researcher and program agreed on 38 cases, but disagreed on 4 cases. The sensitivity is around 90.5% compared to 59% in the community survey. It is slightly higher

than the 80-85% reported by Wing et al., (1974) for similar diagnostic categories

### **Sociodemographic Correlates of Psychiatric Morbidity.**

No single socio-demographic variable may be assumed to have a direct or causal influence on the occurrence of minor psychiatric morbidity. Single linear models have been replaced by models which examine the interaction between several demographic, social, and cultural influences and psychiatric morbidity. For example, the vulnerability model proposed by Brown and Harris (1978), suggests that women are more susceptible to depression in the event of adversity if they are unemployed, lack a confiding relationship, or have to care for more than 3 young children at home. This study examines the association between psychiatric disorder and 11 sociodemographic variables including the independent effects of the vulnerability factors of Brown and Harris. With the exception of a postmarital status, and living in a polygamous marriage, none of these demographic variables demonstrated significant association with case status (Ghubash et al., 1991). The present study confirms the findings of the community survey with some modification. Due to the smaller number of subjects, only a trend was detected between living in a polygamous marriage and psychiatric morbidity. The present study detects an association between having a non Arab origin and the absence of a confiding relationship in the subject's social environment and psychiatric morbidity

According to Bebbington, et al, (1981), the relationship between particular age groups and psychiatric morbidity is inconclusive. Moreover, there is no consensus concerning a concentration of minor psychiatric morbidity among females in a particular age group (Dohrenwend and Dohrenwend, 1974). This replicated study yields no significant concentration of females by age group. However, there is a slight pre-

ponderance of cases in the 25-34 age group in the community sample which supports the findings from psychiatric case registers by Wing and Bransby (1970) and Wing and Fryers (1976). The preponderance is not apparent in the hospital sample.

Significant findings emerge from this study which relate psychiatric disorder and marital status. There is a significant excess of cases among women of post marital status, i.e., divorced, widowed, or separated which is confirmed in hospital cases. This is in line with a number of investigators (Srole et al., 1962; Henderson et al., 1979; Surtees et al., 1983; Madianos, et al., 1985; Hodiament et al., 1987; Der and Bebbington, 1987; Bebbington, 1987, 1988). As regards traditional Arab women, there may be additional sources of stress associated with a postmarital status. Social-cultural adequacy is achieved through having a husband and producing children (El-Islam, 1975). Being unmarried, is a source of anxiety, but more important is to perceive failure in marriage and suffer limited future opportunity. In addition to the social stigma which is attached to postmarital status, deprivation of a social role is evident among such women.

Females who live in polygamous marriages experience more than twice the psychiatric morbidity of females in monogamous marriages. This finding is more apparent in community subjects than in the hospital cases probably due to the smaller number of cases of polygamy in the latter sample ( $P < 0.07$ ). Females living in a polygamous marriage are similar to women in a post-marital state functionally and effectively. The present study agrees, albeit to a lesser extent, with the findings of Chaleby (1985) who reported that 25% of psychiatric inpatient women in Kuwait are polygamously married. Chaleby (1988) also suggests that polygamy was a source of stress in 64 % of Saudi females studied for the effect of marital status on mental health.

The function and value of employment for females in a traditional Arab society differs from those which characterize Western cultures. Only recently do U.A.E. females derive social status or self-esteem from being successful in professions or careers outside the home. There is a tendency among females in the community, who are employed outside their homes, to suffer less psychiatric morbidity than is apparent for housewives or the unemployed. The tendency may be explained as a consequence of new options for self-realization and economic independence which provide a legitimate reason for women being outside the home for long periods of time. These findings support the direction of others for urban females (Brown and Harris, 1978; Bebbington et al., 1981; Cochrane and Stopes-Roe, 1980; Surtees et al., 1983). Surtees et al., (1983) report a double-fold excess of psychiatric morbidity among females who are unemployed as compared to the employed. The same tendency was found by Mostow and Newberry, 1975; Brown and Harris, 1978; Nathanson, 1980; and Tennant et al., 1982.

The findings of the present study do not support these reports and indicate that "it is not employment per se which matters for psychiatric morbidity but rather the conditions and circumstances of employment and non-employment." (Goldman and Ravid, 1980). Under current U.A.E. conditions, unemployment is not considered a serious or socially adverse circumstance. To the contrary, it is viewed as a new status that U.A.E. women have only recently acquired along with access to employment. Therefore, it was not expected that unemployment would be associated with an excess of morbidity.

The present study does not yield significant differences for psychiatric morbidity among different levels of female education, though there is a slight excess among illiterate and lower educated women as compared to University gradu-

ates. Levels of education are used as indicators of social class in traditional Arab societies. Education was used by Chaleby (1988) to study Saudi women. In Saudi Arabia, the sudden and increased affluence created a situation wherein occupations and income did not accurately reflect an individual's open mindedness nor the degree to which a person incorporates modern attitudes. A similar situation characterizes the U.A.E. and, thus, educational levels may be used as indicators of social class. Despite its overall importance, no significant relationship was identified in this study between educational level and psychiatric morbidity.

Statistical analysis in the present study yielded no significant differences in psychiatric morbidity among the various occupations of household heads. No such differences were hypothesized as a consequence of several factors. Social class stratification as manifested in Western studies does not apply to UAE society as a major influence on individual self-concept. Instead, family and tribal identification is more relevant for assessing social class membership than are either occupational, educational, or economic parameters. Stratification by income groups are insufficient to provide insight into relative differences among classes because of widespread reliance on social security benefits.

Main ethnic groupings in the U.A.E. society are derived from distinctions between citizens of Arab origin and citizens of non-Arab origins, e.g., Iranian origins. While occupational discrimination is not a characteristic feature of ethnicity in the UAE, social disadvantage is strongly reflected in traditional customs of marriage, social relationships, and social status.

Differences in racial constitution are reflected in the present study, and are statistically significant. There is an excess psychiatric morbidity in citizens of non-Arab origins. Citizens of non-Arab origins have greater economic and social freedom, along with an opportunity to

retain their cultural integrity. When it comes to social customs, there is occult and possible manifest discrimination which is apparent in the difficulty with which non-Arabs obtain passports, official positions and state offered land and loans for constructing houses. As a consequence, upward social mobility is restricted for non-Arab parents and children which is a major source of stress.

The role of the extended family in providing social support and protection from psychiatric illness was recently highlighted in studies conducted by WHO concerning the effect of extended families on the course and outcome of schizophrenia in developing communities where it was suggested that living in an extended family carries a better prognosis in such cases (Sartorius, 1977; El-Islam, 1979, 1982). There have not been comparative studies of the effect of the extended family on neurotic and affective morbidity in similar communities.

Approximately 53% of the survey subjects came from extended families.

Taken alone, the association between living in an extended or nuclear family and psychiatric morbidity was primarily negative. Family circumstances, e.g., the quality and amount of support it offers seems to be more important than the number of persons who comprise the family. The extended family form is declining in the U.A.E., as it is in most traditional societies. The present situation may be considered a transitional period, in which Western type social support organizations have not yet developed with negative consequences for mental health. However, this possibility was not substantiated in the present study.

For the traditional married female, having no children may be a more significant source of distress than having a large number of children. This would be consistent with the expected socio-cultural role for women in traditional Arab societies (El-Islam, 1975), but is

actually contrary to the postulates of Brown and Harris (1978). This hypothesis was tested together with an examination of the relation between number of biological children and psychiatric morbidity. Statistical analysis suggests no relation exists between the two in either sample.

Loss of parents in childhood has been linked to adult psychiatric morbidity, particularly depression (Brown and Harris, 1978). This is the focus of considerable controversy along with several elements of their proposed vulnerability model. Solomon and Bromet (1982) were unable to replicate the findings of Brown and Harris. Tennant et al., (1980, 1981, 1982) were also unable to replicate the findings of Brown and Harris.

While more research is required to draw firm conclusions about this lack of association, it may be a consequence of the availability in rural and traditional societies of an extensive network of interpersonal contacts and intimate relationships where most married women live with parents and close relatives. The present study supports the latter possibility and fails to demonstrate any significant association between loss of either parent before age 15 and the development of psychiatric morbidity, as reflected in case status.

Failure to detect a relationship between early parental loss and the later development of psychopathology may also be attributed to the many intervening factors which are influential after the loss of parents.

The presence of a confiding relationship was examined in a manner different from the methodological design adopted by Brown and Harris (1978), who restricted confidants to spouse or boyfriend. The results demonstrate no significant association between the absence of a confiding relationship and psychiatric morbidity in the community sample, but are supported in the hospital sample. Taking in consideration the me-

thodological limitations, the results support the observation and general consensus of literature which includes confiding relationships among the risk factors proposed by Brown and Harris; an effect which has been related to vulnerability to psychopathology (Costello, 1982), even in the absence of significant life events (Bebbington, 1986).

## References

- Abdel-Mawgoud M. (1986) The English-Arabic Version of PSE: An Arabic translation of the full version of Present State Examination (PSE). *Psychiatric Hospital: Bahrain*.
- Al-Khani, M. F. (1986) *Life Events and Schizophrenia: A Study in Saudi Arabian Population*. Unpublished Ph.D. Thesis presented to the University of London.
- American Psychiatric Association, Committee on Nomenclature and Statistics. (1987) *Diagnostic and Statistical Manual of Mental Disorders*. (3rd edition-Revised), Washington D.C.: American Psychiatric Association.
- Bebbington, P.E. (1986) *A Study of Affective Disorders in Inner London*. Unpublished Ph. D. Thesis presented to the University of London.
- (1987) Marital status and depression: a study of English national admission statistics. *Acta Psychiat. Scand.*, 75: 640-650.
- (1988) The Social Epidemiology of Clinical Depression. In *Handbook of Studies in Social Psychiatry* (eds. A. S. Henderson and G. D. Burrows) Amsterdam: Elsevier.
- Hurry, J., Tennant, C., Sturt, E., and Wing, J. K. (1981) Epidemiology of mental disorders in Camberwell. *Psychol. Med.*, 11: 561-579.
- Birtchnell, J. (1980) Women whose mothers died in childhood: an outcome study. *Psychol. Med.*, 10: 699-713.
- Brown, G.W., and Harris, T. (1978) *Social Origins of Depression: A Study of Psy-*

- chiatric Disorder in Women*. London: Tavistock.
- Carta M.G., Carpinello B., Morosini P.L., and Rudas N. (1991) Prevalence of mental disorders in Sardinia: a community study in an inland mining district. *Psychol. Med.*, (in press)
- Chaleby, K. (1985) Women in polygamous marriages in an inpatient psychiatric population in Kuwait. *J. Nerv. Ment. Dis.*, **173**: 56-58.
- (1988) Traditional Arabian marriages and mental health in a group of outpatient Saudis. *Acta Psychiat. Scand.*, **77**: 139-142.
- Cheng, T. A. (1986) *A Community Study of Minor Mental Disorders in Taiwan*. Unpublished Ph. D. Thesis presented to the University of London.
- Cochrane, R. and Stopes-Roe, M. (1980) Factors affecting the distribution of psychological symptoms in urban areas of England. *Acta Psychiat., Scand* **61**, 445-460.
- Costello, C.G. (1982) Social factors associated with depression: a retrospective community study. *Psychol. Med.*, **12**: 329-339.
- Der, G. and Bebbington, P. (1987) Depression in Inner London - A register study. *Soc. Psychiat.*, **22**: 73-84.
- Dohrenwend, B. P. and Dohrenwend, B. S. (1969) *Social Status and Psychological Disorder: A Causal Inquiry*. Wiley: New York: Wiley
- and ----- (1974) Social and Cultural influences on Psychology. *Ann. Rev. Psychol.*, **25**: 417-452.
- El-Islam, M.F. (1975) Culture bound neurosis in Qatari women. *Soc. Psychiat.*, **10**: 25-29.
- (1979) A better outlook for schizophrenics living in extended families. *Brit. J. Psychiat.*, **135**: 343-347.
- (1982) Rehabilitation of schizophrenics by the extended family. *Acta Psychiat. Scand.*, **65**: 112-119.
- Ghubash, R., Hamdi E., and Bebbington P. (1991) The Dubai Community Psychiatric Survey: I- Prevalence and socio-demographic correlates. *Soc. Psychiat. Psychiat. Epidem.*, **26**: (In Press).
- and Bebbington P. (1992) The Dubai Community Psychiatric Survey: II- Development of the Socio-cultural change questionnaire. (In preparation).
- Gillis, L. S., Elk, R., Ben-Arie, O., and Teggin, A. (1982) The Present State Examination: experience with Xhosa-speaking psychiatric patients. *Brit. J. Psychiat.*, **141**: 143-147.
- Goldman, N. and Ravid, R. (1980) Community surveys: sex difference in mental illness. In *The Mental Health of Women*. (M. Guttentag, S. Salasin, and D. Belle eds.). Academic Press: New York.
- Goldthorpe, J. and Hope, K. (1974) *The Social Grading of Occupations: A New Approach and Scale*. Oxford University Press: London.
- Hallstrom, T. (1970) Depressions among women in Gothenburg: an epidemiological study. *Acta Psychiat., Scand.*, **Suppl. 217**: 25-26.
- Henderson, A. S., Byrne, D. G., Duncan-Jones, P. (1981) *Neurosis and the Social Environment*. Sydney: Academic Press.
- Duncan-Jones, P., Byrne, D. G. Scott, R. and Adcock, S. (1979) Psychiatric disorder in Canberra. A Standardized study of prevalence. *Acta Psychiat. Scand.*, **60**: 355-374.
- Hodiamont, P., Peer, N. and Syben, N. (1987) Epidemiological aspects of psychiatric disorder in a Dutch health area. *Psychol. Med.*, **17**: 495-505.
- Hollingshead, A. B. and Redlich, F. C. (1958) *Social Class and Mental Illness: A Community Study*. John Wiley and Sons: New York.
- Hurry, J., Tennant, C. and Bebbington, P. E. (1980) The selective factors leading to psychiatric referral. *Acta Psychiat., Scand.*, **Suppl. 285**: 315-324.
- Kacha, F. (1987) *Epidémiologie Psychiatrique*. In Douki, S., Moussaoui, S and, Kacha, F. (eds. *Manuel de Psychiatrie du Practicien Maghrébin*. Masson: Paris.

- Leff, J. P. (1981) *Psychiatry Around the Globe: A Transcultural View*. Marcel Dekker: New York.
- Lehtinen, V., Lindholm T., Veijola J., and Vaisanen E., (1990) The prevalence of PSE-CATEGO disorders in a Finnish adult population. *Soc. Psychiat. Psychiat. Epidem.*, **25**:187-192.
- Leighton, A.H. (1960) *Introduction to Social Psychiatry.*, Charles C. Thomas: Springfield Ill.
- Lloyd, G. and Bebbington, P. (1986) Social and transcultural psychiatry. In *Essentials of Postgraduate Psychiatry*, 2nd edition (P. Hill, R. Murray and A. Thorley, eds.) Grune and Stratton : London.
- Luria, R. E. and Machugh, P. R. (1974) ,Reliability and clinical utility of the "Wing" Present State Examination. *Arch. Gen. Psychiat.*, **30**: 866-871.
- Madianos, M., Vlachonikolis, I., Madiannou, D., and Stefanis, C. (1985) Prevalence of psychiatric disorders in the Athens area. *Acta Psychiat. Scand.*, **71**: 479-487.
- Mavreas, V. G., Beis, A., Mougias, A., Rigoni, F. and Lyketsos, G (1986) Prevalence of psychiatric disorders in Athens. A community study. *Soc. Psychiat.*, **21**: 172-181.
- Mostow, E. and Newberry, P. (1975) Work role and depression in women: a comparison of workers and housewives in treatment. *Amer. J. Ortho Psychiat.*, **45**: 538-548.
- Nathanson, C. A. (1980) Social roles and health status among women: the significance of employment. *Soc. Scien. Med.*, **14**: 463-471.
- Office of Population Censuses and Surveys (OPCS)(1970) *Classification of occupations*. HMSO London.
- Okasha, A. and Ashour, A. (1981) Psychodemographic study of anxiety in Egypt: The PSE in its Arabic version. *Brit. J. Psychiat.*, **139**: 70-73.
- Orley J, Wing J K (1979) Psychiatric disorders in two African villages. *Arch. Gen. Psychiat.*, **36**: 513-520
- Sartorius, N. (1977) Priorities for research likely to contribute to better provision of mental health care. *Soc. Psychiat.*, **12**: 171-184.
- Schwab J.J., Schwab, M.E.(1978) *Sociocultural Roots of Mental Illness: an Epidemiologic Survey*. New York: Plenum.
- Shepherd, M. (1978) Epidemiology and clinical psychiatry. *Brit. J. Psychiat.*, **133**: 289-298.
- Solomon, E., and Bromet, E (1982) The role of social factors in affective disorder: in assessment of the vulnerability model of Brown and his colleagues. *Psychol. Med.*, **12**: 123-130.
- Srole, L., Langner, T. S., Michael, S. T., Opler, M. K., and Rennie, T.A.C. (1962) Mental Health in the Metropolis, vol 1: *The Mid-Town Manhattan Study*. Mc Graw Hill: New York.
- Sturt, E., Bebbington, P. E., Hurry, J., Tennant, C. (1981) The Present State Examination used by interviewers from a Survey Agency: report from the Camberwell Community Survey. *Psychol. Med.*, **11**: 185-192.
- Surtees, P. G., Dean, C., Ingham, J. G. , Kreitman, N. B. Miller, P. Mc C. and Sashidharan, S. P. (1983) Psychiatric disorder in women from an Edinburgh community : association with demographic factors. *Brit. J. of Psychiat.*, **142**: 238-246.
- Tennant, C., Bebbington, P., and Hurry, J. (1980) Parental death in childhood and risk of adult depressive disorders: a review. *Psychol. Med.*, **10**: 289-299.
- Bebbington, P., and Hurry, J. (1982) Female vulnerability to neurosis: the influence of social roles. *Austr N Zeal J. Psychiat.*, **16**: 135-140.
- Smith, A., Bebbington, P. and Hurry, J. (1981) Parental loss in Childhood. *Arch. of Gen. Psychiat.*, **38**: 309-314.
- Tischler, G. L., Henisz, J. E., Myers, J. K. and Boswell, P. C. (1975) Utilization of mental health services. *Arch. Gen. Psychiat.* , **32**: 411-415.
- Vazquez-Barquero J-L, Diez-Manrique J F, Pena C, aldana J, Samaniego-Rodriguez C, Menendez-Arango J, Mirapeix C

- (1987) A community mental health survey in Cantabria: a general description of morbidity. *Psychol. Med.*, 17: 227-242.
- Weissman M. M. and Myers, J. (1978 a) Affective disorders in a United States urban community: the use of Research Diagnostic Criteria in an epidemiological survey. *Arch. Gen. psychiat.*, 35: 1304-1314.
- and Myers, J. (1978 b) Rates and risks of depressive symptoms in a United States urban community. *Acta Psychiat. Scand.*, 57: 219-231.
- and Myers, J. K. (1980) Psychiatry disorders in an U.S. community. *Acta Psychiat. Scand.*, 62: 99-111.
- Wing, J. K. and Bransby, E. R. (1970) *Psychiatric Case Registers*. DHSS Statistical Report Series No 8. HMCSSO: London.
- , and Fryers, T. (1976) *Psychiatric Services in Camberwell and Salford: Statistics from the Camberwell and Salford Psychiatric Registers, 1964-74*. MRC Social Psychiatry Unit: London."
- and Sturt, E. (1978) *The PSE-ID-CATEGO System: A Supplementary Manual*. Institute of Psychiatry: London (Mimeo)."
- Cooper, J. E. and Sartorius, N. (1974) *Measurement and Classification of Psychiatric symptoms for the PSE and the CATEGO Program*. Cambridge University Press: Cambridge.
- World Health Organization (1973) *International Pilot Study of Schizophrenia*. World Health Organization: Geneva.
- (1978) *Mental Disorders: Glossary and Guide to their Classification in Accordance with the Ninth Revision of the ICD*. Geneva:WHO
- (1979) *Schizophrenia: An International Follow-up Study*. New York: Wiley.

### Une Comparaison entre des Cas Psychiatriques à l'Interieur et à l'Exterieur des Institutions Psychiatriques: I- Aspect Clinique et Caracteristiques Sociodemographiques

Cette étude réexamine l'aspect et les caracteristiques sociodemographiques des troubles psychiatriques constatés lors du sondage psychiatrique communautaire de Dubai. (Ghubash *et al.*, 1991). Les mêmes instruments ainsi que les mêmes critères d'inclusions ont été appliqués sur 42 consultantes consécutives. Les résultats du sondage communautaire étaient largement répliqués. La morbidité psychiatrique chez les citoyennes de Dubai comprend essentiellement: les troubles dépressifs (52%) suivis des troubles anxieux (21,5%). Les formes plus graves de ces troubles se trouvaient parmi les cas hospitalisés. La morbidité psychiatrique était significativement associée au statut postmarital ainsi qu'au fait d'être une citoyenne d'origine ethnique non-arabe, moins significative était l'influence de la polygamie.