

## INTRODUCTION

HEALTH coverage of the population in Bahrain provided by the Ministry of Health has made the health services equally accessible to all social groups. The relationship between different level of social class and the use of health services, however is complex and involves more than economic factors, such as cultural beliefs, referral patterns and class specific rates of disorders (2). In the U.S. the higher social classes have greater access to children's psychiatric services despite the evidence that childhood psychiatric disorder is more common among the lower than the higher social classes something that could be attributed to the private fee-for service arrangement. (3, 9). Also wide discrepancies between estimate of true prevalence and treated prevalence of childhood disorders suggest a large unmet need for children psychiatric services (4, 8). With these considerations in mind this paper addresses some aspect of children psychiatric services in Bahrain such as class disparities in the utilization rates, clinical presentation, referral pattern and the extent of unmet need.

Bahrain is offered for this study since the population of the states is small and there is only one child psychiatric facility. Child and Adolescent unit is a function of the only state psychiatric hospital and provide its service through two clinics. One is located in Salmaniya Medical Centre — The State General Hospital — and another in a peripheral Health Centre — Sh. Sabah Health Centre.

## METHOD

The aim of the present study was the identification of variables associated with referrals. All new referrals to Child and Adolescent Unit — Psychiatric Hospital between the 1st of March 1981 and

# The Child and Adolescent Psychiatric Population of Bahrain Comparative Data

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28th February 1982 made the sample of 195 children. Excluded were children seen on consultation on other wards of Salmaniya Medical Centre, consultation to School Social Workers where visits were not recorded or those referred but were above 17 years of age.

The clinical record of each of these 195 children were examined and in addition to coding-symptom data - age - sex and source of referral, fathers level of education and occupation were also obtained. Social class ranking was constructed following Redlich and Hallingshead and the subjects were grouped on 5 levels according mainly to occupation and level of education (7). The diagnosis were made according to DSM III Classification (1) and categorised according to G.A.P. major categories (6).

## RESULTS

One hundred and six (54.4%) of the total sample were boys and 89 (45.6%) were girls. The ratio being

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1.2 - 1, 181 (92.8%) of the cases were local citizens. Figure 1(a - b) shows the distribution according to age and sex of all children. Notable is the increase in referred boys and girls at the beginning of their adolescence 12 - 14 and at later stage after 16 years of age. If the rate of referrals reflected the prevalence of psychiatric disorders which is generally higher in adolescence as compared to childhood (5) increased rate would have been expected from Adolescent population of the State. This was observed in this study as adolescent constituted 60% (117). The total sample of children corresponded to 0.16% of the population up to age 17 in the State (13).

The figure of (0.16%) must be regarded as an estimate since it is not known how many patients may have received treatment by other professionals in psychiatric and non-psychiatric settings. Still this figure can be compared with treated prevalence of 0.11% of the population of Newfoundland Province Canada., 0.95% of Ottawa Corleton region — Canada and 0.68% for 10 to 11 years old children on the Isle of Wight (4, 8, 12). The referrals were made mostly by the family 50%, next is family doctors and paediatricians 17.9% — see figure 2. The socio-economic status of the child's original family was determined in all 195 cases on Redlich and Hallingshead scale shown in table 3. A reliable comparison between socio-economic level of these families with those in the population of Bahrain could not be made because of different categories used by statistics in Bahrain, though the impression is that the lower social classes are over represented in this sample.

In our referral, more parents from socio-economic background (class 4 & 5) — 80% of the sample

**Distribution according to sex**  
Figure 1(a)

|       | <i>N</i> | <i>%</i> | <i>Ratio</i> |
|-------|----------|----------|--------------|
| Boys  | 106      | 54.36    |              |
| Girls | 89       | 45.64    |              |
| Total | 195      | 100      |              |

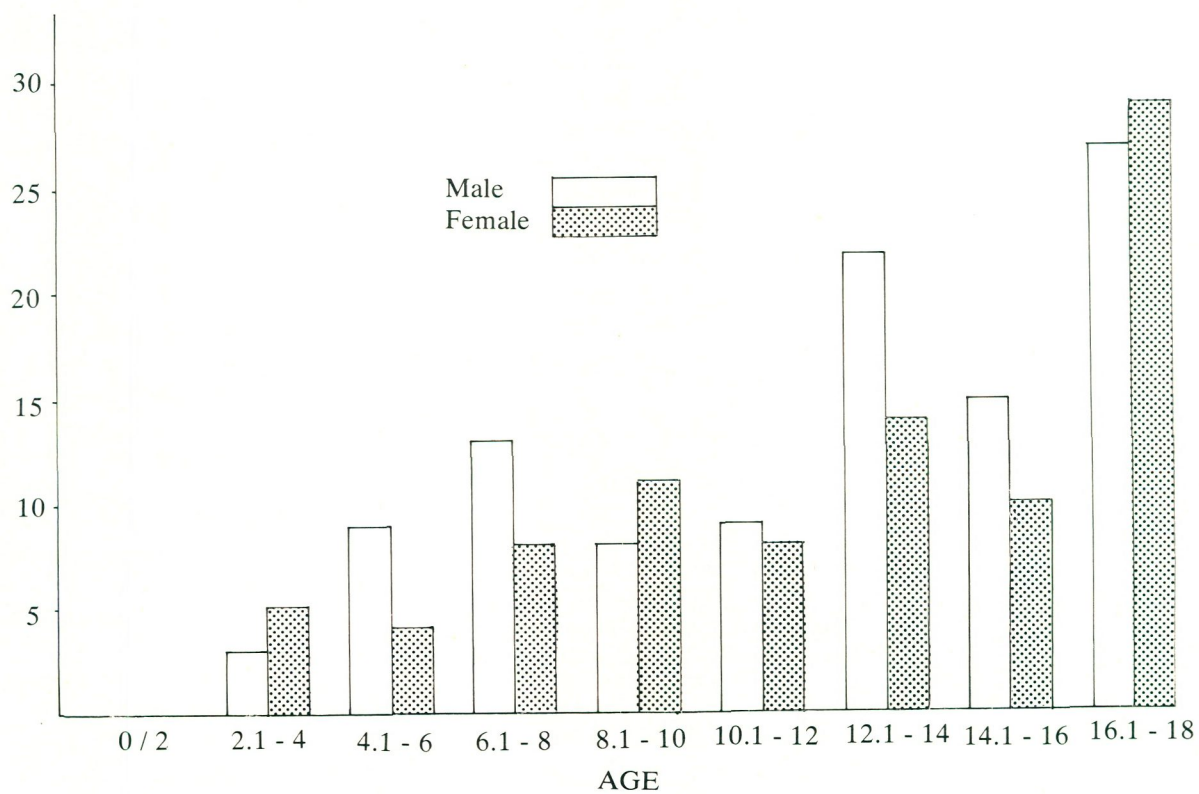


Fig. 1b.



# Distribution according to source of referral

Figure 2

|                   | <i>Number</i> | <i>Frequency %</i> |
|-------------------|---------------|--------------------|
| Family            | 98            | 50.25              |
| Medical personnel | 35            | 17.95              |
| School            | 34            | 17.44              |
| Police            | 11            | 5.64               |
| Self              | 13            | 6.67               |
| Others            | 4             | 2.05               |
| Total             | 195           | 100                |

**Table III (a & b)**  
**Social class of 195 cases (Redlich & Hallingshead)**

| <i>Social Class</i> | <i>Number</i> | <i>Frequency %</i> |
|---------------------|---------------|--------------------|
| Social class 1      | 2             | 1.03               |
| Social class 2      | 5             | 2.56               |
| Social class 3      | 32            | 16.41              |
| Social class 4      | 77            | 39.49              |
| Social class 5      | 79            | 40.51              |
| Total               | 195           | 100                |

## *Cultural characteristic and class status* *(Redlich & Hallingshead)*

|         |   |
|---------|---|
| Class 1 | Community business and professional leaders   |
| Class 2 | Education beyond High school Occupation as manager — lesser ranking professional                      |
| Class 3 | High school graduates<br>Administrative and clerical job  |
| Class 4 | Education less than High school and more than Primary level working class<br>Semi skilled and Skilled |
| Class 5 | Education — Primary school and less<br>Unskilled workers — or unemployed                              |

**Table IV Clinical diagnosis according to sex Using DSM III Classification**

| <i>Code</i> |  | <i>Boys</i> | <i>Girls</i> | <i>N</i> | <i>%</i> |
|-------------|--|-------------|--------------|----------|----------|
| 317.00      | Mild Mental Ret                                    | 7           | 4            | 11       | 5.64     |
| 318.00      | Mod. Mental Ret                                    | 22          | 21           | 43       | 22.05    |
| 318.10      | Severe Mental Ret                                  | 4           | 4            | 8        | 4.10     |
| 312.00      | Conduct disorder under socialised — aggressive     | 8           | 3            | 11       | 5.64     |
| 312.10      | Under socialised non-aggressive                    | 2           | 2            | 4        | 2.05     |
| 312.23      | Socialised aggressive                              | 7           | 1            | 8        | 4.10     |
| 312.21      | Socialised non-aggressive                          | 5           | 1            | 6        | 3.08     |
| 312.90      | A typical — anxiety disorders of childhood or Adol | 1           | 1            | 2        | 1.03     |
| 309.21      | Separation anxiety disorder                        | 4           | 0            | 4        | 2.05     |
| 313.21      | Avoidant disorders of childhood or adolescence     | 0           | 2            | 2        | 1.03     |
| 313.00      | Over anxious disorders                             | 13          | 33           | 46       | 23.60    |
|             | Others disorders of childhood and adolescence      |             |              |          |          |
| 313.22      | Schizoid disorder of childhood or adol             | 1           | 0            | 1        | 0.5      |
| 313.81      | Oppositional disorder                              | 1           | 0            | 1        | 0.5      |
| 313.82      | Identity disorder                                  | 0           | 1            | 1        | 0.5      |
| 307.10      | Anorexia nerrosa                                   | 0           | 1            | 1        | 0.5      |
| 307.00      | Stuttering   | 3           | 1            | 4        | 2.05     |
| 307.00      | Functional Enuresis                                | 2           | 1            | 3        | 1.54     |
| 299.00      | Impotile autism                                    | 2           | 0            | 2        | 1.03     |
| 299.90      | Childhood onset perrasive developmental disorder   | 0           | 1            | 1        | 0.50     |
| 299.81      | A typical  | 0           | 1            | 1        | 0.50     |
| 315.31      | Developmental language disorder                    | 3           | 0            | 3        | 1.54     |
| 315.50      | Mixed specific developmental disorder              | 0           | 1            | 1        | 0.50     |
| —           | Schizophrenic disorder                             | 4           | 4            | 8        | 4.10     |
| —           | Organic mental disorder                            | 8           | 5            | 13       | 6.67     |
| —           | Others   | 6           | 4            | 10       | 5.10     |
| Total       |  | 106         | 89           | 195      | 100      |

**Table V Clinical diagnosis according to Sex Using G.A.P. Classification**

| <i>Code</i> | <i>Diagnosis</i>  | <i>Boys</i> | <i>Girls</i> | <i>N</i> | <i>%</i> |
|-------------|---|-------------|--------------|----------|----------|
| 1           | Healthy Responses                                       | 3           | 4            | 7        | 3.59     |
| 2           | Reactive Disorder                                       | 18          | 25           | 43       | 22.05    |
| 3           | Developmental Deviations                                | 6           | 3            | 9        | 4.62     |
| 4           | Psychoneurotic Disorder                                 | 11          | 15           | 26       | 13.33    |
| 5           | Personality Disorders                                   | 15          | 2            | 17       | 8.72     |
| 6           | Psychotic Disorders                                     | 4           | 5            | 9        | 4.62     |
| 7           | Psycho Physiologic Disorders                            | 0           | 2            | 2        | 1.02     |
| 8           | Brain Syndrome  | 13          | 6            | 19       | 9.74     |
| 9           | Mental Retardation                                      | 33          | 20           | 53       | 27.18    |
| 10          | Other Disorders<br>(Uncertain — no mental illness etc.) | 3           | 7            | 10       | 5.13     |
| Total       |   | 106         | 89           | 195      | 100      |



used the services. Less patients from high social classes utilise children (child) psychiatric in comparison with other studies (3, 4, 9). Age and sex distribution according to social class was not done at the present inquiry. Most children came from intact family 161 - 82.6%, fewer from broken families or deceased parents 17.4%. This also was not compared with proportion of broken families in Bahrain since reliable figures are not available. The low referred rate from the broken families indicates either broken families in proportion to the population is low or they may not carry the same risk for psychopathology in children because of the availability of extended family members.

With regard to type of disorders found (Figures 4 & 5) indicate the clinical diagnosis on G.A.P., major categories and DSM III classification of all children. It is apparent that the large majority of children received the diagnosis of mental retardation, reactive disorders and psychoneurotic disorders. The relative increase in proportion of mentally retarded children reflects probably the scarcity of rehabilitative programme for this group of patients in the State.

The boys outnumbered girls in conduct disorders while girls outnumbered boys in reactive and neurotic disorders which is in keeping with other studies (11).

## DISCUSSION

The essential findings of this inquiry is that in the State of Bahrain few children were referred for psychiatric evaluation and or for treatment. The over all rate of referral for 1981 - 1982 was 0.16% of the child population of the State compared with estimated prevalence of 5 - 20% of the child population in general (12).

This makes it clear that the vast number of disturbed children receive no treatment at all. How much of this is due to lack of psychiatric services and how much reflect attitudinal and specific pattern of existing referral system that may impede health-care seeking behaviours remain to be investigated further. Class disparities in the use of children psychiatric services at the Child and Adolescent Unit in Bahrain were the reverse of those typically found under private fee for service arrangement. The higher social classes were found to show much lower rate of use that usually reported by American Child Psychiatry Clinics (9).

Perhaps this class disparities in the use of children psychiatric services lies in the nature of the referral system. It may be that families from lower social class received more referral to the unit by the public-health and educational systems compared with families from higher social classes who obtained more referrals to the private sector.

In this state those who presented with aggressive behaviour — conduct disorder were not more than 15% of total referred cases compared with Newfoundland 24.2% and Ottawa Carleton region 64.5%. This suggested that in Bahrain, either there are fewer aggressive children or they are not considered as psychiatric cases and so dealt by the court system.

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