

## Original Article

# Pattern of Child and Adolescent Patients Attending Psychiatric Outpatient Department of the Mental Hospital in Bangladesh

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### Abstract :

Bangladesh has only one mental hospital which is situated in Pabna district of the country. People from the nearby locality as well as from distant regions of the country come here for psychiatric service. Clinical records of all the children who attended the outpatient department of 'Mental Hospital, Pabna' (MHP) during January, 2009 to June, 2009 were analyzed. Of the 143 children, 125 (88%) were of school going age (i.e.,  $\geq 6$  years of age). The majority (63%) of the patients were male. International Classification of Diseases (ICD) classification revealed that the patients came with mental retardation (F70-F79) (38%), Episodic and paroxysmal disorder (G43-G44) (26%) and Schizophrenia, schizotypal & delusional disorders (F20-F29) (22%). The main comorbid condition was behavioural problem with mental retardation (43% of mentally retarded). Of the 103 patient we had information about the pathway to care, 20 patients (19%) came directly to MHP and the rest 83 (81%) consulted other service provider before reaching here. Among the previous service providers, there were medical graduates (60%), *Kobiraj* (36%) and indigenous & religious healer (34%). Considering the variety of presentation of child and adolescent patients, we propose to establish a multidisciplinary approach in MHP.

**Key words:** Child and adolescent patients, Mental Hospital Pabna, Psychiatric diagnosis, Behavioral problems.

### Introduction :

Usually an individual below 18 years is considered to be a child<sup>1</sup>. Children and adolescents constitute about 45% of the population of Bangladesh<sup>2</sup>. There is considerable amount of psychiatric morbidity in this age group. These childhood psychiatric disorders have substantial long-term costs, including higher rates of adult psychiatric disorders, criminality, substance abuse and under-employment<sup>3,4</sup>. Although the prevalence is high, there is lack of awareness among the patients and caregivers about psychiatric disorders & availability of service and the majority of people with psychiatric disorder attend psychiatric services with delay.

Two community based medium to large scale surveys have found that the prevalence of psychiatric disorder among children is between 15.2% and 18.4%<sup>4,5</sup>. Among the studies conducted in the child and adolescent psychiatry (CAP) outpatient departments, Rahim and

colleagues at Mitford Hospital, Dhaka showed that dissociative disorder comprised the largest group (21.7%) followed by epilepsy (19.6%), here the majority of the cases (54.6%) were within 7-10 year age group; male patients outnumbered female patients (male: female = 2.03:1) and majority (53.6%) of the patients came from rural background<sup>6</sup>. The study conducted at 'National Institute of Mental Health and Research' showed that hyperkinetic disorder was diagnosed among the highest proportion of patients (27.1%), followed by Mental retardation (18%) and Pervasive developmental disorder (13.5%)<sup>7</sup>.

A number of studies from abroad also showed that the presentation at child psychiatry outpatients is varied. Among the 664 children who attended the outpatient child psychiatry clinics in Perth, Australia over one-year period, 10% were suffering from conduct disorder, 16.5% had mixed disorders of conduct and emotion, and 42% had emotional disorders<sup>8</sup>. Among the fifty five child and adolescent patients attending the psychiatry outpatients in May, 1996 in Psychiatric Hospital of Uslu, Nigeria 25.5% were suffering from Seizure disorder, 18.2% were suffering from Mania, 16.4% were suffering from Depression, 12.7% were suffering from Schizophrenia and related disorders, 7.3% were suffering from Organic brain syndrome<sup>9</sup>.

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## Materials and Methods :

Mental Hospital, Pabna (MHP) provides service to the patients coming from all over the country. The outpatient department takes decision whether to admit a patient in the hospital or not. Generally patients between 18 to 60 years are admitted in the hospital<sup>3</sup>. MHP is the only mental hospital in Bangladesh for a population of about 161 million (June 2012)<sup>10</sup>. This is the most important psychiatric service delivery point outside the capital city. About 80-100 patients attend the outpatient service on a typical working day.

The patient registration book was used as the sampling frame and the clinical records of all the children who attended the outpatient department during January, 2009 to June, 2009 were analyzed. The patients themselves were interviewed in case they were old enough to understand & answer to interview questions; in the rest of the cases the parents or the nearest attendants were interviewed. The socio-demographic data and some part of the clinical data were collected by a trained nurse. The socio-demographic data included age, sex, educational level, occupation, living area, religion, family type, and family income. The data regarding duration of illness, previous consultations, and previous careers were also noted. The clinical symptoms and diagnoses were elicited by the psychiatrist in charge. We considered the cause of the patient's coming to the outpatient unit as the primary diagnosis. Any additional diagnoses were considered as comorbid diagnosis / condition. The diagnoses were made according to the 'International Classification of Diseases' (ICD-10) diagnostic coding<sup>11</sup>. All data collected were compiled into statistical software and were analyzed. Frequency distribution, summary tables, bar diagram and pie chart were used for presentation of results.

## Results :

The total number of registered new child and adolescent patients, during the month of January to June in 2009, was 143. Among them, 90 were males and the rest (53) were females. The mean age of the patients was 11.87±4.55 years. The minimum age of the patients was 2 years and the maximum was 17 years 11 months. The median age of the patients was 13 years and mode was 15 years. The majority of the patients were (59%) within 12-18 years of age, 6-12 years age group was the second most common (29%), the rest of the patients were within 0-6 years of age (12%).

**Table I: Socio-demographic information**

Characteristics	Number (percentage)
Gender (n=143)	Male=90 (63%), female=53 (37%)
Age (n=143)	Mean ± S.D.= 11.87± 4.55 years
Age groups:	0 - 6: 18 children (12+6) 12%
Number (M+F)%	6 - 12: 41 children (27+14) 29%
	12 - 18: 84 children (52+32) 59%
Occupation (n=143)	Stay at home = 17 (<6 yrs) (14%)
	Among the rest 126 (≥6 years )
	Unemployed= 40 (33%)
	Students= 50 (41%)
	House wife=5 (4%)
	Day labourer= 4 (3%)
	Service holder= 3 (3%)
	Farmer= 2 (2%)
Religion (n=143)	Muslim=138 (96%)
	Hindu=4 (3%)
	Buddhist=1 (1%)
Education (n=143)	Pre-school age=17 (12%)
	Never attended school = 56 (6 years of age) (39%)
	Primary level = 37 (26%)
	Secondary level = 32 (22%)
	Higher secondary level = 1 (1%)
Family type (n=143)	Nuclear=110 (77%)
	Joint=33 (23%)
Monthly income type	<5000 taka =96 (67%)

Among the 143 child and adolescent patients, 17 (14%) were below the age of 6, and they were thought to stay at home. Among the 126 patients who were 6 years of age or above, 40 (33%) people were unemployed, 50 (41%) were students, 4 (3%) were employed as day labourer (18, 17, 15, 15 years of age), 3 (3%) persons were employed in service (18, 17, 15 years of age), 2 were farmers (18, 17 years of age), and 5 (4%) were house wives (17, 18, 17, 18, 18 years of age).

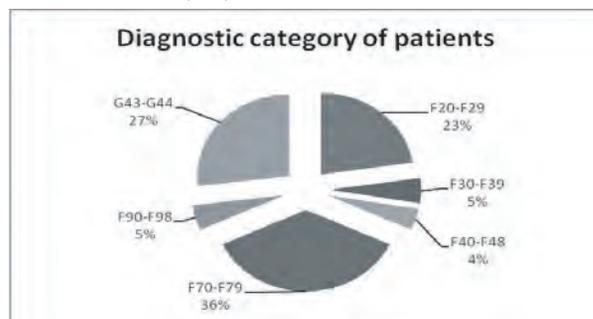
Ninety six (67%) of the patients' families were in the lowest monthly income group (arbitrary grouping of below 5000 BDT per month), 41 (29%) of them were in the middle income group (arbitrary grouping of 5000-10,000 BDT per month), and the rest 6 (4%) families were in the upper income group (arbitrary group of above 10,000 BDT per month). Most of the patients (134, 94%) came from rural areas and only a minority of 9 patients (6%) came from urban areas.

**Table II: Disease and care seeking profile**

Duration of illness	Mean 41.46 weeks, S.D. 41.76 weeks Median 24 weeks, Minimum 0.5 weeks, Maximum 150 weeks
Primary diagnoses : Number (%) *	F20-F29: Schizophrenia, schizotypal and delusional disorders: 32 (22%) F30-F39: Mood / affective disorders: 7 (5%) F40-F48: Neurotic, stress-related and somatoform disorders: 6 (4%) F70-F79: Mental retardation: 51 (38%) F90-F98: Hyperkinetic Disorder (6) and Oppositional Defiant Disorder (1): 7 (5%) G 43-G44: Headache (21) and seizure disorder (17) : 38 (26%)
Comorbidity	Mental retardation + behavioral problem: 22 Mental retardation + seizure Disorder: 10 Conversion disorder + headache: 3
Pathway of consultation (n=103)	Direct 20 (19%) Indirect 83 (81%)
Type of previous service providers (n=103)**	Medical Graduate 62 (60%) <i>Kobiraj</i> 37 (36%) Indigenous healer 17 (16.5%) Religious healer 18 (17%) Homeopathy 4 (4%)

\* Diagnosis with only one count was not shown  
\*\*Multiple responses were allowed

The highest number of patients (51,38%) was suffering from 'Mental Retardation'. This was followed by 'Episodic and Paroxysmal Disorders: headache and seizure disorder' with 38 patients (26%) and 'Schizophrenia, Schizotypal and Delusional disorders' with 32 patients (22%). The other categories of patients were 'Mood / affective disorders' with 7 (5%) patients, 'Neurotic, stress-related and somatoform disorders' with 6 (4%), hyperkinetic disorder and oppositional disorder' with 7 (5%).



**Figure 1: Diagnostic categories**

Among the 51 patients with mental retardation, 22 (44%) had comorbid behavioural problem and 10 (20%) had comorbid seizure disorder. We had data regarding previous consultation in 103 cases, among them 20 (19%) came directly to MHP and 83 (81%) consulted other career before reaching MHP. Among the previous careers there were Medical graduates (62, 60%), Kobiraj (37, 36%), Indigenous healer (17, 16.5%), Religious healer (18, 17%), and Homeopathy (4, 4%) (Multiple responses were allowed, so the sum total was greater than 100%). The mean delay to reach psychiatric services for the total patient groups was 41.46 ± 41.76 weeks. The median delay was 24 weeks, the maximum delay was 150 weeks and the minimum delay was 0.5 week. Most delay to reach psychiatric service occurred in case of F70-F79 (mean delay 70.8 weeks), which was followed by G43-G44 (mean delay 31.7 weeks) and then F90-F98 (mean delay 24 weeks) and F20-F29 (mean delay 21.5 weeks).

**Table III: Delay to reach psychiatric service.**

Diagnostic category	Mean delay (weeks)	Median delay (weeks)	Maximum delay (weeks)	Minimum delay (weeks)
F20-F29 : Schizophrenia, Schizotypal and Delusional disorders	21.5	7	120	0.5
F30-F39: Mood / affective disorders	8.6	1	36	0.5
F40-F48: Neurotic, stress-related and somatoform disorders	8.4	3	36	0.5
F70-F79 :Mental Retardation	70.8	60	150	2
F90-F98: Behavioural and emotional disorders with onset usually occurring in childhood and adolescence	24	24	48	8
G4 3 -G44 : Episodic and Paroxysmal Disorders	31.7	24	132	0.5

**Note:** Diagnoses with only one count were not shown

**Discussion :**

We included all the child and adolescent patients, who attended the outpatient department of MHP from 1st January, 2009 to 30th June, 2009. There were 143 participants in total. Out of them 63% were males and the rest 37% were females. Male preponderance is a characteristic feature of all previous hospital based studies<sup>6, 12, 13, 14</sup>. This difference may be due to (a) female children are less frequently brought to hospital

for treatment, (b) male children suffers more than female children; in the nation-wide community survey conducted in Bangladesh in 2008 mental disorder, mental retardation and substance related disorders were more common among boys<sup>5</sup>, (c) male children may be considered more important socially in the community. Mean age of the current study participants (11.87±4.55 years) and the predominant age group (12-18 years, 59%) were higher than previous two studies on outpatient children<sup>7,6</sup>. The predominance of higher age group may be due to (a) lack of awareness about childhood mental illness, (b) lack of awareness of availability of service, (c) inability to identify childhood psychiatric problems in younger age, (d) childhood problems may be noticeable when they become complicated with increasing age. About 41% of the subjects were students, 33% were not involved with particular occupation, 14% were below school going age; some were housewives (4%), day labourer (3%) and service holder (3%). Thirty nine percent of the total patients, who were above school entrance age, never attended school. The low percentage of academic involvement may indicate (a) the caregivers' attitudes about education in children & adolescents with mental illness and (b) ability of the children with mental illness to participate in education. It is also seen that although child marriage and labour are prohibited by law of the country, their presence is a hard truth.

The family characteristics showed that 77% of the families were nuclear type and the rest 23% were joint families. This is consistent with previous studies in other settings<sup>6,7</sup>. Most of the families (67%) were in the low-income group and very few (4%) were in the high-income group. Most of the families were living in rural areas (94%) and only a small number (6%) were from urban setting. This distribution of residence contrasts NIMHR study and may be due to the location & catchment area of the respective study centers<sup>7</sup>.

The gender distribution and disease profile of the current study was similar to the hospital based study conducted at BSMMU<sup>12</sup>. In another study from the same hospital (BSMMU) with duration from July 2009 to June 2010, 53% of the patients were males and 47% were females (male:female=1.13:1); twenty five patients (10.3%) were up to 5 years of age, 140 patients (57.7%) were from 6-11 years age group and the rest 78 patients (14.81%) were from 12-17 years of age<sup>13</sup>. These two findings were similar to the findings of our study. Majority of the patients came from urban background (73.7%) and the rest (26.3%) were from rural background in the BSMMU study<sup>13</sup> which is quite opposite to the findings of the current study. This is possibly due to quite opposite locality and catchment area of the study centers. The high number of Schizophrenia, Schizotypal and Delusional disorders (F20-F29, 22%) and Mental retardation (F70-F79, 38%) in the current study contrasts with findings of psychiatric outpatient departments of urban areas<sup>7,13</sup>. This difference may be due to the catchment area of the current study which is rural areas whereas the catchment areas of the above mentioned studies were

urban areas. Caregivers from rural areas may seek help only for more severe illnesses. This high rate of F20-F29 and F70-F79 are compensated by low rates of conversion disorder (2%) and Conduct disorder (1%) of the current study. These differences may indicate urban rural differences and the help seeking behavior of caregivers.

### Conclusion:

The child and adolescent psychiatric morbidity at outpatient department of Mental Hospital, Pabna are varied. We need a specialist guided multidisciplinary team to serve the child and adolescent patients here and in all other similar settings, which is still lacking in the country. We also need to increase awareness about psychiatric morbidity in this age group to improve child care and to reduce delay to reach psychiatric help.

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