

Pattern of psychiatric morbidity in pediatric outpatient department

Jesmin Akhter,¹ Md Azizul Islam,² Mohammad Muntasir Maruf,³ Tania Binte Gofur⁴

¹Classified Specialist in Psychiatry, Department of Psychiatry, Combined Military Hospital (CMH), Dhaka, Bangladesh; ²Professor and Adviser specialist in Psychiatry, Armed Forces Medical College (AFMC), Dhaka, Bangladesh; ³Assistant Professor of Psychiatry, National Institute of Mental Health, Dhaka, Bangladesh; ⁴Graded specialist in Psychiatry, Armed Forces Medical Institute (AFMI), Dhaka, Bangladesh.

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Correspondence:

Jesmin Akhter
Mobile: + 8801711276526
E-mail: jesmin95@gmail.com

Summary

Mental health in child and adolescents is an essential component of overall health. Disturbed children are more likely to be disturbed adults. Therefore, early detection and treatment is important to decrease the long term disability. The objective of the study was to determine the morbidity pattern of psychiatric disorders among patients of pediatric outpatient department of tertiary level hospitals. This cross-sectional study was conducted from July 2012 to February 2013 in pediatric outpatient department of three prime tertiary level hospitals of Dhaka, Bangladesh. Purposive sampling technique was used and sample size was 240. A Semi-structured questionnaire containing socio-demographic and other relevant clinical information and the parent version of Development and Well Being Assessment (DAWBA) were applied. The results showed that most (70.8%) of the respondents were of 5 to 10 years' age group with a male preponderance (54.2%). Out of 240 respondents, 44 (18.3%) were found with psychiatric morbidity. Categorically emotional disorder was 14.6%, behavioral disorder was 9.2% and developmental disorder was 0.4%. Hyperkinetic disorder (5.4%) and Oppositional defiant disorder (2.9%) were the most frequent diagnoses, followed by Obsessive compulsive disorder (2.5%). 29.5% of psychiatric cases were associated with other comorbid psychiatric diagnoses. Respondents with minor physical illness were mostly found with psychiatric morbidity (43.2%). Multiple patterns of psychiatric disorders were identified among the respondents. Therefore, the need to step up to the clinical and referral approaches is imperative to this special segment of children of our society.

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Introduction

Age plays an important role in the pattern of clinical profile of psychiatric disorders.¹ Current global epidemiological data consistently reports that up to 20% of children and adolescents suffer from a disabling mental illness; and 50% of all adult mental disorders have their onset in adolescence.² This sentiment was aptly summarized by Bhalla et al (1986), who opined that 'youth is the peak period of onset of mental illness'.³ Psychiatric disorders in childhood and adolescence concern with emotional and behavioral and developmental disorders that arise in the first two decades of life.⁴

In Bangladesh 5 to 14 years' age group constitutes 26.31% of the population.⁵ It is also found that psychiatric disorders are more common in children with chronic and acute pediatric disorders.^{6,7} As a result, child mental health problems are common reason for consultation in general pediatric clinics. The result of a recent study showed that 20% of children

attending pediatric OPD had been suffering from some sort of psychiatric disorders.⁸ Moreover children and adolescents mainly depend on family for their needs. They may not appreciate or may not be able to express psychological distress. They may somatize their symptoms. Also because of other reasons like ignorance, myths and misconceptions regarding mental illness, their care-takers hesitate to seek help from mental health professionals. Rather they prefer pediatric setting for treatment and support.

In spite of prime issue, the number of related study is inadequate in Bangladesh. Therefore, the study was designed to assess the psychiatric morbidity pattern among children and adolescent patients of pediatric OPD. Information of these young patients would explore the attitude about psychiatric referral and would help to define needs and priorities. It will also help to integrate the pediatric service and child psychiatric service to deal with such patients more effectively.

Materials and methods

This was a cross-sectional study. The study was carried out from July 2012 to February 2013 in pediatric OPD of three tertiary level hospitals of Dhaka - Combined Military Hospital (CMH), Bangabandhu Sheikh Mujib Medical University (BSMMU), and Dhaka Medical College Hospital (DMCH). Purposive sampling technique was used and a sample size of 240 was taken. Eighty (80) respondents were taken from each of the three hospitals. Both male and female children and adolescents aged 5 to 16 years were included. Children and adolescents with impaired consciousness, with very severe physical illness and not accompanied by parents/guardians were excluded. An informed consent was taken from the parents/guardians of the respondents.

A semi-structured questionnaire containing socio-demographic and other relevant clinical information and the parent version of Development and Well Being Assessment (DAWBA) were applied to the consented parents or guardians of the respondents. DAWBA is an internationally well accepted research instrument developed by Goodman et al. (2000) and a novel package of questionnaires, interviews, and rating techniques designed to generate ICD-10 psychiatric diagnoses among children and adolescents of 5 to 16 years (extended upto 18 years).⁹ This instrument has been translated in Bangla and standardized and validated by Mullick and Goodman (2005).¹⁰

Ethical clearance was taken from the ethical clearance committee of all three hospitals. Data analysis was performed by using computer software program Statistical Package for Social Science (SPSS), version 15.0 for Windows.

Results

Most (70.8%) of the respondents were found in 5 to 10 years' age group with a male predominance (54.2%). Primary level of education (79.2%), urban habitat (74.2%), middle socio economic condition (51.7%) and Islam as religion (97.5%) were found predominant in respondents. A good number (17.5%) of respondents had positive family history of psychiatric illness which was also found statistically significant. Although the study was done in tertiary level hospitals, the result showed that maximum respondents (72.1%) were self-referred over those centers (Table 1).

Out of 240 respondents, 44 (18.3%) were found with psychiatric morbidity. Among them, 12.5%, 22.5% and 20% of children and adolescents of CMH Dhaka, BSMMU and DMCH were suffering from psychiatric disorders respectively (Table 2). Overall proportion of emotional disorder was 14.6%, behavioral disorder was 9.2%, and developmental disorder was 0.4%. Hyperkinetic disorder was found most frequent (5.4%) among all psychiatric disorders. Subsequent frequent diagnoses were Oppositional

defiant disorder (2.9%) and Obsessive compulsive disorder (2.5%) (Table 3).

Of 44 psychiatric patients of this study, 13 (29.5%) had one or more comorbid psychiatric disorder while 31 (70.5%) had no comorbidity. The most prevalent psychiatric co-morbidities were Hyperkinetic disorder with Oppositional defiant disorder (a total 4 cases). Rest had different other types of co-morbidities (Table 4).

All the respondents (100%) of this study presented with some physical illness as they attended in a pediatric OPD. 32.1% were suffering from some minor illnesses which were categorized under the heading of 'others' and psychiatric morbidity were found highest (43.2%) in this category (Table 5).

Among the respondents found with psychiatric morbidity (44), maximum (79.5%) came on their own, only 20.5% came via secondary referral. Maximum (80%) respondents of CMH, Dhaka were referred from primary level and rest (20%) attended there by themselves. In BSMMU, 94.4% were self-reported, whereas 100% psychiatric disorders of DMCH was self-reported to pediatric OPD (Table 6).

Table 1: Sociodemographic characteristics of the respondents (n=240)

Socio demographic and other variables	Frequency	Percent
Age (in year)		
· 5-10 years	170	70.8
· 11-16 years	70	29.2
Sex		
· Male	130	54.2
· Female	110	45.8
Educational level		
· Illiterate	17	7.1
· Primary level	190	79.2
· Secondary level	33	13.8
Habitat		
· Rural	62	25.8
· Urban	178	74.2
Socioeconomic condition		
· Upper	4	1.7
· Middle	124	51.7
· Lower	112	46.7
Religion		
· Islam	234	97.5
· Hinduism	6	2.5
Family history of psychiatric illness		
· Present	42	17.5
· Absent	198	82.5
Mode of referral		
· Self	173	72.1
· Others	67	27.9

Table 2: Distribution of psychiatric disorder of the respondents among different hospitals (n=240)

Name of the hospital	Psychiatric disorder				Total		p value*
	Present		Absent		n	%	
	n	%	n	%			
CMH, Dhaka	10	12.5	70	87.5	80	100	0.235
BSMMU	18	22.5	62	77.5	80	100	
DMCH	16	20	64	80	80	100	

*Chi-square test was done to measure the level of significant.

Table 3: Types of psychiatric disorder among the respondents (n=240)

Type of disorder	Frequency	Percent
Behavioral disorder:	22	9.2
Hyperkinetic disorder	13	5.4
Oppositional defiant disorder	7	2.9
Conduct disorder	2	0.8
Emotional Disorder:	35	14.6
Obsessive compulsive disorder	6	2.5
Depressive disorder	4	1.7
Somatoform disorder	4	1.7
Separation anxiety disorder	4	1.7
Phobic anxiety disorder	4	1.7
Other emotional disorder	4	1.7
Social anxiety disorder	3	1.3
Post traumatic stress disorder	3	1.3
Panic attack	2	0.8
Generalized anxiety disorder	1	0.4
Developmental Disorder:	1	0.4
Autistic disorder	1	0.4

Table 4: Different co-morbidities among the psychiatric disorders (n=44)

Characteristics of Co morbidity	Frequency
Hyperkinetic disorder and Oppositional defiant disorder	4
Hyperkinetic disorder and Obsessive compulsive Disorder	2
Separation anxiety disorder and Other emotional disorder	1
Autistic disorder and Hyperkinetic disorder	1
Obsessive compulsive disorder and Depressive disorder	1
Oppositional defiant disorder and Other emotional disorder	1
Post traumatic stress disorder and Social anxiety disorder	1
Post traumatic stress disorder and Other emotional disorder	1
Phobic anxiety disorder and Social anxiety disorder and Obsessive compulsive disorder	1
Total	13

Table 5: Physical illness among the respondents (n=240)

Physical illness	Psychiatric disorder				Total	
	Present		Absent		n	%
	n	%	n	%		
Acute Viral Hepatitis	0	0	6	3.1	6	2.5
² -Thalassaemia trait	0	0	3	1.5	3	1.3
Common Cold	3	6.8	20	10.20	23	9.6
Fever	16	36.4	73	37.2	89	37.1
Headache	0	0	11	5.6	11	4.6
Pain abdomen	1	2.3	9	4.6	10	4.2
Other pain symptoms	4	9.1	12	6.1	16	6.7
Mumps	0	0	2	1.0	2	0.8
UTI	1	2.3	2	1.0	3	1.3
Others	19	43.2	58	29.6	77	32.1
Total	44	100.0	196	100.0	240	100.0

Table 6: Mode of referral of respondents with psychiatric disorder in three tertiary hospitals (n=44)

Mode of Referral	Name of the hospital			Total
	CMH, Dhaka	BSMMU	DMCH	
Self	2 (20.0%)	17 (94.4%)	16 (100.0%)	35 (79.5%)
Other	8 (80.0%)	1 (5.6%)	0 (.0%)	9 (20.5%)
Total	10 (100.0%)	18 (100.0%)	16 (100.0%)	44 (100.0%)

Discussion

Two large scale studies done in Bangladesh on general child and adolescent population detected the overall prevalence of psychiatric disorders were 11-21% and 18.4%.^{10,11} It could be speculated that the prevalence of psychiatric disorder would be higher in a pediatric OPD where more sick children are accumulated with physical symptoms and chronic illness. But the present study finding (18.3%) was almost equal with the previous findings. This might be due to the selection of certain tertiary hospitals of Dhaka city where the selective group of city population was the respondent. Another reason might be the use of the scale DAWBA which primarily focused on the common emotional, behavioral and hyperactivity disorders and covered less common disorders of child and adolescent more briefly. Finding was also close to the result (20%) of the studies abroad.^{8,12,13}

While comparing the proportion of psychiatric disorders among three hospitals, lower prevalence (12.5%) was found in CMH, Dhaka than other two hospitals (22.5% in BSMMU and 20% in DMCH). The probable reason was - as a tertiary hospital, CMH Dhaka had a good screening system of patients at its primary level by qualified doctors who usually identified the probable psychiatric cases and referred them rightly in psychiatric OPD. This study also showed that for psychiatric disorders, self referral was least in this center (20%) in comparison to other

two centers (94.4% in BSMMU and 100% in DMCH). DMCH was a popular tertiary care general hospital at the center of Dhaka city which was easily reachable to all classes of patient. Attending patients from all corners of the city deemed it's OPD as a primary care center despite of its tertiary model. That explained its 100% self referred patient. Same statement partially explained the situation of BSMMU too. It indicated that the initial screening system of primary or secondary health care facilities was not working adequately. The trend of self referral to tertiary hospital could be an important reason of high proportion of psychiatric disorder in pediatric OPD.

Hyperkinetic disorder was found 5.4% in this study. The result was lower than the findings (8%) of other old studies.^{14,15} But the rate was much higher than the overall prevalence (1%) of disorder in Bangladesh.¹¹ It might be due urban predominance of the respondents of this study who were more exposed to risk factors like parental expectations, adverse social condition, academic pressure, lead exposure and certain additives in food. Moreover, the disruptiveness of this disorder increasingly motivated the parents to seek professional help.

The second frequent diagnosis was Oppositional defiant disorder (ODD) (2.9%) and Conduct disorder (CD) was also found in 0.8% of respondents. The result was somehow compatible with the overall prevalence rate of Bangladesh.¹¹ But the result was lower than the finding of other studies which

reflected the rate 2.9% and 14% for CD respectively.^{10,14} This could be explained by particular study place of slum area of Mullick and Goodman (2005) study.¹⁰ The depicted lower rate of present study might be due to ignorance of the family members to recognize the ODD or CD as illness. Obsessive Compulsive disorder (OCD) was found among 2.5% of the respondents, this result was supported by other studies of same culture.^{10,16} Both culture and religion of Indian subcontinent emphasized the importance of cleanliness in daily life which might play a role in higher proportion of OCD.

Somatoform disorder was observed 1.7% in this study which was very much consistent with the overall prevalence rate (1.9%).¹¹ Generalized anxiety disorder was under represented (0.4%) in the result probably due to the reason of lack of awareness and ignorance. Lower percentage of autistic disorder (0.4%) was also found in other studies of Bangladesh^{10,11,17} though its rate was much high of about 13% in abroad.¹⁸ This might indicate that parents were not thinking that autistic children were mentally ill and they were treatable by pediatrician. Other emotional disorders like Depressive disorder, Separation anxiety disorder, Phobic anxiety disorders and others emotional disorders - all were observed in the same rate of 1.7%. This finding was more or less consistent with other studies of our country but the rate was lower than the most of the western studies. This trend of our country signified the lack of awareness of care givers to recognize these disorders as ailments.

Co-morbidity is quite common in child psychiatry. Same biological and psychosocial factors that predispose a child to one disorder may simultaneously predispose to another one.¹⁹ Present study also confirmed this statement as 13 children (29.5%) out of 44 psychiatric disorders had comorbid psychiatric illness. Result was also compatible with findings of other studies also.^{20,21}

About 43.2% of psychiatric disorders were identified in 'others' category of physical illness; 36.4% were found with fever; 9.1% in 'Other pain symptoms'; 6.8% in common cold and 2.3% of psychiatric disorders found with the complaints of pain abdomen. It indicated that children might conceal their mental problem under somatic presentation. This association supported the other study finding which observed the links between psychiatric disorder and 'ill defined physical conditions'.²²

The limitations of this study included its small sample size and purposive sampling technique, so there could be some selection bias.

Conclusion

A great majority of children and adolescents visit other sources of help seeking before coming to a psychiatric service. This study finding again establishes this statement. There is a need to generate awareness, liaison with pediatricians and effective

utilization of resources to enhance child psychiatric service in future. Provision of routine screening of mental health problems in pediatric OPD through short training of concerned professionals could be a directive measure. It will also help pediatrician to diagnose the disorders appropriately and to refer them accordingly. Further in depth research should be carried out to address the issue more effectively.

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