

# THE PATTERN OF PSYCHIATRIC MORBIDITY IN AN OUT-PATIENT CHILD PSYCHIATRY CLINIC: A STUDY FROM A TERTIARY CARE CENTRE IN JAIPUR, NORTH INDIA.

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### Abstract

**Background:** Psychiatric disorders are estimated to affect 10-20% of children and adolescents annually, globally, yet psychiatric services for children take a back seat when compared to adults in developing countries.

**Aim and objectives:** The objective of our study was to find the pattern of psychiatric morbidity in children and adolescents at the child and adolescent outpatient service of a tertiary care hospital.

**Material and Method:** A semi structured questionnaire was used to record the socio demographic status. The state of mental health and psychiatric morbidity was assessed after a thorough clinical assessment. Intelligence quotient was assessed by a clinical psychologist as and when needed. All the diagnoses were made on the basis of Diagnostic and Statistical Manual of Mental Disorders, 4<sup>th</sup> Edition, Text Revision (DSM-IV TR) criteria.

**Results:** A total of 476 patients were included in the study. Majority of the patients belonged to 6-16 years age group (83.61%). Number of boys affected were nearly twice (67.01%) than the girls (32.98%). 75.2% of patients were from Urban background. Mental retardation (36.5%) and Generalized Anxiety Disorder (17.9%) were the most

frequent diagnoses followed by behavioral disorders (10.7%) and Attention deficit Hyperactivity Disorders (ADHD) (9.7%).

**Conclusion:**Psychiatric disorders in children and adolescents are ubiquitous and burdensome. Our study indicates the importance of identification and subsequently developing management policies of psychiatric conditions among pediatric population.

**Key words:**Psychiatric disorders, Children, adolescents, Outpatient care

### **Introduction**

Psychiatric disorders are estimated to affect 10-20% of children and adolescents annually, globally, yet psychiatric services for children take a backseat when compared to adults in developing countries [1,2].

The issue of childhood psychiatric morbidity is more serious in the middle and low income countries because these countries have a much larger proportion of child and adolescent population; much lower levels of health indices, poorer infrastructure and resources to deal with problems. Several population studies give an estimate on the prevalence of child and adolescent mental disorders (CAMD) in low and middle income countries [3-6].

Age plays an important role in the pattern of clinical profile of psychiatric disorders and there are specific groups of disorders commonly diagnosed among children and adolescents. These include mental retardation (MR), disorders of psychological development (e.g. specific learning disorders, autistic disorders), and behavioral and emotional disorders with onset usually occurring in childhood and adolescence (e.g hyperkinetic disorders and enuresis)[7,8].

Various studies from 1980 to 2003 indicate that about one out of three youth is estimated to meet lifetime criterion for a Diagnostic and Statistical Manual of Mental Disorders [9].

Although there are many community based epidemiological studies in India [2,10], clinic based studies are more helpful in service and resource planning [4].

Regional differences in psychiatric morbidity are expected, making it essential to trace a pattern in every region of the country. Such awareness can help the health care personnel to be alert, thus resulting in early and correct detection and proper management. Hence this study was planned to find the prevalence of psychiatric disorders and associated socio- demographic factors among children in the Out-patient Child Psychiatry Clinic of a tertiary care hospital in Jaipur in India.

### **Materials and Methods**

This was a cross-sectional descriptive study conducted among patients attending the outpatient service of the child psychiatry clinic of the department of psychiatry of Mahatma Gandhi Medical College, Jaipur over a period of 5 years from 1<sup>st</sup> January 2016 to 31<sup>st</sup> December 2020. Children and adolescents aged 1 to 16 years of both sexes, whose parent/guardian gave written consent constituted the study population. Those who did not receive a DSM 4<sup>th</sup> edition, Text Revision (DSM-IVTR) [11] diagnoses were excluded. A semi structured questionnaire was instituted to record the socio- demographic status of the children attending the clinic. The state of mental health and psychiatric morbidity was assessed after a thorough clinical assessment. Intelligence quotient was assessed by a clinical psychologist as and when needed. All the diagnoses were made on the basis of DSM-IV TR criteria. In situations of dual diagnosis, as per the DSM-IV TR, the principal diagnosis was given to the condition that was the main reason for consulting the out-patient services while the other was considered as co morbid. The diagnoses were confirmed by the consultant in charge of the child psychiatry clinic of the department of psychiatry, Mahatma Gandhi medical College, Jaipur.

The data about various parameters categorized according to age group, sex, residence, diagnoses and co morbidity were entered into Microsoft Excel. Descriptive analysis was carried out with Statistical Package for the Social Science 20.0 version. The information thus generated was presented in table as percentages.

### **Results**

Of the 536 patients who attended the outpatient clinic, 476 received one or other DSM-IV tr diagnosis and were included in the study. Most patients belonged to the age group of 6-16 years (83.61%); boys (67.01%) outnumbered girls. Most of the patients were from urban background (75.2%). Table 1 highlights the socio-demographic profile of the sample.

Mental Retardation (MR) 36.5% and Generalized Anxiety Disorder (GAD) 17.9% were the most frequent diagnosis followed by behavioral disorders (10.7%) and Attention Deficit Hyperactivity Disorders (ADHD) (9.7%). Table 2 highlights the Psychiatric Disorders.

Co-morbid Psychiatric Disorders were found in 63(13.2%) of the patients. Of the 46 patients with ADHD 12(26.1%) had Disruptive Behavioral Disorders (DBD) and 6(13%) had Autism. Of the 85 patients with GAD, 16(18.8%) had Obsessive Compulsive Disorder (OCD) and 18(21.1%) had Bipolar Affective Disorder (BPAD). Of the 13 patients of Pervasive Developmental Delay (PDD), 3 (23%) had co-morbidity with MR while 8 (61.5%) were co-morbid with Borderline Intellectual Functioning (BIF).

### Discussion

This study is the first attempt towards understanding psychiatric morbidity in children and adolescents from Jaipur. Most patients in our study were aged 6-16 years (83.61%), a finding similar to another hospital based study [4]. Boys outnumbered girls by an approximate ratio of 2:1 with 67.02 % boys and 32.98% girls. This is in agreement with many other previous hospital based studies [4, 7, 8]. The high proportion of boys in our study as well as others was probably due to boys being more vulnerable than girls to psychiatric disorders [12,13], sex based differences in seeking help due to boys being given more importance in India[14,15] or a higher frequency of externalizing disorders in boys which are more easily recognized due to their disruptiveness [16].

Majority of the patients (75.2%) belonged to the urban area and is consistent with the study by Chadda and Maan et al [8,17] which found that children from urban background predominate and is in contrast to the study by Bhat et al [4].

### Clinical Profile

Mental retardation was the most frequent diagnosis. 36.5% of our patients had this condition. The high prevalence of mental retardation in the present sample is due to the mandatory testing of all students before admission to special school for handicapped children or for issue of medical certificates. This high prevalence is consistent with the earlier studies by Bhat, Choudhary and Shreshtha et al [4,18,19].

Of the 174(36.5%) patients with MR 114 (65.5%) were boys and 60 (34.5%) were girls with a sex ratio of 1.83:1. Choudhary et al [18] found a sex ratio of 1.87 for MR while Bhat et al [4] reported a sex ratio of 1.66:1. Studies based on patients with MR have consistently shown boys to have a higher prevalence of MR than girls [20,21].

Generalized Anxiety Disorders were considered as a group. They were found in 85 (17.9%) of our patients. Studies conducted across India have found lower and varying results for anxiety disorders in clinical settings ranging from 3% to 18% [4,22,23]. Low frequency of anxiety disorders can be explained by the fact that in Indian children, emotional disorders are not easily recognized or treated [24]. With regard to sex distribution, out of 85 patients with anxiety disorders, 34 (41.1%) were boys and 51 (58.9%) were girls with a sex ratio of 1:1.5 which is similar to a study by Bhat et al who reported a ratio of 1:1.27 [4].

Disruptive Behavioral Disorders were also considered as a single group because they comprised a small number of patients (51) which is consistent with the study by Bhat et al [4] who reported a prevalence of 4.7%.

Of the 51 (10.7%) patients with these disorders, 33(64.7%) were boys and 18(35.3%) were girls which is consistent with the study by Bhat et al [4].

Forty six (9.7%) of our patients had Attention Deficit Hyperactivity Disorder which is consistent with the studies by Rahim and Sarwat et al [25, 26]. Of the 46 patients with ADHD, 32(69.5%) were boys and 14 (30.4%) were girls. This is consistent with the findings of other studies from India [4] and abroad [26] which have found externalizing disorders more common in boys.

Major Depressive Disorder (MDD) was found in 55 (11.6%) of the cases. Various studies have found varying rates of mood disorders in children attending the outpatient clinics ranging from 6.4% to 26% [4,27]. Depression is now being recognized in children worldwide, showing an earlier onset and increased prevalence [28]. Of the 55 (11.6%) patients with depression, 23 (41.8%) were boys and 32(58.2%) were girls with a sex ratio of 1:1.39, similar to a study by Bhat et al [4] where more girls were found to have depression than boys.

Pervasive Developmental Delay (PDD) was found in 13 (2.73%) of our patients similar to a study by Malhotra et al [24]. Of the 13 patients with PDD, 9 (69.2%) were boys and 4 (30.8%) were girls with a sex ratio of 2.25:1 showing higher prevalence among boys consistent with the study by Bhat et al [4].

Borderline Intellectual Functioning (BIF) was seen in 19 (4%) of our patients with 11(57.8%) boys and 8(42.2%) girls similar to another study conducted in India[4].

Bipolar Affective Disorder (BPAD) was present in 27 (5.6%) of our patients. This low prevalence is consistent with studies in [4] and outside [28] India. Of the 27 patients of BPAD, 19 (70.3%) were boys and 8 (29.7%) were girls similar to the study by Bhat et al [4].

Schizophrenia was present in 6 (1.27%) of our patients. Low prevalence of Schizophrenia is consistent with other Indian studies [4,8].

**Co-morbidity**

Of the 476 patients in our study, 63 (13.2%) had another psychiatric co-morbid disorder while 413 (86.76%) were without any psychiatric co morbidity. Low co-morbidity has also been found in the study by Bhat et al [4].

The most common disorder with co-morbidity was Generalized Anxiety Disorder, with sixteen patients having obsessive compulsive disorder along with generalized anxiety disorder. Eighteen patients with generalized anxiety disorder had co-morbidity with Bipolar Affective Disorder. Of the thirteen patients of pervasive developmental disorder, 3 (23%) had co-morbid mental retardation and 8 (61.5%) had borderline intellectual functioning, a finding similar to the study by Bhat et al [4]. Of the 46 patients with ADHD, 12 (26.1%) had co-morbid disruptive behavioral disorder while 6(13%) had co-morbid autism.

Data suggest that single diagnosis in children and adolescents are rare and that the majority of individuals will have a minimum of two psychiatric illnesses [28] but low co-morbidity was found in Indian studies [4,20].

**Conclusion**

The child psychiatry is gaining acceptance now. Our study indicates the importance of identification and subsequently developing management policies of psychiatric conditions among pediatric population. At our child and adolescent psychiatric outpatient facility, psychiatric morbidity was higher in 6-16years age group with predominance of boys. There is a need to bring about effective utilization of available resources to help diagnose and manage such children.

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**Tables**

**Table1:Socio-demographicProfile**

Age	No.ofPatients(%)
0-3	43 (9.03)

4-5	34 (7.14)
6-16	389 (83.61)
<b>SexofPatient</b>	
Male	319 (67.01)
Female	157 (32.98)
<b>Residence</b>	
Rural	118(24.78)
Urban	358 (75.2)

**Table2:PatternofPsychiatricmorbidity**

S.No	Diagnosis	Number	Percentage(%)
1	ADHD	46	9.7
2	MR	174	36.5
3	PDD	13	2.73
4	MDD	55	11.6
5	DBD	51	10.7
6	GAD	85	17.9
7	BIF	19	4
8	Schizophrenia	6	1.27
9	BPAD	27	5.6