

Psychiatric illness among child and adolescents attending psychiatry out-patient of tertiary care hospital

Bodke Pradeep S^{1*}, Maidapwad Sainath L²

¹Associate Professor, Department of Psychiatry, Dr. Shankarrao Chavan Government Medical College, Nanded, INDIA.

²Statistician cum Lecturer, Department of Preventive and Social Medicine, Dr. Shankarrao Chavan Government Medical College, Nanded, Maharashtra, INDIA.

Email: drpradeepbodke@gmail.com, maidapwadsl.stat07@gmail.com

Abstract

Background: Psychiatric illness in children can be hard for parents to identify. As a result, many children who could benefit from treatment don't get the help they need. **Objectives:** To study different types of psychiatric morbidities in child and adolescents attending psychiatry outpatient department of tertiary care hospital. **Materials and methods:** A retrospective analysis of psychiatry department records from 1 June 2017 to 31 December 2017 was carried out. Out of total 7200 patients, 138 child and adolescents who attended OPD of psychiatry department during the study period for the first time and having age 18 years or below were identified from medical records section. Data of patient's age, sex, residence and diagnosis of all the patients were collected. Data was entered in Excel and analyzed by online Medcalc software for chi-square test, odds ratio and confidence interval. Results: Out of 7200 patients who attended OPD of psychiatry department, case records of 138 children and adolescents whose age 18 years or below were included. The mean age of study group was 12.24±3.35 years, majority of them were 10-18 years age group (80.4%). Male patients (60.9%) were more than female patients (39.1%). Out of 138 child and adolescent patients majority were suffering from mental retardation (26.8%) followed by learning disorder (13%) and seizure disorder (11.6%). Substance abuse (0.7%) was the least common. Conclusion: To conclude, the most common diagnosis was mental retardation, and least common was substance abuse among child and adolescent patients

Key Word: psychiatric illness, child and adolescent, tertiary care

Address for Correspondence

Dr. Bodke Pradeep Shankarrao, Associate Professor, Department of Psychiatry, Dr. Shankarrao Chavan Government Medical College, Nanded Pin-431606.

Email: drpradeepbodke@gmail.com, maidapwadsl.stat07@gmail.com

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INTRODUCTION

Mental health conditions and disorders don't only affect adults; children and adolescents can experience mental health problems too. India has highest population density

and population growth figures in world, with children constituting almost 37% of the population. World Health Organization (WHO) estimated that 10-20% of children and adolescents experience mental disorders across worldwide¹. Half of all mental illness have onset in adolescence and suicide is supposed as major cause of death among adolescents². Neuropsychiatric conditions are the leading cause of disability in young people across the globe. Children having mental illnesses face major challenges with stigma, isolation and discrimination, as well as lack of access to health care and education facilities, in violation of their fundamental human rights³. A comprehensive review study of child psychiatric epidemiology in community surveys noted that the number of children and adolescents has risen from 10000 in studies published between 1980 and 1993 to nearly

40000 from 21 studies published between 1993 and 2002⁴⁻⁵. The results of these studies indicate that about one out of every three to four adolescents is estimated to meet lifetime criteria for a Diagnostic and Statistical Manual of mental Disorders (DSM)⁴. Studies from across the globe shows the prevalence rate 22.5% for 7-16 year olds in Switzerland⁶, while in USA 21.0% for 9-17 year olds⁷ and in Ethiopia 17.7% for 5-15 year olds⁸. The multicentre WHO study on children in four developing countries, including India has reported a prevalence rate of 12-29%.⁹ In addition to this, hospital based studies also provide information on psychiatric morbidity in children¹⁰⁻¹¹. The common child psychiatric disorders identified in these studies include nocturnal enuresis, mental retardation and hyperkinetic syndrome. There is scarcity of specialized child psychiatric units and lack of awareness in community regarding psychiatric illnesses in pediatric age group. Knowing pattern of psychiatric disorders among these patients would help to increase awareness about these problems. The objective of this study is to determine the pattern of psychiatric disorders in children attending psychiatric out-patient department of tertiary care hospital.

MATERIAL AND METHODS

A retrospective study of six month psychiatry department case files from 1 June 2017 to 31 December 2017 was identified. The information of patients age, sex, residence and diagnosis of all the patients aged 18 yrs and below attending the psychiatry outpatient department (OPD) of Dr. Shankarrao Chavan Government Medical College, Nanded was collected. Our hospital is tertiary care centre in this area. The all cases were diagnosed by consultant psychiatrist using Diagnostic and Statistical Manual of Mental Disorders (DSM). Out of total 7200 patients, 138 child and adolescent patients who attended OPD of psychiatry department of tertiary care hospital during the study period for the first time and having age 18 years or below were identified from medical records section. Data was entered in Excel and analyzed by online Medcalc software for chi-square test, odds ratio and confidence interval.

RESULTS

Table 1 shows the distribution of demographic data of the patients evaluated (N=138). Out of 7200 patients who attended OPD of psychiatry department, case records of 138 children and adolescent's age 18 years or below were included. The mean age of study group was 12.24±3.35 with a range of (3-17years), majority of them were adolescents age ranging from 10-18 yrs (80.4%). Male

patients (60.9%) were more than female patients (39.1%). Majority of cases came from a urban background (51.4%). Table 2 shows the distribution of different psychiatric disorders among study population which was found to be maximum in mental retardation (26.8%) followed by learning disorder (13.0%), then by epilepsy with behavioral disturbances (11.6%) and autism (8.7%) respectively. Table 3 shows the distribution of psychiatric diagnosis in relation to the age group. Mental retardation was most common among pre-adolescent and adolescent age group, which was statistically highly significant (p<0.0001). While comparing psychiatric disorders in relation to gender (table 4), mental retardation and learning disorder were common among males while in females mental retardation and autism were common. However no statistically significant association was seen. Table 5 shows distribution of psychiatric illness in relation to residence. Schizophrenia was found to be more common in urban area than rural, which was statistically found significant (p<0.05).

Table 1: Demographic Data

Parameter	N	%	
Sex	Male	84	60.9
	Female	54	39.1
Age group	Pre-Adolescent < 10 yea	27	19.6
	Adolescent 10-18 year	111	80.4
	Rural	67	48.6
Residence	Urban	71	51.4
Total Sample	138		

Table 2: Distribution of psychiatric disorder among the study population

Psychiatric disorders	N	%
Anxiety disorder	02	1.4
Attention deficit hyperactivity disorder	07	5.1
Autism	12	8.7
Bipolar affective disorder	06	4.3
Conduct disorder	03	2.2
Conversion disorder	04	2.9
Depressive disorder	03	2.2
Epilepsy with psychosis	16	11.6
Intermittent disruptive disorder	05	3.6
Learning disorder	18	13.0
Mental retardation	37	26.8
Migraine headache	04	2.9
Nocturnal enuresis	04	2.9
Schizophrenia	12	8.7
Substance abuse	01	0.7
Trichotilomania	04	2.9
Total	138	100

Table 3: Relationship between age groups and psychiatric disorders

Psychiatric Disorders	Age Groups		Odds Ratio	Confidence Interval (95 %)		P
	Pre-Adolescent	Adolescent		Lower Limit	Upper Limit	
	< 10 year (N=27)	10-18 year (N=111)				
Anxiety disorder	0	2	0.7964	0.0372	17.0707	0.8842
Attention deficit hyperactivity disorder	2	5	1.6960	0.3108	9.2539	0.5417
Autism	3	9	1.4167	0.3563	5.6326	0.6209
Bipolar affective disorder	0	6	0.2951	0.0161	5.4007	0.4106
Conduct disorder	2	1	8.8000	0.7674	100.91	0.0806
Conversion disorder	0	4	0.4343	0.0227	8.3124	0.5798
Depressive disorder	0	3	0.5636	0.0283	11.2379	0.7073
Epilepsy with psychosis	1	15	0.2462	0.0311	1.9510	0.1844
Intermittent disruptive disorder	1	4	1.0288	0.1103	9.5955	0.9801
Learning disorder	0	18	0.0919	0.0054	1.5745	0.0996
Mental retardation	17	20	7.7350	3.0858	19.389	0.0000*
Migraine headache	0	4	0.4343	0.0227	8.3124	0.5798
Nocturnal enuresis	1	3	1.3846	0.1384	13.8569	0.7818
Schizophrenia	0	12	0.1447	0.0083	2.5224	0.1850
Substance abuse	0	1	0.1273	0.0048	3.3780	0.2178
Trichotilomania	0	4	0.4343	0.0227	8.3124	0.5798

* Highly Significant (p<0.0001)

Table 4: Relationship between Gender and Psychiatric disorders

Psychiatric Disorders	Sex		Odds Ratio	Confidence Interval (95 %)		P
	Male	Female		Lower Limit	Upper Limit	
	(N=84)	(N=54)				
Anxiety disorder	1	1	0.6386	0.0391	10.4296	0.7530
Attention deficit hyperactivity disorder	7	0	10.5484	188.60	0.1093	0.1093
Autism	4	8	0.2875	0.0821	1.0073	0.0513
Bipolar affective disorder	2	4	0.3049	0.0539	1.7257	0.1792
Conduct disorder	3	0	4.6810	0.2370	92.4373	0.3105
Conversion disorder	1	3	0.2048	0.0207	2.0224	0.1747
Depressive disorder	2	1	1.2927	0.1143	14.6135	0.8356
Epilepsy with psychosis	11	5	1.4767	0.4831	4.5142	0.4941
Intermittent disruptive disorder	4	1	2.6500	0.2882	24.3670	0.3893
Learning disorder	13	5	1.7944	0.6010	5.3571	0.2948
Mental retardation	24	13	1.2615	0.5765	2.7606	0.5609
Migraine headache	3	1	1.9630	0.1989	19.3754	0.5636
Nocturnal enuresis	2	2	0.6341	0.0866	4.6417	0.6538
Schizophrenia	5	7	0.4250	0.1276	1.4153	0.1633
Substance abuse	1	0	1.9581	0.0783	48.9491	0.6824
Trichotilomania	1	3	0.2048	0.0207	2.0224	0.1747

Table 5: Relationship between Residence and Psychiatric disorders

Psychiatric Disorders	Residence		Odds Ratio	Confidence Interval (95 %)		P
	Rural	Urban		Lower Limit	Upper Limit	
	(N=67)	(N=71)				
Anxiety disorder	00	02	0.2059	0.0097	4.3693	0.3106
Attention deficit hyperactivity disorder	05	02	2.7823	0.5210	14.8589	0.2313
Autism	07	05	1.5400	0.4640	5.1116	0.4806
Bipolar affective disorder	03	03	1.0625	0.2069	5.4573	0.9421
Conduct disorder	01	02	0.5227	0.0463	5.9027	0.5999
Conversion disorder	02	02	1.0615	0.1452	7.7585	0.9531

Depressive disorder	01	02	0.5227	0.0463	5.9027	0.5999
Epilepsy with psychosis	10	06	1.8713	0.6398	5.4734	0.2524
Intermittent disruptive disorder	03	02	1.6172	0.2617	9.9938	0.6049
Learning disorder	12	06	2.3273	0.8192	6.6118	0.1128
Mental retardation	17	20	0.8670	0.4074	1.8449	0.7111
Migraine headache	01	03	0.3434	0.0348	3.3860	0.3600
Nocturnal enuresis	01	03	0.3434	0.0348	3.3860	0.3600
Schizophrenia	02	10	0.1877	0.0395	0.8913	0.0353*
Substance abuse	00	01	0.3481	0.0139	8.6963	0.5205
Trichotilomania	02	02	1.0615	0.1452	7.7585	0.9531

* Significant ($p < 0.05$)

DISCUSSION

This retrospective study was planned to study psychiatric morbidities among child and adolescent patients attending psychiatry outpatient department of tertiary care hospital. Moreover, the average age group of subjects was similar in all referred studies as compared to our study. The average age group of our study was 12.24 ± 3.35 years, whereas 12.86 years in Chikezie *et al*¹² study, 14.77 ± 2.99 years in Risal *et al*¹³ study, 15.68 ± 3.73 years in Maan *et al*¹⁴ study, 14 years in Shakya DR¹⁵ study. In Manisha Chapagai *et al*¹⁶ study reported 8.85 ± 4.08 years mean age group. In our study, the majority of patients were males than females with respect to frequency and similar results reported by Sarwat A *et al*¹⁷ and Chaudhary S *et al*¹⁸. Contrary to this finding, the numbers of females were more than males in Risal A *et al*¹³ study. Moreover, maximum patients were from urban background in our study this findings is consistency with other studies¹⁵. In this study, the maximum number of patients were mental retardation (26.8%) followed by learning disorder (13%), this may be related to, our hospital is a tertiary care centre in this area and many subjects are referred from peripheral area for IQ assessment and disability certification to get benefit from government. Chapagai *et al*¹⁶ also noted mental retardation was commonest diagnosis in their study. Contrary to this findings, dissociative / conversion disorder was common in other studies¹³⁻¹⁴. Next came seizure disorders with behavioral problems (11.6%) and schizophrenia (8.7%) both these were more in male patients, this is consistent with findings in Chikezie *et al*¹² study. Least common diagnosis was substance abuse (0.7%) in our study. To conclude, mental retardation is the most common diagnosis among child and adolescent in our study may be due to considering only IQ assessment and disability certification.

Limitations of study

It is hospital based study which was carried out on small sample size, which may not necessarily represent general population of country. Community based surveys should be carried out on larger scale

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