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Original Research Article

Patterns of child and adolescent psychiatric disorders and associated factors in outpatients attending child psychiatry clinic: a hospital based study

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ABSTRACT

Background: Childhood mental disorders are common and yet only a minority of children with mental health problems receive appropriate child mental health consultation. There is scarcity of literature on patterns of child and adolescent psychiatric disorders from developing countries like India.
Methods: It was a cross sectional survey on outpatients attending the Child and Adolescent psychiatry clinic, Department of Psychiatry, MGM Medical College, Navi Mumbai. Study sample consisted of all new child & adolescent cases attending the clinic and willing to give consent. Data was analysed for sex, residence, informant, socio-economic status, birth history, family history, medical co-morbidity, reason and source of referral, presence of stressors, psychiatric diagnosis etc using SPSS 20. Institutional Ethics clearance was obtained.
Results: Data analysis of n= 150 patients revealed mean age of 9.53 with SD of 3.84. Majority of the patients belonged to school going age group (59.3%), male sex (54.7%), living in urban areas (68.7%), belonging to middle class (56%) and accompanied by mother (54%). 28% had significant birth history while 18.7% had family history of psychiatric illness. 28.7% had co-morbid medical illness. The most common reason for referral was academic problems (24%) from the department of paediatrics (34%). The majority of the cases were diagnosed with ADHD (26%), mental retardation (13.3%), Learning disability (10.7%) followed by Autism (8.0%) & Depression (6.7%).
Conclusions: We conclude that there are distinct patterns of child and adolescent psychiatric disorders in our study. Further collaborative research in the arena of child and adolescent mental health is recommended.

Keywords: Child and adolescent psychiatric disorders, Referral patterns

INTRODUCTION

Recent 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) mental disorder.[1] Furthermore, the risk of psychiatric disorder in children with physical illnesses is approximately double compared to the healthy children.[2] Current studies show that psychiatric problems may be seen in 20-35% of the attendees at the paediatric clinics. These may range from psychological issues like difficulty in adjustment to a life situation to a diagnosable psychiatric disorder. Although these children are regular attendees in primary care, they mainly present with somatic rather than mental health symptoms.[3]

Stress and anxiety is the most common underlying problem in medically unexplained symptoms, however parents often fail to identify them and seek multiple consultations.[4]

Thus, child psychiatric disorders are under-recognised and this results in barriers to their recognition and referral and only a minority of children with mental health problems access specialist mental health services.[5,6] Moreover, more than one psychiatric disorder with onset occurring in childhood and adolescence often co-occurs, making diagnosis difficult and further compromising the quality of life.[7,8]

METHODS

It was a cross sectional survey conducted to study the patterns of child and adolescent psychiatric disorders and associated factors in outpatients attending child psychiatry clinic. Data was collected over a period of six months and study setting was the Child psychiatry clinic, Department of Psychiatry, MGM Medical College, Navi Mumbai. All new cases of child and adolescent referred to the child psychiatry clinic from various outpatient departments at MGM Hospital, Kamothe, Navi Mumbai were eligible to participate in the study. The inclusion criteria comprised of cases who were clinically interviewed by the Consultant in Charge of Child Psychiatry clinic and were given appropriate clinical diagnosis and provided standard psychiatric and psychological care. Cases with an inconclusive initial diagnosis or cases wherein differential diagnosis were given, were excluded from the study sample. Data was analyzed for various socio-demographic variables including sex, residence, informant, socio-economic status, birth history, family history, medical co-morbidity, psychiatric co-morbidities, history of substance use, reason for referral, source of referral, presence of stressors were recorded using a pre-designed data collection form. Data collected was analyzed using SPSS 20. Institutional Ethics clearance was obtained.

RESULTS

Our study consisted of n= 150 patients, with majority (54.7%) patients being boys, belonging to school going age group (59.3%) with mean age of 9.53 years and S.D. of 3.84. Of all patients, majority were Marathi speaking (35.3%), living in urban areas (68.7%) and belonging to the middle class (56%). Majority of patients were accompanied by their mothers (54%) to the clinic. While most common reason for referral was academic problems (24%), the most common source of referrals were paediatricians (34%) in the hospital and parents (59.3%) outside the hospital. Significant birth history was found in 28% of patients while 18.7% had positive family history of psychiatric illness. 28.7% patients had additional medical co-morbidities and an equal number of patients (28.7%) had dual diagnosis in the form of one or more psychiatric co-morbidities. Majority of the patients reported having either family (26.7%), school (20.7%) or peer (18%) related stressors. ADHD (26%) was the most common diagnosis made, followed by intellectual disability (13.3%) and learning disability (10.7%). Additional correlations attempted between sex and reasons for referral revealed that academic problems were the most common reason for referral seen in boys (26.8%) as well as girls (20.5%).

Table 1: Socio-demographic profile of study sample.

Parameter	Frequency	Percentage
Age		
Toddler	3	2.1
Pre- school	17	11.3
School going	89	59.3
Adolescent	41	27.3
Sex		
Male	82	54.7
Female	68	45.3
Residence		
Urban	103	68.7
Semi- urban	30	20.0
Rural	17	11.3
Language		
Marathi	53	35.3
Hindi	45	30.0
Others	52	34.7
Informant		
Mother	81	54.0
Father	22	14.7
Both	32	21.3
Relative	15	10.0
Family income		
Upper class	1	0.7
Upper middle class	50	33.3
Middle class	84	56.0
Lower middle class	15	10.0

Table 2: Psychiatric diagnosis profile in children and adolescence.

Psychiatric diagnosis	Frequency	Percent
ADHD	39	26.0
Intellectual disability	20	13.3
Learning disability	16	10.7
Autism	12	8.0
Depression	10	6.7
Conduct disorder	8	5.3
Substance use d/o	7	4.7
Social anxiety d/o	6	4.0
Oppositional defiance disorder	5	3.3
Phobias	4	2.7
Organic psychosis	4	2.7
Somatoform disorder	4	2.7
Bipolar affective d/o	3	2.0
Enuresis	3	2.0
Selective mutism	3	2.0
Encopresis	2	1.3
Post encephalitis sequelae	2	1.3

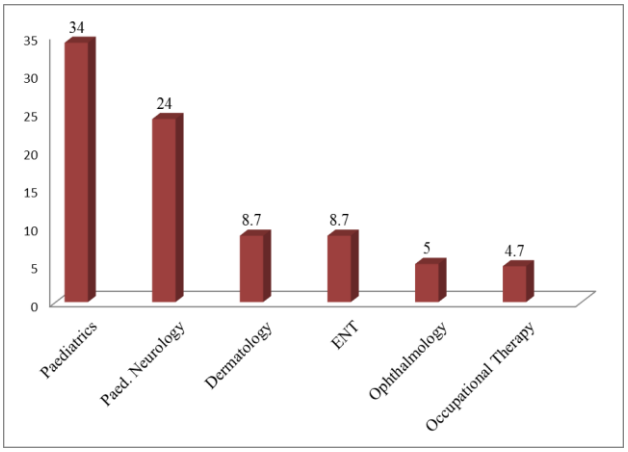

Figure 1: Pattern of references to child and adolescent psychiatry clinic from other departments within the hospital.

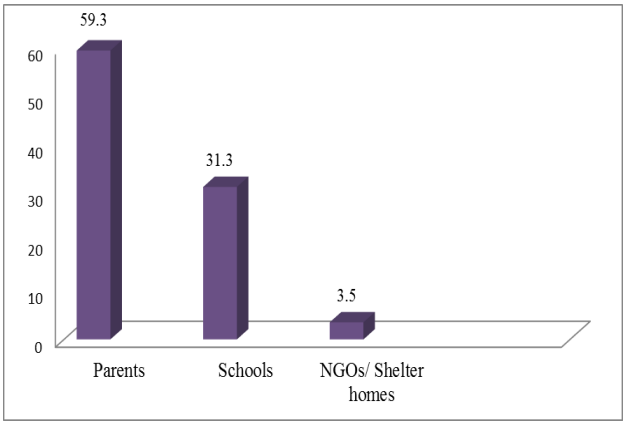

Figure 2: Profile of source of references outside the hospital.

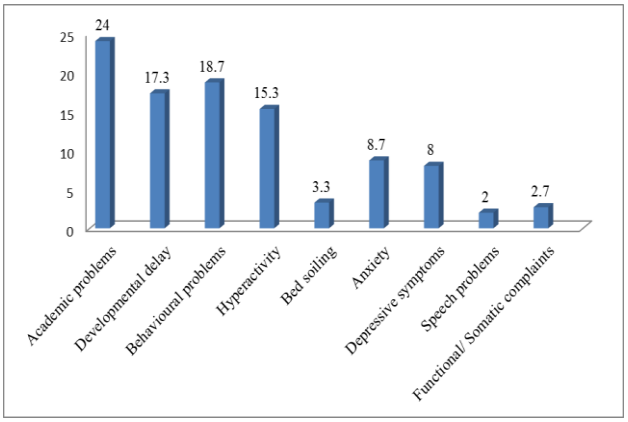

Figure 3: Pattern of reason for referral.

ADHD was the most frequently seen diagnosis in boys (31.7%) as well as girls (19.1%). Further correlations between age groups and reason for referral showed that among toddlers (66.7%) and preschoolers (41.1%), the most common reason for referral was developmental delay whereas the most common reason for referral among school going patients (28%) was academic problems and behavioral problems among the adolescent age group (44%). Among all the psychiatric diagnosis made, the most common diagnosis among toddlers (100%) and preschoolers (47%) was that of autism while it was ADHD in school going patients (38.2%) and conduct disorder among adolescents (19.5%).

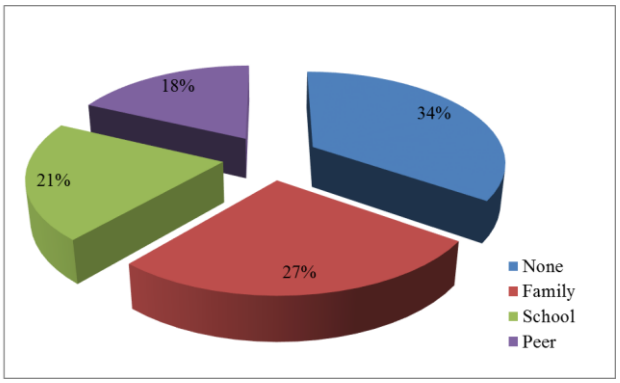

Figure 4: Profile of stressors in children and adolescents.

DISCUSSION

In our study, the study sample revealed a mean age of 9.53 years (SD- 3.8). Lee J et al in their study sample found a mean age of 12.2 years±3.2 years. Majority of the patients referred to child and adolescent psychiatry clinic in our study, were boys (54.7%) which is similar to the findings of Hinrichs S et al who found a similar profile with 55% boys in their study. Lee, J et al found slightly higher percentage of nearly two-thirds (63%) of patients being males.[9,10]

Our study had patients across all strata of socioeconomic classification of patients, however the majority of our patients diagnosed belonged to middle socio-economic class (56%). Certain studies have found that children and adolescents from lower socioeconomic backgrounds have a higher prevalence of psychiatric disorders than those belonging to the higher socioeconomic classes.[11-14]

In our study, majority of the patients reported having either family (26.7%), school (20.7%) or peer (18%) related stressors. In another study done by Hinrichs, S. et al, it was found that patients commonly presented with significant contributing psychosocial stressors with majority either adjusting to a new school or neighbourhood, experiencing academic difficulties or experiencing parental divorce or conflict. 70% of patients presented with more than one contributing psychosocial stressor.[10]

The most common reason for referral was academic problems (24%) in our study. While in a study conducted by Steele, M et al, found that the mental health issues most commonly referred to psychiatrists were psychotic disorders, suicidal ideation/attempts, and self-harm

behavior. The least commonly referred issues were learning disorders, ADHD and behavioral problems.[15]

The most common source of referrals in our study were paediatricians (34%) in the hospital and parents (59.3%) outside the hospital in our study. In contrast to our findings, another study showed that GP referrals accounted for 41.5% of the referrals making them by far the largest single referral source while in a study conducted by Jozefiak, T et al only about 8% of the total sample of children were reported by their parents for help.[10,16]

In our study, ADHD (26%) was the most common diagnosis made. While in another study done by Petresco. S et al, anxiety disorders were the most common, present in nearly 9% of all children. Specific phobia (5 %) and separation anxiety disorder (3%) were the most prevalent anxiety disorders.[17]

28.7% of the patients in our study had psychiatric co-morbidities, i.e., dual psychiatric diagnosis. While the occurrence of more than one diagnosis was seen among (18.3 %) of the children in a study from Brazil. Among children with more than one diagnosis, one psychiatric co-morbidity was seen in 81.7% children. Two or more co-morbidities were seen in 18.3% children.[17]

In our study, ADHD was the most commonly made diagnosis among both boys (31.7%) and girls (19%). In contrast to our findings, various studies have shown that ADHD is more prevalent among boys than girls along with oppositional defiant/conduct disorders while anxiety disorders are more prevalent in girls than in boys.[17]

In our study sample, 8.5% of the total number of boys were diagnosed with conduct disorder where only 1.6% of girls were diagnosed with the same. Similar results were seen in a study done by Loeber R et al wherein, CD was found to be more prevalent in boys than girls, with many studies showing a difference of 3 to 4 times higher for boys. The prevalence difference between boys and girls for ODD is less clear. Some studies find higher rates in boys, but others find very similar rates between boys and girls.[18]

In our study, substance use disorders were more frequently seen in boys (7.3%) as compared to girls (1.6%). However, gender differences in prevalence rates of substance use disorders were inconsistent across various studies. Several studies show equal prevalence rates in males and females, whereas, others show that males have greater rates than females.[19,20]

In our study, majority of the toddlers (100%) and pre-schoolers (47%) were diagnosed with autism while ADHD was the most common diagnosis among the school going age group (38.2%) and conduct disorder being the most common among the adolescent age group (19.5%). However, in a study done by Qu, Y. et al, the prevalence rates for affective and substance use disorders were highest in adolescent participants.[21]

While other studies found that the most common disorder in girls was anxiety depressive disorder, and girls aged 15–16 years experienced higher rates of depression and eating disorders.[22,23]

CONCLUSION

We conclude that in our study, majority of patients were adolescent boys, living in urban areas and belonging to the middle class. Academic problems comprised the most common reason for consultation in children and adolescents in our study and Paediatricians were the most common source of reference within the hospital whereas majority of referrals from outside came from self-referred parents requesting consultation for their children. There were distinct profiles of diagnosis with ADHD being the most common diagnosis followed by intellectual disability. Majority of patients reported stressors in the areas of family, school and peers. Our study has distinct patterns of child and adolescent psychiatric disorders and provides insight into demographic factors and patterns of references to the child psychiatry clinic. Further studies assessing patterns of pharmacotherapy, psychotherapy and evaluation of interventions are recommended.

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