SHORT RESEARCH ARTICLE

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Pattern of Neuropsychiatric Illness in Children and Adolescent Presented in Psychiatry OPD of a Tertiary Care Hospital in North Lakhimpur District of Assam

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ABSTRACT

Background: Understanding the neuropsychiatric morbidity among the children and adolescent is very essential for the promotion of mental and physical well-being. By looking into the patterns, magnitude of various neuropsychiatric illness among children and adolescents' effective preventive and control strategies can be formulated. Considering all these perspectives the present study has been undertaken with the objective to assess the pattern of neuropsychiatric illness and also to assess the age, sex, religion, caste and locality of the in children and adolescents presented to psychiatry OPD of a tertiary care hospital in North Lakhimpur, Assam.

Methodology: This was a retrospective cross-sectional study conducted in Lakhimpur Medical College and Hospital, Assam, India. Data were collected from case record of all children of age group 2-19 years who attended psychiatry OPD at Lakhimpur Medical College from October 2022 to September 2023.

Results: A total of 241 patients of age group 2-19 years were found, out of which 46 patients were excluded because incomplete data. 92.3% of the patients had one neuropsychiatric illness and 7.7% had more than one diagnosis. Among all neuropsychiatric illness, mental retardation was present in majority 24.62% of children and adolescents followed by dissociative disorders (15.38%) and anxiety disorders (10.26%) respectively.

Conclusions: To conclude, mental retardation and dissociative disorder have remained the predominant diagnosis in the present study with 92.3% of patients with single illness and 7.7% with co morbidities.

Keywords: Neuropsychiatric morbidity, Young population, Comorbidity, Socio-demographic variables

INTRODUCTION

Child and adolescence is a period of emotional, physical and behavioural changes.[1] About 10-20% of children get affected by psychiatric morbidity per year and this accounts for the leading cause of disability in children.[2] Moreover studies have found that approximately half of all the psychiatric illness in a lifetime start before 14 years of age.[3,4] According to a systematic review done by Malhotra et al (2014) in India the rate of neuropsychiatric disorders among the children and adolescent in the community has been found to be 6.46%

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and 23.33% in the school.[5] Studies have found that majority of the child and adolescent suffers from Depression, Dysthymia, Adjustment Disorder, Anxiety followed by Oppositional Defiance Disorder, Conduct Disorder and Attention Deficit Hyperactivity Disorder.[6] Studies done in Northeast India found Neurotic, stress and somatoform disorders to be as high as 41%, and substance abuse disorder (21%).[7]

With the changing sociocultural dynamics, digitalisation, educational pressures and social stressors, it is important to monitor the spectrum of psychiatric illness among the youth. Understanding these disorders is essential for early intervention, effective management, and the promotion of mental well- being among our young population.

The present study will shed light on the dynamic landscapes of neuropsychiatric disorders among child and adolescents who seek help at medical college psychiatry outpatient department. Also, a very few studies have been conducted on the same subject in northeastern part of India which has got a very diverse ethnic and racial population.

Considering all these perspectives the present study has been undertaken with the objectives: to assess the pattern of neuropsychiatric illness in children and adolescents of age 2 to 19 years presented to psychiatry OPD of a tertiary care hospital in North Lakhimpur, Assam.

MATERIALS AND METHODS

Participants and settings: This was a retrospective cross-sectional study conducted in Lakhimpur Medical College and Hospital, Assam, India. Data were collected from the case record of all children of age group 2-19 years of both male and female gender attending psychiatry OPD at Lakhimpur Medical College from October 2022 to September 2023. ICD-10 diagnostic tool is used in the center to make the neuropsychiatric diagnosis. Data was collected from the medical record department after taking permission from the superintendent LMCH, for the same.

Inclusion criteria: Case record of all the children and adolescent from 2-19 years of age.

Exclusion criteria: Incomplete case record.

Details of demographic parameters and neuropsychiatric illness were extracted through patient proformas. Data's were analyzed using descriptive statistic. Institutional ethical committee of Lakhimpur Medical College and Hospital has given the ethical clearance for the study [LMC /IEC (H)/34].

RESULTS

Sociodemographic variables: A total of 241 case record of children and adolescents of age group 2-19 years were found, out of which 46 patients were excluded because of deferred diagnosis, incomplete information and referral to other departments. Mean age at diagnosis of the children and adolescents were 13.43 years with a male preponderance of 51.8%. Majority belonged to General category (43.1%) and Hindu religion (43%). 65.1% of the children and adolescent were from rural areas (Table 1).

Table 1: Sociodemographic variables of the children and adolescents

Variables	Cases (%)
Sex	
Male	101 (51.8)
Female	94 (48.2)
Caste	
General	84 (43.1)
OBC	72 (36.9)
SC	16 (8.2)
ST	23 (11.8)
Religion	
Hindu	126 (64.6)
Muslim	68 (34.9)
Christian	1 (0.5)
Locality	
Rural	127 (65.1)
Urban	68 (34.9)

Table 2: Distribution of the children and adolescent according to the Single diagnosis

Diagnosis	Cases (%)
Mental retardation	38 (19.49)
Dissociative Disorder	30 (15.38)
Anxiety disorder	20 (10.26)
Unspecified nonorganic psychosis	18 (9.23)
Seizure disorder	9 (4.62)
ADHD	4 (2.05)
Depression	10 (5.13)
Mental and behavioural disorder due to substance use	9 (4.62)
Acute and Transient psychotic disorder	5 (2.56)
Schizophrenia	3 (1.54)
Impulse control disorder	4 (2.05)
Intentional self-harm	4 (2.05)
Mental disorder due to brain damage and dysfunction	3 (1.54)
Somatoform disorder	3 (1.54)
Phobic anxiety disorder	3 (1.54)
Acute stress reaction	2 (1.03)
Emotional unstable personality	2 (1.03)
Enuresis	2 (1.03)
Hypomania	2 (1.03)
Schizoaffective disorder	2 (1.03)
Conduct disorder	1 (0.51)
Drug induced EPS	1 (0.51)
Insomnia	1 (0.51)
Obsessive Compulsive Disorder	1 (0.51)
Oppositional Defiant Disorder (ODD)	1 (0.51)
Specific developmental disorder of speech and language	1 (0.51)
Tic disorder	1 (0.51)

Table 3: Distribution of the children and adolescent according to the Multiple diagnosis

Diagnosis	Cases (%)
Mental retardation + ADHD	5 (2.56)
Mental retardation + Seizure disorder	5 (2.56)
ADHD + Seizure disorder	2 (1.03)
Mental retardation + autism spectrum disorder	1 (0.51)
Mental retardation + Unspecified non organic psychosis	1 (0.51)
Seizure disorder + Cannabis use disorder	1 (0.51)

Pattern of neuropsychiatric illness: 92.3% of the children and adolescent had one neuropsychiatric diagnosis and 7.7% had more than one neuropsychiatric diagnosis. Mental retardation was present in majority 19.49% as single diagnosis and 5.12% as Multiple diagnosis, followed by dissociative disorders (15.38%) and anxiety disorders (10.26%) respectively. Among the psychosis group Unspecified nonorganic psychosis was present in 9.23%, Acute and transient psychosis 2.56% and Schizophrenia 1.54% (Table 2).

4.62% of the children and adolescent had substance use disorder, out of which 1.5% were Opioid use disorder and 0.5% Alcohol and cannabis use disorder. The less common disorders found were conduct disorder, autism spectrum disorder, drug induced extra pyramidal symptoms, insomnia, obsessive compulsive disorder, oppositional defiant disorder, specific disorder of speech and language disorder, tic disorder.

15 children and adolescent had multiple diagnosis, out of which Mental retardation with ADHD (2.56%) and Mental retardation with Seizure disorder (2.56) was the most common followed by ADHD with Seizure disorder (1.03%) (Table 3).

DISCUSSION

The present study shows Mental Retardation was the most common diagnosis followed by Dissociative disorder which was similar to the finding of Srivastav et al (2021), they also found intellectual disability (21.6%) to be the most common disorder followed by Attention Deficit Hyperkinetic Disorder (7.86%), epilepsy(12.25%) and dissociative disorders (10.03%).[8] In an another study by Seleem et al (2019), found attention deficit hyperactivity disorder (22.6%) to be the most common disorder, followed by intellectual disability (13.7%), depressive disorders (13.3%), and disruptive behavior disorders (12.3%).[9] In contrast Nkporbu et al (2020) found a different finding, they found anxiety disorder (14.2%), depressive disorder (11.3%), schizophrenia (10.8%), mental and behavioral abnormality due to substance abuse (10.5%), bipolar affective disorder (9.1%), while conversion disorder was the least (0.7%).[10] This difference could be due the difference in the region, sociocultural and environment. In the present study the least reported conditions were conduct, oppositional defiant disorder, tic disorders, speech and language disorder, autism spectrum disorders and obsessive-compulsive disorders. The least frequency of these disorders could be explained on the basis of other childhood disorders like mental retardation which may have overshadowed resulting in the lower frequency as reported.

The present study also found the presence of multiple comorbidities. Mental retardation was the most common comorbidity with Attention Deficit Hyperkinetic Disorder and seizure disorder (2.56%). Similar to the present study, Aeberg et al reported intellectual disability to be the most common comorbidity among children with seizure disorder and Attention Deficit Hyperkinetic Disorder to be the second.[11]

The mean age of 13.43 years and male preponderance in the present study was also similar with the retrospective studies done earlier.[5,6] Possible explanation for this could be the increased frequency of externalising illnesses among the boys which come to notice to others easily.[12,13] Another important finding was overall increased in number of children and adolescents with Neuropsychiatric illness from rural areas. This could be due to increased mental health awareness among people and also the advancement of information and technology that have helped patients and their parents to seek opinion.[14] Furthermore, referral from other department in the medical college could also be other reason.

STRENGTH AND LIMITATIONS

The present study took into account all the children and adolescent who attended the Psychiatry OPD during the one-year period, which makes the sample comprehensive for the study.

The present study had a few limitations also. Firstly, it is a tertiary care hospital-based study, hence results may not be generalized to the community. Secondly, many of the child and adolescent patients was excluded because of deferred diagnosis and also the patient admitted in another department were not included. Despite these limitations, the present study helps in getting an idea about the different neuropsychiatric illness with which the children and adolescents are presented in a tertiary care hospital in North Eastern part of India. Hence this study would help in framing better preventive policies both at the regional as well as national levels.

CONCLUSION

In conclusion, mental retardation and dissociative disorder have remained the predominant diagnosis in the present study with 92.3% with single illness and 7.7% with multiple co morbidities. This would necessitate regular arrangements of awareness activities among students, teachers as well as parents, where they can be educated about the possible problematic behaviours and early identifiable symptoms of neuropsychiatric disorder.

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