



## A CLINIC BASED DESCRIPTIVE STUDY OF CHILDHOOD MENTAL DISORDERS ACCORDING TO DSM-5

### Psychiatry

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### ABSTRACT

Study of prevalence pattern of mental disorder in children based on DSM-5 is limited. This study aimed to measure proportion of different mental disorder in children (1-12yrs). It is a retrospective, Hospital based, cross sectional, descriptive study. Most common diagnoses are Intellectual Developmental Disorder & ADHD. This study suffer due to limited sample size and from poor generalisability.

### KEYWORDS

Clinic based, Childhood Mental Disorder, DSM-5.

### INTRODUCTION:

Worldwide 10-20% of children and adolescents experience mental health problem.[1] Adolescence typically describes the years between ages 13 and 19 and can be considered the transitional stage from childhood to adulthood.[2] Infancy is First year of life.[3] So, Age between 1-12 yrs can be considered as Childhood. In West Bengal, it is customary among Pediatrician to regard below 12 yrs age as Children. Childhood can be further subdivided into Toddler (1-3yrs), Preschooler (3-6yrs), School aged child (6-12yrs).[3] A few surveys conducted in India have revealed that 7-30% of children under the age of 12 years need either evaluation or continuing psychiatric care.[4][5]. Most of research on Psychiatric morbidity pattern, conducted in India, focused both Children as well as Adolescent population and almost all of them based on either DSM-IV(TR) or earlier or ICD-10. With advent of DSM-5, Spectrum concept of Psychiatric diagnosis evolved, many changes occurred in criterion based diagnostic guidelines, new diagnostic entity incorporated. So data regarding pattern of Psychiatric morbidity of Children (1-12yrs) based on DSM-5 diagnosis is sparse.

Our Aim of study is to measure proportion of different mental disorder in children (1-12yrs) attending Child guidance Clinic of Psychiatry OPD of our Hospital.

### METHODOLOGY:

It is a retrospective, hospital based, descriptive study conducted on Children attending Child guidance clinic of Psychiatry OPD of ESI-PGIMSRS, ESIC Medical College & H. Consecutive 100 entries from Child guidance clinic register taken for secondary data analysis. Diagnoses are made by two Psychiatrists according to DSM-5. Incomplete Data excluded and next entries taken in that place. Data analysed in MS EXCEL 2007.

### RESULTS:

Majority of our study population are male (72%), female constitute 28%. Most them belong to School age group (6-12 yrs) and comprising 87%. Pre School age group ( 2-5 yrs) comprise 13%. We didn't get patients below 3 yrs age.(Table 1)

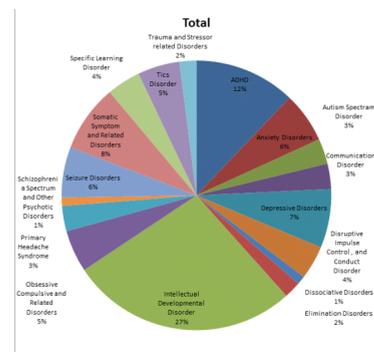
**Table 1: Demographic Profile of Study Population (n=100)**

Age Group	Frequency	Proportion
1-3 yrs(Toddler)	0	0%
3-6 yrs(Pre-Schooler)	13	13%
6-12yrs(School aged)	87	87%
<b>Gender</b>		
Male	72	72%
Female	28	28%

Most Common diagnosis we got, Intellectual Developmental Disorder (27%), ADHD (12%). Other Diagnoses are Somatic symptoms and related Disorder(8%), Depressive Disorders (7%), Anxiety Disorders(6%), Seizure Disorders(6%), Obsessive Compulsive and related Disorders(5%), Tics Disorders(5%), Disruptive Impulse Control and Conduct Disorders(4%), Specific Learning

Disorders(4%), Autism Spectrum Disorders(3%), Communication Disorders(3%), Primary Headache Syndrome(3%), Trauma and Stressor related Disorders(2%), Elimination Disorders(2%), Schizophrenia spectrum and other Psychotic Disorders(1%), Dissociative Disorders(1%). (Figure 1)

**Figure: 1 Pattern of Psychiatric Morbidity in Children**



### DISCUSSION:

Our majority study population are male. Other studies [6][7][8] in similar setting and a systemic review[9] conducted in India found similar male predominance. School age group(6-12 yrs) children are more in proportion in our study than below 6 yrs(pre-schooler) and it is similar with other Indian studies in similar setting.[ 6][ 8] We didn't get patients below 3 yrs age.[Table 1]. No case or Paucity of cases upto three years of age is not an unusual finding, since the Psychic structure before the age of four to five years is usually not sufficiently developed to permit internal conflicts of pathological significance and is in agreement with earlier studies in India.[8][10] Intellectual Developmental Disorders previously termed as Mental Retardation in DSM IV, where Intelligent Quotient(IQ) was main criteria for Mental Retardation. In DSM-5 IQ as well as adaptive functioning given importance. Intellectual developmental disorder is most common and comprises 27 % in our study. Previous studies also found Mental Retardation (now changed to intellectual developmental disorder in DSM-5) was most common diagnoses(20.6%) among Indian children attending clinics.[11] A 26 yrs study in similar settings found Mental retardation 18.4%- 33.2% in Indian children.[7] The prevalence rate of ADHD in studies conducted in the developed countries is reported to be ranged, 1.7%-17.8% [12] A Systemic review found 11% proportion of ADHD among children and adolescent in Child Welfare System.[13] we also found similar result. ADHD comprises 12% of our study population.

Somatic symptom and related disorders comprise of somatic Symptom disorder (prevalence 5%-7%), Illness Anxiety Disorder(prevalence 1.3%- 10%), Conversion Disorder(precise prevalence unknown but causes 5% neurology referral), Factitious Disorder(Prevalence unknown).[14] We found mostly Conversion Disorder and 1 case of

Illness Anxiety Disorder. One Clinic based study found Conversion Disorder 6.3% in Indian Children.[11] Somatic Symptom and related disorder comprises of 8% in our study. This result almost reflects reported prevalence but require further replication. A study conducted in 4 district of Uganda , found prevalence of Depressive Disorder among Children & Adolescent was 8.6% (95% CI 7.2%–10.1%).[15].

Worldwide, the prevalence of depressive disorders in childhood and adolescence is 4–5%. [16] A Clinic based study found Childhood Depression is 6% in India.[11] According to a systemic review and Meta- Analysis The prevalence estimates of Depressive Disorders ranged from 3% to 38% among Children and Adolescent in a Child Welfare System.[13] . In Our study 7% Children suffering from Depressive Disorders, is almost similar with finding of other studies. We found Seizure Disorder 6% in children in our study . This finding is similar with a child psychiatry clinic based study in india, which found 6.57% epilepsy among children and adolescent(birth- 15 yrs)[8] In a Meta-Analysis & Systemic Review Prevalence estimate of Anxiety Disorder ranged from 4%-32%.[13] In our study , we found 6% Children suffering from Anxiety Disorders. OCD has prevalence of 0.5-1% to 4% in childhood and adolescence.[17] We found 5% children having OCD. Our finding is similar but slightly higher, that may be due to that, In DSM-5 Obsessive Compulsive and related Disorder is expanded and incorporated other diagnoses apart from OCD

In Some School based study prevalence of Tics Disorder ranged from 2.9%- 6.7%. [18][19][20][21] 5% of children having tic disorders in our study. We found Disruptive Impulse Control and Conduct Disorders 4% and all cases are Conduct Disorder. 1-yr population prevalence estimates of Conduct Disorders range from 2% to more than 10%, with a median of 4%. [14] Prevalence of Specific Learning Disorders in India is ranged from 2%- 18%.[22] we found Specific Learning Disorder 4% in our study. Prevalence of Autism Spectrum Disorder in US and non-US country is 1%. [14] We found 3% Children with Autism Spectrum Disorder in our study, that may be concentrated representation in our clinic and require further replication.

Numbers from 1 to 13% have been posited for the prevalence of language disorders.[23]. We found 3% Communication disorders (language disorders) in our study sample. We found 3% Primary Headache syndrome in our study sample that require further replication. We found 2% cases of trauma & stressor related disorders, all cases are adjustment disorders. Prevalence of adjustment disorder ranges from approximately 5% to 20%.[ 14] Our study result need further replication. We found elimination disorder 2% , all are case of nocturnal enuresis. Indian data on incidence and prevalence of nocturnal enuresis are very limited.[24] The worldwide prevalence of enuresis among children aged 6–12 years is 1.4%–28%.[25] So our finding is consistent. We found 1% cases of Schizophrenia spectrum and other psychotic disorders that means only 1 case of childhood Schizophrenia. Lifetime prevalence of Schizophrenia appears to be approximately 0.3%-0.7%.[14]. Though result almost consistent but require replication. We found Dissociative disorder 1% in our study sample. This result is consistent with some earlier studies conducted in general population.[26][27]. This result is consistent but require further replication.

#### CONCLUSION:

Psychiatric morbidity is common in male, school age children. Most common diagnosis is Intellectual developmental disorder followed by ADHD. Proportion of other diagnoses like Somatic symptoms and related Disorder, Depressive Disorders , Anxiety Disorders, Seizure Disorders, Obsessive Compulsive and related Disorders, Tics Disorders, Disruptive Impulse Control and Conduct Disorders, Specific Learning Disorders, Autism Spectrum Disorders, Communication Disorders, Primary Headache Syndrome, Trauma and Stressor related Disorders, Elimination Disorders, Schizophrenia spectrum and other Psychotic Disorders, Dissociative Disorders are similar with previous studies but require further replication.

#### LIMITATION:

Hospital based study –so poor generalisability. Study population is not so large.

#### CONFLICT OF INTEREST:

Authors report no conflict of interest. No grants or financial support received.

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#### REFERENCES:

- Kieling C, Baker-Henningham H, Belfer M, et al.: Child and adolescent mental health worldwide: evidence for action. *Lancet* 2011; 378: 1515–25.
- <https://www.psychologytoday.com/us/basics/adolescence>. [21 Mar 2018 13:50:54 GMT.]
- Ghai O.P, Gupta P, Paul V.K. Ghai Essential Pediatrics.6th Ed Revised, CBS publishers.2015;3
- Banerjee T. Psychiatric morbidity among rural primary school children in West Bengal. *Indian Journal of Psychiatry* 1997; 39: 130-5.
- Malhotra S, Kohli A, Arun P. Prevalence of psychiatric disorders in school children in Chandigarh, India. *Indian J Med Res* 2002; 116:21-8.
- Richa, Ghildiyal RG, Subramanyam A, Sharma P. Clinical profile of somatic symptom and related disorders in children. *Int J Contemp Pediatr*. 2018;5:214-25.
- Malhotra S, Biswas P, Sharan P, Grover S. Characteristics of Patients Visiting the Child & Adolescent Psychiatric Clinic: A 26-year Study from North India. *J. Indian Assoc. Child Adolesc. Ment. Health* 2007; 3(3): 53-60
- Chaudhury S, Prasad P, Zacharias R, Madhusudan T, Saini R. (2007). Psychiatric Morbidity Pattern in a Child Guidance Clinic. *Medical Journal, Armed Forces India*, 63(2), 144–146. [http://doi.org/10.1016/S0377-1237\(07\)80059-1](http://doi.org/10.1016/S0377-1237(07)80059-1)
- Malhotra S, Patra BN. Prevalence of child and adolescent psychiatric disorders in India: a systematic review and meta-analysis. *Child and Adolescent Psychiatry and Mental Health*. 2014;8:22. doi:10.1186/1753-2000-8-22.
- Bhalla M, Bhalla JN, Mahendru RK, Singh KB, Singh JB, Srivastava JR. Psychiatric disorders among children attending pediatric OPD. *Indian Pediatrics* 1986; 23: 623-6.
- Sidana A, Bhatia MS, Choudhury S. Prevalence and pattern of psychiatric morbidity in children. *Indian J Med Sci* 1998; 52:556-558.
- Merikangas KR, Nakamura EF, Kessler RC. Epidemiology of mental disorders in children and adolescents. *Dialogues Clin Neurosci*. 2009;11:7–20. [PMCID: PMC2807642] [PubMed: 19432384]
- Bronsdard G, Alessandrini M, Fond G, et al. The Prevalence of Mental Disorders Among Children and Adolescents in the Child Welfare System: A Systematic Review and Meta-Analysis. *Manchia*. M, ed. *Medicine*. 2016;95(7):e2622. doi:10.1097/MD.0000000000002622.
- American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*. 5th ed. Washington, DC: American Psychiatric Association; 2013.
- Kinyanda, E., Kizza, R., Abbo, C., Ndyabangi, S., & Levin, J. (2013). Prevalence and risk factors of depression in childhood and adolescence as seen in 4 districts of north-eastern Uganda. *BMC International Health and Human Rights*, 13, 19. <http://doi.org/10.1186/1472-698X-13-19>
- Costello E, Egger H, Angold A: 10-year research update review: the epidemiology of child and adolescent psychiatric disorders: I. Methods and public health burden. *J Am Acad Child Adolesc Psychiatry* 2005; 44: 972–86.
- Wewetzer C, Jans T, Muller B, Neudorff A, Bucherl U, et al. (2001) Longterm outcome and prognosis of obsessive-compulsive disorder with onset in childhood or adolescence. *Eur Child Adolesc Psychiatry* 10: 37-46.
- Lanzi G, Zambrino CA, Termine C, Palestra M, Ferrari O, Orcesi S, et al. (2004). Prevalence of tic disorders among primary schools students in the city of pavia, Italy. *Arch Dis Child*; 89: 45-47. ISSN 1468-2044.
- Linazasoro G, Blercom NV, Ortiz C. (2006). Prevalence of tic disorder in two schools in the Basque Country: results and methodological caveats. *Movement Disorders*; 21: 2106-2109. ISSN 0885-3185.
- Khalifa N, Knorrng ALV. (2003). Prevalence of tic disorders and Tourette syndrome in a Swedish school population. *Developmental medicine and child neurology*; 45 (5): 315-319. ISSN 0012-1622
- Stefanoff P, Wolanczyk T, Gawrys A, Swirszcz K, Stefanoff E, Kaminska A, et al. (2008). Prevalence of tic disorders among schoolchildren in Warsaw, Poland. *Eur Child Adolesc psychiatry*; 17: 171-178. ISSN 1018-8827.
- V Mogsale, Vijayalaxmi & D Patil, Vishwanath & Patil, Nanasahab & Mogsale, Vittal. (2011). Prevalence of Specific Learning Disabilities Among Primary School Children in a South Indian City. *Indian journal of pediatrics*. 79. 342-7. 10.1007/s12098-011-0553-3.
- Palumbo M.L , Mody M, Klyklyo W.M, McDougle C.J, Guenther F.H. Neurodevelopmental Disorder: Communication Disorders. *Tasman A, Kay J, Lieberman J.A, First M.B, Riba M.B. PSYCHIATRY* . 4th ed, Vol 1. Wiley Blackwell 2015; 709
- Reddy, N. M., Malve, H., Nerli, R., Venkatesh, P., Agarwal, I., & Rege, V. (2017). Nocturnal Enuresis in India: Are We Diagnosing and Managing Correctly? *Indian Journal of Nephrology*, 27(6), 417–426. [http://doi.org/10.4103/ijn.IJN\\_288\\_16](http://doi.org/10.4103/ijn.IJN_288_16)
- Yousef KA, Basaleem HO, bin Yahya MT. Epidemiology of nocturnal enuresis in basic schoolchildren in Aden Governorate, Yemen. *Saudi J Kidney Dis Transpl*. 2011 Jan; 22(1):167-73. [PubMed] [Reflist]
- Vanderlinden, J., Van Dyck, R., Vandereycken, W., & Vertommen, H. (1991). Dissociative experiences in the general population in the Netherlands and Belgium: A study with the Dissociative Questionnaire (DIS-Q). *Dissociation: Progress in the Dissociative Disorders*, 4(4), 180-184.
- Colin A. Ross, Shaun Joshi, and Raymond Currie. Dissociative Experiences in the General Population: A Factor Analysis. *Psychiatric Services* 1991 42:3, 297-301