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ATTENTION DEFICIT HYPER ACTIVITY DISORDER SUBTYPES AND CO MORBID DISORDERS AMONG CHILDREN ATTENDING PSYCHIATRY OPD IN CIVIL HOSPITAL KARACHI.

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ABSTRACT

OBJECTIVE: *This study was aimed to describe the subtypes and co morbid conditions associated with ADHD among children and adolescents in clinical setting of Psychiatry OPD in CHK*
DESIGN: *Descriptive cross-sectional study*
PLACE AND DURATION OF STUDY**:** O*ut patient Department of Psychiatry of Civil hospital Karachi from Jan 2007 to Dec 2007.*
SUBJECTS AND METHODS: *4-16 years children and adolescents visiting psychiatric clinics during the above mentioned time period. Assessed on DSM IV criteria of ADHD and other conditions*
RESULTS: *Of 80 patients presenting to child psychiatric clinic were assessed. 40 subjects children were diagnosed with ADHD with Male n=24(60%) Female n=16(40%) Females presented more with in-attentive type of disorder as opposed to males who had more hyper-active, impulsive symptoms. One third of the sample had co morbid psychiatric illnesses. . .*
CONCLUSION: *The syndrome of ADHD has broadly similar subtypes prevalence, clinical characteristics and co morbidities in clinical population in Pakistan to that reported in the literature from studies in Western countries.*

KEY WORDS: ADHD, subtypes and co morbid conditions

INTRODUCTION:

ADHD is a common & impairing psychiatric condition affecting children & adolescents. Prevalence rates vary across population from 2.2% to 16.1% in clinical versus community cohorts[1.] It's frequency has been reported as high as 34% ADHD in clinical setting in Pakistan. [2]

ADHD is defined by symptoms concerning aspects of inattention, hyperactivity and impulsivity by the American Psychiatric association. These symptoms can be determined by direct interview based on DSM- IV criteria.[3]

ADHD is often comorbid with other psychiatric conditions (oppositional disorder, mood and anxiety substance abuse) and learning disorders (dyslexia) yet specific mechanisms underlying the comorbid are still poorly understood.[4] A RCT on ADHD population of children and adolescents showed that only 31% of participates had ADHD alone 40% of ADHD suffer from co morbidity of oppositional disorder, 38% for mood and anxiety disorder,14% for conduct disorder,11% for tic disorder [5]

ADHD has been identified to have a significant impairment in functioning hence show increased risk for academic & social dysfunction this may further aggravate if a co morbid condition coexsist.[6]

Literature supports that persistence of ADHD and its co morbid condition in adulthood. These youth are at risk for becoming delinquent, abuse drugs as well as suffer from mood, anxiety disorders [7]

Therefore there is a need for to study the clinical presentation of this disabling disorder and its co morbid conditions which complicates the condition in of those suffering from it. This can be a foundation for future community studies

TABLE—1
SUB-TYPES OF ADHD (N=40) SHOWN IN TABLE 1

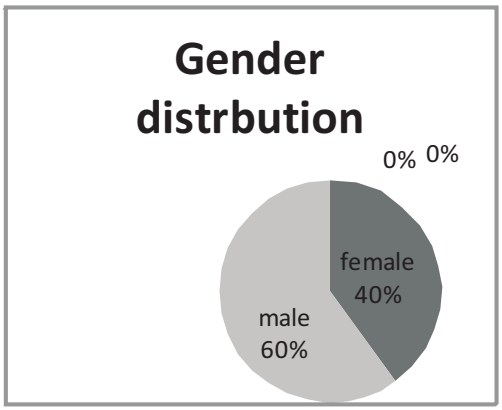
Sub-Types of ADHD (n=40)

Sub Types	Total number/percentage
Combined type	25 (62.5%)
Hyperactive	9 (22.5)
Inattentive	6 (15%)

TABLE—2
ADHD AND CO MORBIDITIES WAS FOUND IN N= 22 (54%) OUT OF 40 SHOWN

Co morbidities n= 22 (54%)

Co morbid conditions	Number/percentage
Oppositional defiant	06 (27%)
Learning difficulty	08 (36%)
Anxiety and mood disorder	03 (12%)
Tics and motor clumsiness	02 (10%)
Obsessive and emotional symptoms	02 (10%)
Conduct disorder	01 (5%)



METHOD

This is cross sectional study. Subjects were enrolled in the study between January – December 2007.

At the time of recruitment a description of the procedures and purpose of the study .was explained to the subjects and parents and provided with informed consent. A screening questionnaire SDQ was used to screen for hyperactivity and concentration problems as well as any emotional issues as this instrument can be used for 4 to 16 years. Both genders were included in study. Subjects were excluded if they suffered from mental retardation, neurological disorder, chronic mental disorders and pervasive disorder. After initial clinical evaluation we selected 80 participates referred to the opd in the study. Initial interview with parents and children was done 50 having behavioral problem were latter, two-stage ascertainment procedure was used to select subject. In the first stage the subjects were screened through strength and difficulties questionnaire Urdu version (SDQ) for emotional and behavioral problems by the researcher. In the second stage confirmed the diagnosis of ADHD based on DSM-IV Criteria. Those suffering from ADHD were further assessed for co-morbid conditions on the basis of DSM-IV criteria. Data was taken and included for final analysis.

Software of SPSS (version10) was used to process the data

RESULTS

Total 80 children and adolescents were initially assessed on SDQ

In first stage 50 children scored high above 17 on SDQ. A cut off for abnormal behavior

In second stage 40 subjects were diagnosed as suffering from ADHD

10 were excluded having predominantly emotional problems

The average age of children attending Psychiatric clinics was 9' years

Range was between 4 to 14 years

Those suffering from ADHD had a gender distribution with Male n=24(60%)

Female n=16(40%)

Male to female ratio was 1.6:1

DISCUSSION

This paper aimed to study the syndrome of ADHD in a clinic sample and report its clinical, subtypes and co morbidities

Investigations of ADHD in children and adolescents shows that it has a higher preponderance in males as compared to females.

Similar results are documented in community based study conducted in U.A.E. [8]

SUBTYPES

The findings for subtypes of ADHD, identified that combined subtypes to be most common type of presentations followed by hyper active and inattentive types, were in concurrence with other studies conducted in American and Japanese children attending primary care clinics.[9]

A study in Pakistan reports similar findings, out of all the ADHD subtypes, the combined type was most common. [10] Girls suffered from primarily in-attentive type while boys have more, Impulsive and combined symptomatology which leads to earlier referral to clinics. Similar trends were also seen in our study.

COMORBIDIDITIES

Co morbidity is a major problem in ADHD and has been reported to be high as seen in our study where more than half of the clinical sample.

A wide range of co morbid disorders were also identified. Similar findings are mentioned in studies in west as well as those conducted in clinics in Pakistan.[11]

Thus findings of this study indicate a need to develop awareness regarding the

prevalence of ADHD and co morbid conditions as they have a negative impact on the youth academic and social development.[12].

An effort to develop liaison for multidisciplinary approach in the care of children and adolescents is the need of time within the country.

CONCLUSION:

ADHD is common among psychiatry condition in children and adolescents with a high rates of co morbid conditions. This has a high rate of impact on functions including social and academic of those children and adolescents suffering from this distressing condition.

Those with co morbid conditions had increased rates of social and academic disturbances. Early assessment and management can be preventive.

LIMITATIONS:

It's a cross sectional study

Hospital based study and community study is required.

Sample size is small and from limited catchments area so cannot be generalized for population.

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REFRENCES

1. Farone SV, Sergeant J, Gillberg C, Biderman J. The worldwide prevalence of ADHD: It is an American condition? World psychiatry 2: 2003;104-113
2. Karim R, A Shakoor. Prevalance and presentation of ADHD among the attenders of child psychiatric clinic. Journal Mother and child 1998.June, 13:71-5
3. American Psychiatric Association (1994), Diagnostic and stastical manual of mental disorders, 4edition (DSMIV),Washington,DC:Amaerican psychiatric association.
4. Volk HE, Neuman RJ, Todd RD. A systematic evaluation of ADHD and conmorbid psychopathology in a population based twin sample.J Am Acad child and adolescents psychiatry psychiatry.2005;44:768- 775
5. Ehsanullah S..Frequency, clinical characterstics and comorbidities of ADHD presenting to a child psychiatric clinic at a university hospital in Pakistan.Journal of Pak Psy society, 2006;julY dec;3(2);747
6. Los SK, Humprey LA,Tapio T et al. Executive functioning among Finnish adolescents with attention deficit hyperactivity disorder. J AM Acad Child Adolesc Psychiatry,2007;46:1594-1604.
7. Biderman J, Monuteaux MC,Doyle AE et al.Impact of executive function deficits and attention-deficit/ hyperactivity disorder (ADHD) on academic outcomes in children.children J consults clin Psychol, 2004;72:757 766.
8. Eapen V, Swadi H, Sabri S, Abou salier M.Childhood behavioral disturbances in a community sample in Al-Ain, United Arab Emirates. East Mediterr Health J 2001;7:428-34
9. Eiraldi RB, Power TJ, Nezu CM. Patterns of comorbidity associated with subtypes of attention-deficit/ hyperactivity disorders among 6-12 year old children. J Am Acad child Adolesc Psychiatry1997; 36:503-14
10. Attention deficit hyperactivity syndrome an update on assessment and management 2007;23(1):9-15.
11. Mayes SD. Learning , attention, writing and processing speed in typical children with ADHD 2007;nov:469-93
12. Imran N, Hasnain MA. Psychological problems of children in general pediatri settings. Ann King Edward Med Coll 2006; 12:487-9