



A CROSS SECTIONAL SURVEY ON ATTENTION DEFICIT HYPERACTIVITY DISORDER AMONG SCHOOL CHILDREN IN SELECTED SCHOOLS

Valarmathi^{1*}, Prof. Vijayalakshmi², Dr. C. Kanniammal³

¹Lecturer, SRM College of Nursing, SRM IST, Kattankulathur, Knachipuram Dt, Tamilnadu.

²Pofessor, Vice Principal, SRM College of Nursing, SRM IST, Kattankulathur, Knachipuram Dt, Tamilnadu.

³Dean, SRM College of Nursing, SRM IST, Kattankulathur, Knachipuram Dt, Tamilnadu.

*Corresponding Author: Valarmathi

Lecturer, SRM College of Nursing, SRM IST, Kattankulathur, Knachipuram Dt, Tamilnadu.

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ABSTRACT

Attention deficit hyperactivity disorder (ADHD) is a group of behavioural symptoms that include inattentiveness, hyperactivity and impulsiveness. Common symptoms of ADHD include: a short attention span or being easily distracted, restlessness, constant fidgeting or over activity and being impulsive. The main aim of this study is to diagnose the attention deficit hyperactivity disorder among schoolchildren and teach their parents and teachers to understand the children's difficulties and support them live successfully. There are one fifty school children under the age in between 3-13years were screened by Conner's abbreviated teachers rating scale for ADHD out of which 6(4.0%) of the children diagnosed Attention Deficit Hyperactive Disorder and 144(96.0%) were normal and there was significant association of prevalence of Attention Deficit Hyperactive Disorder with family history of Attention Deficit Hyperactive Disorder[p=0.009]. Before diagnose ADHD these Children's were untreated and mislabeled as troublemakers or problem children by the school teacher and their parents. By psycho education these misunderstandings was removed and create awareness among the parents and teachers and insisted the need of special attention to overcome their life challenges.

KEYWORDS: Attention Deficit Hyperactive Disorder, school children's.

INTRODUCTION

Attention deficit hyperactivity disorder (ADHD) is a mental disorder that most often occurs in children. Symptoms of ADHD include trouble concentrating, paying attention, staying organized, and remembering details.

ADHD can occur in people of any intellectual ability, although it is more common in people with learning difficulties. People with ADHD may also have additional problems, such as sleep and anxiety disorders.

Although there is no global consensus on the prevalence of attention-deficit hyperactivity disorder (ADHD) in children, adolescents and/or adults, meta-regression analyses have estimated the worldwide prevalence at between 5.29%¹ and 7.1% in children and adolescents,^[2] and at 3.4% (range 1.2–7.3%) in adults.

ADHD is characterized by impulsivity and inattention, has an onset in early school age, and can persist into adulthood, although the prevalence lessens with age (Faraone et al.). The pooled worldwide prevalence of ADHD in children and adolescents is 5.29%, with a

range of about 5–10% when children are considered alone and about 2.5–4% when adolescents are considered by themselves (Polanczyk et al).

A retrospective self-reports, found that ADHD persisted into adulthood in about 36.3% and the pooled prevalence of ADHD is 2.5% (Simon et al.). Estimates of rates for ADHD persistence into adulthood vary depending on the definition of ADHD persistence. When only those meeting the full criteria for ADHD are considered, persistence rates are lower, around 15% at 25 years of age, whereas when cases of ADHD in partial remission are considered, rates climb to around 65% at 25 years of age (Faraone et al.).

A longitudinal study shows that ADHD-PI tends to be more prevalent in girls (Nigg and Nikolas), whereas ADHD-C is most frequently diagnosed in boys. Like many other childhood-onset behavioral disorders,

A multimodal Treatment Study of Children with ADHD (MTA) estimates that up to two-thirds of ADHD children have one or more coexisting disorders. The most common disorders co-occurring with ADHD-C in boys, (National Institute of Mental Health 1999), were

oppositional defiant disorder (> 32%), anxiety (> 22%), and conduct disorder (> 7%). According to Young (2008), anxiety disorders seem to be even more common in girls (~ 33%) than in boys, when ADHD children 6–17 years of age are considered. Depression and bipolar disorders are also common co morbidities among adolescents with ADHD, as are substance use disorders (Spencer *et al.*, Young).

METHODS AND MATERIALS

A descriptive survey design was adopted to assess the prevalence of attention deficit hyperactivity among school children age 3-13 years in selected schools in East Potheri and Vellanchery, kanchipuram district,

Tamilnadu. Official permission was obtained from the school authority. The tool used for the datacollection consisted of two parts: Part I: Demographic variables and Part II: Conner's abbreviated teachers rating scale which is a standardized tool to assess Attention Deficit Hyperactive Disorder. Validity of the tool was confirmed by consultations and guidance from experts which involved 150 samples who fulfill the inclusion criteria were selected using non probability convenient sampling technique. The written consent was obtained from the teachers and parents of the students. The collected data was tabulated and analyzed using both descriptive and inferential statistics.

FINDINGS

Table 1: Frequency and percentage distribution of prevalence of Attention Deficit Hyperactive Disorder among children N= 150.

| Demographic variables | | n | % |
|------------------------|--|-----|------|
| Age | Age 3 - 5 Yrs | 37 | 24.7 |
| | Age 6 - 8 Yrs | 31 | 20.7 |
| | Age 9 - 10 Yrs | 42 | 28.0 |
| | Age 11-13 Yrs | 40 | 26.6 |
| Sex | Male | 85 | 56.7 |
| | Female | 65 | 43.3 |
| Family type | Joint family | 53 | 35.3 |
| | Nuclear family | 97 | 64.7 |
| Education of Father | Primary School | 32 | 21.3 |
| | Middle School | 39 | 26.0 |
| | High School | 56 | 37.4 |
| | Intermediate or Post-High-school Diploma | 23 | 15.3 |
| Occupation of Father | Unskilled worker | 13 | 8.7 |
| | Semi-skilled worker | 15 | 10.0 |
| | Skilled worker | 63 | 42.0 |
| | Clerical,Shop-owner,Farmer | 59 | 39.3 |
| Education of Mother | Primary School | 48 | 32.0 |
| | Middle School | 23 | 15.3 |
| | High School | 56 | 37.4 |
| | Intermediate or Post-High-school Diploma | 23 | 15.3 |
| Occupation of Mother | Unemployed | 44 | 29.3 |
| | Unskilled worker | 13 | 8.7 |
| | Semi-skilled worker | 12 | 8.0 |
| | Skilled worker | 22 | 14.7 |
| | Clerical,Shop-owner,Farmer | 59 | 39.3 |
| Family Income | ≤ 1520 | 47 | 31.3 |
| | 1,521-4,555 | 49 | 32.7 |
| | 4,556-7,593 | 39 | 26.0 |
| | 7,594-11,361 | 15 | 10.0 |
| Family history of ADHD | Yes | 3 | 2.0 |
| | No | 147 | 98.0 |

Table 2: Association between prevalence of attention deficit hyperactivity disorder and demographic Variables of the children.

| Demographic variables | | Normal | | ADHD | | Chi Square Test | P Value |
|------------------------|--|--------|------|------|------|-----------------|-------------|
| | | n | % | n | % | | |
| Age | Age 3 - 5 Yrs | 35 | 24.3 | 2 | 33.3 | 2.986 3 df | 0.394 |
| | Age 6 - 8 Yrs | 30 | 20.8 | 1 | 16.7 | | |
| | Age 9 - 10 Yrs | 39 | 27.1 | 3 | 50 | | |
| | Age 11-13 Yrs | 40 | 27.8 | 0 | 0 | | |
| Sex | Male | 80 | 55.6 | 5 | 83.3 | 1.810 1 df | 0.179 |
| | Female | 64 | 44.4 | 1 | 16.7 | | |
| Family type | Joint family | 50 | 34.7 | 3 | 50 | 0.588 1 df | 0.443 |
| | Nuclear family | 94 | 65.3 | 3 | 50 | | |
| Education of Father | Primary School | 32 | 22.2 | 0 | 0 | 2.752 3 df | 0.431 |
| | Middle School | 36 | 25 | 3 | 50 | | |
| | High School | 54 | 37.5 | 2 | 33.3 | | |
| | Intermediate or Post-High-school Diploma | 22 | 15.3 | 1 | 16.7 | | |
| Occupation of Father | Unskilled worker | 13 | 9 | 0 | 0 | 1.643 2 df | 0.696 |
| | Semi-skilled worker | 15 | 10.4 | 0 | 0 | | |
| | Skilled worker | 60 | 41.7 | 3 | 50 | | |
| | Clerical, Shop-owner, Farmer | 56 | 38.9 | 3 | 50 | | |
| Education of Mother | Primary School | 47 | 32.6 | 1 | 16.7 | 1.843 2 df | 0.612 |
| | Middle School | 21 | 14.6 | 2 | 33.3 | | |
| | High School | 54 | 37.5 | 2 | 33.3 | | |
| | Intermediate or Post-High-school Diploma | 22 | 15.3 | 1 | 16.7 | | |
| Occupation of Mother | Unemployed | 41 | 28.5 | 3 | 50 | 3.049 4 df | 0.550 |
| | Unskilled worker | 13 | 9 | 0 | 0 | | |
| | Semi-skilled worker | 12 | 8.3 | 0 | 0 | | |
| | Skilled worker | 22 | 15.3 | 0 | 0 | | |
| | Clerical, Shop-owner, Farmer | 56 | 38.9 | 3 | 50 | | |
| Family Income | ≤ 1520 | 46 | 31.9 | 1 | 16.7 | 3.475 3 df | 0.324 |
| | 1,521-4,555 | 45 | 31.3 | 4 | 66.6 | | |
| | 4,556-7,593 | 38 | 26.4 | 1 | 16.7 | | |
| | 7,594-11,361 | 15 | 10.4 | 0 | 0 | | |
| Family history of ADHD | Yes | 2 | 1.4 | 1 | 16.7 | 6.859 1 df | 0.009 ** |
| | No | 142 | 98.6 | 5 | 83.3 | | |

** - high significance, **df** - degree of freedom

SUMMARY AND DISCUSSION

In this study 150 school children were screened with Conner's abbreviated teachers rating scale. There are 4.0% of the children diagnosed Attention Deficit Hyperactive Disorder and 96.0% were normal.

According Pastor and Reuben reported ADHD is diagnosed more frequently in boys than in girls, this was supported in the present study finding that the gender of children 83.3% male and 16.7% female were diagnosed ADHD.

The analysis revealed that there was significant association between prevalence of Attention Deficit Hyperactive Disorder and family history of Attention Deficit Hyperactive Disorder [p=0.009].

Considering Age of the child, majority of them 42 (28%) belonged to 9-10yrs and minority of them 31(20.7%) were belongs to 6 - 8 Yrs and family type of the child most of them 97(64.7%) belonged to nuclear family and minority of them 53(35.3%) were belongs to joint family. Considering education of father, most of the father have gone till high school, which is 56(37.4%), minority of the fathers were Intermediate or Post-High-school Diploma graduate or post graduate, which is 23(15.3%). Regarding occupation of father, majority belongs to Clerical, Shop-owner, Farmer 59(39.3%) and minority belongs to unskilled worker which is 13(8.5%). Considering education of mother, most of the father have gone till high school, which is 56 (37.4%), minority of the mothers were Intermediate or Post-High-school Diploma graduate or post graduate, which is 23(15.3%). Regarding occupation of mother majority of them 59

(39.3%) belonged to Clerical, Shop-owner, Farmer, minority of them 12 (8.0%) were belongs to Semi-skilled worker. Considering family income the majority of them 49 (32.7%) belonged to 1,521-4,555, minority of them 15 (10.0%) belonged to 7,594-11,361. Regarding Family history of ADHD the majority of them 147(98.0%) did not have the family history of ADHD and minority of them 3 (2.0%) had the family history of ADHD.

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