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## KNOWLEDGE ON ATTENTION DEFICIT HYPERACTIVITY DISORDER AMONG PRE-PRIMARY TEACHERS

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### ABSTRACT:

Children with Attention Deficit Hyperactivity Disorder (ADHD) show abnormal brain functioning which includes reduced blood flow activities and difficulties in sustaining attention to do tasks. ADHD is a disability in which children consistently show inattention, hyperactivity and impulsivity over a period of time. These children have difficulty in focussing on any one thing and may get bored with a task after only a few minutes. They show high levels of physical activity and have difficulty in curbing their reactions. These children have difficulty in blocking or filtering out unnecessary input from the environment. They do not learn

from experiences. It is difficult for them to discriminate relevant visual and auditory stimuli and stay busy in doing many tasks at once. ADHD can be diagnosed at age of four, during the kindergarten level. Most of the children during kindergarten are highly active and impulsive. But many preprimary teachers do not have the knowledge on various symptoms and characteristics of ADHD and have failed to identify these children. Hence these children would not get proper intervention and care. Hence the present investigators made an attempt to study the knowledge on ADHD among pre-primary teachers. A simple random sampling technique was adopted to select a sample of pre-primary teachers from kanyakumari district. The size of the sample was 300. ADHD knowledge test was used to collect the data. The findings of the study revealed that pre-primary teachers have moderate level of knowledge on ADHD.

**KEYWORDS:** knowledge of ADHD, inattention, hyperactivity, impulsivity, hyperactivity, preprimary teachers.

### INTRODUCTION

Special education means specially designed instruction, at no cost to parents to meet the unique needs of a child with disability, including instruction conducted in the classroom, in the home, in hospitals and institutions and in other settings (IDEIA 2004). In other words it is a special instruction for

children with disabilities or special needs, where instruction is modified to suit the needs of the disabled (Ysseldyke & Algozzine, 2006; Bayat, 2012). Learning disability is a disorder in one or more of the basic psychological process involved in understanding or in using language, spoken or written, which may infest itself in an imperfect ability to listen, think etc... ADHD is one of the most commonly found learning disabilities among children in the present scenario.

The Attention Deficit Hyperactivity Disorder refers to a neurological disorder with persistent pattern of inattention, hyperactivity and impulsivity that interferes with functioning or development of a person (APA, DSM -V, 2013). Mainly ADHD is associated with Learning disabilities and other disorders, namely Oppositional Defiant Disorder and Conduct Disorder. ADHD can be identified early at age of four during the kindergarten school years. These children exhibit a

number of characteristics such as inability to perform the academic activities, do not pay attention, do not follow instructions, and inability to stay seated, fidgeting with hands, squirming, and running up and down stairs. Also they dash around touching or playing, wiggle their feet or noisily tap their pencil and stay busy or try to do several things at once. Impulsive children seem unable to curb their immediate reactions or think before they act. They will often blurt out inappropriate comments, display their emotions without restraint and act without regard for the later consequences of their conduct. Their impulsivity may make it hard for them to wait for things they want or to take their turn in games. They may grab a toy from another child or hit when they are upset (Chadha, A. 2011).

Alkahtani (2013) examined the preprimary teachers' knowledge and misconceptions of ADHD and found out that knowledge of them on ADHD was insufficient and level of knowledge of teachers was positively related to their prior training and prior experience with ADHD. Also it revealed that the preprimary teachers needed training on general information and treatment of ADHD, with a focus on correcting common misperceptions that they had with regards to ADHD. Perold, Mariechen, Charmaine Louw and Sandra Kleynhans found that overall knowledge of pre-primary teachers on ADHD was poor. The results suggested that the teachers were most knowledgeable about symptoms/diagnosis, scoring lower on treatment and general knowledge about ADHD. Beryl, T. Ncolette, V.R and Kelvin, M (2015) examined the knowledge of primary school teachers on the symptoms, treatment and managing classroom behavior of ADHD children. The findings revealed that teachers were more knowledgeable of the general associated features of ADHD than of symptoms, diagnosis and treatment. Khademi, Mojgan (2016) found that the primary school teachers in Iran had an average knowledge towards ADHD and Specific Learning Disability and lower attitude scores for both.

### **NEED AND SIGNIFICANCE OF THE STUDY**

According to Centers for Disease control and prevention (2013) the number of school aged children diagnosed with ADHD has gradually increased by 42% between 2003 and 2011 and has annually increased by 5% each year indicating that at least one child in an average classroom will have the disorder. The actual problems of ADHD begin at the preprimary school level. Most of the pre primary teachers do not have the correct knowledge about ADHD and they fail to manage these children with regard to the teaching - learning strategies, early identification and intervention. It is important that pre primary teachers should be knowledgeable about this order ADHD and the various intervention strategies. Hence the investigators made an attempt to study the knowledge on attention deficit hyperactivity disorder among pre-primary teachers.

### **STATEMENT OF THE PROBLEM**

The rationale for this research study was to examine pre primary teachers' level of knowledge regarding attention deficit hyperactivity disorder. The research questions framed were, To what level do the preprimary teachers have knowledge on ADHD children? To what extend do their knowledge on ADHD help the teachers to identify the ADHD children? Whether there exists any statistically significant difference in the mean scores of knowledge on ADHD among preprimary teachers with respect to locale, teaching experience and educational qualification. Hence the present study is entitled as Knowledge on Attention Deficit Hyperactivity Disorder among Pre-Primary Teachers

### **OBJECTIVES OF THE STUDY**

- i. To study the knowledge of pre-primary teachers on ADHD .
- ii. To study whether there is any difference in the knowledge of pre-primary teachers on ADHD with respect to the background variables namely, locale, teaching experience and educational qualification.

### **HYPOTHESES FRAMED FOR THE STUDY**

- i. There exists no significant difference in the mean scores of knowledge on ADHD of rural and urban pre-primary teachers.

- ii. There exists no significant difference in the mean scores of knowledge on ADHD of pre-primary teachers with respect to teaching experience.
- iii. There exists no significant difference in the mean scores of knowledge on ADHD of preprimary teachers based on their educational qualification (namely B.A./B.Sc. B.Ed., M.A./M.Sc. B.Ed. Montessori trained and preprimary trained).

### METHODOLOGY

Normative survey method was adopted for conducting the study. The present study was conducted on a sample of pre-primary teachers from various pre-primary schools of kanyakumari district. Simple random sampling technique was used to select the sample. The size of the sample was 300. ADHD knowledge test was used to collect the data from the sample.

### DATA COLLECTION PROCEDURE

The investigator visited the various pre primary schools in kanyakumari district. The ADHD knowledge test was administered to them. Teachers were instructed to read the questions carefully and mark their responses in the response sheet. The filled in response sheet were collected and scored using the scoring key prepared by the investigator. In scoring one mark each was given for right answers and for wrong answers zero mark was given.

### STATISTICAL TECHNIQUES USED FOR STUDY

For the analysis of the data following statistical techniques were used.

- i. t test
- ii. ANOVA followed by scheffee's post hoc procedure

### Results

#### Percentage of levels of knowledge on ADHD among pre-primary teachers.

**Table 1**  
*Percentage of levels of knowledge on ADHD among pre-primary teachers*

Awareness	Count	Percent
Low	48	16.00
Medium	212	70.67
High	40	13.33
Total	300	100.0

From the above table it is clear that 16% of pre-primary teachers have low level of knowledge on ADHD. 70.67% of them have medium level of awareness on ADHD and 13.33% of them have high level of awareness on ADHD. This indicates that majority of pre-primary teachers have medium level of awareness on ADHD.

#### Comparison of mean scores of ADHD knowledge among pre-primary teachers based on the background variables.

##### Comparison of knowledge on ADHD among pre-primary teachers based on locale

**Table 2**  
*Summary of mean, standard deviation, and t value of knowledge on ADHD among pre-primary teachers based on locale*

Locale	Mean	SD	N	t	p
Rural	17.52	4.99	145	3.796	0.000
Urban	15.40	4.66	155		

From the above table it is clear that  $p < 0.01$  and is significant at 0.01 level. Hence the null hypothesis is rejected. Therefore the rural and the urban pre-primary teachers differ significantly in their knowledge on ADHD. Also from the mean scores it is said that the rural pre-primary teachers were found to have higher awareness on ADHD than the urban pre-primary teachers.

#### Comparison of knowledge on ADHD among pre-primary teachers based on educational qualification

**Table 4.3**  
*Sum of squares, mean squares and F value of ADHD knowledge among pre-primary teachers based on educational qualification*

Educational qualification	Mean	SD	Source	Sum of Squares	df	Mean Square	F	P
BA /BSc Bed	17.22	4.64	Between Gp	173.90	3	57.97	2.420	0.066
MA / MSc Bed	16.03	5	Within Gp	7091.33	296	23.96		
Montessori trained	14.89	4.55	Total	7265.24	299			
Preprimary trained	16.47	5.38						

From the above table it is clear that  $p > 0.05$  and is not significant at any level. Hence the null hypothesis is accepted. Therefore knowledge of the pre-primary teachers towards ADHD do not differ significantly with respect to their different educational qualifications.

#### Comparison of knowledge on ADHD among pre-primary teachers based on teaching experience

**Table3.**  
*Sum squares, mean squares and F value of knowledge on ADHD among pre-primary teachers based on the teaching experience*

Experience	Mean	SD	Source	Sum of Squares	Df	Mean Square	F	p
Below 5 years	16.55	5.43	Between Gp	166.9	2	83.47	3.492	0.032
5-10 years	15.64	4.12	Within Gp	7098.3056	297	23.90		
Above 10 years	17.5	5.28	Total	7265.2367	299			

From the above table it is clear that  $p < 0.05$  and is significant at 0.05 level. Hence the null hypothesis is rejected. Therefore pre-primary teachers differ significantly in their knowledge on ADHD with respect to teaching experience. To know the exact pair, Scheffe's post hoc analysis is carried out.

**Table 4**  
**Summary of Scheffe's post hoc scores of knowledge on ADHD with respect to the teaching experience**

Experience	N	Pair	p (Scheffe)
Below 5 years (A)	99	A Vs B	0.388
5-10 years (B)	123	B Vs C	0.033
Above 10 years (C)	78	A Vs C	0.440

From the above table it is clear that pre-primary teachers having the teaching experience 5-10 years and above 10 years differ significantly in their ADHD awareness. But pre-primary teachers having the teaching experience below 5 years and 5-10 years, and below 5 years and above 10 years do not differ significantly in their ADHD awareness.

#### EDUCATIONAL IMPLICATIONS OF THE STUDY

The findings of the study, suggested certain implications in improving ADHD awareness among pre-primary teachers.

- i. Pre-primary teachers could be given in-service training related to ADHD to acquire knowledge on ADHD.
- ii. Seminars and workshops on ADHD could be organized for the teachers to improve their knowledge about ADHD.
- iii. Teachers could be instructed to create time within the work schedule to share ideas, collaborate and way to solve problems of ADHD children with their colleagues and the school counselors.
- iv. Pre-primary teachers could be made to visit various resource centres of children with ADHD and they could have to interact with the children so that they could acquire more knowledge about managing these children.
- v. They could be educated the various causes and identification procedures of ADHD children.

#### CONCLUSION

Teachers with low knowledge and low experience about ADHD cannot manage the students in the classroom. Teachers play an important role in the identification and diagnosis of ADHD. The results of the study revealed that the pre primary teachers had medium level of knowledge to identify and diagnose the children with ADHD. Awareness programmes could be organized to them to develop the knowledge about ADHD. Hence it is the responsibility of the policy makers and school authorities to take necessary steps to give orientation training or in-service training to the teachers to make them knowledgeable about ADHD and ensure that every teacher could identify the children with ADHD in his class. Also the authorities of school could appoint a school counselor or a resource teacher to diagnose the problems of ADHD. Therefore it is the duty of the teachers to offer support to ADHD children in order to manage their behaviour and achieve success both socially and academically.

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