

**TEACHERS' KNOWLEDGE AND ATTITUDE TOWARDS ATTENTION DEFICIT  
HYPERACTIVITY DISORDER CHILDREN IN PRESCHOOLS IN OWODE LOCAL  
GOVERNMENT, OGUN STATE**

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**Abstract**

*There is virtually no classroom where Attention Deficit Hyperactivity Disorder (ADHD) children are not found. This implies that the issue of teachers' knowledge and attitude in ensuring that all children in their care achieve maximally becomes highly imperative. Despite this, few studies exist on the issues of teachers' knowledge and attitude towards ADHD children with huge empirical gap left uncovered. This premised the reason this study examined teachers' knowledge and attitude towards ADHD children in Owode Local Government Area of Ogun State, Nigeria. Descriptive design was used for the study. One hundred and twenty (120) preprimary schools' teachers were sampled out of the one thousand eight hundred and seventy three (1,873) for this study using simple random sampling technique. One research instrument titled "Teachers' Knowledge Test and Attitude to ADHD Children (TKTAAC) was used to collect data for the study. Content and face validity of the instrument were established by research experts. Thereafter, 20 copies of each of the instruments were subjected to reliability test through Cronbach's alpha technique and Kuder-Richardson 20 formula which yielded reliability coefficient and index of (0.83 and 0.77) respectively. The data collected were analysed using descriptive statistics of frequency counts, percentage, mean and standard deviations. The findings revealed as follows: the level of teachers' knowledge of ADHD children in preschools is low and the attitude of teachers towards ADHD children in preschools is negative. Hence, among the recommendations made was that training programmes, seminars or workshops should be organised by experts in the field of special education and early childhood education to train teachers on the importance of children with special needs particularly ADHD children identification and management strategies.*

**Keywords:** Teachers' Knowledge; Attitude; Attention Deficit Hyperactivity Disorder; Children

## Introduction

Early years are characterised of diverse categories of children with distinct characteristics as a result of their uniqueness. The uniqueness of children in the early years informs the reason why rapt attention need to be directed to them; in order to ensure that they develop holistically. Due to the distinct qualities and abilities of children in the early years and the need to provide qualitative education for them irrespective of their exceptionalities, the latest edition of the nations' National Policy on Education (Federal Republic of Nigeria (FRN), 2014) emphasised the significant of special education. In the policy, special education is referred to a customised education system or programme designed to meet the unique needs of people with special needs. This is an indication that all children do not learn the same way due to their uniqueness or the distinct characteristics each possesses. Hence, special provisions are needed to cater for them.

Again, special education can be seen as a programme of instruction designed to meet the unique needs of a child who has a disability (Michele, 2019). According to FRN (2014), Michel (2019) and Andrew (2021), the distinct characteristics of children in the early years necessitated the need to categorise them into their various groups; such as attention deficit hyperactivity disorder, hearing impairment, visual impairment, specific learning disability, deafness, emotional disturbance, autistic spectrum disorder, language disorder, intellectual disability, orthopedic impairment, traumatic brain injury, multiple disabilities among others. Furthermore, the FRN (2014) reiterated the need for inclusive education to ensure that these categories of children are have equal chance of learning among other normal children.

This study is interested on children with attention deficit hyperactivity disorder issue. Jimoh (2014) sees Attention Deficit Hyperactivity Disorder (ADHD) as a pervasive disorder that touches every aspect of the child's life. Jimoh (2014) agrees with Barkley (1997) to say that ADHD is one of the most common childhood mental health disorders affecting approximately primary school-aged children all over the world and is characterized by sustained inattention, impulsivity, and hyperactivity. Lasisi, et al., (2017) and Carthy et al., (2012) posited further that ADHD is one of the common childhood neuro-developmental disorders which is often associated with disturbed classroom behaviour. To the perspective of Dessie et al., (2021), it is a neuropsychiatric disorder that is most frequently reported among young children. In addition, American Psychiatric Association (2013)

affirmed their positions on the concept and submitted that ADHD is a neurodevelopmental disorder that is defined by impairing levels of inattention, disorganization, and/or hyperactivity-impulsivity.

At this point, it is interesting to note that the definitions showcased above, have established the fact that ADHD is more prevalent among school age children (Abikwi, 2009). This school age period is very critical because young children future is premised on the experiences they acquire at this level. It is a well-established fact that these categories of school-age children spend majority of their time at home and school classroom (Evans, Owens, & Bunford, 2014). Kos et al., (2006) maintained that the school setting may be one of the most difficult places for children with ADHD because it requires children to engage in behaviors that go against the core symptoms of ADHD. The scholar further posited that ADHD affects a wide range of children with about 4% to 7% being formally diagnosed, usually during early childhood. Michele (2019) and Andrew (2021) substantiated that ADHD in children is estimated to occur in 3-5% of our school-aged children. Studies such as Abikwi (2009), Carthy et al., (2012) and Lasisi, et al., (2017) have shown that it affects as many as 8% children that children that have problems paying attention, concentrating, and difficulty following simple instructions, have a need to physically move their body and are very compulsive.

Both attention deficit disorder and attention deficit hyperactivity disorder can interfere with school functioning. Three core types of symptoms that tend to correlate with ADD and ADHD in children. They include hyperactivity, impulsivity and inattention. It is established that some will have hyperactivity and impulsivity symptoms but are able to pay attention. In same vein, children with inattention are easily distracted. They find it difficult to follow directions or finish tasks, appear not to listen, make careless mistakes, are forgetful about daily activities, have problems organizing tasks, avoid sitting still, lose things and tend to daydream. Sometimes, they result in squirming, fidgeting or bouncing behavior. They often struggle to stay seated, have difficulty playing quietly and are always moving and excessively talking. While some have a difficult time taking turn, blurt out answers, and often interrupt others.

The characteristics of ADHD showcased in the penultimate paragraph above points to the fact that an individual saddled with the responsibility of caring for their needs, has core role to play in ensuring that they grow, develop, learn and achieve maximally like their counterparts. Among the individuals who cater for them are teachers. Teachers are full grown adults or individuals with professional skills of caring for the needs of young children. In respect to this study, teachers are

those professionally trained to assist special categories of children especially those with ADHD to learn and develop holistically. This implies that not all teachers can effectively cater for the needs of these categories of children; but those who are trained with professional skills and knowledge to provide for their needs. This is because Tannock and Martinussen (2001) opined that given the prevalence of ADHD, preschool teachers are likely to be among the first people to notice ADHD related behaviors. Teachers who are successful in educating children with ADHD use a three-pronged strategy. They begin by identifying the unique needs of the child, and then select different educational practices associated with academic instruction, behavioral interventions, and classroom accommodations that are appropriate to meet that child's needs (Bhandari, 2017; Mohammed et al., 2018). In order to recognize these symptoms, knowledge about ADHD is important. In the study of Dessie et al. (2021), it was established that good knowledge about ADHD was significantly associated with participants' educational level of diploma and degree than those having a certificate. In addition, information about ADHD can influence teachers' behaviors and perceptions of the disorder (Ohan, Cormier, Hepp, Visser, & Strain, 2008). For instance, if a teacher has a higher level of knowledge about ADHD, it might increase the likelihood that they would refer children for assessment. It may also influence how supportive they will be of behavioural treatments in the classroom (Ohan et al., 2008).

Despite the important role school teachers' knowledge and attitude towards ADHD play in early detection and referral of the child to treatment centers. Dessie et al. (2021) confirmed that few existing reports, however, indicated the alarming rate at which the problem is highly neglected in Sub-Saharan Africa. While the few studies on the issue of teachers' knowledge reported low level of teachers' knowledge of ADHD children. In the same vein, much was not known about the teachers' attitude towards the children. However, there is no doubt that if these teachers do not have high level of knowledge about them, the children will not be able to develop holistically and achieve maximally. Then, it becomes a great problem. Again, if the teachers do not have positive attitude towards them, many of these children would be frustrated and might not be able to go far in life. Since most children spend most of their time in schools and interact often with teachers on a daily basis even more than their parents or physicians, it implies that schools play a very important role in the early detection and management of ADHD.

At this juncture, it is pertinent to establish that the issue of ADHD has attracted previous scholars' attention and many of them have provided remedial panacea to the issue of teachers' knowledge, attitude and behaviour management techniques through practicable recommendations. For instance, in a study by Marsha et al. (2015) revealed that total knowledge scores were low, again, postgraduate education and in-service training significantly improved knowledge scores as did having previously taught a child with ADHD. While the attitudes of the teachers toward children with ADHD were generally positive although most teachers felt children with ADHD should be taught by specialist teachers. Hence, results suggest greater efforts to be made to provide teacher training specifically in the identification and management of children with ADHD. Mohammed et al. (2018) found that mean score regarding the sampled teachers' ADHD knowledge, attitude, and classroom management technique were significantly higher than the teachers' initial pre-knowledge, attitude and classroom management techniques after the intervention. The result of Dessie et al. (2021) showed that elementary school teachers had good knowledge and a favorable attitude towards ADHD. Geraldina, et al. (2019) reported that secondary school teachers had more positive attitude towards ADHD. While other teachers characteristics did not play a significant role. Sciutto et al. (2000) reported a small, but statistically significant positive correlation between the number of children with ADHD taught and years of teaching experience with knowledge of ADHD. Again, the qualifications of the teachers was significant with their knowledge of ADHD. In Nigeria, quantitative correlational study was conducted to assess Nigerian educators' knowledge about ADHD and the nature of classroom management strategies they employ for the management of ADHD students. The researcher found that a high percentage of educators in Imo State, Nigeria, lacked the knowledge in effective interventions for the management of ADHD behaviour in the classroom, held inherent cultural beliefs that lead to serious misconceptions of students with ADHD behaviour (Harrison et al., 2016).

In searching literature further, it was revealed that efforts have been made by previous researchers to address the issue of teachers' knowledge and attitude. In fact, many of the studies have improved the qualities of teachers catering for the needs of children with ADHD. However, it is imperative to emphasise that despite their efforts, there are gaps that still need to be closed on the issue of ADHD. The need to enclose the gaps is important because it would enable the teachers to become aware of the issue of ADHD children and how to cater for them particularly in the geographical locations where efforts have not been made to address the issue of children with ADHD.

Consequently, there are dearth of studies on the issues of teachers' knowledge and attitude especially in Ogun State. This position is established because no literature was found to be centered on teachers' knowledge and attitude conducted in Ogun State. Hence, this necessitated the need for this study. The objectives of this study are to: Examine the level of pre-school teachers' knowledge of ADHD children in pre-schools, investigate the attitude of pre-school teachers towards ADHD children in pre-schools, establish whether there is significant difference in the pre-school teachers' knowledge of ADHD children based on their qualifications and establish whether there is significant difference in the pre-school teachers' attitude towards ADHD children based on their qualifications.

### **Research Questions**

The following research questions were answered in the study.

1. What is the level of preschool teachers' knowledge of ADHD children in preschools
2. What is the attitude of preschool teachers towards ADHD children in preschools

### **Research Hypotheses**

The following research hypotheses guided the study. They were tested at 0.05 level of significance.

Ho<sup>1</sup>: There is no significant difference in the pre-school teachers' knowledge of ADHD children based on qualifications in Owode Local Government Area of Ogun State.

Ho<sup>2</sup>: There is no significant difference in the pre-school teachers' attitude towards ADHD children based on qualifications in Owode Local Government Area of Ogun State.

### **Methodology**

The research design that was used for this study is descriptive design. The population of the study comprised all pre-school teachers in the study's geographical location. The total population of the teachers comprised one thousand eight hundred and seventy three (1,873). In all, one hundred and twenty (120) pre-primary schools' teachers were sampled for this study. Simple random sampling technique was used for selecting the schools. This sampling technique advocates equal chance of participants being involved in a study. The sample comprised pre-school teachers from private schools only. One research instrument titled "Teachers' Knowledge Test and Attitude to ADHD Children (TKTAAC) was used to collect data for the study. Content and face validity of the instrument

were established by research experts. Prior to the data collection phase, 20 copies of the instruments were administered to pre-school teachers in Shagamu Local Government Area of Ogun State who were not part of the targeted sample. Thereafter, they were subjected to reliability test through Cronbach's alpha technique and the Kuder-Richardson 20 formula, which yielded reliability coefficient and index of 0.83 and  $r = 0.77$  respectively. In the instrument, the knowledge aspect contained questions where the teachers were instructed to define ADHD children and itemise 10 characteristics of them. Their answers were marked and scored based on the scoring criteria that were decided by the researcher. While the second section contained ten items on the issue of teachers' attitudes towards ADHD children. The response types that were adopted were the Rensis 4-point Likert Scale of Strongly Disagree (SD), Disagree (D), Agree (A) and Strongly Agree (SA). It was rated 1, 2, 3, and 4. The data collection phase lasted for a period of 2 weeks. The data collected was analysed using both descriptive and inferential statistics. Descriptive statistics of frequency counts, percentages, mean and standard deviations were used to answer the research questions. To test the hypotheses, inferential statistics such as Analysis of Variance (ANOVA) was used.

## Results

Research Question 1: What is the level of preschool teachers' knowledge of ADHD children in Preschools in Owode Local Government Area?

Table 1: *Level of Preschool Teachers' Knowledge of ADHD Children in Preschools*

Questions	Score	Frequency	Percentage	Mean	Std. D.
1. Define Attention Deficit	0-10	36	30.0		
Hyperactivity Disorder children	11-20	36	30.0		
	21-30	24	20.0		
2. Itemise 10 characteristics of Attention Deficit Hyperactivity Disorder children	31-40	18	15.0	20.50	10.99
	41-50	6	5.0		
	51-60	0	0.0		
<b>Total</b>	<b>120</b>	<b>100.0</b>			

**Highest Mark Obtainable = 60**

**Decision Value: Low** ( $\bar{x} = 0.00-30.00$ ), **High** ( $\bar{x} = 31.00-60.00$ )

Table 1 shows the level of preschool teachers' knowledge of ADHD children in Preschools in Owode Local Government Area. The result from the table shows that, 30% of the teachers scored 0 to 10 in the knowledge test, again, 30% of them scored 11 to 20 in the test, 20% scored 21 to 30, 15% scored 31 to 40, and the remaining who constituted 5% of them scored 41-50 in the test. The table shows further that none of the teachers scored 51 to 60 in the test. The overall mean score of the teachers' knowledge is 20.50 with a standard deviation value of 10.99. Based on this result and in line with the decision value, it can be inferred that the level of preschool teachers' knowledge of ADHD children in Preschools in Owode Local Government Area is low.

**Research Question 2:** What is the attitude of preschool teachers towards ADHD children in preschools in Owode Local Government Area?

**Note on Decision Value:** Mean values of all the items in the table were added and divided by the number of items in the table. This gave the weighted average value of which 4.00 is the maximum value that can be obtained. The value of the weighted average that is between 0.00 and 2.44 was taken to stand for Negative being the lower half of the scale used approximately; while the one between 2.45 and 4.00 was taken to stand for Positive being the higher half of the scale.

**Table 2:** Attitude of Preschool Teachers Towards ADHD Children in Preschools.

<b>Attitude Items</b>	<b>Mean(<math>\bar{x}</math>)</b>	<b>Std. D.</b>
ADHD children are not like other normal children, so staying in class with them is irritating.	2.10	0.70
ADHD children are not supposed to be closed to other learners in the classroom.	2.15	0.81
I don't derive joy teaching ADHD children because they are very difficult to relate with.	2.35	0.73
Sometimes, teaching ADHD children is preferable because they are easy to correct and relate with.	2.28	0.96
In some cases, ADHD children are fantastic to be taught than other normal children.	2.10	0.87
I don't like teaching ADHD children in my classroom because teaching them is very strenuous.	2.15	0.81
ADHD children are like threat to me so, I don't want them around my classroom and anywhere around me.	2.00	1.00
ADHD children are so hypertensive and disruptive in the classroom so I hate them.	2.25	0.86
Teaching ADHD children is a waste of time, so I can't bother myself teaching them.	2.35	0.87
As a teacher, it is sometimes difficult to accomplish much in classroom because handling ADHD children is very tedious.	2.05	0.66
<b>Weighted average</b>	<b>2.18</b>	<b>N = 120</b>

**Positively worded items:** 1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly Agree

**Negatively worded items:** 4 = Strongly Agree, 3 = Agree, 2 = Disagree, 1 = Strongly Disagree,

**Decision Value:** *Negative Attitude* = 0.00-2.44, *Positive Attitude* = 2.45-4.00

Table 2 shows the attitude of pre-school teachers towards ADHD children in preschools in Owode Local Government Area. It shows that the respondents disagree to all the following items: ADHD children are not like other normal children, so staying in class with them is irritating ( $\bar{x}$  = 2.10), ADHD children are not supposed to be closed to other learners in the classroom ( $\bar{x}$  = 2.15), I don't derive joy teaching ADHD children because they are very difficult of relate with ( $\bar{x}$  = 2.35), sometimes, teaching ADHD children is preferable because they are easy to correct and relate with ( $\bar{x}$  = 2.28), in some cases, ADHD children are fantastic to be taught than other normal children ( $\bar{x}$  = 2.10), I don't like teaching ADHD children in my classroom because teaching them is very

strenuous ( $\bar{x} = 2.15$ ), ADHD children are like threat to me so, I don't want them around my classroom and anywhere around me ( $\bar{x} = 2.00$ ), ADHD children are so hypertensive and disruptive in the classroom so I hate them ( $\bar{x} = 2.25$ ), teaching ADHD children is a waste of time, so I can't bother myself teaching them ( $\bar{x} = 2.35$ ) and as a teacher, it is sometimes difficult to accomplish much in classroom because handling ADHD children is very tedious ( $\bar{x} = 2.05$ ). Meanwhile, based on the value of the weighted average (2.18 out of 4.00 maximum value that can be obtained), which falls within the decision value for negative, it can be inferred that the attitude of preschool teachers towards ADHD children in preschools in Owode Local Government Area is negative.

### Hypotheses Testing

**Ho<sup>1</sup>:** There is no significant difference in the pre-school teachers' knowledge of ADHD children base on qualifications.

**Table 3:** Descriptive Results of the Pre-school Teachers' Knowledge of ADHD Children.

Qualification	N	Mean	Std. Deviation
NCE	18	25.00	8.40
B.ED	30	22.00	12.29
PGDE	48	20.52	8.71
M.ED	24	21.25	11.63
<b>Total</b>	<b>120</b>	<b>21.71</b>	<b>10.26</b>

Table 3 shows the descriptive results of the pre-school teachers' knowledge of ADHD children based on their qualifications. The table shows that the teachers that had NCE certificate had mean score of 25.00 with standard deviation of 8.40, those who had B.Ed certificate had mean score of 22.00 with standard deviation of 12.29, those who had PGDE certificate had mean score of 20.52 with standard deviation of 8.71, while those with M.Ed certificate had mean score of 21.25 with standard deviation value of 11.63. The Analysis of Variance (ANOVA) Table 4, further presents the significant difference in the performance of the teachers.

**Table 4:** ANOVA Result of the Influence of Teachers' Qualifications on their Knowledge of ADHD Children.

Model	Sum of Squares	df	Mean Square	F	Sig.	Remark
Between Groups	270.31	3	90.10			
Within Groups	12254.48	116	105.64	.853	.468	Not Significant
<b>Total</b>	<b>944.640</b>	<b>119</b>				

Table 4 shows the ANOVA result of the influence of teachers' qualifications on their knowledge of ADHD Children. The table reveals that there is no significant difference in the pre-school teachers' knowledge of ADHD children based on their qualifications ( $F_{(3,116)} = .853$ ;  $p > 0.05$ ). Hence, the null hypothesis 1 was not rejected.

**Ho<sup>2</sup>:** There is no significant difference in the pre-school teachers' attitude towards ADHD children base on qualifications.

**Table 5:** Descriptive Results of the Pre-school teachers' Attitude towards ADHD Children.

Oualification	N	Mean	Std. Deviation
NCE	18	25.00	1.46
B.ED	30	28.41	1.48
PGDE	48	28.00	3.54
M.ED	24	26.75	1.11
<b>Total</b>	<b>120</b>	<b>2.72</b>	<b>.25</b>

Table 5 shows the descriptive results of the pre-school teachers' attitude towards ADHD children based on their qualifications. The table shows that the teachers that had NCE certificate had mean score of 25.00 with standard deviation of 1.46, those who had B.Ed certificate had mean score of 28.41 with standard deviation of 1.48, those who had PGDE certificate had mean score of 28.00 with standard deviation of 3.54, while those with M.Ed certificate had mean score of 26.75 with standard deviation value of 1.11. The Analysis of Variance (ANOVA) table below further presents the significant difference in the teachers' attitude towards the ADHD children.

Table 6: ANOVA Result of the Influence of teachers' qualifications on their Attitude towards ADHD Children

Model	Sum of Squares	df	Mean Square	F	Sig.	Remark
Between Groups	160.90	3	53.63			
Within Groups	713.534	115	6.21	8.644	.000	Significant
<b>Total</b>	<b>944.640</b>	<b>99</b>				

Table 6 shows the ANOVA result of the influence of teachers' qualifications on their attitude towards ADHD children. The table reveals that there is significant difference in the pre-school teachers' attitude towards ADHD children based on their qualifications ( $F_{(3,115)} = 8.644$ ;  $p < 0.05$ ). Hence, the null hypothesis 2 was rejected.

### Discussion of Findings

The first finding from the study revealed that the level of pre-school teachers' knowledge of ADHD children in Preschools in Owode Local Government Area is low. The reason for this finding could be attributed to the fact that the teachers covered are not experts in special education. Again, it could be that they did not take any special education related course during their course of study. This result corroborates the finding of Dessie et al. (2021) who found in their study in Ethiopia that the proportion of teachers' knowledge towards ADHD was low; in contrast, their attitude was relatively satisfactory. Again, the finding substantiates the joint result of Michelle, Brown and Minneapolis (2012) of a study conducted in Georgia and found that teachers' greatest area of knowledge dealt with identifying the symptoms/diagnosis of ADHD. Teachers had lower scores related to general knowledge and knowledge of treatments for the disorder. Similarly, this finding is in consonance with the result of Marsha et al. (2015) who found in their joint study that the total knowledge scores were low, again, postgraduate education and in-service training significantly improved knowledge scores as did having previously taught a child with ADHD.

The second finding from the study revealed that the attitude of preschool teachers towards ADHD children in preschools in Owode Local Government Area is negative. This reason for this negative attitude could be attributed to the fact that the teachers have not been receiving trainings on issues related to ADHD children and hence, they do not tend to exhibit positive attitude towards them. This finding contradicts the result of Marsha et al. (2015) who found in their joint study that

the attitudes of the teachers toward children with ADHD were generally positive although most teachers felt children with ADHD should be taught by specialist teachers. In same vein, this finding negates the joint result of Mohammed et al. (2018) who found that mean scores regarding ADHD knowledge, attitude, and classroom management technique were significantly higher after than before program with highly significant association between knowledge, attitude, and classroom management technique. Consequently, the result of Dessie et al. (202) which showed that elementary school teachers had good knowledge and a favorable attitude towards ADHD negated this finding. Finally, it is imperative to posit that the result of Geraldina, et al. (2019) disagreed with this finding that secondary school teachers had more positive attitude towards ADHD. While other teachers characteristics did not play a significant role.

### **Conclusion**

The overall teachers' knowledge about ADHD was low. Therefore, there is a need for teachers to become more educated about the condition and better equipped to deal with these children. In same vein, due to the negative attitude of the teachers towards them, there is no doubt that they will not have positive attitude towards them. As a result, many of these children would be frustrated and might not be able to go far in life.

### **Recommendations**

1. Training programmes, seminars or workshops should be organised by experts in the field of special education and early childhood education to train teachers on the importance of children with special needs particularly ADHD children identification and management strategies. This will help them learning maximally in classroom.
2. The teachers should also avail themselves the opportunities to attend trainings that are related to the issues of effective strategies of handling ADHD children. This is because there is virtually no classroom where these categories of children are not found. Hence, the trainings will enable them to become more efficient and competent in order to bring a desired change in the life of the learners and help them to acquire life skills.

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