

Knowledge and Attitudes towards Attention Deficit Hyperactivity Disorder among Primary School Teachers in Lagos State, Nigeria

Dr. Morayo Jimoh

Department of Psychology Education, University of South Africa, PO box 392 UNISA 0003, South Africa

Mobilehealthconsult2000@yahoo.co.uk

Abstract

Attention-Deficit/Hyperactivity Disorder (ADHD) has been described as a common childhood disorder affecting approximately 5% of primary school-aged children all over the world. This has led to studies on the knowledge of and attitudes of teachers towards Attention-Deficit/Hyperactivity Disorder (ADHD) in various countries among which are Australia and Unites States (Kos, 2004; DuPaul & Stoner, 2003; Kos, Richdale & Jackson, 2004). On the contrary, there seems to be a dearth of research on the knowledge of and attitudes of teachers towards Attention Deficit Hyperactivity Disorder (ADHD) among children in Nigeria. To this end, the study investigated primary school teachers' knowledge of and attitudes towards ADHD using two social psychological theories: Theories of Reasoned Action (TRA) and Theories of Planned Behaviour (TPB). Data were collected using a researcher developed questionnaire administered on two hundred and fifty (250) primary school teachers (125 males and 125 females) drawn from 20 primary schools in Lagos State of Nigeria. The analysis of data was done using the t-test and ANOVA. Findings revealed a deficiency in teachers' knowledge of as well as negative attitudes to pupils with ADHD among primary school teachers. It was also found that teachers' level of education, length of service and exposure to training on ADHD all have significant influence on the perceived knowledge of and attitudes to pupils with ADHD. Based on the findings, it was recommended that ADHD education should be made a compulsory part of teacher education curriculum in Nigeria.

Keywords: Knowledge, Attitudes, Attention Deficit Hyperactivity Disorder, Primary school teachers, Nigeria

1. Introduction

Attention deficit hyperactivity disorder (ADHD) has been described as 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 (Barkley, 1997). Estimates that at least one child with ADHD is present in every classroom (Barkley, 1990) are supported by a worldwide meta-analysis estimating that 5.3% of children and adolescents have a diagnosis of ADHD (Polanczyk, de Lima, Horta, Biederman, & Rohde, 2007).

ADHD is by definition a pervasive disorder that touches every aspect of the child's life. Attention Deficit Hyperactivity Disorder (ADHD) has long been seen as a prerequisite of significant learning difficulties (Strauss & Lehtinen, 1947). Affected children with their high incidence of other associated difficulties (including global and specific cognitive disabilities, problems of motor control, conduct and emotional disorders and social interactional difficulties) have a disorder that not only constitutes a personal 'handicap' but is particularly notable in causing secondary dysfunction in the child's educational, family and social domains. Furthermore, this condition if left undiagnosed and managed, can result in significant long term impairments across three primary settings: academic, social and occupational functioning (APA, 1994).

The diagnostic criteria for ADHD are defined in the Diagnostic and Statistical Manual of Mental Disorders-Fourth Edition-Text Revision (DSM-IV-TR) (APA, 1994). This manual regards ADHD as a behavioural Disorder that usually presents in childhood (American Psychiatric Association [APA], 1994). The disorder is characterised by three main features; inattention, hyperactivity, and impulsivity (APA, 1994). A child with inattentive symptoms might find it difficult to sustain attention, particularly when effort is required (APA, 1994). Furthermore, these difficulties appear to fluctuate, and may be dependent on the setting. Research has shown that children with attention problems are nevertheless able to sustain their attention on tasks that are novel and on those tasks that they enjoy.

Hyperactivity means that an individual is extremely overactive. Behaviours indicative of hyperactivity include having difficulty staying seated and being constantly on the go (APA, 1994). Whilst hyperactivity is not necessary for an ADHD diagnosis, it is commonly found in children diagnosed with the disorder. Impulsivity is closely related to overactivity, and although these two symptoms are regarded as separate features, they are currently diagnosed together. That is, children cannot be diagnosed with hyperactive problems only, but must also be diagnosed with impulsivity. Impulsivity may be exhibited by a child being impatient, blurting out answers before questions have fully been asked, interrupting others' conversations, not waiting for their turn in class or in

other play activities, and speaking without first considering the consequences of what they are about to say (APA, 1994).

Although each of these three symptoms (inattention, hyperactivity, impulsivity) are characteristic of ADHD, they do not all need to be present for a child to be diagnosed with the disorder (APA, 1994). For example, a child might be diagnosed with ADHD if he has severe inattention problems, and yet has no difficulties with overactivity or impulsivity. Similarly, a child with hyperactive/impulsive symptoms and no attention difficulties, might also be diagnosed with ADHD.

Conceptually, ADHD is a tautological disorder – children have ADHD because they exhibit a certain number of behaviours and they exhibit the behaviours because they have ADHD. Thus, ADHD literally defines itself – the symptoms are the syndrome. This tautology would not pose a serious problem if there were objective indicators of ADHD. However, because a diagnosis is based solely on a clinician's subjective judgement, it is difficult to differentiate ADHD from other disorders that bear a superficial resemblance to it.

2. The relationship between ADHD and Learning Difficulties

It has been shown that children with ADHD often experience a myriad of difficulties at school related to the core symptoms of the disorder, inattention, impulsivity, and overactivity (DuPaul & Stoner, 1994). In addition, or possibly as a result of ADHD-related problems, children with ADHD frequently experience lowered academic performance, are kept down, or are suspended or expelled from school (APA, 1994; Barkley, 1987). A child with ADHD may exhibit various behaviour problems within the classroom which are dependent on their ADHD symptom profile. For example, a child with inattentive symptoms might have difficulty following teacher instructions and rules, staying on task and completing set work. Whereas, a child experiencing impulsivity might call out in class without permission or talk with other students at inappropriate times. Finally, an overactive child might have problems staying seated, playing with objects not related to the set task (e.g., playing with a pencil when instructed to read silently), rocking in chairs, and repetitively tapping their hands or feet (DuPaul & Stoner, 1994). Most children with ADHD, however, exhibit behaviour problems related to at least two of these three core symptoms (APA, 1994). Educational psychologists therefore agree to a possible link between ADHD and specific learning difficulties. Many of the criteria for diagnosing ADHD (American Psychiatric Association, 1994) resemble those which may be applied to dyslexia like failing to pay close attention to details and make careless mistakes in school work, difficulty in organizing tasks and taking in what is said.

Given these behaviours, it is not surprising that these children have a lot of trouble at school (Barkley, 1987). The academic performance of children with ADHD is often compromised because of their difficulties with sustaining attention (DuPaul, 1995). Pupils with ADHD usually find it difficult to concentrate long enough to complete set tasks. Pupils' academic performance may further be impaired by an inherent tendency to be disorganised – to misplace books, stationary and other materials which they need to complete their school work (APA, 1994; DuPaul & Stoner, 1994). Moreover, being overactive and impulsive in the classroom can mean that the student with ADHD is not paying attention to the task at hand, and this may result in the child misunderstanding what is required to complete that task, and subsequent failure to satisfactorily complete it. ADHD-related behaviours are disruptive in the classroom, not only to teachers, but also to other students. This may be one of the reasons ADHD children have such a difficult time forming and maintaining friendships with peers. Luckily however, the behavioural difficulties observed in children with ADHD can often be reduced when novel and interesting tasks are presented, especially when the task are easy or repetitive (Green, 1995), and when the tasks are presented to the children at a level they understand (DuPaul & Stoner, 1994).

3. Teachers' Knowledge and Attitudes towards Pupils with ADHD

Research has suggested that teachers' attitudes and behaviour toward a student with ADHD can impact on other children's perceptions of that child (Hinshaw, 1994). Attitudes refer to the evaluation of people, events, objects, or issues as either favourable or unfavourable (Eagly & Chaiken, 1993). Stronger attitudes have greater influence on thought processes and behaviours; they are more durable and are more resistant to opposing viewpoints, compared with weaker attitudes, which tend to be changeable and inconsequential (Krosnick & Petty, 1995). Attitude strength dimensions include the extent of a person's knowledge about a topic (Wood, Rhodes, & Biek, 1995) and the extent of his or her prior experience with regard to the issue (Eagly & Chaiken, 1998; Fazio & Zanna, 1981). Knowledge refers to the extent of information about an issue that can be recalled. The greater the extent of people's knowledge and the more experience they have with an issue, the more information available to them to guide their evaluations and behavior and, thus, their attitudes are stronger (Eagly & Chaiken, 1998; Wood et al., 1995).

Behaviors associated with ADHD, such as inattention, impulsivity, and hyperactivity, are noticeable in classrooms because school settings require children to behave in ways that are at odds with the symptoms of the disorder (Kos, Richdale, & Hay, 2006; Salmelainen, 2002). Therefore, not surprisingly, many studies identify

teachers as the most frequent initial referral source by recommending to parents that their child receive assessment for ADHD (Snider, Busch, & Arrowood, 2003; Stroh, Frankenberger, Cornell-Swanson, Wood, & Pahl, 2008). Additionally, teachers' observations about the child's functioning in task-oriented and social situations are used in classification and treatment decisions (Vereb & DiPerna, 2004). Teachers are also often responsible for implementing and evaluating interventions for ADHD in the classroom (Ohan, Cormier, Hepp, Visser, & Strain, 2008; Vereb & DiPerna, 2004). Thus, teachers play central roles in reporting symptoms, advising parents to seek assessment, and assisting children with ADHD to achieve academically and socially.

ADHD most often presents in the early school years, and is quite pervasive across the education system, with an average of one child per classroom having the disorder (Barkley, 1998). The disorder is most commonly diagnosed in the first few years of school as children are expected to behave in ways that are contrary to the core symptoms of the disorder; such as staying seated, paying attention, and following teacher instructions (Barkley). Therefore, primary school teachers are very likely to be one of the first people to notice ADHD-related behaviours in children.

Researchers have argued that teachers' knowledge and attitudes regarding ADHD are likely to influence their roles and the subsequent behavioral and learning outcomes for children (Greene, 1995; Sherman, Rasmussen, & Baydala, 2008). Although there is little empirical work on the influence of teacher characteristics on child outcomes (Sherman et al., 2008), several authors explicate how teacher knowledge and attitudes may impact several important outcomes. For example, it has been suggested that teachers who lack knowledge about ADHD may overlook behaviors signifying a child in need of assistance (Ohan et al., 2008), and they may provide unreliable information to medical practitioners about the effects of medication (Kasten, Coury, & Heron, 1992). Similarly, it has been suggested that teachers' attitudes about ADHD may influence their selection of a teaching approach (Westwood, 1996), their willingness to implement interventions (Vereb & DiPerna, 2004), their chosen behavioral management strategies, and classmates' perception of the child with ADHD (Atkinson, Robinson, & Shute, 1997).

Given these links among teachers' knowledge, attitudes, and roles, it is important to systematically examine teachers' knowledge and attitudes regarding ADHD. To this end, the study investigated the knowledge of and attitudes of primary school teachers towards ADHD using two social psychological theories: Theories of Reasoned Action (TRA) and Theories of Planned Behaviour (TPB)

3.1 Theories of Reasoned Action (TRA)

The TRA states that the performance of a behaviour is determined by three major constructs; intention, attitude, and subjective norm (Ajzen & Fishbein, 1980). Intention is an indicator of how hard a person is willing to try and how much of an effort they are willing to exert to perform a particular behaviour (Ajzen, 1991a). An individual's intention to perform a given behaviour is seen as the immediate determinant of the individual performing that behaviour (Ajzen & Fishbein), and a person will usually act in accordance with their intentions (Ajzen, 1991b; Ajzen & Fishbein). The attitude factor refers to an individual's positive or negative evaluation of performing the behaviour (Ajzen & Fishbein; Manstead & Parker, 1995) – it does not assess attitude toward the object *per se*, but rather, attitude toward the performance of a particular behaviour (Eagly & Chaiken, 1993). The subjective norm factor refers to an individual's perception of the social pressures put on them to perform or not perform a particular behaviour (Ajzen & Fishbein; Manstead & Parker). That is, do others think I should or should not perform that behaviour? Overall, according to the TRA, individuals will intend to perform, and subsequently perform, a given behaviour when they evaluate it positively (ie, have a positive attitude toward it) and when they believe that people that are important to them think they should perform it (Ajzen & Fishbein; Armitage & Conner, 1999).

3.2 Theories of Planned Behaviour (TPB)

The TPB was developed to extend the TRA to include an assessment of perceived control (Ajzen, 2001, 1985; see Figure 2). Perceived behavioural control refers to a subjective assessment regarding the degree of ease or difficulty of performing the behaviour in question. This predictor does not measure the *actual* control an individual has over performing a given behaviour, but rather measures one's subjective belief regarding their control over performing that behaviour (Ajzen, 2001, 1996, 1991a, 1991b, 1985). Perceived behavioural control may be linked to both intention and behaviour (see Figure 2). The theory assumes that perceived behavioural control is directly linked to intention, over and above the influence of attitude and subjective norm. Conceptually, if an individual believes they have little control over the performance of a particular behaviour, yet have a favourable attitude and subjective norm toward performing that behaviour, they are unlikely to form a strong intention to perform the behaviour (Ajzen, 1991a).

4. Statement of the Problem

Although several studies highlight the knowledge of and attitudes of teachers towards Attention-Deficit/Hyperactivity Disorder (ADHD) in various countries among which are Australia and Unites States (Kos, 2004; DuPaul & Stoner, 2003; Kos, Richdale & Jackson, 2004), there is a dearth of such research study in Nigeria. This is contrary to the demands of "Education For All" (EFA), having established that Attention deficit hyperactivity disorder (ADHD) is one of the most common childhood mental health disorders affecting approximately primary school-aged children all over the world. Therefore, an investigation into primary school teachers' knowledge of and attitudes towards ADHD in Lagos, Nigeria is an imperative.

5. Objectives of the Study

The main objective of the study was to assess the knowledge and attitudes of primary school teachers in Lagos state towards attention deficit hyperactivity disorder. Other specific objectives were:

1. To find out if age influences perceived primary school teachers knowledge of and attitudes towards pupils with ADHD.
2. To ascertain whether teachers' knowledge of and attitudes towards pupils with ADHD will be different across gender.
3. To investigate if level of education influences primary school teachers' knowledge of and attitudes towards pupils with ADHD.
4. To examine the extent to which primary school teachers' knowledge of and attitudes towards pupils with ADHD is dependent on their years of experience on the job.
5. To verify if teachers with exposure to training on ADHD differ from those without exposure to training in their perceived knowledge and attitude towards pupils with ADHD.

6. Research Questions

Based on the objectives of the study, the following research questions were raised:

1. Is there is a significant relationship between knowledge of and attitudes towards attention deficit hyperactivity disorder among primary school teachers?
2. Does age significantly influence perceived primary school teachers' knowledge of and attitudes towards pupils with ADHD?
3. Do teachers' knowledge of and attitudes towards pupils with ADHD significantly different across gender?
4. Does level of education significantly influence primary school teachers' knowledge of and attitudes towards pupils with ADHD?
5. Do primary school teachers' knowledge of and attitudes towards pupils with ADHD significantly depend on their years of experience on the job?
6. Does primary school teachers' exposure to training on ADHD influence their perceived knowledge and attitude towards pupils with ADHD?

7. Hypotheses

The following hypotheses were generated to guide the study:

1. There is no significant relationship between knowledge of and attitudes towards attention deficit hyperactivity disorder among primary school teachers.
2. Age does not significantly influence perceived primary school teachers knowledge of and attitudes towards pupils with ADHD.
3. Teachers' knowledge of and attitudes towards pupils with ADHD will not be significantly different across gender.
4. Level of education will not significantly influence primary school teachers' knowledge of and attitudes towards pupils with ADHD.
5. Primary school teachers knowledge of and attitudes towards pupils with ADHD will not significantly depend on their years of experience on the job.
6. Primary school teachers' exposure to training on ADHD will not significantly influence their perceived knowledge and attitude towards pupils with ADHD.

8. Methodology

The survey research design was used for the study. The population of this study comprised primary school teachers in Lagos State. The sample consisted of a total of two hundred and fifty (250) respondents (125 males and 125 females) comprising teachers who were randomly selected from across twenty (20) schools (10 public and 10 private) in the state. The respondents were between the ages of 20 and 60 years.

The instrument for the study, was a researcher developed questionnaire with three sections: A, B, and C. Section A consisted of items soliciting biographical information.; Section B comprised 20 items measuring teachers' knowledge of ADHD; and Section C was also a 20 item questionnaire on attitude towards pupils with ADHD.

Experts in the area of psychological testing validated the research instrument. The reliability of the instrument, which was found to be 0.75, was obtained through the test re-test method. The instrument was then administered on the sample and the findings are presented in tables 1-6 below.

9. Findings

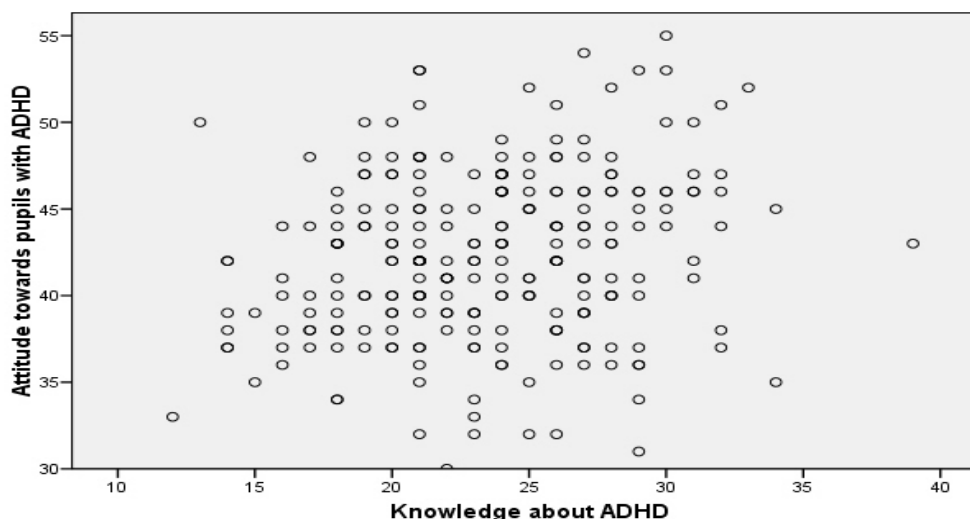
Hypothesis 1: *There is no significant relationship between knowledge and attitudes*

Table 1: Pearson Product Moment Correlation Coefficient analysis of the relationship between knowledge and attitude towards ADHD

	N	df	Mean	SD	r-cal	r-crit
Knowledge about ADHD	250	248	23.44	4.628	.213**	.148
Attitude towards pupils with ADHD	250	248	42.26	4.790		

The table above shows that at .01 level of significance, there is a low but positive significant relationship between knowledge about ADHD and attitude towards ADHD pupils.

Scatter Plot showing relationship between Knowledge and Attitude towards Pupils with ADHD



Hypothesis 2: *Age does not significantly influence perceived primary school teachers knowledge and attitude towards pupils with ADHD.*

Table 2: One way analysis of variance of knowledge and attitude towards ADHD based on age

		Sum of Squares	df	Mean Square	F-cal	F-crit	Sig.
Knowledge towards ADHD	Between Groups	508.343	7	72.620	3.642	2.03	.001
	Within Groups	4825.373	242	19.940			
	Total	5333.716	249				
Attitude towards ADHD	Between Groups	165.791	7	23.684	1.033	2.03	.408
	Within Groups	5547.825	242	22.925			
	Total	5713.616	249				

The result shows that at .05 level of significance, the observed differences between the groups are significant for knowledge about ADHD and non-significant for attitude towards pupils with ADHD (P<.05)

Hypothesis 3: *Teachers' knowledge of and attitude towards pupils with ADHD will not be significantly different across gender.*

Table 3: Independent T-Test Analysis of Gender differences in Primary School Teachers' knowledge and Attitudes towards pupils with ADHD

	Gender	N	Mean	Std. Deviation	Df	T-cal	T-crit	Sig.
Knowledge towards ADHD	Male	125	22.84	4.729	248	-2.077	1.96	.039
	Female	125	24.05	4.463				
Attitude towards ADHD	Male	125	42.62	4.882	248	1.216	1.96	.225
	Female	125	41.89	4.687				

The above shows that there are significant gender differences in knowledge but not in attitude towards ADHD at the .05 level of significant ($P > .05$).

Hypothesis 4: *Level of education will not significantly influence primary school teachers' knowledge and attitudes towards pupils with ADHD*

Table 4: One way analysis of variance of all participants on measures of knowledge and attitude towards pupils with ADHD based on level of education

		Sum of Squares	Df	Mean Square	F-cal	F-crit	Sig.
Knowledge towards ADHD	Between Groups	200.044	3	66.681	3.195	2.62	.024
	Within Groups	5133.672	246	20.869			
	Total	5333.716	249				
Attitude towards ADHD	Between Groups	289.702	3	96.567	4.380	2.62	.005
	Within Groups	5423.914	246	22.048			
	Total	5713.616	249				

The findings above show that at the .05 level of significance, the observed differences in level of education of primary school teachers knowledge and attitude towards ADHD is significant ($P < .05$)

Hypothesis 5: *Primary school teachers knowledge and attitude towards pupils with ADHD will not significantly depend on their years of experience on the job.*

Table 5: One way analysis of variance of all participants on measures of knowledge and attitude towards ADHD based on length of service

		Sum of df	Mean Square	F-cal	F-crit	Sig.	
Knowledge towards ADHD	Between Groups	391.209	5	78.242	3.863	2.23	.002
	Within Groups	4942.507	244	20.256			
	Total	5333.716	249				
Attitude towards ADHD	Between Groups	80.499	5	16.100	.697	2.23	.626
	Within Groups	5633.117	244	23.087			
	Total	5713.616	249				

At the .05 level of significance, length of service significantly influences primary school teachers knowledge about ADHD but does not influence their attitude towards pupils with ADHD

Hypothesis 6: *Primary school teachers' exposure to training on ADHD will not significantly influence their perceived knowledge and attitude towards pupils with ADHD.*

Table 6: Table showing Independent T-test of all participants based on Level of exposure/ training

	Seminar on ADHD	N	Mean	Std. Deviation	T-cal	F.crit	Sig
Knowledge towards ADHD	Yes	87	23.01	4.910	-1.080	1.96	.450
	No	163	23.67	4.469			
Attitude towards ADHD	Yes	87	42.23	4.910	-.063	1.96	.745
	No	163	42.27	4.740			

Exposure to training does not significantly influence knowledge and attitude towards ADHD at the .05 level of significance

9.1 Discussion of Findings

The first research hypothesis this study investigated was: There is no significant relationship between knowledge and attitudes of teachers towards children with ADHD. From the results in Table 1, the calculated value (.213) is lower than the table value of 1.96 and shows that there is a low but significant positive relationship between knowledge and attitude of primary school teachers towards pupils with ADHD. This finding supports the assertion of Ohan et al. (2008) who examined how knowledge predicts different aspects of attitudes and behavior. They found that teachers with average to high knowledge of ADHD reported more helpful behaviours toward children with ADHD and held more favourable beliefs about interventions than did teachers with low knowledge. It also supports the findings of Kasten, Coury and Heron (1992) who believe that teachers that lack knowledge about ADHD may overlook behaviours signifying a child in need of assistance and they may provide unreliable information to medical practitioners about the effects of medication

The second research hypothesis this study investigated was: Age does not significantly influence perceived primary school teachers knowledge and attitude towards pupils with ADHD. From the results in Table 2, the One way analysis of variance with the table value of 2.03 reveals that age significantly influences primary school teachers knowledge about ADHD (3.64) but not their attitude (1.03) towards pupils with ADHD. The finding of this study supports that of Kos (2008) who asserted that age was not related to perceived or actual knowledge of ADHD.

The third research hypothesis this study investigated was: Teachers' knowledge of and attitude towards pupils with ADHD will not be significantly different across gender. From the results in Table 3, the Independent T-Test Analysis with a table value of 1.96 reveals that there are significant gender differences in knowledge (-2.077) but not in attitude (1.216) towards ADHD. The finding of this study contradicts that of Shetty (2012) who found that socio-demographic characteristics of teachers did not have significant influence over their knowledge of ADHD.

The fourth research hypothesis this study investigated was: Level of education will not significantly influence primary school teachers' knowledge and attitudes towards pupils with ADHD. From the results in Table 4, the One way analysis of variance with a table value of 2.62 reveals that Level of education significantly influences primary school teachers' knowledge of and attitude towards ADHD with the values of 3.195 and 4.380 respectively. The finding of this study contradicts that of Shetty (2012) who found that academic qualification of teachers did not have significant influence over their knowledge of ADHD.

The fifth research hypothesis this study investigated was: Primary school teachers' knowledge and attitude towards pupils with ADHD will not significantly depend on their years of experience on the job. From the results in Table 5, the One way analysis of variance with a table value of 2.23 reveals that Length of service significantly influences primary school teachers' knowledge of ADHD (3.863) but not their attitudes towards pupils with ADHD (.679). This result supports the finding of Kos et al. (2004) which suggested that knowledge of ADHD develops after teachers gain classroom experience rather than during their university education. Classroom experience may evoke greater knowledge of ADHD due to contact with children who have ADHD, in-service training on ADHD, and information gained from parents, other teachers, or personal study.

The sixth research hypothesis this study investigated was: Primary school teachers' exposure to training on ADHD will not significantly influence their perceived knowledge and attitude towards pupils with ADHD. From the results in Table 6, the Independent T-test with a table value of 1.96 reveals that exposure to training does not significantly influence knowledge and attitude towards ADHD with the calculated values of -1.080 and -.063 respectively. This result contradicts that of Shetty (2012) whose research showed that a school visit by a mental health team member and teachers' exposure to presentations and workshops on children's behavioural disorders had a strong positive correlation with teachers' acceptable/helpful attitudes and practices. It also contradicts that

of Kos, (2001, 2008) who found that additional training, significantly predicted teachers' actual knowledge about ADHD.

10. Conclusion

Given the inevitability of finding children with ADHD in virtually every classroom, this study has investigated the knowledge of and attitude towards ADHD exhibited by teachers who play central roles in teaching children with ADHD. This study has been able to identify a low but significant positive relationship between knowledge and attitude of primary school teachers toward pupils with ADHD, significant influence of age on primary school teachers knowledge about ADHD but not their attitude towards pupils with ADHD, significant gender differences in knowledge but not in attitude towards ADHD, significant influence of level of education on primary school teachers' knowledge of and attitude towards ADHD, significant influence of length of service on primary school teachers' knowledge of ADHD but not their attitudes towards pupils with ADHD a lack of influence on knowledge and attitude towards ADHD by exposure to training.

11. Recommendations

Based on the findings of the study, the following recommendations are made:

- Further studies of the determinants of knowledge and attitudes of teachers using more representative samples.
- A practical and useful course in adolescent and mental health needs to be a part of the curriculum of Teachers' Training Institutions in Nigeria. .

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