DEMOGRAPHIC PREDICTORS OF SCHOOL TEACHERS KNOWLEDGE REGARDING ATTENTION DEFICIT HYPERACTIVITY DISORDERS AMONG PRIMARY SCHOOL PUPILS IN EKITI STATE

BY

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CERTIFICATION

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DECLARATION

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26/02/2019

Date

DEDICATION

This project work is dedicated to God Almighty, My Creator and King. In Him I can Depend without Him, I am nothing. I also dedicate this research work to my wonderful and darling parents, Mr. & Mrs Adeleke

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My profound gratitude goes to God Almighty for giving me the privilege of being alive till today and also rendering me with the Guardians and assistance to conduct this project successfully. Glory, honour and adoration are to His holy name.

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TABLE OF CONTENTS

LIST OF ABBREVIATIONS

ADHD	Attention Deficit Hyperactivity Disorders
CD	Conduct Disorders
DSM	Diagnostic Statistical Manual Of Mental Disorders
DSM-IV	Diagnostic Statistical manual of mental Disorders 4th edition
GPA	Grade Point Average
ICD-10	International Classification of Diseases 10th Revision
IQ	Intelligent Quotient
(LAMIC)	Low And Middle Income Country
LGA	Local Government Area
LMIC	Low Middle Income Country
ODD	Oppositional Defiant Disorders
SES	Social Economic Status
WHO	World Health Organization

LIST OF TABLES

ABSTRACT

There is a huge gap in the provision of mental health services for children in Nigeria primary schools, where majority of children in the community have access to get a basic primary school education under the care of the teachers. Information on the knowledge and attitude of teachers working in these settings could aid effective policy formulation and planning of interventions. Thus this study was designed to assess the knowledge and attitude of primary school teachers regarding Attention Deficit Hyperactivity Disorder among primary school children in Ekiti state Nigeria. This study investigated the knowledge of and attitudes towards Attention Deficit Hyperactivity Disorder among primary school teachers in Ekiti state. The study adopted a cross-sectional research design. A total of 107 teachers were sampled using a multi-stage sampling technique in the study. These participants were administered with the K-Attention Deficit Disorder Scale together with demographic information. The result showed that age has no significant influence on knowledge of and attitudes towards ADHD [F (2, 104) = 1.331, P > .05]. Gender has no significant influence on knowledge of and attitudes towards ADHD (t = .238; df = 105; p > .05) while Teaching experience has no significant influence on knowledge of and attitudes towards ADHD (t = -.135; df = 102; p > .05). Teachers prior training have a significant influence on knowledge of and attitudes towards ADHD (t = 2.392; df = 105; p < .05). The data were analysed using descriptive, and one- way Analysis of Variance statistical method. Based on findings, it was concluded that age, gender and years of teaching experience has no influence on knowledge and attitudes of teachers towards children with ADHD, while training has an influence on knowledge of and attitudes towards ADHD. Training teachers more is needed to improve their knowledge to be able to identify recognize and refer these children with ADHD when needed.

Keywords: Knowledge, attitudes, teachers, primary school, age, gender, training, experience, Ekiti state.

Word Count: 323

CHAPTER ONE

INTRODUCTION

1.1. Background to the study.

Attention deficit hyperactive disorder (ADHD) is reportedly the most pervasive and debilitating disorder of childhood affecting approximately 3% to 5% of school-aged children with prevalence rates increasing significantly over the past two decades (Pastor & Reuben, 2008; Timmi & Radcliffe, 2005). Children with ADHD experience symptoms of inattention, hyperactivity, or impulsivity above and beyond what is developmentally appropriate. While it is often first diagnosed in childhood, many children with ADHD demonstrate symptoms that persist into adolescence and adulthood (Langley, Fowler ,Ford ,Thapar ,Van den Bree, & Harold 2010). Attention deficit hyperactive disorder (ADHD) is how ever one of the common childhood neuro-developmental disorders which are often associated with disturbed classroom behaviour and one of the most frequent reasons for referral to school psychologists (Timmi & Radcliffe ,2010). The inattention, impulsivity and hyperactivity which are common symptoms of ADHD are often evident in classroom, placing teachers in a unique position to identify and refer such students for further assessment (Hetty, 2012). Despite this claim, studies (Vereb & DiPerna, 2004) have been able to found out that teachers have limited and inaccurate knowledge about ADHD and often provide misleading and inappropriate information about the condition to parents (Kos 2001).

Educators must be adequately prepared to teach adolescents and to meet the individual needs of all students (wolf & Mashe 2010). The work of the teacher becomes more demanding when some learners have Attention Deficit Hyperactivity Disorder (ADHD), as their troubles with attention span, managing their impulses, and activity level often obstruct classroom activities (DuPaul & Stoner, 2003). Children spend most of their time in classrooms and other

school settings where they are expected to follow rules, act in socially proper ways, participate in academic activities, and not interrupt the learning development or activities of others (Kleynhans, 2005). Finding from previous studies (Pastor & Rueben, 2008) in Nigeria and other developing countries indicate that teachers have limited knowledge of ADHD (Heety ,2008).Research has shown that teachers attitude and behaviour towards a child with ADHD can impact other children's perception of that child (Hinshaw, 1994). Attitudes 0n ADHD refer to the evaluation of people, events, objects, or issues as either favourable or unfavourable (Eagly&Chiaken, 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 (Krosnik& Petty,1995). Attitude on ADHD 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.

Children who demonstrate ADHD symptoms are often referred for assessment during elementary school years (Sherman, Rasmussen & Baydala, 2008). Indicators of ADHD in the classroom include a child's inability to perform when asked to engage in activities such as paying attention, following instructions, and staying seated in a controlled classroom environment, that contradict the main character of the disorder (Barkley, 1998). Many teachers recognize the main characteristics of ADHD, especially the key symptoms of ADHD (Lawson, 2004),Teachers recognize, for example, that children with ADHD are restless (Kleynhans, 2005). Some studies have shown that ADHD training is not part of teachers' initial training (Holz, & Lessing, 2002; Jerome, Gordon, & Hustler, 1994). For that reason, teachers often learn about ADHD through actual classroom experiences of teaching students who have confirmed diagnoses (Kleynhans, 2005). ADHD can have wide-ranging effects on the lives of the children with the disorder (Wolfe, & Mash, 2006). Children with ADHD often

have severe problems in many areas of performance, including educational success and interaction with peers (Wolfe & Mash, 2006). ADHD often coexists with other troublesome behavioural disorders, including oppositional defiant disorder (Wolfe & Mash, 2006). A small number of studies (Kleynhans ,2005) have measured teachers' knowledge and perceptions of ADHD in the middle schools (Richdale, &Jackson, 2004). Teachers are influential in the diagnosis of ADHD because of their daily contact with students in a range of pertinent situations (Pelham & Evans, 1992). Teachers tend to initiate requests for ADHD assessments for Children. (Lawson, 2004).

Many ADHD symptoms such as high activity levels, difficulty remaining still for long periods of time and limited attention spans, are common to young children in general (Chronis, Jones, & Rahi, 2006). The difference in children with ADHD is that their hyperactivity and inattention are noticeably greater than expected for their age and cause distress and/or problems functioning at home, at school or with friends (Barkley, 1998). ADHD is diagnosed as one of three types: inattentive type, hyperactive/impulse type or combined type (Holinz, & Lessin, 2002). A diagnosis is based on the symptoms that have occurred over the past six months and it is a mental disorder of the neurodevelopment type (Kleynhans, 2005). (American Psychological Association (2000) characterized ADHD as problems paying attention, excessive activity, or difficulty controlling behaviours which is not appropriate for a child's age (Barkley , 2000). The symptoms appear before a child is six years old, present for more than six months, and cause problems in at least two settings (such as school, home, or recreational activities) (Biederman, & Faraone, (1990). In children, problems paying attention may result in poor school performance, which causes impairment, particularly in modern society, many children with ADHD have a good attention span for tasks they find interesting (Harvard Mental Health Letter, 2002). Research has suggested that teachers'

attitudes and behaviour toward a child with ADHD can impact on other perceptions of that child (Hinshaw, 1994).

Attitude is refer to the evaluation of people, events, objects, or issues as either favourable or unfavourable (Eagly & Chaiken, 1993). Stronger attitudes have more greater influence on thought processes and behaviors; they are more durable, 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 behaviour and, thus, their attitudes are stronger (Eagly & Chaiken,1998; Wood ,1995).

1.2 STATEMENT OF PROBLEM

ADHD can have a wide ranging effects on the lives of the people with the disorder. Adolescent with ADHD often have severe problem in many areas of their performance, including educational problem and interaction with peer (Wolfe &Mash,2006) ADHD does not only affect children performance in school, but it also goes a long way in impairing social relationships with others and overreacts to situations. Issues such as inattention and hyperactivity/impulsivity may impact a child's classroom conduct and his or her capability to learn resulting in lower academic success and diminished performance in the school surroundings (Chronis, Jones, & Raggi, 2006). Teachers have to differentiate for learners that have special needs. Knowledge of this disorder is crucially important in applying useful interventions (Miranda, Presentation, & Soriano,2002). However, crucial efforts can be put to

place by the society to enhance understanding and knowledge of teachers towards ADHD and also promoting better positive attitudes in manifesting good social relationship of ADHD children and foster their acceptance without any social exclusion from the society.

Assessment of teacher's knowledge of ADHD, identifying area of strength, weaknesses, inaccurate believe, and exploring possible links to teachers' characteristics could notify and improve future policies and interventions aimed at understanding, assisting and supporting children with ADHD and their teachers. Furthermore, teachers need to improve their knowledge of ADHD and regulate their attitudes towards it which could help for better performance at school, not only academically but also socially and could improve children's and treatment decision making it is imperative that teachers should have a sound background of the knowledge and nature of ADHD so as to make appropriate referrals to be involved in the interventions in several context and be able to restructure learning environment and needs for children with the disorder

Although, several studies highlight the knowledge of and attitudes of teachers towards attention deficit hyperactive disorder (ADHD) in various countries among which are Australia and United States (Kos, 2004; DuPaul & Stoner, 2003; Kos, Richdale & Jackson, 2004), there is a limited rate of such research study in Nigeria. This is contrary to the demands of "Education For All" (EFA) having established that attention deficit hyperactive disorder (ADHD) is one of the most common childhood mental health disorders affecting approximately primary school-aged children all over the world.

Therefore, this research tends to answer the following questions:

Research questions

- Does age have an influence on perceived teachers knowledge and attitudes towards ADHD?
- Are there gender differences on teachers' knowledge and attitudes towards pupils with ADHD?
- Does a relationship exist between teachers' knowledge of ADHD, prior training and experience with ADHD?
- Does years of experience on the job differ across each other on teachers' knowledge and attitudes towards pupils with ADHD?
- Do teachers with exposure to training on ADHD different from those without exposure to training in their perceived knowledge and attitudes towards pupils with ADHD?

1.3. Objectives of study

The main aim of this study is accessing and identifying the level of teacher's knowledge and attitudes towards ADHD among pupils in selected primary schools in Ekiti state. Therefore, the other specific objectives are.

I. To examine the influence of age on primary school teacher's knowledge of and attitudes towards ADHD.

II. To determine if teacher's knowledge and attitudes towards pupils with ADHD will be different across gender.

III. To investigate if prior training and experience with ADHD in children have an impact on their level of knowledge regarding ADHD

IV. To examine the level to which teachers' knowledge and attitudes towards pupils with ADHD is dependent on their years of experience on the job.

V. To verify if teachers with exposure to training on ADHD will differ from those without any exposure to training in their perceived knowledge and attitudes towards pupils with ADHD.

1.4. **Significance of research**

In its widest sense, the outcome of this research study will add to the body of knowledge in the prose of the assessment of teachers' knowledge and attitudes towards pupils with ADHD in Ekiti state. Its usefulness will aid clinical psychologists in their understanding of hyperactive disorder and assessing measures to be adopted in promoting good social acceptance of children with ADHD. This study will also make psychologist or medical practitioner possess thorough information from school personnel to assist in making a diagnosis of ADHD also broadening and enlightening teacher's perspective of the disorder. Also, this research work will ensure that teachers have accurate knowledge with which they can effectively participate in the process of the assessment and treatment decision making for children with ADHD.

CHAPTER TWO

LITERATURE REVIEW

2.1 Theoretical Framework

The following theories were used in explaining the variables used in this research study.

2.1.1 DYNAMIC DEVELOPMENTAL THEORY

At the basis of the dynamic developmental theory, put forward by Sagvolden, Johansen, Aase and Russell is a model of dysfunctional dopamine systems in the brain. Three hypo-functioning dopamine system branches and their behavioural consequences, representing the core symptoms of ADHD, are outlined (Biederman, Milberer , Farone ,Mick ,1995). These compromised properties result from a combination of intrinsic (genetic) and extrinsic (e.g., drugs and toxins) influences on the developing brain (Alquahtani, 2010). The altered neurobiological disposition gives rise to two main behavioural processes causing ADHD: altered reinforcement of novel behaviour and deficient extinction of previously reinforced behaviour (Dwyer,2006).

According to the theory, ADHD symptoms are a product of a dynamic process of the individual's adaptation to defective neurotransmission. The authors have construed a coherent account spanning from biochemistry, via behaviour, to a reciprocal interplay between the affected child and his/her biosocial environment (Candler, & Sweller,1991). The theory predicts that ADHD behaviour results from, and is continuously modified by, the dynamic context of individual predispositions and interpersonal surroundings well into adulthood. And in the case of many adults, the individual predispositions come to form the interpersonal surroundings of another individual who is their child. The individual predispositions are primarily guided by genes (Mayer, 2003). However, the interplay also starts early, going back (at least) to the intrauterine life (Grossman, Hasler, 2003). By the time the child's behaviour reaches the level of abnormality qualifying for ADHD, years of active interaction have taken

place. And yet, as Sagvolden et al. note, not all children presenting with the core symptoms of ADHD get identified as maladjusted. This is because the environment has been unusually insightful and supportive in guiding the child's excessive and disorganised activity into constructive creativity (Caron & Rutter, 1991).

The individual ADHD symptoms at different times in a person's life vary and are influenced by factors exerting either a positive or negative, effect (DeLeeuw, & Mayer, 2008). In other words, the environment can either protect from maladjustment, or predispose to it. Crucial here is the caregiver's ability to adjust the environment to the child's needs for optimal development of adaptive skills (Hasler, Kersten, & Sweller,2007). The resulting behavioural style, in turn, determines the long-term consequences of the early interactions (Hinshaw ,Lahey ,Hart ,1993). The theory predicts that a child with ADHD finds it hard learning how to match their behaviour to the demands of a given situation. Consequently, there will be few chances for the child to be rewarded for compliant behaviour. Instead, the resulting chaotic behavioural style will only magnify the negative interactions with carers. For optimal upbringing, the caregivers have to adapt to the child's special needs by taking into account the implications of the underlying deficits and adjust their expectations and demands accordingly (Mayer ,2008). As the authors spell out, "a child with ADHD requires exceptional parenting skills however, there are too few such resourceful parents to go around; and their availability to children suffering from the problems of ADHD is even more restricted. This is because about one in five of these parents themselves have ADHD, some with added complications of depression, personality disorder, learning disability, or substance abuse (Taylor ,1994).. Parents with such problems of their own will have even greater difficulty coping with their child's special needs (Lesesne, Abramowitz, Perou & Brann 2006). A child with ADHD growing up in these circumstances is at high risk for additional emotional and behaviour problems. with their likelihood further increased by low social class, parental

psychopathology, and family conflict (Biederman, Mick, Faraone, Braaten, Doyle & Spencer 2002). To elucidate the risk mechanisms involved, the authors juxtapose predictions from their theory with those of the coercion theory of antisocial behaviour disorder by (Patterson 1982).

According to Patterson, child non-compliance develops through a circular process of negative reinforcement between child and parent. (Sagvolden, Wultz, Moser, Moser, & Morkrid, 1989) argue that such coercive child behaviour, once established, is especially hard to extinguish in children with ADHD and often ADHD parents' because it is a highly familiar disorder, ADHD also means that the same parents provide the genes and the environment. Parental ADHD, as a result of its core symptoms and/or co-morbidities, is associated with disruptive family environment and suboptimal parenting practices that often are resistant to modification (Chronis et al. 2004; Sonuga-Barke et al. 2002). ADHD in fathers, for example, predicts higher levels of family disruption as a consequence of parental desertion and custodial sentences for impulsive behaviour (Minde et al. 2003). The already demanding tasks of childrearing place a parent with ADHD at considerable disadvantage: Maintaining patience and emotional responsiveness towards the child, providing attentive supervision, and organising domestic duties and childcare frequently present the parent with an unmanageable challenge. Also, extrapolating from the proposed theory, a parent with ADHD will find it hard to emotionally disengage amidst a child's temper tantrum, but will easily end up contributing to its escalation, instead (Wilcut, 2012).

These parenting styles bear resemblance to those observed in studies of depressed mothers (Bakare, 2012). For example, a recent longitudinal study involving detailed observations of the interaction between postnatal depressed mothers and their infants revealed a striking pattern of "coercive caretaking", a phenomenon hardly ever seen in mothers who were not depressed (Murray & Bush. 1996). This pattern of early interaction had long-lasting connections, predicting disruptive behaviour at least to age 8 (Morrell & Murray 2003). Thus,

there is a particular reason to pay attention to ADHD in girls in whom the problems are often overlooked until teenage years, or entirely missed. Compared with boys with similar levels of ADHD, girls are at a higher risk for anxiety, depression, and poor psychosocial functioning (Rucklidge & Tannock 2001). If ignored, these problems are likely to continue into adulthood and will determine the future style of parenting of children probably sharing the mother's ADHD genes (Stroh, Frankenberer, Cornell. Swanson,Wood, & Pahl, 2008).

2.1.2. COGNITIVE THEORY OF MULTIMEDIA LEARNING

The principle known as the "multimedia principle" states that "people learn more deeply from words and pictures than from words alone" (Mayer, 2003). However, simply adding words to pictures is not an effective way to achieve multimedia learning. The goal is to instructional media in the light of how human mind works (Ambuabunos, Ofovwe, & Ibadin, 2011). This is the basis for Mayer's cognitive theory of multimedia learning. This theory proposes three main assumptions when it comes to learning with multimedia:

- There are two separate channels (auditory and visual) for processing information (sometimes referred to as Dual-Coding theory);
- Each channel has a limited (finite) capacity (similar to Sweller's notion of Cognitive Load);
- Learning is an active process of filtering, selecting, organizing, and integrating information based upon prior knowledge.

Humans can only process a finite amount of information in a channel at a time, and they make sense of incoming information by actively creating mental representations (Aqahtani, 2010). Mayer also discusses the role of three memory stores: sensory (which receives stimuli and stores it for a very short time), working (where we actively process information to create mental constructs (or 'schema'), and long-term (the repository of all things learned) (Katen, Coury, &Heron,1992).. These cognitive processes in working memory

determine which information is attended to or selected, which knowledge is retrieved from long term memory and integrated with new the information to construct new knowledge, and ultimately, which bits of new knowledge are transferred to long-term memory (Wolfe, & Mash2006). Knowledge that is constructed in working memory is transferred to long-term memory through the process of encoding (Mayer, 2008b).

However, Dwyer & Dwyer (2006) caution that proper encoding requires rehearsal and since rehearsal takes time, the multimedia lesson must allow an adequate period for incubation or it can be ineffective. Hasler, Kersten, & Sweller (2007) add that this is why learner control is important when using animation in multimedia learning. Mayer 2009) distinguishes meaningful learning from "no learning" and "rote learning" and describes it as active learning where the learner constructs knowledge. Meaningful learning is demonstrated when the learner can apply what is presented in new situations, and students perform better on problem-solving transfer tests when they learn with words and pictures (Hustler, 1984). Mayer (2008b) also identifies two types of transfer: transfer of learning and problem-solving transfer. Transfer of learning occurs when previous learning affects new learning. Problem solving transfer occurs when previous learning affects the ability to solve new problems. Mayer defines learning as a "change in knowledge attributable to experience" (Mayer,2009). Learning is personal and cannot be directly observed because it happens with the learner's cognitive system (Mayer ,2008). It must be inferred through a change in behaviour such as performance on a task or test.

Another important aspect of this theory is the concept of "Cognitive Load". In a critical review, it was figured out since the limited capacity assumption states that there is a limit to the amount of information that can be processed at one time by working memory(Lawson, 2004). In other words, learning is hindered when cognitive overload occurs and working memory capacity is exceeded (De Jong, 2010). DeLeeuw & Mayer (2008)

theorize that there are three types of cognitive processing (essential, extraneous, and generative) and place them in the triarchic model of cognitive load. Mayer (2009) made this model the organizing framework for the cognitive theory of multimedia learning and stated that a major goal of multimedia learning and instruction is to "manage essential processing, reduce extraneous processing and foster generative processing". Intrinsic cognitive load occurs during the interaction between the nature of the material being learned and the expertise of the learner.

The second type, extraneous cognitive load, is caused by factors that central to the material to be learned, such as presentation methods or activities that split attention between multiple sources of information, and these should be minimized as much as possible(Barkley,1998). The third type of cognitive load, germane cognitive load, enhances learning and results in task resources being devoted to schema acquisition and automation. Intrinsic cognitive load cannot be manipulated, but extraneous and germane cognitive load can. In the triarchic model of cognitive load, essential processing (intrinsic load) relates to the essential material or information to be learned (toner, 2003). Extraneous processing (extrinsic load) does not serve the instructional goal or purpose and reduces the chances that transfer of learning will occur. Generative processing (germane cognitive load) is aimed at making sense of the presented material. It is the activity of organizing and integrating information in working memory.

The cognitive overload explains the attention deficit in children such that the child is affected by one type of cognitive overload or the other (Carron ,&Rutter 1991). However it seems that the child affected with attention deficit is more affected by the extraneous cognitive overload type plainly because there is a split attention between multiple sources of information which may be as a result of the hyper activity(Foittleman, Mannuzza, Shenker,& Bonafura,1985) example, a child who cannot afford to settle down in a spot for a significant

period of time is probably influenced to enjoy interactions with quite a number of irrelevant activities(Lesesne, Abramowitz, Perou, Brann, 2000). The other forms of cognitive overload also explain the course and direction of children with ADHD. For example the intrinsic cognitive load explains the non-willingness of children to pay attention to information to the information they receive from the environment primarily because they do not find it easy to comprehend the information. For example teaching a child mathematics in school has proven to be a difficult task which distracts the attention of children (Taylor ,1994). Finally the germane cognitive overload is centred on the role of cognitive schema. Newer information which is not congruent with previous information of a similar object or event does not allow adequate storage of such information thereby causing a drift in attention.

2.2. Review of related studies

The following literatures were used in reviewing related works pertinent to the study.

2.2.1 Prevalence of Attention Deficit and Hyper Activity Disorder

The prevalence of ADHD is rare in the published literature in Nigeria (Bakare,2012). This is because ADHD prevalence seems to vary in different settings, such as in the general population versus in hospitals or in schools (Bakare,2012). Not much is known about ADHD prevalence in hospitalized Nigerian children (Ambuabunos, Ofovwe & Ibadin,2011). There are few documented findings about the prevalence of ADHD in the outpatient setting (). In other African countries, such as South Africa, Democratic Republic of Congo, or Ethiopia, the prevalence of ADHD has been reported to vary from 5.4% to 8.7% among school children (ibadin, 2011). However, in the general population, ADHD has been reported in 1.5% of children. Children with possible organic brain pathology have also been reported to have a prevalence of ADHD of 45.5–100% (Bakare 2012). The few Nigerian studies that have been published report a prevalence of ADHD of 7.6% (Ambuabunos, Ofovwe & Ibadin 2011). The prevalence of ADHD reported on other continents is not relatively stable (Alqahtan 2011). For

instance, prevalence of ADHD in Saudi Arabian primary schools is reported to be as low as 2.7%, while that in Iran is reported to be as high as 13% (Alqahtan 2011) with a predominance of the hyperactive-impulsive type. In South America, the prevalence of ADHD in children is about 6%, while in the USA it is as high as 16% (Childhood ADHD reports 2014). In Germany, ADHD has been reported with a prevalence of 4.8%, while Ukraine has reported the highest incidence of ADHD to be 19% (Epidemiology of attention deficit hyperactive disorder, 2014). Worldwide, the prevalence of ADHD is between 5.29% and 7.1% (Epidemiology of attention deficit hyperactive disorder, 2014). ADHD normally affects preschool age children, although it can extend beyond childhood and adolescence into adulthood (Wilcut 2012). A higher prevalence is often reported in males, with the combined-type ADHD generally considered to be the most prevalent in all age groups. In their review of 102 studies of 171,756 children world-wide, Polanczyk de Lima, Horta, Biederman 2007) found a pooled prevalence of ADHD of 5.3%. From the results of their meta-regression model, they concluded that geographic location played a limited role in prevalence determinacy, while impairment criteria, diagnostic criteria, and the sources of information (parents, teachers, mental health professionals, played predominant roles (Biederman 2007). There are far fewer prevalence studies of types of ADHD, however, Biederman et al. (2002) found that the combined type of ADHD was the most prevalent for both boys and girls, but girls were more than twice as likely to be diagnosed as inattentive type than boys. It does appear clear that epidemiological studies of ADHD are helpful in understanding issues related to its frequency, distributions, and determinants (Wood, Rhodes, & Biek,1995).

2.2.2 **The Relationship between Attention Deficit and Hyper Activity Disorder and other disorders**

An obstacle to the successful classification of attention deficit/hyperactivity disorder (ADHD) is the frequently reported co-morbidity between ADHD and conduct disorder (Caron

and Rutter 1991). This overlap has been consistently found in clinical samples in studies of children with ADHD and children with conduct disorder CD (Biederman et al 1987, 1991c; Hinshaw 1987; Schachar and Tannock 1995) and in follow-up studies of ADHD children (Gittelman, Mannuzza, Shenker, Bonagura 1985). Taylor (1994) noted that the co-morbidity between ADHD and CD raises a key nosologic question: Are these two disorders best seen as co-occurring yet separate entities or, does their consistent co-occurrence signal the presence of a separate category of disorder? The former approach was taken by the American DSM-IV (American Psychiatric Association 1994), whereas the latter has been recognized with the separate category of hyperkinetic conduct disorder used by the World Health Organization's ICD-10 (World Health Organization 1988). According to Caron and Rutter (1991), co-morbidity can occur for many reasons. It can be an artefact in clinical samples, because people with multiple disorders are more likely to seek help than those with only one disorder (Biederman ,1995). In epidemiologic studies, screening tests can exaggerate co-morbidity, because co-morbid disorders are more likely to exceed the test's threshold for detection (Dwyer & Dwyer, 2006). Co-morbidity may also signal errors in the nosology used to define the disorders (Hinshaw, Lahey, & Hart,1993). If two disorders are actually the extremes of dimensional traits, then the choice of the threshold for defining the disorders will influence the degree of observed co-morbidity (Snider, Busht, & Arrowwood, 2003). Also, overlapping diagnostic criteria can lead to spurious co-morbidity (Stroh ,2008). Our empirical study of this latter issue, however, suggests that this effect cannot account for most co-morbidity in ADHD (Milberger, 1995). Although previous studies have examined childhood symptom severity of oppositional defiant disorders ODD and CD in relation to later behavioural outcomes and delinquency, fewer studies have examined the relation to later academic outcomes(Biek,1995). Barkley (2006) reported that childhood ADHD and lifetime CD severity predicted high school drop-out. Thus, an important gap in the literature is whether childhood diagnostic variables

such as ADHD, ODD, and CD severity predict high school academic outcomes, above and beyond the contribution of established risk factors such as SES (socioeconomic status) and IQ (Intelligent quotient).

Prevalence of Mental Health Disorders in Children

Numbers of observations in community surveys of children and adolescents has shown that one in every three to four teenagers is estimated to meet the criteria for diagnostic statistical manual of mental disorders (DSM) mental disorders Castello, et al., (2004). Nevertheless, only a small proportion of these teens actually have sufficiently severe distress or impairment to warrant intervention. Brauner, et al., (2006) About 10% of teens is estimated to meet the substance abuse mental health service administration criteria for a severe emotional disturbance, (Costello, et al., 2005; Brauner, et al., 2006) defined as a mental health problem that has a drastic impact on a child's ability to function socially emotionally and academically. (US Department of Health and Human Services, Mental Health Report 1999).

Children and adolescents in the LMIC constitute about 35-50% of the population Patel et al., (2008). Close to half of all lifetime mental disorders arise before the age of 14 years (Kessler et al., 2005; Patel, et al., 2007). A review by Sharan and Sagar (2007) revealed that worldwide prevalence rates for child and adolescent mental disorders are around 10-20%.

There has been a gap between the needs and services for mental healthcare and services especially in the low- and middle-income country (LAMIC) while most care is institutionally based with poor attention to community mental health Saxena, et el., (2007). In the high income countries it is indicated that more than a quarter of children and adolescents meet a life time criteria for mental health disorder Costello et al., (2004). The evidence base on the burden of child and adolescent mental disorders in the low middle income country (LMIC) is relatively small due to some numbers of factors like inadequate number of skilled

human resources, less awareness and low priority, high service load, greater concern for child mortality and morbidity, and journal acceptance biases against LAMIC research Patel et al., (2013).

Mental health problems in children are common yet many people do not believe that it exits Eaton et al., (2011). Child and adolescent mental health disorders prevalent rates vary across countries and the LMIC is said to have more children with mental health problems than it is believed to be in the community. Half of the populace is under the age of 18years old. it is estimated that about 20% of the children have a mental health problem and in Nigeria about 12% of the children are affected Kessler et al., (2007).

Tehran, a country in the Middle East found an occurrence rate of 14.2% of psychiatry disorders among their adolescent with the prevalent rate of ADHD alone to be 8.2% Mohammadi et al., (2008). In Indian Malhotra et al., (2009), carried out a longitudinal study and found an incidence rate of 18/1000 years among children in Indian. Also a cross sectional study in Carolina shows that roughly 13.3% of the children in the study were initially identified with a psychiatric disorders, when these children were monitored for about 3 to7 years, 37.6% of them met the psychiatry diagnosis of the DSM IV classification Costello, (2003). In Kwara state, Nigeria a study recorded 18.6% prevalence rate for psychiatric disorders among children in the community Adelekan (1999). Also at the same region, Tunde et al., (2012) found 11.4% prevalence rate of psychiatric disorders among children attending a primary health centre. Nigeria has a population of about 150 million with 50% of this consisting children and adolescents. It can therefore be extrapolated from the findings in this study that about 8 to 16 million children and adolescents will develop a mental illness at some point in their lifetime. Result of the high figure for active case finding, early identification and appropriate psychiatric intervention for the affected children and adolescents.

2.2.3. **The effect of Attention Deficit and Hyper Activity Disorder on the academic performance of children**

Attention-Deficit/Hyperactivity Disorder (ADHD) is a commonly diagnosed childhood disorder that is associated with serious impairments in school performance in childhood (Loe and Feldman 2007; Raggi and Chronis 2006). In recent years, ADHD has come to be viewed as a chronic disorder, with significant diagnostic continuity between ADHD in childhood, adolescence, and young adulthood (Barkley et al. 2002; Claude and Firestone 1995; Hart et al. 1995). It is well known that children diagnosed with ADHD have a variety of problems in adolescence, including greater likelihood of delinquency and substance use (Loeber et al. 1997; Molina and Pelham 2003; Sibley et al. 2010b). Relatively less information is available about academic functioning for adolescents compared to children with ADHD (Frazier. 2007). Considering the importance of secondary school functioning to long-term outcome, it is critical to understand how these students function academically during adolescence (Finn 2006). Children with ADHD often exhibit specific deficits in the academic setting, including difficulty with organizational skills such as completing and returning assigned work. Clinic-referred children with ADHD have significantly poorer ratings on a parent-rated homework problem measure than other children, which includes items such as "fails to complete homework" and "forgets to turn homework in" (Power et al. 2006). School-based interventions for middle school students with ADHD have specifically targeted homework completion due to the difficulties young adolescents with ADHD have in this area (Evans et al. 2006). However, little is known about the academic behaviours of high school students with ADHD. Indices such as work completion and quality impact overall academic performance and thus the likelihood of retention and failure to graduate, so understanding how a high school student with ADHD performs on such variables is important (Evans et al. 2001). Most studies of academic functioning in children focus on standardized achievement tests

(Power et al 2006). Within the clinical literature, elementary school children with ADHD have significantly lower achievement scores in reading and math, and they obtain lower grades than non-ADHD children (Biederman et al. 1996; Frick et al. 1991; Loe and Feldman 2007). Several studies have shown that adolescents with ADHD also score lower on achievement tests than peers, though these studies typically report on younger adolescents rather than high-school-aged adolescents (Barbaresi et al. 2007). Fewer studies have examined naturally occurring measures of performance, such as grades, as a measure of academic outcome in adolescence. For high school students, Grade Point Average is arguably a more relevant measure of academic functioning than standardized test scores. Grade Point Average is typically computed across all academic subjects and reflects performance on a wide variety of tasks, such as homework, projects, and tests, and grades directly affect retention and graduation. Further, in a national survey of 1,644 colleges, GPA and class rank were reported as the most important factor in college admissions between 1979 and 2000 (Breland et al. 2002). The handful of studies that have examined GPA among adolescents with ADHD found lower GPA compared to controls. The follow-up in the multisite Multimodal Treatment of ADHD study found that adolescents (14–18 years old) with childhood ADHD had an average GPA of 2.75, which was significantly lower than the 3.0 average GPA of adolescents without childhood ADHD (Molina et al. 2009). Barkley et al. (2006) reported a somewhat larger difference, 0.6 points. Although these studies report overall GPA for adolescents with ADHD typically sampled over one grade or one report card neither of these studies tested whether ADHD students'' academic performance varied as a function of course difficulty(Hasler, Kersten,& Sweller,2007). Some academic courses (i.e., math, history) may place appreciably higher demands on organizational and attentional capacities than others (i.e., art, drama, technology), and students with ADHD may perform relatively worse than other high school students in these core courses (Lesesne, Abramowitz, Perou, & Brann, 2000). Thus, there is

value to examining overall GPA and academic GPA separately for all high school years, as well as separately for each core academic subject to search for differential deficits (Barkley et al, 2007). In addition to having lower academic achievement, studies have also shown that children with ADHD are more likely to repeat a grade than peers (Barkley et al. 2006, 2007; Barbaresi et al. 2007; Biederman et al. 1998; Faraone et al. 1993; Molina et al. 2009). Although grade retention is a valid measure of academic failure during elementary school, it is possible that it may not be a meaningful representation of academic outcome in high school. In high school, students may fail several academic courses in a year without having to repeat an entire grade (Strauss, & Lehtinen, 1949). As a result, grade retention may not be sensitive to the typical instances of failure found in high school populations(Mash, E,J,2006). Although one study found higher rates of course failure in high school students with ADHD (Claude and Firestone 1995), this outcome is sorely understudied. High rates of class failure are particularly concerning during high school as this indicator increases one's risk for school dropout (Janosz et al. 2000). Further examination of this outcome is needed in samples of older adolescents with ADHD. Furthermore, students who have low GPAs and fail classes in middle or early high school years may be subsequently placed in remedial or basic level courses. One study reported that many adolescents with ADHD receive special education services in high school (Barkley et al. 2006), but no previous studies have otherwise examined course placement (i.e. honours, regular, or remedial) in high school for adolescents with ADHD. This variable is relevant both as a stand-alone outcome as well as an influence on other academic variables of interest(Kersten,2007). For example, students taking a less demanding course may have artificially inflated GPAs due to the reduced difficulty of the course (Mayer, 2005). This suggests that in high school, consideration of course placement is critical both as a potential outcome of ADHD and when examining group differences in other variables such as GPA, academic course failure, and retention (Polanczyk, de ma Ms, &

Hortta ,2007). School attendance is another understudied variable that may be significantly worse for adolescents with ADHD (Barkley et al. 2007). Barbaresi and colleagues (2007) reported a 2.4 day/year difference in high school absences between a population-based ADHD and comparison sample. This finding is troubling as absences are an important predictor of school performance and educational attainment for children and adolescents (Lamdin 1996; Ou and Reynolds 2008). Given their difficulties with time management, it is also likely that adolescents with ADHD are more frequently tardy than peers. Adults with ADHD are more frequently late to work than non-ADHD adults (Barkley et al. 2007), but tardiness has not been evaluated in a high school sample. In a national survey, 21.7% of high school teachers, compared to 4.6% and 12.2% of elementary and middle school teachers, respectively, indicated that tardiness was a serious problem (US Department of Education 1995). Increases in absence and tardiness in adolescents with ADHD may also contribute to their academic problems and thus warrant further study. Perhaps the most troubling academic outcome is high school drop-out. Deficits in school performance and grade retention are significantly correlated with drop-out (Janosz et al. 2000). Since children with ADHD exhibit these deficits more often than peers, it seems likely that they will also experience higher drop-out rates. Indeed, these adolescents have been found to be up to three times more likely than their peers to drop-out of high school, with reported rates varying between 10% and 40% across the small number of follow up studies reported to date (Barbaresi et al. 2007; Barkley et al. 2007). These findings are particularly concerning, as high school dropout has been linked to a host of later negative life outcomes in domains pertinent to ADHD (National Center for Educational Statistics 2006; Office of Applied Studies 2003). Given the serious nature of academic outcomes such as school drop-out, an important question is whether childhood risk factors can be identified for these adverse outcomes. In general populations, higher family socioeconomic status in childhood (SES) and higher child general intelligence (IQ) have been found to be

predictive of better adult educational and occupational outcomes (Dubow et al. 2006; Feinstein and Bynner 2004).

2.2.4 Teachers and Caregivers Perception of Attention Deficit and hyper activity Disorder

As one of the most publicized conditions affecting children over the past two decades (Glass & Wegar 2000), there is an increase in ADHD-related behaviour in classrooms (McCarthy, Wilton, Murray, Hodgkins, Asherson & Wong 2012). Researchers agree that ADHD is diagnosed in approximately 3%–10% of children internationally (Meyer 2005; Amod, Vorster, Lazarus, 2003). This statistics make ADHD one of the most frequent reasons for referral to school psychologists (Glass & Wegar 2000; Perold, Louw, & Kleynhans 2010; Curtis, Piseco, Hamliton & Moore 2006) and child psychiatric facilities (Raman & van Rensburg 2013). The ADHD symptoms of inattention, impulsivity and hyperactivity become more evident in the classroom, positioning teachers in a unique place to identify and refer these learners for further assessment (Akram, Thomson, Boyter & McLarty 2009). Despite this reliance on teachers by parents, studies have found that teachers can provide inaccurate and inappropriate advice to parents (Kos, Richdale, & Jackson 2002). This highlights the need to examine what teachers know about ADHD as they play an important part in its identification and intervention planning (Pahl, 2008). While there are numerous studies on teachers' perceptions of ADHD it is important to note that there are a number of aspects that influence perception, such as stigma, experience, knowledge and prior learning (Diperna ,2004). The current study focused primarily on teachers' knowledge of and attitudes towards ADHD. There is no documented research on private and public school teachers' perceptions of ADHD in Nigeria() A number of studies have reported that teachers' perceptions of the incidence of ADHD in their classrooms are considerably higher than the existent prevalent rate of this condition amongst children (Havey, Olsen & McCormick 2008) This implies that

children could be 'identified' as having ADHD, when in fact there may be other factors impacting on their attention or activity levels (Cornell Swanson,& Wood,2008). It also brings into question teachers' ability to accurately identify learners who may have ADHD, as opposed to those who are merely hyperactive or inattentive because of other factors. (Holz & Lessing 2002) had identified the problem that faces teachers today and they noted that "teachers are generally not trained to identify or teach learners with ADHD." This appears to also be true in the Nigerian context (Kronnick 1995). The Education White Paper 6 promotes the inclusion of all learners into mainstream classes. It asserts that classroom teachers will be the primary resource for achieving the goal of inclusive education (Doyle & Spencer 2002). This means that teachers will need to acquire new skills as well as improve their existing skills and knowledge (special needs education) (Myer, 2000). However pre-service teacher training programmes do not generally provide them with the tools to successfully implement inclusive education, and to identify and address the needs of learners presenting with ADHD. In addition research has found that knowledge regarding ADHD increases with increased exposure to children diagnosed with ADHD (Mulholland, Cumming & Jung 2015). Thus while pre-service training creates an awareness of ADHD, theoretical exposure alone does not necessarily enhance an individual's knowledge of ADHD. While teachers are not qualified to diagnose ADHD, they are ideally placed to identify learners who may have the disorder in order to refer them for further assessment (Corneliu Ani,Victor Lasebikan 2007). This is particularly the case as the symptoms of hyperactivity and inattention related to ADHD are usually noticed when children start attending formal schooling due to the structure of this environment (Hasler, 2007). It can be challenging for children who were previously in pre-school or at home, and consequently a less structured and demanding environment, to meet the behavioural and sometimes academic demands of the classroom (Sciutto, Terjesen, & Frank 2000). The inattention and hyperactivity, characteristic of ADHD therefore only seems to

appear when the children are sitting in front of a teacher who expects a certain level of attention and the ability to remain seated (Sweller,1999).

2.3. **Statement of Hypotheses**

1. Age will have an influence on perceived primary school teacher's knowledge of and attitudes towards ADHD.
2. There will be difference in gender on teacher's knowledge of and attitudes towards pupils with ADHD.
3. There will be a significant relationship between teachers' knowledge of ADHD ,their prior training and experience with ADHD?
4. Teacher's knowledge of and attitudes towards pupils with ADHD will be dependent on their years of experience on the job.
5 Teacher's with exposure to training on ADHD will differ from those without exposure to training in their perceived knowledge and attitudes towards pupils with ADHD.

2.4. Operational Definition of Terms

1. ADHD: A psychological disorder characterised by impulsivity, lack of attention, hyperactivity (APA ,2013). It is also a chronic condition that affect millions of children and often continue into adolescent, which include combination of persistent problem, such as difficulty sustaining attention, hyperactivity and impulsive behaviour.
2. Knowledge of ADHD: Individuals understanding of the effects of attention-deficit hyperactive disorder on the well-being of children and adolescents (Willcut ,2012).
3. Attitudes towards ADHD: Individuals behavioural composition and their disposition to the consequences of attention-deficit hyperactive disorder (Faraone,2011).

CHAPTER THREE

METHODOLOGY

This chapter represents the methodology, strategies and planning and procedures employed in the collection of necessary data and relevant information which are of utmost importance to the study.

3.1. RESEARCH DESIGN

This is a School-based Cross-sectional study involving the use of semi-structured questionnaire containing the information on knowledge and attitude of teachers regarding children with ADHD.

3.2. STUDY AREA AND SETTINGS

The study was carried out in Ekiti state. Ekiti state is a state in the south- Western part of Nigeria that was carved out of the territory of the old Ondo state in October, 1996. It has 16 Local Government Areas (LGAs). The Local Government areas are primarily a homogenous society and carefully populated by Yoruba speaking people of the South West Zone of Nigeria. The religion of the people is mainly Christianity and Islamic religion while a few percentages of the people are traditional religion worshippers.

Oye-Ekiti is a town and headquarter of Oye local government area in Ekiti state, Nigeria Oye local government was carved out from the defunct Ekiti North local government on 17th May 1989. According to the population census (2006) it was documented to have a population of over 134,210 with no distinctive ethic groups in the LGA as a greater percentage of the residents are of Yoruba language race nearly all the people speak Yoruba language with negligible dialectical variations (http://ekitistate.gov. ng/administration/local-govt/oye-iga).

3.3. STUDY POPULATION

The study population comprises of primary school teachers who are teaching within the local government selected. The primary school teachers include the nursery school and primary school teachers.

Inclusion Criteria

Primary school teachers who are teaching in the selected primary schools in Oye-Ekiti, who gives consent to participate in the study (nursery and primary school teachers)

Exclusion Criteria

Primary school teachers in the non-selected schools, teachers who do not give consent, the nannies and the administrative staff in the selected schools were not included.

SAMPLING TECHNIQUE

The computed sample size was 60% and the percentage was evenly distributed among the primary schools selected. This consists of a sample of 107 but increased to 120 to allow for evenly distribution and non-response rate. The Sampling method used in this study is known as the multi-stage sampling technique.

First stage- A local government area (Oye LGA) was selected (convenient sampling) from the 16 local government areas in Ekiti state.

Second stage- The primary schools are used only for the purpose of this study. There were 102 primary schools in Oye LGA including public and private schools, Out of these schools, a random selection was also made to select 17 public and private schools.

Third stage- purposive sampling was used to select the teachers in the selected primary schools so as to meet up the sample size estimated

3.4. Instruments

Data for the study was collected using validated psychological instrument to collect information from the participants of the study. The questionnaire contained 2 main domains with open and closed –ended questions namely;

A-Socio-demographic characteristics

B- Knowledge of Attention Deficit Disorder Scale (KADDS)

3.4.1. Section A: Socio-demographic characteristics

The questions contain information about socio-demographic variables, Information which sought roles and years of experience, information on training to identify ADHD or not was also included.

3.4.2. Section B: Knowledge of Attention Deficit Disorder Scale (KADDS)

The KADDS (Tabachnick & Fiddell, 2007), was used to measure knowledge of attention deficit hyperactive disorder and misperceptions about the disorder. It is a 36-item scale used in measuring the perceived understanding of teachers on the effects of attention deficit hyperactive disorder on children and adolescents. The scale is also measured with three subscales (Associated Features, Symptoms/Diagnosis and Treatment). The scale showed a good reliability scores. Previous studies which examined the internal consistency of the KADDS revealed that the 36 items of the scale had high internal consistency and a Cronbach Alpha score of. However, the KADDS has a test-retest reliability of two weeks with moderate to high scores of $r = .59$ indicating that the scale has adequate stability. Validity of the KADDS has been verified through examination of the correlations between the scale scores and a series of variables, which are related to teachers' knowledge of ADHD. The scale has shown validity with teachers who had taught a child with ADHD, and the number of children

with ADHD previously taught by elementary school teachers and showed a positive correlation.

Questions. 3, 5, 7, 9, 11, 14, 16, 21, 26 addresses symptom diagnosis , while questions 1 , 4, 6, 13, 17, 19, 22, 24, 27, 28, 29, 30, 31, 32, 33 addresses Associated features, 2,8,10,12,15,18,20,23,25,34,35,36 addresses treatment of the KADDS questionnaire.

SCORING: Data for the KADDS items are prepared by recoding variables and generating composite variables. Participants responses to each items are assigned with the following values: true=1, false=2, don't know=3. Responses are then to be recorded as correct or incorrect. A misperception is seen as as an incorrect response (i.e., answering false to a question for which true is the correct answer), don't know responses are not considered to be misperceptions. To obtain subscales and total scores, a correct score is to receive a score of 1, while an incorrect score or don't know responses receive a score of 0.

3.5. PROCEDURES

A total of 107 primary school teachers' participated in the study. The researcher began the data collection process by seeking an approval from the supervisor and also a letter of introduction from the head of department to be issued to the Ministry of Education in Ekiti state for data and ethical clearance to carry out the research among teachers in the state. The approval from the Ekiti state Ministry of Education was shown to the head of teachers in each selected schools for approval to conduct the research in the school while the questionnaire was distributed to the teachers only in the schools.

The validated psychological instrument was administered to the primary school teachers' in their regular classrooms by the researcher. The researcher explained to them the importance and benefits they will get in their participation of the study work. In addition, the researcher assured the participants of the confidentiality of their responses would be used only

for the desired research purposes.

3.6. Statistical methods

Data obtained was analysed using the Statistical Packaged for the Social Sciences (SPSS) and software package version 20. Descriptive statistics such as frequency, mean, percentages, standard deviation, was conducted to describe the socio demographic information of the respondents. Hypothesis stated in the study were analysed using independent sample t-test and One-way ANOVA to determine group differences. The p-value of 0.05 was used for test of statistical significance.

CHAPTER FOUR

RESULTS

Table 4.1 Socio Demographics Characteristics of respondent

Demographic Variables	Frequency (n)	Percentage (%)
AGE		
25-35	48	44.9
36-45	33	30.8
46&above	26	24.3
Total	107	100.0
GENDER		
Male	43	40.2
Female	64	59.8
Total	107	100.0
ETHNIC GROUP		
Yoruba	98	91.6
Igbo	6	5.6
Hausa	3	2.8
Total	107	100.0
RELIGION		
Christianity	43	40.2
Islam	53	49.5
Traditional	11	10.3

Total	107	100.0
SCHOOL TYPE		
State	55	51.4
Private	52	48.6
Total	107	100.0
TRAINING OF ADHD		
Yes	36	33.6
No	71	66.4
Total	107	100.0

The above table shows we have age 25-35 as 48 (44.9%), 36-45 as 33 (30.8%), 46 & above as 26 (24.3%).

The ethnic group of the respondent revealed that 98 (91,6%) 0f the respondent are;

Yoruba, 6 (5.6%) are iqbo,3(2.8%)are Hausa.

We have 43 (40.2%) male and 64 (59.8%) females.

We have training on ADHD as 36 (33.6%) and no training as 71 (66.4%).

Table 4.2: 3-way ANOVA analysis of variance summary table showing the influence of age on the knowledge of ADHD

ANOVA

Knowledge ADHD

	Sum of Squares	Df	Mean Square	F	Sig.	p

Between Groups	371.377	2	185.688	1.331	.269	>.05
Within Groups	14509.819	104	139.517			
Total	14881.196	106				

Table above revealed that age does not have a significant influence on the knowledge ADHD f (2,104) = 1.331 p>.05)

Table 4.3: Independent T-Test Summary Table Showing the Influence of Gender on the **Knowledge** of ADHD

Group Statistics

GENDER	N	Mean	Std. Deviation	Std. Error Mean	t	df	P
ADHD Male	43	55.6512	10.98892	1.67579	.238	105	>.05
Female	64	55.0938	12.47311	1.55914			

The table above revealed that there is no significant difference in gender on the knowledge of ADHD t (105) =.238 p>.05). Nonetheless, the comparison of the mean scores revealed that males (N = 43, Mean = 55.65 SD = 10.9) scores higher on the knowledge of ADHD than females (N = 64 Mean = 55.09 SD = 12.47).

Table 4.4: Independent T-Test Summary Table Showing The Influence Of Teachers Teaching Experience On The Knowledge Of ADHD.

Group Statistics

	Teaching Experience	N	Mean	Std. Deviation	Std. Error Mean	t	df	p
ADHD	<5yrs	47	55.1702	11.66250	1.70115	-.135	102	>.05
	5-15yrs	57	55.4912	12.34493	1.63513			

The above table revealed that there is no significant influence of teaching experience on ADHD. (t (102) =-.135 p<.05). Furthermore, the comparison of the mean scores revealed that individual with 5-15yrs experience (N=57 Mean = 55.49 SD = 12.34) scores higher on ADHD than those<5yrs (N= 47 Mean = 55.17 SD = 11.66).

Table 4.5: Independent T-Test Summary Table Showing the Influence of Previous Training Experience On ADHD

Group Statistics

Previous Training and experience with ADHD		N	mean	Std. Deviation	Std. Error Mean	t	df	P
ADHD	Yes	36	59.0833	8.27518	1.37920	2.392	105	<.05
	No	71	53.4085	12.93674	1.53531			

The table above revealed that previous training and experience with family or friends with ADHD significantly influence the knowledge of ADHD. t (105) = 2.392 p<.05).4.6;

Table showing teachers' knowledge on symptom diagnosis, Associated features and treatment.

KADDS

		Frequency	Percentage (%)
Valid	Symptoms	27	25.2
	Associated Features	46	43.0
	Treatment	34	31.8
	Total	107	100.0

The table above revealed that 25.2% of the respondents address symptoms, 43% of the respondents address associated features while 31.8% of the respondents address treatment.

CHAPTER FIVE

DISCUSSION, CONCLUSION, RECOMMENDATIONS

5.1 DISCUSSION

This chapter discusses findings on the knowledge, attitude and previous training of primary school teachers' in the selected LGA in Ekiti state. This study is a school based cross sectional study and to my best of knowledge this study had not been carried out among primary school teachers in the selected LGA selected in Ekiti state.

The primary school education are largely attended by children in the community, for the public schools in Ekiti state is a free basic education for all, at the primary school level largely utilized by the people in the community because of the no-cost value hence, the primary school teachers should be the first to notice these children with developing behavioural or psychological mental health problem. However, early intervention for children with ADHD or related mental health problems has been shown to be cost effective and lead to improved quality of life in later life. There is no complete health without mental health (Prince et al, 2007). Despite the significant implications of untreated mental illness during childhood, and potential benefits from early treatment, training programs to identify, diagnose and refer appropriately, government attention on child mental health care especially in the LMIC is insufficient (Patel et al, 2008). In these countries, government spending on child mental health care is disproportionately smaller in comparison with investments in mental health care for older age groups and spending on physical health for all age group. (Saxena, 2007; Wang, et al, 2005).

Research has proven the efficacy of the primary school teachers helping in identifying pupils with ADHD when trained in Nigeria (Lasisi, Ani, Lasebikan, Sheikh & Omigbodun

2017). However, this important service is still not well established in Nigeria, more especially in states like Ekiti with minimal resources (Akerele and Adewuyi, 2011) in comparison with other states of the Federation. Engaging the teachers in the implementation of child mental health services may be challenging if the key players and stakeholders do not have adequate knowledge and correct perceived benefit of the interventions.

This study revealed that Age has no significant influence on teachers' knowledge of ADHD this is similar with the work of Kos (2008) who found out that age did not significantly influence teachers knowledge and attitude regarding ADHD also in a research by Alfageer et al (2018) also revealed that demographic variables including age , working experience , and educational level shows no significant relationship with the overall knowledge and attitudes of teachers towards ADHD although the research was only conducted among male teachers only also Shetty (2012) revealed that socio-demographic characteristics of teachers did not have significant influence over their knowledge of ADHD. However, it could be said that age is not a determinate to knowledge of mental health issues (ADHD) because mental health awareness just stated to gain awareness in Nigeria although there is still a huge gap in awareness of mental health issues in children in Nigeria and in Ekiti state especially where this research was conducted.

In this study Gender of primary school teachers did not have significant influence in their knowledge of ADHD. This finding is not in agreement with a previous work by Polanczyk, Lima, Horta, Biederman (2007), they reviewed 102 studies of 171,756 children world-wide concluded that geographic location played a limited role in prevalence determinacy of gender on ADHD although in a study by kos (2008) did not find gender to influence knowledge of ADHD which is in line with the result from this study. However, gender could be said not to be a major determinate to knowledge of ADHD primary school teachers.

This study revealed that teachers' years of working experience had no influence on their knowledge of ADHD. This is consistent with the findings of Kos, Richdale, & Jackson (2002), who emphasized in their studies that the reliance on teachers by parents have been found towards teachers providing inaccurate and inappropriate advice to parents in aspects of identifying pupils with ADHD. Thus exercising the need to examine what teachers know about ADHD play an important part in its identification and intervention planning. Also, the findings of the study contradicts the claims by Kos et al. (2004) which suggested that knowledge of ADHD develops after teachers gain classroom experience rather than during their university education or classroom experience may evoke greater knowledge of ADHD due to contact with children who have ADHD. However, regardless of teacher's years' experience on their job it did not show good knowledge, training will better influence their knowledge of ADHD.

Furthermore, as ascertained from this study results that teachers with prior training and experience with friends or family with ADHD significantly has an influence on their identification of pupils with ADHD. This is in line with the result of Mulholland, Cumming & Jung (2015), in their research study found that knowledge regarding ADHD increases with increased exposure to children diagnosed with ADHD. The study results also supports that of Shetty (2012) whose research showed that a school visit by a mental health team member and teachers' exposure to presentations and workshops of children's behavioural disorders had a strong positive correlation with teachers' acceptable or helpful attitudes and practices. Kos, (2001, 2008) research study also supports the study results by claiming that additional training, significantly predicted teachers' actual knowledge about ADHD however, primary school teachers need child mental health training in order to help identify and refer these children with mental issues like ADHD early because early identification promotes good prognoses.

5.2. CONCLUSION

The findings from this study showed that majority of the teachers had poor knowledge of ADHD both in the public and private schools selected for this study in Ekiti state. Despite the few of the teachers had pervious training on ADHD, it still did not translate to high percentage of good knowledge of the disorder. Majority of the primary school teachers reported to have no/little training in identifying children with ADHD. Therefore there is a need for interventions which includes good awareness programs and training primary school teachers on the identification of ADHD and related disorders among children reduce the negative attitudes towards children and adolescent with mental illness among the primary healthcare providers these interventions include accurate information to correct myths about causes of mental illness and good awareness programs.

RECOMMENDATIONS

Based on the findings from this study, the followings are recommended:

1. Inclusion of courses on mental health disorder in children should be included in teachers training curriculum and colleges.
2. Organisation of refresher courses on mental health for the primary school teachers in Ekiti state.
3. Provision of guidelines for teachers various schools on the identification these children with ADHD or related disorders in Ekiti State.
4. There is need to encourage the Primary school teachers to improve seeking for current information through the internet and journals.

LIMITATIONS OF THE STUDY

Limitation of this study is that the respondents were limited to the primary school teachers in just one LGA out of 16 local government areas in Ekiti state. Also the data might not completely represent the actual situation and opinions of all primary school teachers working in the state.

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APPENDIX 1

QUESTIONNAIRE

FEDERAL UNIVERSITY OYE-EKITI, EKITI STATE

FACULTY OF SOCIAL SCIENCES

DEPARTMENT OF PSYCHOLOGY

Dear respondent,

This study is conducted by ADELEKE ABIDEMI JOY, an undergraduate student in the department of psychology, Federal University Oye-Ekiti.

Please note that your answers will be confidential and NOT released to anyone else. Your honest answers will be highly appreciated.

Thanks for your co-operation

Consent form

I agree to participate in the study. I understand that I am free to withdraw my participation if need be and without giving any reason, I agree that the data gathered from this study may be published in a form that does not identify me in any way.

Please express your interest to participate in this study by ticking 'yes' or 'no' below.

I agree to participate: **Yes ( )** **No ( )**

SECTION A

Name of School.....
School Type: Federal ( ) State ( ) Private ( ) **Town**.....
Age: 25 – 35yrs ( ) 36 – 45yrs ( ) 46yrs and above ( )**Gender:** Male ( ) Female ( )
Ethnic group: Yoruba ( ) Igbo ( ) Hausa ( ) others ( )
Religious Affiliations: Christianity ( ) Islam ( ) Traditional ( )
Teaching Experience: Less than 5yers ( ) 5 – 15 years ( ) 16 years and above ( )
Do you have any prior training and experience with ADHD? (Yes/No)
Do you have a family or friend with ADHD? (Yes/No)

SECTION B

The following questions concern information about your knowledge of Attention Deficit Hyperactive Disorder. Please, kindly tick where appropriate your agreement or disagreement with each statement.

True (t), False (F) or Don't know (DK). (Tick one)

1 .	Most estimates suggest that ADHD occurs in approximately 15% of school age children.			
2 .	Current researchsuggests that ADHD is largely the result of ineffective parenting skills.			
3 .	Children with ADHD are frequently distracted by extraneous stimuli			
4 .	Children with ADHD are typically more compliance with their father rather with their mothers.			
5 .	In order to be diagnose with ADHD, the child's symptoms must have been present before age 7.			
6 .	ADHD is more common in the 1st degree biological relatives (i.e. mother, father) of children with ADHD than in the general population.			
7 .	One symptoms of children with ADHD is that they have been physically cruel to other people.			
8 .	Antidepressant drugs have been effective in reducing symptoms for many children with ADHD.			
9 .	Children with ADHD often fidget or squirm in their SEAT			
10 .	Parent and teacher training in managing a child with ADHD is generally effective when combine with medicated treatment.			
11 .	It is common for children with ADHD to have an inflated sense of self-esteem.			
12 .	When treatment of a child with ADHD is terminated, its rare fir the child's simoom's to return.			
13 .	It is possible for an adult to be diagnosed with ADHD.			
14 .	Children with ADHD often have a history of stealing or destroying other people's things.			
15 .	Sides effects of stimulant drugs used for treatment of ADHD may include mild insomnia and appetite reduction.			
16 .	Current wisdom about ADHD suggests two clusters of symptoms one of inattention and another consisting f hyperactivity/impulsivity.			
17 .	Symptoms of depression are found more frequently in children with ADHD than in children without ADHD.			
18 .	Individual therapy is usually sufficient for the treatment of most children with ADHD.			
19 .	Most children with ADHD "outgrow" their symptoms by the onset of puberty and subsequently function normally in adulthood.			
20 .	In severe cases of ADHD, medication is often used before other behaviour modification techniques			
21 .	in order to be diagnose as ADHD, a child must exhibit relevant symptoms in two or more settings (school, home).			
22 .	If a child with ADHD is able to demonstrate sustained attention to video games or TV for over an hour, that child is also able sustain attention for t least an hour of class or home work.			
23 .	Reducing dietary intake of sugar or food addictive is generally effective i reducing the symptoms of ADHD.			
24 .	A diagnosis of ADHD by itself makes a child eligible for placement in special education.			
25 .	Stimulant drugs are the most common types of drug use to treat children with ADHD.			
26 .	Children with ADHD generally experience more problems in novel situations than familiar situations.			
27 .	Children with ADHD often have difficulties organising task and activities.			
28 .	There are specific physical feature which can be identified by medical doctors (e.g. Paediatrician) in making a definitive diagnoses of ADHD.			
29 .	In school age children, the prevalence of ADHD in males and females is equivalent.			
30 .	In very young children (less than 4years old), the problem behaviours of ADHD children (e.g. hyperactivity, inattention) are distinctly different from age appropriate behaviour of children without ADHD.			
31 .	Children with ADHD are more distinguishable from children without ADHD in a classroom setting than in a free play situation.			
32 .	The majority of children with ADHD evidence some degree of poor school performance in primary school years.			
33 .	Symptoms of ADHD are often seen in children without ADHD who come from inadequate and chaotic home environment.			
34 .	Behavioural/psychological intervention for children with ADHD focuses primarily on the child problem with inattention.			
35 .	Electroconvulsive therapy (ie shock treatment) has been found to be an effective treatment for severe cases of ADHD.			
36 .	Treatment for ADHD which focus primarily on punishment has been found to be the most effective in reducing the symptoms of ADHD.			

APPENDIX 2

Data

FREQUENCIES VARIABLES=St Age ETN RA TEACH g

/ORDER=ANALYSIS.

Frequencies

Notes

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[Data Set]

Statistics

		School Type	Age	Ethnic group	Religious Affiliation	Teaching Experience	Gender
N	Valid	107	107	107	107	107	107
	Missing	0	0	0	0	0	0

Frequency Table

School Type

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	State	55	51.4	51.4	51.4
	Private	52	48.6	48.6	48.6
	Total	107	100.0	100.0	100.0

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	25-35	48	44.9	44.9	44.9
	36-45	33	30.8	30.8	75.7
	46&above	26	24.3	24.3	100.0
	Total	107	100.0	100.0	

Ethnic group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yoruba	98	91.6	91.6	91.6
	Igbo	6	5.6	5.6	97.2
	Hausa	3	2.8	2.8	100.0
	Total	107	100.0	100.0	

Religious Affiliation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Christanity	91	85.0	85.0	85.0
	Islam	16	15.0	15.0	100.0
	Total	107	100.0	100.0	

Teaching Experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<5yrs	47	43.9	43.9	43.9
	5-15yrs	57	53.3	53.3	97.2
	16yrs &above	3	2.8	2.8	100.0
	Total	107	100.0	100.0	

GENDER

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	43	40.2	40.2	40.2
	Female	64	59.8	59.8	100.0
	Total	107	100.0	100.0	

ONEWAY ADHD BY Age

/MISSING ANALYSIS.

One way

Notes

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	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
Syntax		ONEWAY ADHD BY Age /MISSING ANALYSIS.
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[DataSet0]

ANOVA

ADHD

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	371.377	2	185.688	1.331	.269
Within Groups	14509.819	104	139.517		
Total	14881.196	106			

T-TEST GROUPS=g(1 2)

/MISSING=ANALYSIS

/VARIABLES=ADHD

/CRITERIA=CI(.95).

T-Test

Notes

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Syntax		T-TEST GROUPS=g(1 2) /MISSING=ANALYSIS /VARIABLES=ADHD /CRITERIA=CI(.95).
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[DataSet0]

Group Statistics

GENDER		n	Mean	Std. Deviation	Std. Error Mean
ADHD	Male	43	55.6512	10.98892	1.67579
	Female	64	55.0938	12.47311	1.55914

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
AD	Equal variances assumed	.213	.645	.238	105	.813	.55741	2.34680	-4.09585	5.21068
HD	Equal variances not assumed			.244	97.486	.808	.55741	2.28893	-3.98519	5.10002

T-Test

Notes

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	Cases Used	Statistics for each analysis are based on the cases with no missing or out-of-range data for any variable in the analysis.
Syntax		T-TEST GROUPS=TEACH(1 2) /MISSING=ANALYSIS /VARIABLES=ADHD /CRITERIA=CI(.95).
Resources	Processor Time	00:00:00.00
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[DataSet0]

Group Statistics

	Teaching Experience	N	Mean	Std. Deviation	Std. Error Mean
ADHD	<5yrs	47	55.1702	11.66250	1.70115
	5-15yrs	57	55.4912	12.34493	1.63513

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
ADHD	Equal variances assumed	.011	.918	-.135	102	.893	-.32102	2.37262	-5.02709	4.38506
	Equal variances not assumed			-.136	100.086	.892	-.32102	2.35957	-5.00228	4.36025

```
T-TEST GROUPS=prior(1 2)
  /MISSING=ANALYSIS
  /VARIABLES=ADHD
  /CRITERIA=CI(.95).
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T-Test

Notes

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	Cases Used	Statistics for each analysis are based on the cases with no missing or out-of-range data for any variable in the analysis.
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Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.02

[DataSet0]

Group Statistics

	Prior training and experience with ADHD	N	Mean	Std. Deviation	Std. Error Mean
ADHD	Yes	36	59.0833	8.27518	1.37920
	No	71	53.4085	12.93674	1.53531

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
ADHD	Equal variances assumed	7.156	.009	2.392	105	.019	5.67488	2.37197	.97170	10.37807
	Equal variances not assumed			2.750	99.270	.007	5.67488	2.06382	1.57995	9.76981

APPENDIX 3

LETTER OF APPROVAL

MINISTRY OF EDUCATION, SCIENCE & TECHNOLOGY
EKITI STATE OF NIGERIA
PHASE IV, NEW SECRETARIAT, ADO-EKITI
SCHOOLS DEPARTMENT

Circular letter to 12th September, 2018

All head Teachers of public primary School

All head Teachers of Private Primary schools

APPROVAL TO CONDUCT RESEARCH IN SCHOOLS

I am directed to inform you that the bearer Miss Adeleke Abidemi Joy, a PhD Law Student of the federal University of Oye-Ekiti has been granted approval by the Ekiti-State Ministry of Education Science and Technology to visit Public/Private Primary Schools in Ekiti State for the conduct of her Thesis

2. In view of the above, you are enjoined to give her maximum support and cooperation regured in the course of her research activities, as the exercise is purely for academic purpose.

3. Thank you

E.A Bolarinwa

For Permanent Secretary

APPENDIX 4

STATE UNIVERSAL BASIC EDUCATION BOARD

Stadium Road, Okesa,
P. M.B. 5321, Ado-Ekiti, Ekiti State

PR & S

_____DEPARTMENT

*Your Ref:*_____

*Our Ref:*_____

9th July, 2018.

*Date:*_____

Ajileke Abidemi Joy,
Federal University of Oye,
Oye- Ekiti

RE : REQUEST FOR DATA

I am directed to forward to you the list of the total number of Schools and the number of Teachers in each of the under listed Local Government in Ekiti State for your project work.

LGEA'S	TOTAL NUMBER OF SCHOOLS	TOTAL NUMBER OF TEACHERS
Ado Ekiti	[illegible]	1,498
Ekiti West	[illegible]	722
Oye -Ekiti	66	486
Ikole –Ekiti	81	527
Ilsere -Ekiti	48	660
Total	**364**	**3,893**

Thank You

Headteachers of affected schools notified. 25 Oct LGEA.

Owolabi C.F
For : Permanent Secretary

LOCAL GOV. EDUCATION AUTHORITY
EDUCATION SECRETARY
DATE 25/9/18
OYE-EKITI

All correspondence should be Addressed to:
THE EXECUTIVE CHAIRMAN, STATE UNIVERSAL BASIC EDUCATION BOARD
P.M.B 5321, ADO-EKITI.

APPENDIX 5

STATE UNIVERSAL BASIC EDUCATION BOARD

Stadium Road, Okesa,
P. M.B. 5321, Ado-Ekiti, Ekiti State

PR & S
DEPARTMENT

Your Ref:

Our Ref:

Date: 18th July, 2018.

Adeleke Abidemi Joy,
Federal University of Oye.
Oye- Ekiti

RE : REQUEST FOR DATA

I am directed to forward to you the list of the total number of public primary Schools and total number of their Teachers in each of the under listed Local Government in Ekiti State, and Total Number of Private Primary Schools only for your project work.

LGEA'S	TOTAL NUMBER OF PUBLIC PRIMARY SCHOOLS	TOTAL NUMBER OF PUBLIC PRIMARY SCHOOL TEACHERS	TOTAL NUMBER OF PRIVATE PRIMARY SCHOOLS
Ado- Ekiti	99	1,498	231
Ekiti West	70	722	25
Oye -Ekiti	66	486	36
Ikole –Ekiti	81	527	39
Ikere -Ekiti	48	660	74
Total	**364**	**3,893**	**405**

Thank You

Owolabi C.F
For : Permanent Secretary

All correspondence should be Addressed to:
THE EXECUTIVE CHAIRMAN, STATE UNIVERSAL BASIC EDUCATION BOARD
P.M.B 5321, ADO-EKITI.

APPENDIX 6

FEDERAL UNIVERSITY OYE-EKITI
FACULTY OF SOCIAL SCIENCES
DEPARTMENT OF PSYCHOLOGY

LETTER OF INTRODUCTION

This is to certify that **Adeleke Abidemi Joy** with the Matric Number **PSY/14/2013** is an undergraduate student of the Department of Psychology Federal University Oye Ekiti, Ekiti State. She is presently carrying out her B.Sc research on **Primary School Teachers Knowledge Regarding Attention Deficit Hyperactivity Disorder among children and adolescent.**

Her research has been approved by the above named Department.

I therefore plead that the necessary assistance be rendered to the researcher.

Thank you for your kind consideration.

24/06/2018.

Coordinator Psychology Department.

APPENDIX 7

Consent Form

QUESTIONNAIRE
FEDERAL UNIVERSITY OYE-EKITI, EKITI STATE
FACULTY OF SOCIAL SCIENCES
DEPARTMENT OF PSYCHOLOGY

Dear respondent,

This study is conducted by ADELEKE ABIDEMI JOY, an undergraduate student in the department of psychology, Federal University Oye-Ekiti.

Please note that your answers will be confidential and NOT released to anyone else. Your honest answers will be highly appreciated.

Thanks for your co-operation

Consent form

I agree to participate in the study. I understand that I am free to withdraw my participation if need be and without giving any reason. I agree that the data gathered from this study may be published in a form that does not identify me in any way.

Please express your interest to participate in this study by ticking 'yes' or 'no' below.

I agree to participate: Yes ( ) No ( )

st	age	ethnic grp	RA	TE	GEN	Prior training	Family wi AD	ADHD
	3	2	1	2	2	1	2	74
	3	2	1	2	1	2	2	64
	3	2	1	1	1	1	1	70
	1	1	1	2	2	2	2	59
	2	1	2	1	1	2	2	64
	2	2	1	1	1	1	2	64
	3	1	1	1	1	1	2	53
	3	1	1	1	2	2	2	67
	3	1	1	1	1	2	2	64
	3	1	1	1	2	2	1	62
	3	1	1	1	1	1	1	56
	3	1	3	1	1	1	2	36
	3	1	1	1	1	2	2	70
	3	1	1	1	1	2	2	52
	2	1	1	1	2	1	2	51
	2	3	1	1	3	2	2	48
	3	2	1	1	2	2	1	42
	3	1	1	1	1	1	1	59
	3	1	1	1	1	2	2	66
	2	3	1	1	1	3	1	64
	2	2	1	2	2	2	2	64
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