

THE ATTITUDES OF HEALTHCARE WORKERS TOWARDS ADHD IN KENYA

by

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DEDICATION

I dedicate this thesis to my brother, Dr. David Nyachuba, who taught me the value of education.

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ABSTRACT

The diagnosis of ADHD is becoming common in Kenya and the rest of Africa. Local researchers, however, have paid little attention to the mental disorder. This study investigates the attitudes of mental health care workers towards ADHD in Kenya. It is their attitudes that will most directly determine the rates of ADHD diagnosis and the kind of treatment administered as ADHD becomes more relevant in the coming years. ADHD treatment can be pharmacological or non-pharmacological. A sample of 84 nurses, physicians, and psychiatrists working in public, private, and faith-based hospitals in Nairobi, Kenya were asked about their views with open ended and closed ended questions. The data were analyzed qualitatively. Broadly speaking, health care workers believed that ADHD was a legitimate psychiatric diagnosis. Medical professionals appealed to both neurobiological and psychodynamic views to legitimate ADHD as a genuine mental illness. Respondents said that ADHD was not being diagnosed and treated appropriately in Kenya. Respondents pointed to lack of awareness by parents and teachers, inadequate knowledge and experience on the part of medical professionals, and insufficient follow-up by medical facilities as some of the challenges hindering proper ADHD diagnosis and treatment. Health care workers were aware of the side effects of ADHD medication, but were divided on the seriousness of those side effects. To some, side effects were considered mild and an acceptable cost of being on medication, whereas others expressed more worry that the side effects were serious, but nevertheless saw medication as necessary in severe cases. Respondents did not report feeling pressure to diagnose and prescribe ADHD medications. Overall, the results support the assertion that inattention and hyperactivity has been medicalized in Kenya.

1. INTRODUCTION

1.1. Background

This thesis examines the medicalization of inattention and hyperactivity in Kenya. I will explore the attitude of medical professionals towards Attention Deficit and Hyperactivity Disorder (ADHD) diagnosis and treatment, when medical practitioners think medication is the best strategy in treating ADHD, and the perception of the side effects of ADHD drugs by medical professionals in Kenya.

ADHD is a relatively common mental health disorder among children in Kenya. Print and electronic media run features about how ADHD is underdiagnosed and undertreated (The Standard, The Nation, The Citizen, The Star, NTV, and KTN). Every so often the Kenyan media highlights ADHD symptoms to help parents and teachers spot children with ADHD. The knowledge about ADHD is meant to help teachers and parents seek medical intervention for the troubled children. Mental health experts also offer expert advice through the media to parents and teachers on how to treat and handle children with ADHD.

According to Kanyitia (2011), childhood mental illnesses are a common occurrence not only in Kenya, but also the rest of Africa. However, researchers have paid little attention to the mental disorder. The general public has not been adequately informed about the mental disorder among children. As a result, the likelihood that many children are suffering from the mental condition without the necessary help is very high. In a cross sectional study of the prevalence rate of ADHD in Mathare district in Nairobi, Kenya, Kanyitia (2011) found 17.8 percent of the sampled children exhibited ADHD symptoms. Hyperactivity-impulsivity ADHD subtype affected 11 percent of the children

while hyperactivity-inattention subtype affected 3.3 percent. The inattention subtype of ADHD affected 2.8 percent of the sampled children. The relationship between gender and ADHD diagnosis was statistically significant. Boys were affected three times as much as girls. Children from single parent families were affected by ADHD more than children from two parent families. Further, physical injury and ADHD diagnosis were significantly associated.

There is a scarcity of knowledge with regard to the attitude of nurses, physicians, and psychiatrists towards the diagnosis, treatment and management of ADHD in Kenya. It is not yet established whether nurses, physicians, and psychiatrists in Kenya recognize ADHD as mental illness, or they employ more normative paradigms, such as viewing hyperactivity and inattention as a normal stage of development or a deficiency in the diets of the patients.

Medicalization refers to a “process by which nonmedical problems become defined and treated as medical problems, usually in terms of illnesses or disorders” (Conrad 2007:209). Social scientists have studied medicalization of society since the 1950s, when the term gained acceptance in the social sciences. The use of the term medicalization has expanded over the years in its usage to encompass more areas and subtle connotations. Generally, the medicalization literature contains a critique of turning previously normal life conditions into treatable illnesses and disorders. Put differently, medicalization is a term mostly used to critique the process of continuously expanding the boundaries of medicine to include human life conditions that, until recently, were never thought of as diseases or illnesses that required treatment. Some of the human

processes or life's problems that have been medicalized include child birth, sexuality, aging, death, balding, and unhappiness (Smith 2002).

Medicalization forms part of the transition from traditional social values to modern social values. The power of social institutions to exercise control on people is shifting from social institutions such as religion, law, and the family to science oriented institutions such as medicine and academia. Increasingly, scientific values are replacing traditional social values because of the enhanced prestige of scientific methods to make sense of the world. The medical profession has been central in this historical transition. In traditional society, religion was the main form of social control. Conrad and Stults (2008) observe that medicine has overtaken religion as the main form of social control in the modern world.

Critical social scientists of the expanding boundaries of psychiatry raised the alarm to the issue of medicalization of the Western society. However, it was not until the 1970s the critiques started to refer to this process as medicalization (Conrad 1992). Earlier on, Parsons (1951) had conceptualized medicine as an institution that was often deployed for the purpose of social control. If an individual assumes a sick role, his or her behavior, which could be labeled as deviance, may be legitimated. As such, instead of an individual being labeled a deviant, he or she could be labeled as sick, thus deserving no punishment. The social construction of illness is central to the study of medicalization in society, and much of the work on medicalization has been theorized within the framework of social constructionism and labeling theories.

The naming of Attention Deficit and Hyperactivity Disorder (ADHD) is a common phenomenon not only in the West and more resource-rich countries, but also in

the developing countries. Among children, ADHD is diagnosed the most, especially in the Western societies (National Institute of Mental Health 2012). ADHD is now part of many cultures across the globe. Walking in the streets of the United States and elsewhere in the world, one can hear people talking about ADHD, even those who apparently do not seem to understand what the acronym stands for.

Debate about the diagnosis and subsequent medical intervention to treat ADHD has been raging for over three decades since the condition was medically defined (Fournier 1999). According to the National Institute of Mental Health (2012), ADHD is one of the most commonly diagnosed disorders among children and adolescents in the United States today.

Hyperactivity and inattentiveness, particularly among children and now increasingly among young adults, is attributed to ADHD. Increased ADHD diagnosis is a direct consequence of the expansion of the boundaries of medicine in general, and psychiatry in particular. Currently, ADHD is not just a common behavioral problem among children, but now also affects adults. Previously, ADHD was conceived as a mental disorder that affected only children, but now approximately three decades later, the boundaries of ADHD have been pushed to the extent that is now common to hear adults say they sometimes suffer from ADHD or have the illness even when it has not been officially diagnosed. This formulation of ADHD is problematic and has been questioned by social scientists.

ADHD has not always been said to affect such a vast amount of people. The pharmaceutical industry is making huge profits from the increased diagnosis of the problem. In fact, the pharmaceutical industry has marketed mental illnesses so well that

some individuals go to the doctors and demand to be prescribed psychotropic medicine for their self-diagnosed mental disorder. Although the debate about the existence and treatment of ADHD continues, it is apparent that more and more children and young adults are currently on psychotropic medicines, and the trend is projected to grow in the foreseeable future (Whitker 2011).

Conrad and Stults (2008) assert that medicalization is deployed for social control purposes. As of now, there are no known biological basis for most psychiatric illnesses and disorders like ADHD. The claim that psychiatric disorders are caused by a chemical imbalance in the brain has been tested repeatedly, but to no avail (Whitaker 2011). Unlike infectious diseases where a bacterial or viral infection can be tested to find the cause of a disease, there are no tests to reliably establish mental disorders. Behavior is used to diagnose mental illnesses. Behaviors and qualities considered socially disruptive, especially among children, are likely to be medicalized compared to the behaviors that are less socially disturbing. In the case of ADHD, the behavior of a child is observed, and a diagnosis is made if the behavior is considered socially undesirable. Psychotropic drugs are then prescribed for the child to eliminate or reduce hyperactivity or inattentiveness. As a result, people who previously could have been turned over to the criminal justice system for punishment are now increasingly being referred to the psychiatric system. Individuals who could have been incarcerated because society perceived their behavior as deviant come to be considered sick and in need of medical help (Kittrie, 1977). Children are now medicated using psychotropic medicines to cure delinquency and deviant behaviors such as excessive playing, talking or shouting in the classroom where they are ideally required to sit still and listen to their teacher. Apparently, this is a form of social

control on the children using medicine instead of other means of control such as whipping or confinement or other forms of punishment that were common before the advent of the therapeutic state in the 1970s.

In the West, ADHD is considered socially disruptive among children at school. Therefore, psychotropic drugs are prescribed so that the children stay calm in class. The psychiatric boundaries have been expanded to include issues that were out of the medical realm not so long ago. According to Cascade, Kalali, and Wigal (2010), ADHD medications have mild to severe short term and long term side effects. Short term side effects of ADHD medications include loss of appetite, mood swings, and sleeping difficulties. The differences in terms of side effects of the various drugs used in ADHD treatment are minor. Twenty one percent of the side effects of ADHD medications are considered either very “worrisome” or extremely “worrisome.” However, only a very small percentage reports the adverse side effects of ADHD drugs to their prescribing doctors.

Various researchers have investigated the long term side effects of ADHD medications. There is a possible association between medication, appetite and child growth in terms of height and weight. Approximately 60 percent of children who take stimulant ADHD medications report loss of appetite. Reviews on the available data indicate that stimulants can cause a reduction in height attainment (Stockl 2003).

Additionally, Cascade et al. (2010) note that ADHD drugs may cause heart complications. Further, normal brain development in children could be impaired by ADHD medications. In the face of these discoveries, some prominent child psychiatrists, such as Joseph Biederman, still continue to promote the use of ADHD drugs.

Joseph Biederman has been in the forefront in advocating for medical intervention in ADHD treatment. Biederman is a renowned child psychiatrist at Harvard University. Biederman's methods of research establishing that ADHD treatment is safe are under scrutiny. Biederman's work over the decades has led to a tremendous increase in the use of powerful psychiatric drugs to treat relatively ambiguous mental illnesses such as ADHD and bipolar disorder in children. Biederman has been in the news since he was investigated by a Congressional inquiry in 2008 (Harris and Carey 2008).

According to Harris and Carey (2008), Biederman is under criticism for being an advocate of the diagnosis and treatment of ADHD using psychiatric medications, even among very young children. Big pharma continues to make huge profits from selling these powerful psychiatric drugs which may at times be unnecessary. Most of Biederman's work that established the safety of these drugs in children was sponsored by pharmaceutical companies to the tune of \$1.6 million between 2000 and 2007. Biederman disclosed receiving only \$200,000 as a private consultant for various pharmaceutical companies (Harris and Carey 2008).

Whitaker (2011) analyzed several studies that had assessed the impact of psychotropic medications on mental illness, including ADHD, in the long term and concluded that the outcomes of the use of the psychotropic drugs are not good. Individuals put on psychotropic drugs increasingly become worse off than those who had symptoms for mental illnesses, but were never put on medication. Even those who are put on the drugs and then wean themselves off after a short while tend to show better long term outcomes than those who stay on the drugs for long periods of time. The long term benefits of psychiatric drugs should be measured on the basis of whether individuals with

mental illnesses upon treatment are able to work and support themselves, establish relationships and remain in relationships and found families

1.2. Statement of Problem

The purpose of my research is to study the perception of childhood ADHD among health care professionals in Nairobi, Kenya.

1.3. Research Questions

In order to fulfill the aims and objectives of my research, I intend to answer the following research questions: (1) what is the attitude of medical professionals towards ADHD diagnosis and treatment? (2) When do medical practitioners think medication is the best strategy in treating ADHD? (3) What is the perception of the side effects of ADHD drugs by medical professionals in Kenya?

1.4. Rationale for the Study

The attitude of healthcare workers has an impact on the rate at which ADHD is diagnosed as well as the kind of treatment that is provided. This research may enable Kenyan policy makers to put in place better policies and intervention measures to ensure that ADHD is appropriately diagnosed and treated. In order to achieve this objective, I will provide the Kenyan policy makers with information about the perception of medical professionals of ADHD diagnosis and treatment. Further, I intend to call the attention of policy makers to the challenges that medical professionals think hamper quality mental healthcare services to ADHD patients.

2. LITERATURE REVIEW

2.1. *The Trend of ADHD Diagnosis*

The American Psychiatric Association (1994) defines ADHD as “a persistent pattern of inattentive or hyperactive impulsive symptoms that cause significant impairment in social, academic, or occupational functioning” (Castle et al. 2007). The diagnosis of ADHD is gender neutral. However, boys are diagnosed with the mental disorder more than females. The Center for Disease Control and Prevention (2005), estimates boys between 4 and 17 years are 2.5 times more likely to be diagnosed with ADHD compared to girls in the same age group. The diagnosis differential of ADHD between boys and girls is often attributed to the fact that the symptoms of ADHD are more noticeable in boys in schools than is the case with girls (Bren 2004).

Castle et al. (2007), note that previously, ADHD was thought of as a mental disorder for children. However, with increased knowledge and awareness about the condition, psychiatrists now claim the disorder also affects adults. Currently, the prevailing view is that the disorder impairs adults from functioning properly, at work and at home, just as it does to children. Recent studies claim that up to two thirds of children who are diagnosed with ADHD will still have the condition in adulthood. The psychiatric community claims that ADHD is a disabling mental illness. Some individuals who were never diagnosed with ADHD as children could now be diagnosed with the disorder as adults, especially when the demands of work and family become problematic. There is not much data on the diagnosis of ADHD among adult Americans. Nonetheless, surveys of a few people across America point to the possibility that approximately as many men as women are diagnosed with ADHD (Castle et al. 2007).

According to Castle et al. (2007), by 2005, 4.4 percent of children and teenagers aged between 0 and 19 had been diagnosed with ADHD and were on medication. Among adults aged 20 years and above, 0.8 percent had also been diagnosed with ADHD and were on medication. The prevalence rate among boys was significantly higher at 6.1 percent compared to that of girls, which stood at 2.6 percent. The prevalence rate of ADHD among adults was estimated to be 0.8 percent. There was no diagnostic difference of ADHD between adult men and women. Between 2000 and 2005, the diagnosis of ADHD in the United States increased rapidly at 11.8 percent per annum when considering the population as a whole. Further, there was a higher diagnosis of ADHD in adults than in children, faster in adult women than in men, and much faster in girls than in boys within the same age group (Castle et al. 2007).

Scheffler et al. (2005) notes that information about the global trend of ADHD diagnosis and treatment is scarce. However, the use of ADHD medications point to a marked increase of ADHD diagnosis. Between 1993 and 2003, the use ADHD drugs increased three fold. The world spending on ADHD treatment in 2003 hit 2.4 million US dollars, after adjusting for inflation. The increase was nine fold in the global spending on ADHD medications from 1993 through 2003. In the same study, GDP per capita was a strong explanatory variable for the use of ADHD medications across countries. Nevertheless, the use of ADHD in the US, Australia and Canada was higher than GDP per capita predicted. The use of ADHD medications as well as spending on medication increased not just in developed countries, but also in less developed countries, particularly in sub-Saharan Africa and South Asia. It is important to note that growth in

spending was significantly higher in developed countries on ADHD medications because of the adoption of a more expensive and long-acting ADHD drugs (Scheffler et al. 2005).

2.2. ADHD and the Diagnostic and Statistical Manual for Mental Disorders (DSM)

Up to 1950s, there was no generally agreed upon standard that was officially deployed by psychiatrists in the diagnosis of mental illnesses. As a result, different psychiatric terms were employed to describe similar or the same symptoms in the diagnosis and treatment of mental disorders, both in adult and pediatric patients. In 1952, the American Psychiatric Association (APA) published the first DSM with a view to standardizing the diagnosis and treatment of mental disorders. Upon the publication of DSM I, the document was quickly accepted as a reference source for the diagnosis and treatment of various mental illnesses (Connor 1999).

The DSM is continuously revised to include new mental disorders and drop others that are no longer considered mental illnesses. DSM V is the most current edition. Hyperactivity in children was included in the 1968 DMS II edition. Until then, hyperactivity in children was not considered a mental illness. Currently, the DSM model is widely accepted in the psychiatric community, not just in the United States, but also around the globe. The DSM has gained wide acceptance in part because psychiatrists easily avoid lawsuits from insurance companies and disgruntled patients for misdiagnosis if they diagnose their patients with the use of DSM (Gavarnie 2001).

The DSM V, just like in the DSM IV, divides symptoms for ADHD into two categories, namely: inattention and hyperactivity on the one hand, and impulsivity on the other. Impulsivity may include inability to pay attention, issues with organizing activities

or tasks, too much talking or not being able to remain calmly seated even when circumstances require one do so (DSM V).

For children to be diagnosed with ADHD, they are required to exhibit no less than six ADHD symptoms either in the Inattention and Hyperactivity subcategory or Impulsivity subcategory or in both criteria. Individuals aged 17 years and above are required to show five symptoms of ADHD in order to be diagnosed with the mental disorder. Although the general criteria for the diagnosis of ADHD did not change, more examples were added to demonstrate the kind of behaviors pediatric and adults with ADHD may show. In the DSM V, the age of ADHD onset was increased from 7 years to 12 years.

Additionally, in the DSM V there is no specific criterion to exclude people who may be suffering from Autism Spectrum Disorder. This is attributed to the fact that the symptoms of both mental disorders can occur simultaneously. Nevertheless, “symptoms must not occur exclusively during the course of schizophrenia or another psychotic disorder and must not be better explained by another mental disorder, such as a depressive or bipolar disorder, anxiety disorder, dissociative disorder, personality disorder, or substance intoxication or withdrawal” (APA).

2.3. Main Perspectives of Mental Illnesses

Giedraitis (2003) observes that there are three main paradigms of mental illnesses. They include labeling, biomedical, and antipsychiatric models. Labeling theory is grounded on the idea that if an individual is labeled deviant and then people treat him or her as such, he or she will eventually become deviant (Lemert 1972). Further, those who are treated as though they are suffering from a mental illness will eventually internalize

the label and act as though they are indeed suffering from the mental illness they are told they are suffering from, thus creating a cycle that perpetuates itself. According to labeling theorists, mental illnesses do not occur the way the biomedical model proposes.

According to the biomedical model, mental illnesses are physiological in origin and should be treated by medications the same way other diseases are treated. Labeling theorists argue that mental illness is a social issue. Mental health is fundamentally an arbitrary state (Conrad 1975).

According to the antipsychiatric model, or the radical perspective, behavior is socially constructed by employing the institution of medicine as an element of social control. The radical perspective is opposed to the biomedical model of mental illnesses. The proponents of the extreme antipsychiatry include rebel psychiatrists such as Szasz (1974) and Laing (2013). They argue that mental illnesses do not exist at all. Laing (2003) observes that schizophrenia is a sound reaction to an insane society, whereas Szasz (1974) notes that mental disorders are myths that have no basis in medical facts because there are no physical biomarkers for mental illnesses.

Giedraitis (2003) notes that there is an intricate interrelationship between psychiatrists, clients, pharmaceutical companies, and the state. The state is keen on reducing treatment costs, thus it reduces the use of expensive methods of treatment such as behavioral therapy. Pharmaceutical companies seek to make as much profit as possible. Both the state and pharmaceutical companies influence psychiatrists who diagnose, treat and manage mental illnesses. Clients sometimes come to psychiatrist seeking medications despite the fact that it is the work of psychiatrists to diagnose mental illnesses. This occurs due to direct-to-consumer advertising especially in the US, which

allows it. The diagram below is an illustration of the relationship between variables that promote medicalization of mental illnesses.

Source: Giedraitis (2003)

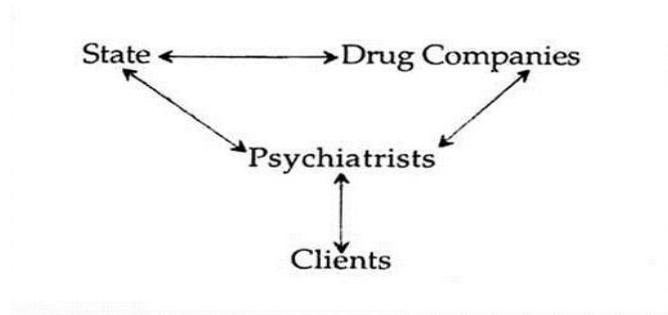


Figure 1: Model of Relationships between Psychiatrists, Clients, Pharmaceutical Companies, and the State

2.4. ADHD as a Bona Fide Mental Illness

Moffitt and Melchior (2007) assert that the finding of a meta-analysis of ADHD studies around the world by Polanczky and colleagues that established the prevalence rate of the disorder as constant across the different world cultures disabuses the notion that ADHD is a cultural construction. As such, ADHD is neither as a result of greed of the American Psychiatric Association nor the permissive culture of most of the Western societies. Consequently, even if the avarice of the American psychiatric system and the culture of permissiveness were solved, ADHD would still exist. Because there is a uniform rate of ADHD across the world, variation from one geographical location to another may not offer new clues with regard to the causes the mental illness.

Currently, the diagnosis of ADHD is based on symptoms because there are no biomarkers yet discovered to use in diagnosing the mental illness. Therefore, ADHD diagnosis is based on the disparity between how the child behaves and how the adults in their world expect the child to behave. This disparity is coded differently by the DSM and

ICD. It is claimed that the DSM identifies more ADHD patients than the ICD. It is still debatable as to whether the ICD under identifies while the DSM over identifies ADHD cases. Therefore, it is important to ensure that there is no over identification of the disorder because it is estimated that excess medical costs for every ADHD case is approximately \$1000 per patient per annum. The costs are incurred on doctor's office visits, psychiatric medications, and psychiatric hospital outpatient visits. Consequently, a small change in the prevalence rate of ADHD within a country's population would have significant financial ramifications for institution which are charged with the responsibility of treating and managing ADHD patients (Moffitt and Melchior 2007).

Curatolo, Agati Moavero (2010) argue that on the basis of data emerging from neuroimaging, neurochemical, genetics, and neuropsychology suggest consistently that the frontostriatal network contributes to the etiology of ADHD. "This network involves the lateral prefrontal cortex, the dorsal anterior cingulate cortex and the caudate nucleus and putamen" (Cutatolo 2010:7). Advances in neuroimaging continue to offer new means that can be employed to investigate the pathophysiology of ADHD. Evidence from neuroimaging shows "widespread dysfunction in neural systems involving the prefrontal, striatal, and parietal brain regions, and leads to a brain model of deficits in multiple developmental pathways" (Cutatolo et al. 2010:7). Additionally, evidence from molecular genetics bolster "dysregulation of neurotransmitter systems as the basis of genetic susceptibility to the disorder" (Cutatolo et al. 2010: 7). There is increasing evidence suggesting that how an ADHD patient responds to ADHD medication may be influenced by the genotype.

In a review of ADHD literature about the prevalence of ADHD, symptomology, and etiology in Brazil, Rohde (2005) found that ADHD is cross culturally valid. The findings suggest that ADHD should not be understood as a cultural construct. In its place, on the basis of these findings that originated from a different culture, there is humble support for the position that the disorder is a neurobiological mental illness that is uniform across cultures.

According to Rohde (2005), it is well known that the demands of the environment vary from one culture to another. Additionally, various cultures have different expectations and levels to which they can tolerate particular behaviors. As such, there is cultural determination for both normal as well as deviant behavior. There is some level of subjectivity in assessing ADHD despite the fact that there is a well-established criterion in either the DSM or the ICD used to diagnose ADHD. The requirement that the various ADHD symptoms must occur for an extended period of time, and that the intensities of those symptoms must impair the functionality of the children, as well as be out of sync with the developmental stage of the child is dependent on culture and is subjective to some extent (Bird 2002). Consequently, it is important that medical practitioners be well versed with how the culture standards with regard to behaviors that are considered either normal or deviant. The disorder should be conceptualized in such a way that evaluations are culturally adaptive.

2.5. Attitudes of General Practitioners towards ADHD

In most countries, non-psychiatrists are involved both in the diagnosis and treatment of ADHD because the incidence of the disorder has increased significantly in recent years (Olfson et al. 2003). According to the American Academy of Pediatrics, general practitioners should play the role of identifying and managing ADHD patients who do not exhibit severe symptoms of the disorder while referring those that show severe symptoms of the mental disorder to psychiatrists. The argument for general practitioners involvement in the diagnosis, treatment, and management of ADHD is that they are strategically situated to play this critical role. Because primary care doctors interact more closely with the patients, they are better placed to offer medical counseling and care that is uniquely suited for the ADHD patients and their families (Barbarese 1996).

Generally, nurses and physicians are neither well trained on appropriate methods of ADHD diagnosis and treatment, nor on management techniques, such as behavioral and family therapy. Further, a lot of time is needed to explore a child's behavioral problems to diagnose him or her child with ADHD because it is a complex behavioral problem (Shaw, Wagner, Eastwood & Mitchell, 2003). Despite the critical role of nurses and physicians and even psychiatrists in the mental healthcare system in Kenya, their willingness to prescribe ADHD medications has not been well established.

Shaw et al. (2002) notes that general practitioners find it difficult to diagnose and manage ADHD. This view is informed by the fact that diagnosing and managing ADHD is a time consuming exercise. There is insufficient knowledge with regard to ADHD and the related mental health conditions for children. General practitioners are not confident

enough to diagnose and manage ADHD due to the fact that they have inadequate knowledge about the mental condition. Physicians would like to acquire more knowledge of the condition so that they can be able to diagnose and manage the condition whenever necessary. Most physicians feel that a team of specialists from relevant fields should be involved in diagnosing, treating and managing ADHD. The current education at the undergraduate and general practice levels does not equip primary care doctors with sufficient knowledge to diagnose and treat ADHD patients. As a result, primary care doctors do not have the tools necessary to identify and provide adequate management of ADHD and other mental illnesses.

According to Shaw et al (2002), school input is very crucial in the diagnostic process of ADHD in children. However, the medical field does not seem to get this valuable information in a standardized form because most ADHD assessment tools that are currently available are protect by copyright laws. It is important that a mechanism is built such that medical professionals are able to get crucial information from teachers. This can help primary care doctors to get more involved in routine care of ADHD patients.

2.6. Drivers of Increased ADHD Diagnosis

2.6.1. Earlier drivers of medicalization

Conrad (2005) observes that social constructionism was the lens through which the medicalization of society was studied in most of the early sociological studies undertaken in the 1970s and 1980s of the phenomenon. The social constructionist view emphasized that new illnesses were being constructed, thus expanding the medical jurisdiction. The medicalization concepts that dominated the social scientific literature

initially included professional dominance, moral entrepreneurship, and claims-making. Conditions such as hyperactivity, alcoholism, post-traumatic stress disorder, child abuse, menopause, among others, were studied. Consequently, the understanding of medicalization among social scientists and the attendant social ramifications was widened.

In the early studies conducted in the 1970s and 1980s, a number of social factors contributed to increased medicalization. Among them was the tremendous power of the medical profession at the time. The power and authority of the institution of medicine was exercised in the form of dominance of the medical profession, entrepreneurship of the medical personnel, and in some instances medical imperialism. The key issue that drove medicalization under the power and authority explanatory variable was the cultural sway held by the field of medicine. From whatever focal point social scientists looked at medicalization, clearly the medical profession was a crucial element in terms of pushing the boundaries of medical jurisdictions. Hyperactivity, child abuse, child birth, and other illnesses were legitimated through the influence of the medical profession (Conrad 2005).

Conrad (2005) notes that social movements and various advocacy groups were other players in promoting medicalization in the 1970s and 1980s. Various social movements made deliberate efforts to champion for medical definition of hitherto non-medical problems and called for medical interventions. Also, interest groups advocated for increased identification and diagnosis of various human conditions as medical conditions. For instance, “Alcoholics Anonymous” played a key role in the medicalization of alcoholism as an illness. Largely, efforts at the grassroots level led to increased medicalization of society during this time.

Both intra and inter professional efforts led to increased medicalization of society. The organization efforts of these groups explain the rise of obstetricians and the end of midwifery (Wertz 1989). Inter and intra professional activities played a crucial part in the medicalization of childhood behaviors as attempts were made to control behavior among children, such as hyperactivity that were considered socially disruptive. Intra and inter professional efforts brought about the creation of behavioral pediatrics as a field of concentration in medicine.

Besides the above three factors, other factors were involved in the promulgation of the therapeutic state. Innovations in the pharmaceutical industry and the marketing of its new drugs contributed to the medicalization of hyperactivity in children and menopause in older women. Third party payers were also implicated as drivers of society's medicalization. If third party payers, that is, insurance companies, would pay for life conditions that had been newly defined medically, then there could be wide spread of the condition in the population. Conditions for which insurance companies refused to pay for treatment did not grow fast in their diagnosis and treatment. For example, insurance companies were slow to pay for medical intervention for alcoholism. It is important to note that in almost all the studies where economic medicalization aspects were taken into account as explanatory variables for medicalization, they were subordinated to social drivers of medicalization namely: the power of medical professionals, social organizations, as well as claim-making efforts. In other words, during this period, both the pharmaceutical and insurance industries were not considered as major players in the analyses of medicalization (Conrad 2005).

2.6.2. Emergent drivers of medicalization

According to Conrad (2005), factors that drive medicalization have shifted a great deal. Currently, consumers, biotechnology and managed care are the emerging drivers of medicalization. A number of biotechnology innovations have indirectly enhanced medicalization. For instance, technologies such as the use of forceps during childbirth, as well as medical intervention for children who are socially disruptive have played a significant role in medicalization. Previously, child birth technologies, and medication of hyperactive, and in attentive children were not the main causes of medicalization, but rather facilitators of the process. However, the scenario has profoundly changed. Today, biotechnology and the pharmaceutical industry are key players in the process of medicalization. Pharmaceutical companies are involved in the promotion and marketing of their products so as to increase their market share, and the use of their products to treat various mental illnesses. For example, the promotion and marketing of Methadone and Ritalin together with other psychoactive drugs pushed the process of medicalization forward (Connor 1999).

Drastic changes have taken place in the U.S. medical system. Consumers of healthcare products are critical and active players in the medicalization process. Healthcare products are now subject to the free forces of demand and supply just like any other goods and services. Consumers of healthcare products play an active role with regards to deciding on insurance policies and purchasing healthcare services in the healthcare market. Facilities that offer healthcare services compete for customers for their services. As such, patients are just like any other customers of healthcare business organizations. Instances where consumers have played a significant role in

medicalization include adult ADHD and cosmetic surgery. Consumers are active participants in medicalization because of increased advertisement of medications directly to consumers by pharmaceutical companies (Sullivan 2001).

Conrad (2005) asserts that managed care is increasingly becoming a significant player in the medicalization process. Managed care is dominant in offering healthcare services, because the cost of healthcare services has skyrocketed in the last two decades. In this mediated process of medical services provision, patients are required to get pre-approvals so that they can be treated for particular illnesses. Moreover, limits are sometimes set on the treatment of certain medical conditions. The resultant organizational arrangement in the provision of medical care services enhances the power third party payers have on the kind of healthcare services the physicians can provide, as well as the form of services the patients can seek from healthcare facilities. To some extent, the practice of medicine was commercialized with the advent of managed care resulting in the emphasis of profits by healthcare organizations and physicians at the expense of taking good care of patients. In most cases, managed care pushes healthcare facilities to pursue profits. The pursuit of profits promotes medicalization. However, in some instances, managed care limits the provision of medical care services, thus restraining medicalization (Shore and Beigal 1996). In other words, managed care can enhance or restrain medicalization depending on the impact promoting or constraining medicalization would have on the organization's profitability.

2.7. Theories of Medicalization

Kittrie (1971) discusses the advent of the therapeutic state in Western societies. In Kittrie's (1971) seminal work in medicalization, he predicts how changes are underway

with regard to future trends of crime, and how society would hence forth control deviance. Social control would be undertaken through medical intervention. As result, the subfield of psychiatry in the larger medical community would be used to enforce behavioral norms and values of society. His theories were predominantly geared towards the study of crime, especially in circumstances where individuals who were mentally ill were forced to live in institutions. Institutionalization of the mentally ill was common. Although Kittrie's theories were developed to explain crime, his insightful reflection could be employed in the study of medicalization in Western societies. Psychiatry controls social behaviors that are considered undesirable or disruptive through medical intervention, by diagnosing and medicating individuals to alter their behaviors. Kittrie's predictions came to pass, especially when children who society considers hyperactive and inattentive are medicated with drugs that are as addictive as cocaine (Szasz 2007).

The rise of the therapeutic state introduced two changes in the study of social deviance. The first influence of the therapeutic state is the shift in terms of the social explanations of crime and deviance from religious to secular (Kittrie 1977). In other words, deviance became less described with respect to moral ideals and more with respect to science in the description of crime and deviance. The shift explains the shift from the sacred to the secular in describing social phenomena such as deviance and crime. Mental illnesses that were once explained using terms such as demon possession, which could be cured through exorcism, were now explained using science because scientific methodology was used in the studies. Angels and "acts of God" no longer sufficed in explaining human behavior. In most societies today, social deviance is not attributed to possession by evil spirits that need exorcism, but rather social deviants are

individuals who suffer from an illness that call for medical attention. Consequently, there was a shift in explaining social deviance from the realm of religion to the realm of science.

The second aspect of the rise of the therapeutic state that led to medicalization of society is the *Parens Patrae* principle. *Parens Patrae* principle of governance allows the state to take parental responsibility and obligation for those who are unable to take care of themselves. In the middle ages, *Parens Patrae* allowed monarchs to exercise control over orphaned children and mentally ill citizens (Kittrie 1977). Initially, the principle of *Parens Patrae* was passed into law to safeguard property. However, in due course, the concept of the state as a benevolent parent has become a common governing ideal. Most governments have passed oppressive laws governing the rights and obligations, and incarceration of children, and people with disability. There are also laws that govern the rights, treatment, protection and institutionalization of the mentally ill. Some of these laws are ostensibly enacted to protect the mentally ill against oppression. Nonetheless, sometimes these laws are used to medicate and institutionalize the mentally ill without due regard to the long terms effects of the intervention. The *Parens Patrae* governing ideal of government as a benevolent parent may work towards the betterment of society, however it may also lead to a situation where individuals who deviate from societal norms and values are maltreated, and even exploited by the state organs. Consequently, *Parens Patrae* could be used against the mentally ill whom it is supposed to help. Apparently, *Parens Patrae* led to increased medicalization in western societies.

The concept of the therapeutic state has its basis in Weber's (1946) idea of rationalization whose ultimate end is bureaucracy. Contemporary societies have moved to

what Ritzer (2012) refers to as McDonaldization. Although the fast food industry in the US is not the epitome of rationality, it nevertheless exemplifies what the future holds in terms of rationalization of processes of running institutions.

Ritzer (2012) asserts that a society that is increasingly embracing rationality in almost every sphere focuses on efficiency, predictability, calculability, substitution of nonhuman for human technology and control over uncertainty. Admittedly, the process of rationalization has many advantages, such as increased availability of goods and services for consumers, instantaneous satisfaction of needs and wants of the customers, among others. The glitter of the benefits the rationality brings to society blinds many to the grave dangers the process poses, especially in the form “irrationality of rationality.” Rational systems unavoidably spawn irrationalities. In other words, rational systems bring about irrational consequences. Rational systems created through McDonaldization undermine human reason, because most rationalized systems are usually unreasonable. For example, McDonaldization has led to alienation of employees working for organizations with rationalized operations. Medicalization fits into the theory of McDonaldization of society because medicalization embodies all the characteristics of a McDonaldized society. For instance, medications to treat mental disorders such ADHD are considered efficient, predictable and calculable. Further, psychotropic medications tend to substitute human with nonhuman technology and exercise control over uncertainty.

Due to vested interests by various parties in society, the criminal justice, psychiatric and economic systems have been structured in such a way so that rationality takes center stage in decision making. McDonaldization emphasizes efficiency in social interaction, thus individuals who deviate from the norms and values of society are

considered to be a liability. When the available social control mechanisms employing the existing social control systems, such as the criminal justice system and religion, were unable to control social deviants who abided by the laws that governed society, society had to create a disingenuous institution that could control this crop of individuals. It was against this backdrop the psychiatric system came into being to play the role of making people to conform to social norms and values. The psychiatric system was created as an attempt to reign in social deviants. Medication is the easiest route to controlling people. Medications are easy to use, efficient, and quick in changing behavior. The therapeutic state cannot medicate everybody, the behaviors considered socially disruptive and undesirable have to be put under the domain of medicine through medicalization.

Conrad and Schneider (1992) observe that the common claim that rehabilitation is replacing punishment for deviance is not entirely correct. In fact, in most of the cases medical intervention is an emerging form of punishing and exercising control over individuals who are deviant, but do not necessarily break the law. The connotative meaning of the term medicalization has been mainly negative. The term has been used by social scientists since the 1970s to critique the process where normal life troubles are being taken under the boundaries of medicine and treated as such. On the one hand, Szasz (2007) has referred to this process as psychiatric medicalization slavery. On the other hand, Conrad (2007) does not consider medicalization by and of itself as a negative phenomenon.

In most of the scientific literature, medicalization has a negative connotation. Particularly, the subfield of psychiatry within the larger profession of medicine is attacked for being on the forefront in terms of medicalizing life problems such as

sadness, inattentiveness, restlessness, among other undesirable human behaviors.

Psychiatry is mostly about medicalization (Szasz 2007). Nevertheless, professionals in psychiatry and psychology claim that what they are doing is good for society because they help social deviants to fit into society through rehabilitation and treatment. Most of the stakeholders have bought into this view, which according to social critiques, is misguided.

The psychiatric community is engaged in an ill-advised form of social control. The process of medicalization is largely arbitrary and political. Some illnesses are voted in and out of the domain of mental illnesses. The case of homosexuality is a good illustration of the ever changing nature and politics of medicalization. Homosexuality was first considered a sin that required prayer, which was taken into the realm of science as a mental illness that called for the medical attention because the politics of the day allowed it. Later, homosexuality was demedicalized because it was no longer politically correct to label a condition that was then perceived to be normal as a mental disorder. On the basis of this argument, the psychiatric community used medical science to enforce the norms and values of society. Psychiatrists are not unbiased and valueless as science is claimed to be (Conrad and Stults 2008).

It is because of these factors that medicalization continues to take a grip on society. The therapeutic state uses medicalization ostensibly to help social deviants, but really to control individuals who deviate from societal norms and values. The therapeutic state plays the role of an enforcer in an increasingly McDonaldized society.

2.8. Theoretical Framework

This research uses social constructionism as its theoretical model to analyze the data and make meaningful conclusions. Social constructionism takes into account not only the cultural attributes of the social phenomena under investigation, but also the historical elements the majority of the lay public perceive as natural. The meanings attached to phenomena are not necessarily inherent in the phenomena itself, but are rather created through social interaction. In other words, the model of social constructionism investigates how individual and collective social actors play a role in creating what is generally perceived as indisputable truth and knowledge (Burr 2003).

The social construction approach is based on the conceptual difference between illness and disease. On the one hand, illness refers to “a subjectively interpreted undesirable state of health. It consists of subjective feeling states (e.g. pain, weakness, perceptions of the adequacy of their body functioning, and/or feelings of competence” (Twaddle 1994:10). On the other hand, a disease is “a health problem that consists of a physiological malfunction that results in an actual or potential reduction in physical capabilities and/or a reduced life expectancy” (Twaddle 1994:8). Although criticisms have been leveled against the disease/illness dichotomy, it nonetheless provides scholars with a valuable conceptual apparatus to study medicalization.

According to Conrad and Barker (2010), the medical approach to disease is based on the assumption that diseases do not vary across time and space, and that they are universal. Unlike the medical model, the social construction approach places a lot of emphasis on how “meaning and experience of illness is shaped by cultural and social systems.” (Conrad and Barker 2010:67). Put differently, illness is not a phenomenon that

occurs in nature which medical professionals or scientist discover. Illnesses are not medical facts, but rather social constructs that society labels as such. Bio-physiological conditions that afflict or occur naturally in the human body are not in and of themselves either illnesses or diseases. It is important to point out that the disease model can also be analyzed using the social construction approach, because what physicians label as a disease is mostly the case that it is socially mediated.

3. METHODOLOGY

3.1. Research Design

Bryman (2001) notes that research design is a roadmap that defines methods and procedures the researcher intends to employ to guide and focus the research endeavor. There are two broad overlapping approaches available to researchers, namely quantitative and qualitative research designs. I used qualitative design to analyze the data collected from 84 psychiatrists, physicians, and nurses who have privileges to prescribe psychiatric medications in Kenya. I applied and received an IRB exemption for this project.

3.2. Research Strategy

I used survey method to gather data for this study. According to De Vaus (2002) surveying is a method of data collection that involves gathering data from a sample of individuals through a series of responses to questions posed by the researcher. Questionnaires are commonly used as a data collection instrument. However, other techniques, for example observations, content analysis, interviews, among others, can also be used in surveys research to collect data. The form of data and the method used in the analysis of data distinguishes surveys from other methods of data collection. The survey contained a total of 14 open-ended and closed-ended questions. The first six questions were open-ended and last eight questions were closed-ended. The first six open-ended questions were analyzed qualitatively to answer the three research questions for this project. The last eight closed-ended questions were used to generate demographic variables. A copy of the survey for this project is in the appendix.

3.2.1. *Population.*

The population for this study was nurses, physicians, and psychiatrists working in Nairobi, Kenya. In Kenya, nurses, physician and psychiatrists are all allowed to prescribe psychiatric medications. According to the Ministry of Health (2012), there are approximately 1,343 nurses, 689 doctors and 14 psychiatrists working in 121 public, 82 nongovernmental, 85 faith-based, and 252 private health facilities spread across the city of Nairobi. The city of Nairobi has a population of approximately 3.5 million people.

3.2.2. *Sampling technique.*

In this study, a sample of 84 nurses, physicians and psychiatrists drawn from 2,046 nurses, doctors, and psychiatrists practicing in Nairobi was surveyed. Respondents were recruited by a convenience sampling of healthcare practitioners. The respondents were recruited from three public, one faith-based, and two private healthcare facilities in Nairobi, Kenya. I chose convenience sampling technique because my research is exploratory in nature. Additionally, I had limited resources in terms of time and money to use a probability sampling technique. As such, the respondents' accessibility and proximity were key factors I considered before choosing the convenience sampling technique. I sought permission from the hospital administrators who allowed me to talk to their employees and asked them to fill out my questionnaire. Some respondents completed the questionnaire on the spot and handed them back to me. I asked the rest to fill out the questionnaires within a week and leave them with the hospital administrators.

3.3. Data Analysis

The data from open ended questions in the questionnaire were analyzed and interpreted qualitatively to draw valid conclusions with regard to the attitudes of medical professionals towards ADHD in Kenya

4. FINDINGS

Table 1. Demographic Variables		
	<i>n</i>	%
Gender		
Male	34	40.5
Female	50	59.5
Do you have prescription writing privileges for psychiatric medications?		
Yes	21	75
No	63	25
How often do you diagnose/treat ADHD in children?		
Never	48	57.1
A few times a year	28	33.3
A few times a month	5	6.0
Several times a month or more	0	0
Did not answer	3	3.6
What kind health professional are you?		
Nurse	43	51.2
Psychiatrist	18	21.4
Medical doctors	23	27.4
Where do you work?		
Public hospital	22	26.2
Mission hospital	14	16.7
Private hospital	48	57.1
If you diagnose ADHD, which manual do you use?		
DSM V	48	57.1
ICD	10	12.0
No reference to manual	7	8.3
Did not answer	19	22.6
Age		
18-24 years old	9	10.7
25-34 years old	19	22.6
35-44 years old	11	13.1
45-54 years old	22	26.2
55-64 years old	16	19.0
65-74 years old	3	3.6
75 years or older	4	4.8

The hospitals where the sample was drawn from were located in low to high socioeconomic areas. Public hospitals tend to serve the poor and are funded mainly by

the government. Limitations in infrastructure and manpower are apparent in public hospitals. The lines of patients awaiting treatment are usually long in public hospitals, but those hospitals charge a minimal fee for treatment. Faith-based hospitals serve low to middle socio/economic classes. Private hospitals tend to serve those in the middle to high socio/economic classes. Faith-based and private hospitals are better equipped in terms of infrastructure and medical personnel compared to public hospitals, but the cost is higher.

The sample included more women than men. This disparity can be attributed to the fact that a relatively large proportion of the sampled medical professionals were nurses, who in Kenya are mostly women. Moreover, there are more nurses than physicians and psychiatrists in Nairobi. There are approximately 1,343 nurses and 689 doctors and psychiatrists practicing in the city of Nairobi (Ministry of Health 2012).

4.1. Legitimacy of ADHD as a Diagnostic Category

Respondents were asked about their views concerning the legitimacy of ADHD as a distinct diagnostic category. Seventy-one respondents (85 percent) were of the view that ADHD was a legitimate mental illness. The respondents cited the persistence of ADHD symptoms and impairment of social functioning as reasons why they believed ADHD was a legitimate mental illness that deserved appropriate medical intervention, just like other mental illnesses. One expression of this general sentiment was given by respondent 5, a male physician in the 35-44 age range: “I think ADHD qualifies to be a mental illness because it causes impairment of social or occupational functioning.” Some respondents indicated that ADHD had become a relatively common mental illness, thus overshadowing other mental illness. Respondent 1, a male psychiatrist in the 45 to 54 age range, observed: “It is one of the better known illnesses of child psychopathology and has

over shadowed other disorders such as attachment disorders, etc.” Eighty five percent of the respondents regardless of gender, age, or professional category agreed that ADHD was a legitimate mental illness that needed medical attention. It is not surprising that almost all the respondents thought that ADHD is a legitimate mental illness, since they are all conventionally trained medical practitioners.

Six respondents (7 percent) said that ADHD was more of a psychological disorder than a neurobiological mental illness. Consequently, psychosocial strategies should be used to treat the mental disorder.

The views of health care workers were consistent with both the neurobiological and psychodynamic perspectives of ADHD. Psychoanalysts and psychologists tend to favor the psychodynamic perspective of ADHD. On the other hand, the rest of the medical establishment is usually inclined towards the neurobiological perspective of ADHD. The neurobiological perspective favors the physiological model in understanding ADHD symptoms. Those who subscribe to the psychodynamic view of ADHD view the disorder as an “interactional difficulty between self and social environment” (Rafalovich 2005: 297), and consequently believe the condition is better treated by psychotherapy. Those who subscribe to the neurobiological perspective of ADHD view ADHD as a particular brain process which, is better treated by psychopharmacology. Both the neurobiological and psychodynamic approaches towards ADHD are used to legitimize ADHD as a medical diagnosis. However, today the neurological perspective is more common than the psychodynamic approach in understanding ADHD symptoms. Nevertheless, the neurobiological perspective continues to face substantial skepticism across the globe. Although the neurobiological perspectives are employed to legitimate

ADHD as a mental illness within the medical establishment, it would be misleading to say that neurobiology is the only source of knowledge about ADHD.

Respondents who said ADHD is a legitimate mental illness attributed the illness to genetics, developmental and environmental factors. This is consistent with the available literature on the probable causes of ADHD. The prevailing view in the medical field is that biological, environmental, and developmental factors that operate alone or in concert cause ADHD among children. The available literature on the etiology of ADHD attributes the cause of ADHD to genetics and environmental factors (Shaw 2002). Consequently, the neurobiological and psychodynamic views of ADHD expressed by respondents in this study are reasonable considering the kind of training medical practitioners undergo.

Eighty five percent of the respondents believed that ADHD was a legitimate diagnostic category. Broadly speaking, the attitude of health care professionals towards ADHD diagnosis and treatment was favorable. This contributes to answering research question one which sought to investigate the attitudes of medical professionals towards ADHD diagnosis and treatment.

4.2. When ADHD Medication Should Be Used

Research question two for this project sought to establish the point at which medical practitioners think medication is the best strategy in treating ADHD. In the survey, respondents were asked when medication should be used to treat ADHD. Respondent 1, a male psychiatrist in the 44 to 54 age range, gave a typical response: “In severe cases, yes. (Medication) should be given in conjunction with psychosocial treatment.” Indeed, sixty-five of the respondents (77 percent) said that ADHD

medication should only be used in chronic cases and where other strategies of treating the mental illnesses such as behavioral therapy, environmental repositioning, and diet have failed to yield desirable results. Seven respondents (8 percent) suggested that ADHD medications should be used together with psychosocial treatment to enhance the chances of healing.

Additionally, nurses and physicians indicated that before a child is put on medication a psychiatrist should confirm ADHD diagnosis to avoid misdiagnosis and putting a child on medications they do not need. Respondent 62, a female nurse in the 24-34 age range captured this sentiment as follows: “After diagnosis is made and confirmed by a psychiatrist.” This could indicate that although nurses and physicians have prescriptions privileges for psychiatric medications, some may not have the confidence to prescribe. Nurses and physicians would rather refer the patients they suspect are suffering from ADHD to psychiatrists than put them on psychotropic medication themselves. Nurses and physicians may not always feel that they have sufficient knowledge and experience to prescribe ADHD medications.

There was an interesting pattern with regard to when medication should be used to treat ADHD. Nurses and physicians tended to emphasize the use of non-pharmacological interventions such as behavioral therapy before a child is put on medication. Respondent 8, a female nurse in the 24-34 age range observed that health care practitioners should: “First use cognitive behavior therapy, if it fails, use pharmacotherapy.” Psychiatrists put more emphasis on proper diagnosis, severity and persistence of ADHD symptoms before putting a patient on medication. Respondent 14, a female psychiatrist in the 54-64 age range responded that a child should be put on

medication when ADHD symptoms manifest: “with comorbid conditions and in case of severe and persistent symptoms.”

Respondents believed that medication should only be used after all other non-pharmacological strategies of treating the mental illness fail. Non-pharmacological interventions normally used to treat ADHD include training in social skills, family intervention, pedagogical, social, classroom, behavioral interventions, change of diet, and psychotherapy and environmental repositioning (Baldwin and Cooper 2000). Fifteen respondents (18 percent) indicated that even in cases where medication is initiated, it should be used in concert with other non-pharmacological interventions, such as cognitive and behavioral therapy. The respondents implied that that ADHD should not be understood as a purely neurobiological issue. Baldwin and Cooper (2000) note that ADHD is a biopsychosocial mental problem that requires a multimodal intervention. Collaboration across disciplinary boundaries is crucial for a multimodal approach to treating ADHD to be effective. ADHD medications were largely viewed as necessary, but inadequate as the sole means of treatment and management of ADHD.

Forty-eight (57 percent) respondents who had privileges to prescribe ADHD medications said that they used the DSM V to diagnose ADHD in Children as opposed to ICD. According to the DSM V, for a child to be diagnosed with ADHD he or she must show “at least six symptoms from either (or both) the inattention group of criteria and the hyperactivity and impulsivity criteria” (APA 2013:1). The DSM V is the prevailing standard that is used in most parts of the world to diagnose children with ADHD and consequently put them on ADHD medication. Because there is no biomarker for ADHD, diagnosis for the mental illness is still based on the difference between how the child

behaves and how the adults expect the child to behave. This disparity is coded differently by the DSM and ICD. Some researchers claim that the DSM over identifies ADHD cases. It is still debatable as to whether the ICD under identifies while the DSM over identifies ADHD cases (Moffitt and Melchior 2007). However, in this study the respondents did not indicate that ADHD was over diagnosed and overmedicated.

Once a child is diagnosed with ADHD, medication is usually the first line of treatment. Non-pharmacological interventions as the first lines of treatment for children diagnosed with ADHD are an exception rather than the norm in ADHD treatment and management. The general consensus in pediatric psychiatry is to use stimulant medication as the first line of treatment then augment the treatment with non-pharmacological interventions such as behavioral therapy (National Health and Medical Research Council 1996).

Kenya's low GDP per capita could explain why respondents preferred non-pharmacological intervention as the first line of for ADHD treatment. Scheffler et al. (2005) assert that GDP per capita is a strong explanatory variable for the use of ADHD medications across countries. The use of ADHD medication has risen both in both developed countries and developing. However, the use of ADHD medications in the US, Australia, and Canada was higher than GDP per capita predicted (Scheffler et al. 2005).

4.3. Pressure to Diagnose

Respondents were asked whether they felt any pressure or encouragement to diagnose ADHD and/or to prescribe medication for ADHD. Respondents were also asked about the source of any such pressure. Seventy-four (88 percent) respondents indicated that they did not feel pressure to diagnose or prescribe ADHD medication. This finding

contributes to answering research question one which was assessing the attitudes of health care workers towards ADHD. Respondents felt that the general public knew too little about ADHD in the first place to encourage or pressure health care professionals to diagnose ADHD in children. Six respondents singled out teachers and parents as a group of individuals who are likely to put pressure on medical professionals to diagnose if they believed that a child was being too active or inattentive, perhaps as a result of a mental illness. Respondent 28, a female psychiatrist in the 44-54 age range provided a typical response for this question: “Most of the time the parents do not realize the child is suffering from a disease. So, one may not be pressured or encouraged to diagnose.” This is unlike the Western world, especially the United States where psychiatrists and physicians are pressured by the parents to diagnose and prescribe their children with ADHD having been suggested to them by the teachers of the children. Some parents pressure the doctors to prescribe their children with ADHD medication so that they can benefit from the extra school services that are only available to children with an ADHD or autism diagnosis (Frances 2013). An arrangement where children receive extra school services upon diagnosis with a mental illness such as ADHD does not yet exist in Kenya.

Respondents suggested that creating awareness about the mental illness was crucial for proper diagnosis, treatment and management of ADHD. Respondents said that even in cases where ADHD is suspected, most individuals in Kenya do not perceive the mental illness as serious. Respondent 54, a physician in the 34-44 age range responded: “Majority of the people aren’t aware that it is a serious medical condition. Awareness needs to be created among the people.”

Nine respondents (11 percent) indicated that there was some pressure to diagnose, particularly from parents who suspect that their children might be suffering from ADHD. Respondents cited relatives of the perceived ADHD patients as a group that occasionally put pressure on medical professionals to diagnose children with ADHD. Respondent 9, a male physician in the 34-44 age range wrote that he occasionally faced: “pressure from parents of alleged ADHD children.” The very few respondents who indicated that there was pressure to diagnose were working in private hospitals. I would tentatively conclude from the data that medical professionals working in private hospitals were more likely to be encouraged or pressured to diagnose ADHD in children compared to those who work in public or faith-based hospitals in Nairobi, Kenya. Private hospitals usually serve those in the middle to high socioeconomic classes who can afford higher medical expenses. Individuals in the middle to high socioeconomic classes may have more access to information about ADHD, as well as the financial resources to seek medical help for their children.

Fifty two respondents (62 percent) said parents of children diagnosed with ADHD come from all social classes. The rest of the respondents (38 percent) indicated that ADHD children came from various combinations or exclusively from upper, middle, and working classes. However, it is instructive to note that no respondent said that ADHD patients come exclusively from the lower class. Lack of knowledge about the mental illness, poverty, and inadequate medical personnel could explain why doctors are not yet being pressured to diagnose children with ADHD in public hospitals. Also, teachers in impoverished areas who could be referring children for psychiatric evaluation might not be aware that a child’s problems could be thought of in terms of ADHD. Further,

pharmaceutical companies may not be advertising their psychiatric drugs very much in Kenya since the majority of the people are poor and cannot afford to buy the drugs, even if they were convinced that their children needed the medications. Additionally, Kenya does not allow direct to consumer advertising of pharmaceutical drugs. As a result, it is difficult for the pharmaceutical companies to reach the potential customers for their drugs through advertisements in the mass media as they do in the United States.

4.4. The Seriousness of the Side Effects of the ADHD Medications

Research question three sought to find out the perception of the side effects of ADHD medications by medical professionals in Kenya. In the survey, respondents were asked if they had concerns in general about side effects from ADHD medications. This question about the side effects of ADHD medications is relevant because there are researchers who say side effects of medication do more harm than good to children. Twenty-four (29 percent) respondents were concerned about the addictive nature of ADHD medications. Respondents cited stunted growth and cardiovascular complications as other side effects that were of concern. Respondent 14, a male nurse in the 45-54 age range observed: "For prolonged treatment, (one must) monitor growth, blood pressure, and cardiovascular complications." However, sixty-two (74 percent) respondents indicated that most of the time the side effects were manageable for the very few people who suffered from the mental illness when the right diagnosis was made. The respondents suggested that in most cases, the benefits outweigh the potential risks of the side effects of ADHD medications. There were some who emphasized that the side effects could be fatal or disabling, especially in overdose cases and in situations where children were misdiagnosed with ADHD. Respondents were more concerned with the

side effects that result from a misdiagnosis and subsequent treatment of ADHD with medications than they were with the side effects of treating those they considered to be legitimate ADHD patients using medication.

Respondents were privy to the fact that ADHD drugs could be addictive, have significant side effects including cardiovascular complications and can potentially be abused. However, they were divided about the severity of the side effects of ADHD medications. Thirty-one (37 percent) respondents downplayed the seriousness of the side effects resulting from the prescribing and use of ADHD medications saying that the side effects are the price everyone on medication pays. Six respondents (7 percent) disagreed and noted that although in severe cases medications were necessary, the side effects were nevertheless very serious. It is important to note that even those respondents who had serious concerns about the side effects of ADHD medications did not indicate that ADHD medications should never be used to treat ADHD in children. It is reasonable to conclude from this finding about the acceptance of medication use that there seems to be a reduced stigma with regard to the use of ADHD medication. Society in general seems to have had a shift with regard to putting children on psychiatric medication. Previously hyperactivity and inattentiveness was believed to be the result of parents who were unable to control his or her child. It was even more socially unacceptable for a parent to put his or her child on medication to control behavior (Hall, Puthuff and Blohm 2012).

Although ADHD medication can help children with ADHD lead easier lives, it can also cause serious side effects including stunted growth, headaches, sleep problems, a dulled appetite, and cardiovascular complications (Cascade et al. 2010). On the basis of

the available literature, neither the pharmacological nor the non-pharmacological treatment approach can either be accepted or rejected (Shaw and Hilton 2000).

4.5. Appropriateness of ADHD Diagnosis and Treatment

Fifty-eight (69 percent) respondents said that ADHD was not diagnosed and treated appropriately. Respondents cited inadequate knowledge and experience on the part of medical professionals consistently as problems hindering proper ADHD diagnosis and treatment. Lack of proper follow up was also mentioned as a challenge to diagnosing and treating ADHD properly. Low index of suspicion (first impression of the odds of a medical condition) that a child could be suffering from ADHD was mentioned as another reason why ADHD is not appropriately diagnosed and treated. This finding contributed to answering research question one which sought to find out the attitude of medical professionals towards ADHD diagnosis and treatment.

Confusion of ADHD with deviant behavior was also cited as another reason why ADHD was not appropriately diagnosed and treated. Respondents said that the misconception that ADHD patients were being rebellious and therefore ADHD was a social problem prevented proper ADHD diagnosis and treatment. Respondent 9, a physician in the 34-44 age range said: "Diagnosis is not always clear cut because it tends to appear like a social problem." Respondents indicated that it was easy to diagnose hyperactivity but not inattention ADHD because hyperactivity was so easily observable.

Respondents made comments to the effect that there could be children who are suffering from ADHD but had not yet been diagnosed and treated, because it was difficult to access mental healthcare services in public hospitals. Respondents attributed

this situation to difficulty in accessing mental healthcare services because the specialists are very few and expensive if the services are sought in private hospitals.

Fifteen respondents (18 percent), many of whom were nurses, indicated that they felt their knowledge and experience were inadequate. This is because they rarely dealt with ADHD cases even though they had prescription privileges. They were taught about ADHD at school but they had hardly handled ADHD cases in their normal medical practice.

Thirteen respondents (15 percent) said that insufficient allocation of resources to the mental health care system also hindered proper ADHD diagnosis and treatment. According to Kiima and Jenkins (2010), the government predominantly funds the mental healthcare system. However, the funding is inadequate. As a result, effective service delivery is hindered by severe challenges in infrastructure, finances, as well as manpower.

Kirigia and Barry (2008) note that there is low investment in mental health in Africa. The absence of comprehensive medical financing policies and long term plans, widespread out of pocket payments for healthcare services and very limited social safety nets hinder effective mental healthcare service delivery. Additionally, inefficient allocation of resources, inefficient and ineffective financial management, as well as ineffective mechanisms to coordinate activities of the various players in the healthcare industry impedes the provision of quality mental healthcare services. According to the World Bank (2013) the GDP per capita in Kenya was about 994 dollars. Forty six percent of Kenyans still live below the poverty line (UNICEF 2013). Only a minority of Kenyans are covered by any form of medical insurance. Under these circumstances, it is difficult

for people to concentrate on treating behavioral problems when they cannot afford to treat even the well-established somatic diseases and illnesses.

Another possible reason for the perceived under-diagnosis and under-treatment of ADHD in Nairobi is the low medical personnel-to-population ratio. There are only 7 doctors, 3 psychiatrists and 49 nurses for every 100,000 people (Kenyan Ministry of Health 2012). The problem of inadequate mental health workers is made worse by brain drain and inequitable distribution of mental health care workers (Kirigia and Barry 2008). The few medical personnel that are available concentrate more on treating well established diseases and mental illness instead of behavioral problems such as ADHD.

Lack of awareness of the mental illness especially among the urban poor may also explain why most medical personnel feel that the condition is underdiagnosed and undertreated. Information about the mental condition is usually distributed through mass media sources, such as newspapers, television programs and the internet. The urban poor usually do not have access to these media sources to get information and eventually seek medical help for their children.

4.6. Concern for ADHD Misdiagnosis

Fourteen respondents (17 percent) indicated that there was a significant potential for ADHD misdiagnosis because ADHD is so complex. The respondents were more concerned with the side effects of ADHD medications on children who had been misdiagnosed with ADHD than on those children who had been appropriately diagnosed and thus needed the drugs. This finding contributes to an answer to research question one which was about assessing the attitude of medical professionals towards ADHD diagnosis and treatment. Inadequate training and lack of adequate medical professionals,

and poverty are possible reasons why the respondents felt that ADHD had a huge potential for misdiagnosis. Additionally, this finding is consistent with some of the literature on ADHD misdiagnosis. Hall et al. (2012) note that when the age range is increased, there is a continuum of childhood behavior that might be taken to mean that one is suffering from a mental illness when they are not. Deciding the childhood behaviors that are desirable by looking into a wide spectrum of natural childhood behavior in a given child may lead to a situation where a child is wrongly diagnosed with ADHD.

The potential for misdiagnosis increases when the required behavioral problems coincide with the behaviors both parents and teachers do not like in the children. Parents and teachers prefer children who can sit down quietly, pay utmost attention, listen keenly, do not fidget, and be able to respond like adults at work to commands, questions as well as requests. Further, teachers and parents expect the children to behave in a specific manner socially regardless of what mental healthcare practitioners consider to be age appropriate behavior. Teachers and parents, particularly their suggestions that the child need to be tested for ADHD, play a key role in both the diagnosis and misdiagnosis of ADHD. Immature children or children who are simply young experience an increased risk of being misdiagnosed with the mental illness because of the expanding age range for ADHD diagnosis. Some teachers and parents want a quick fix to the behavioral problem of their children, which eventually leads to ADHD misdiagnosis and consequently medication that is not necessary.

5. CONCLUSION

Respondents considered ADHD to be a legitimate diagnostic category, though it could be a social label. The respondents pointed out that confusion of ADHD with deviant behavior was one of the reasons why ADHD is not properly diagnosed and treated. The respondents noted that the misconception of ADHD as a social problem, prevented parents from seeking the help their children needed. The respondents viewed ADHD not as a form of deviance, but rather a medical illness that required medical intervention if non-pharmacological methods of treatment such as behavioral therapy failed. The view that ADHD is legitimate mental illness is consistent with the concept of medicalization whereby “nonmedical problems become defined and treated as medical problems, usually in terms of illnesses or disorders” (Conrad 2007: 209). A previously normal life condition has been turned into treatable illness or disorder. Medicalization usually forms part of the transition from traditional social values to modern social values. The power that social institutions once exercised on individuals moves from religion, law, and the family to science-oriented institutions such as medicine and academia.

Traditional values in Kenya are being replaced with scientific values in terms of making sense of the world because of the prestige of scientific methods. This transition possibly explains why medical professionals in Kenya considered ADHD to be a legitimate medical illness. The institution of medicine is playing a big role in this ongoing transition. Medicine is increasingly being employed as a form of social control (Conrad and Stults 2008). The use of medicine in social control is also consistent with Parsons (1952) conceptualization of the institution of medicine as forming part of the social control process. When hyperactive and inattentive children take on a sick role their

behavior becomes legitimate, which previously has been considered deviant.

Consequently, the children are not punished. The use of medicine for social control fulfills Kittrie (1971) prediction that social control would be undertaken through medical intervention. To some extent the subfield of psychiatry in the medical profession is being used to enforce behavioral norms and values of society. Psychiatry controls social behaviors that are considered disruptive or undesirable through medications when other non-pharmacological means of treatment fail.

Deviance in Kenya is becoming described less with respect to the moral ideals and more and more with respect to science. This is a shift from the sacred to the secular in describing social deviance behaviors such as hyperactivity and inattention. In most societies, deviants are increasingly being perceived as individuals who suffer from mental illnesses requiring medical intervention and not punishment or exorcism (Kittrie 1977).

The conclusions arrived at in this study are tentative. The convenience sampling methodology used here, as well as the small sample size, limits the ability to generalize to the wider Kenyan medical community. For instance, the views of medical professionals in rural areas were not included in this study, and yet Kenya is a predominantly rural country. According to the World Bank (2013), only 25 percent of Kenyans live in urban areas. The attitudes of health care workers in the rural areas might be different from those who live in the highly Westernized city of Nairobi. At the same time, cities are routinely the source of new ideas for the larger society, and so medicalization in Nairobi likely implies medicalization in Kenya at large in the years to come.

5.1. Future Research

The attitude of basic education teachers (pre-unit to grade eight) towards ADHD as a mental illness or a social phenomenon and its causes should be investigated. Those attitudes will have an influence on the rates at which ADHD is diagnosed and treated, because teachers are so often the ones who refer children to doctors for psychiatric evaluation. The attitude of basic education teachers should be investigated further if they are to be more engaged in the ADHD diagnostic process or put in place intervention measures to prevent further medicalization of inattention and hyperactivity. Also, because this study was preliminary, a comprehensive study of the attitudes of health care workers towards ADHD should be undertaken. The sample should be random and representative of all medical professionals in Kenya. If medical professionals have concerns about the appropriateness of ADHD treatment, their concerns should be addressed to improve mental healthcare delivery in Kenya.

2) Under what circumstances do you consider medication appropriate or inappropriate for children diagnosed with ADHD?

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3) Do you feel any pressure or encouragement to diagnose ADHD and/or to prescribe medication for ADHD? If so, from where? (E.g., parents, schools, colleagues, the medical establishment, etc.)

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4) Do you have concerns in general about side effects from ADHD medications? Have you personally seen problems with side effects among children you have treated for ADHD in the past two years?

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5) Broadly speaking, do you feel that ADHD is appropriately diagnosed and treated in Kenya?

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6) Is there anything else you think a researcher studying in this area should know?

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7) Where do you work?

- a) Public hospital
- b) Mission hospital
- c) Private hospital

8) Do you have prescription writing privileges for psychiatric medications?

- a) Yes
- b) No

9) What kind health professional are you?

- a) Nurse
- b) Psychiatrist
- c) Non-psychiatric Physician

10) How often do you diagnose/treat ADHD in children?

- a) Never
- b) A few times a year
- c) A few times a month
- d) Several times a month or more

- 11) Do you refer to a diagnostic manual in cases of possible ADHD?
- a) Yes, the Diagnostic and Statistical Manual of Mental Disorder(DSM V)
 - b) Yes, the International Classification of Diseases (ICD).
 - c) I do not formally refer to a diagnostic manual for ADHD.
- 12) What social class would you say parents of children diagnosed with ADHD belong to? Indicate all that apply.
- a) Upper class
 - b) Middle class
 - c) Working class
 - d) Lower class
- 13) Are you
- a) Male
 - b) Female
- 14) What is your age?
- a) 18-24 years old
 - b) 25-34 years old
 - c) 35-44 years old
 - d) 45-54 years old
 - e) 55-64 years old
 - f) 65-74 years old
 - g) 75 years or older

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