KNOWLEDGE, ATTITUDES AND PRACTICES OF HEALTH PROFESSIONALS TOWARDS CHILDREN AND ADOLESCENTS WITH MENTAL HEALTH DIFFICULTIES IN JOS UNIVERSITY TEACHING HOSPITAL, JOS- PLATEAU

BY

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DECLARATION

It is hereby declared that this work is original. It has neither been presented to any other University for an award of Master Degree nor has it been submitted elsewhere for publication.

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Dr. FRIDAY PHILIP TUNGCHAMA

CERTIFICATION

I certify that this study was carried out by FRIDAY PHILIP TUNGCHAMA of the Centre for Child and Adolescent Mental Health University of Ibadan, Nigeria, under my supervision.

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DEDICATION

This work is dedicated to Almighty God, source of inspiration, strength and hope for years to come. Also to my entire Tungchama clan, your encouragement and loving support has brought me this far.

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ACRONYMS

ANOVA- Analysis of Variance

C/A- Child and/or Adolescent

CAMHS- Child and Adolescent Mental Health services

FMOH- Federal Ministry of Health, Nigeria

IACAPAP- International Association of Child and Adolescent Psychiatrists and Allied Professionals

UN- United Nations

WHO- World Health Organization

WPA- World psychiatrist Association

EXECUTIVE SUMMARY

BACKGROUND: Despite progress in scientific knowledge of mental disorders and their treatments, there continues to be prejudice, stereotype and stigma towards mental illnesses. Stigma leads to reduced access, personal distress to people with mental illness, and marginal priority to mental health by policy makers. This situation is worse, when health professionals are also contributing to stigmatizing attitudes and practices towards mental illness. Stigmatizing attitude towards child and adolescent mental health is poorly understood and could be worse than for adult mental health.

Aim: the study aimed to explore the knowledge, attitudes and practices of health and predictors of attitudes (stigma) within health professionals towards child and adolescent mental health difficulties in Jos University Teaching Hospital, Nigeria.

Methodology: This study was a cross-sectional survey of the level of knowledge, attitudes and practices of 395 health professionals from the clinical and non-clinical departments with links to children and adolescents within Teaching Hospital. Stigmatizing Attitude was assessed with a modified Borgadus social distance scale and items from the World Psychiatric Association Global Programme on stigma. Information was also sought on respondent's Level of knowledge/ awareness of the causes of mental illness, familiarity with mental illness, perceived institutional and family attitudes towards children and adolescents with mental illness, and level of practice of in relation to child and adolescent mental health. Respondents' mental health was assessed by the 12-item General Health Questionnaire (GHQ-12), which has good reliability in Nigeria.

Results: The response rate was 90.63%. Majority of the respondents (51.8%) were female and the sample ranged in age from 20-58 years [Mean 37.6(SD 8.4) years]. Between 77 to 98.3% believed that mental illness is as a result of bio-psycho-social causes, however, more than a quarter believed mental illnesses is caused by evil spirit cast on the mentally ill. The prevalence of high social distance in this group was found to be 60.2%. Multiple regression identified the significant predictors of high social distance as: younger age, male gender, Christian religious affiliation, limited knowledge and practice in relation to child and adolescent mental health, high perceived negative

family attitudes towards children and adolescents with mental illness, University level education, being a non-clinical health professional and longer years of working in the hospital. Almost 67% of the respondents had ever received training in Child and Adolescent Mental Health Services, but only 57.7% of respondents endorsed its importance.

Conclusion: The study provides further data to support the importance of improving knowledge, attitudes and practices of health professionals about child and adolescent mental health. It identified factors to be considered in designing strategies to reduce stigmatizing attitudes towards children and adolescents with mental illness. In particular, providing training to health professionals on child and adolescent mental health is essential to improve their knowledge and correct the types of misinformation identified in the study that contribute to stigma towards children and adolescents with mental health difficulties. The study's finding that perceived negative family attitude predicted health professional's own stigmatizing attitude, suggests the importance of including the healthcare professionals' own families in anti-stigma campaigns.

CHAPTER ONE

1.1 Introduction

Background to the Study: Child and adolescent mental health is 'the capacity to achieve and maintain optimal psychological functioning and well being that is directly related to the degree of age-appropriate bio-psycho-social development achieved using available resources' (WHO, 2007). When such functions are impaired, a state of mental disorder sets in with negative consequences. These consequences are a harsh reality that yields considerable impairment on number of individuals and families worldwide (Murray &Lopez, 1996).

One of the three key areas of the Global Programme for Child and Adolescent Mental Health, (WPA, 2003) focuses on awareness of children and adolescent with mental health issues. Awareness is essential to raise knowledge about child and adolescent mental health needs and to stop stigma.

In 1989, The United Nations (UN), through its convention on the rights of the child, delineated the rights to be accorded to children and their families in all cultures and societies, and stops all forms of discrimination or stigma against the child. These can be achieved through the collaboration of all sectors that are involved in health care delivery. One of such is the tertiary hospitals. But are these hospitals avenues to promote awareness or to promote the rights of the child or/and adolescent, or do those working in hospital have much knowledge, or attributes that shaped their attitudes towards children and adolescents with mental illness? Answers to these questions are important for the complete delivery of health to children and adolescents.

Prejudice, stereotype and stigma towards mental illnesses still continues (Corrigan, 2005; Hinshaw, 2005; Phelan et al, 2000), despite progress in scientific knowledge regarding the causal factors and development of treatment strategies for mental health disorders. Sartorius, (1998), noted that stigma is the core issues faced by the entire mental health field and this underscores the low status accorded to mental health. This situation is worse, especially in those institutions entrusted with the responsibilities to treat mental disorders who are also contributing to the stigmatizing attitudes and practices (Sadow & Ryder, 2008; Wahl, 1999).

Most services in mental health are exclusively focused on adult mental health conditions and fall short of the mental health needs of children and adolescents. And as such, these children and adolescents experience stigma in seeking help from professionals and institutions meant to cater for their health needs. Other factors for stigma towards child and adolescent mental health services are: the stigma and low status position placed on most mental health employees/ professionals by other colleagues who value them less (Hinshaw, 2005); professionals' fear of being ostracized and stigmatized by their spouses or colleagues, if they are receiving mental treatments; and the stigmatization placed on a family by another family, because a child within that family has a stigmatized disorder (Thornicroft, 2006; Gonzalez et al, 2007; Larson & Corrigan, 2008).

1.2 STATEMENT OF THE PROBLEM

About 45% of Nigeria population are below 15 years old (FMOH, 1996) and 20% of children have mental disorder (Omigbodun et al, 2004). This shows that so many children are affected and a concerted effort needs to be put in place, but there are hindrances such as;

1. The 'out of pocket' payment that is rendered to mental health services (including child and adolescent mental health services).
2. The limited number of psychiatrists and the infancy stage of child and adolescent mental health practices.
3. Few or none existence of facilities that cater for children and adolescents with mental health problems (Omigbodun et al, 2004).
4. The public stigma and prejudices towards mental health issues.
5. Flaws in parenting
6. The negative attitudes health professionals have towards mental health issues.
7. Institutions are stigmatizing children and adolescents with mental health problems.

The above problems are not different from what is on ground in Jos University Teaching Hospital.

1.3 RESEARCH QUESTIONS

There are general misconceptions and lack of awareness of mental health issues among the public and health professionals (Aydin *et al*, 2003). Therefore, there is the need to find out the level of knowledge and attitude and their ramifications on health professionals, practices. The questions in need of answers are:

1) What is the level of health professionals' awareness of child and adolescent mental health issues?

2) What is the attitude of health professionals towards children and adolescents with mental health problems?

3) What attributes shaped health professionals practice towards children and adolescents with mental health difficulties?

4) Does training in mental health improve practices of health professionals towards children and adolescent with mental health needs?

1.4 SIGNIFICANCE OF THE STUDY

There is a dearth of research on the subject of knowledge, attitudes and practices of health professionals involved with children and adolescents with mental illness and this study will readily fill this gap.

The findings will help in the provision of holistic health services to children and adolescents and also to provide information to health policy makers.

The study will provide additional knowledge about the issue of stigma experienced by children and adolescents.

The study will reveal the magnitude and the prevalence of professional and institutional stigma towards CAMHS.

The study will serve as a source for qualitative studies that will lead to building of theories on how to tackle stigma towards the mentally ill child.

The study will give recommendations on how to reduce stigma, improve knowledge of professionals about mental illness and change their attitude towards services for CAMH.

1.5 SCOPE OF THE STUDY

The study involves administering Socio-demographic Questionnaires, Modified World Psychiatric Association Global Programme to reduce stigma and discrimination because of schizophrenia instruments (Gureje et al, 2005), Modified Bogardus Social Distance Scale and other questions that were teased out from literature review, and a General Health Questionnaire. Participants were drawn from both clinical and non-clinical Departments of the Hospital

1.6 JUSTIFICATION FOR THE STUDY

There are very few mental health professionals and dearth of knowledge about mental health issues in children and adolescents within the North-Central zone of Nigeria.

The study is of clinical and/ or public mental health importance and the data from this study can be used to advance these goals.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

Psychiatric disorder are a major burden of disease worldwide, which are often attended to by general psychiatrists in general hospital settings after referral from non- psychiatrists (Ndetei et al, 2011). However, child and adolescent psychiatric disorders are less often recognized by the non-psychiatrist, thereby reducing the likelihood of making referral to the psychiatrists for evaluation. The reasons may be either from total lack of knowledge or awareness that children have mental disorder or as a result of the general negative attribute (stigma) placed on mental illness and especially in child and adolescent mental health services.

2.1 Epidemiology of Child and Adolescent Mental Disorder

In its 2001 report, the WHO gave a dismal finding, indicating a "large and disproportionate percentage of burden of disease falls in the purview of neuropsychiatric conditions in children and adolescents". Also, the disability-adjusted life years were underrepresented in children and adolescents with disorder such as attention-deficit/ hyperactivity disorders (ADHD), conduct disorder, learning disability, mood disorder, pervasive developmental disorder (Fayyad et al, 2001).

As documented by Foster et al, (2002) and Omigbodun, (2005), up to 20 % of children and adolescents suffer from disabling mental illness. Amongst these disabling mental illness Foster et al, 2002, found that suicide is the third leading cause of death among adolescents worldwide. And Weissman et al, (1999), also found that major depressive disorder often begin in adolescent, across diverse countries, and is associated with a substantial psychosocial impairment and risk of suicide. Before now it has been found that conduct disorder in children persist into adolescence and adulthood with attending negative consequences of juvenile delinquency, adult crime, dissocial behaviour, marital problems, poor parenting, unemployment and poor physical health (Patterson, DeBaryshe & Ramsey, 1989).

In the African continent, especially in sub-Saharan Africa, the prevalence of mental health disorders in children and adolescents ranges from 18.8% to 20.7% (Cortina et al, 2012). In concordance to that, few small scale studies in the community and primary care in Nigeria, suggest that up to 20% of children and adolescents in this environment have mental health problems (Abiodun, 1992; Gureje et al, 1994; Jegede & Cederbald, 1990; Omigbodun et al, 2007). These findings suggested that the majority of children and adolescents affected with mental health problems go unrecognized and untreated. This could be as a result of poor knowledge about their mental health problems/ difficulties or negative attitude of professionals towards child and adolescent mental health services.

Despite the huge data on the burden of mental health and it consequences, public perception has not changed on mental disorder (Sevenson et al, 1994), but rather there is growing negative attitudes towards people with mental disorders (Angermeyer and Dietrich, 2006; Hansen et al, 2011). The negative attitudes of the public lead to negative expectation, fear and reluctance to assist (Wahl, 1999). These have formed obstacles to

successfully treatment, rehabilitation and integration of mentally ill people into the society. With its attendant consequences of unemployment and loss of income (Sharec et al, 2010); not seeking care or delayed care (Andrews et al, 2011); having limited social network (Livingston and Boyd, 2011); having impaired self-esteem (Illic et al, 2011); and isolation and loneliness (Perlick et al, 2001). The cumulative effect of all these is stigmatization, which has been described as a cluster of negative attitudes and beliefs that initiate the general public to fear, reject, avoid and discriminate against people with mental illness (BRFSS Report in President's new freedom commission on mental health, p. 4, 2003).

2.2 Child and Adolescent Mental Health Services Development

Historically, child and adolescent mental health services started when there was social recognition of childhood as a "special phase" of life with its own developmental stages, starting with the neonate and eventually extending through adolescence (Kuczaj, 1991).

In the developed world, Johannes Truper in 1892 is believed to have founded the first approved school for child psychiatry in Jena, Germany. However, Theodor Ziehen is regarded as one of the pioneers of child psychiatry because of his practical experiences in child psychiatry consultation-liaison at the school run by Johannes Truper (Gerhard et al, 2008). The first academic child psychiatry department in the world was established by Leo Kanner in 1930 at Johns Hopkins University, Baltimore (Kanner, 1960). And in 1959, the American Academy of Child Psychiatry was established as a legitimate board-certifiable medical specialty until 1959 (www.hopkinsmedicine.org).

The use of medication in the treatment of children also began in the 1930s, when Charles Bradley opened a neuropsychiatry unit and was the first to use Amphetamine for brain-damaged and hyperactive children (Green & Yule, 2000).

The development of CAMHS in the African sub-continent began about 3 decades ago, with the establishment of a Master training programme in Child and Adolescent mental Health in the University of Cape Town, South Africa and more recently (2012) in Nigeria, in the University of Ibadan. (www.pgschool.ui.edu.ng).

2.3 Concept and theories of Knowledge, Attitudes and Practices (KAP)

2.3.1 Knowledge

Sveiby, 1997, defined knowledge as a 'belief that is true and justified'. He further mentioned that knowledge is "a capacity to act" while Darwin, 2003, conceptualized knowledge as 'gravity- one cannot see it, but can only observe its effects'. Knowledge is an invisible, intangible asset and cannot be directly observed. Many people and organizations do not explicitly recognize the importance of knowledge, in contrast to their more visible finances.

The knowledge about things and events people have, greatly affects the safety, effectiveness, comfort and satisfaction with which the goals of an individual or organization are formulated or attained (Darwin, 2003). Knowledge affects the provision of orderliness to our lives, which allows us to conceptualize goals, to anticipate and perceive events, and to respond in accordance with the changing needs, purposes and desires. The perception depends on the data we received through our senses and the knowledge we possess that allows us to interpret them. In contrast to the popular saying that 'seeing is believing', it is 'knowledge', 'beliefs' and 'needs' that structures' ones perceptions by interpreting the data of our senses. The process of acquiring and retaining knowledge (and beliefs) in memory is called learning and is a product of all the experiences of a person from the beginning of his/ her life to the moment at hand.

2.3.2 Attitude

Historically, scientific study of attitude has focused on the general relationship between attitude and behaviour (Ndetei et al, 2011). Attitude guides our thoughts, influences our feelings and affects our behaviours (Myers 1990; Ndetei, 2011; Bullock, 2012). What is then the definition of attitude? Attitude can be defined as an expression of favour or disfavor towards a person, place, thing, or event (the attitude object) (Eagly & Chaiken, 1998). In other words, attitude can succinctly be described as the positive or negative evaluation of people, objects, events, activities, ideas, or just about anything in your environment. Attitude is therefore said to be the most distinctive and indispensable concept in contemporary social psychology (Allport, 1935). Attitude can be formed from

a person‘s past and present. Attitude is measurable and changeable as well as influencing the person’s emotion and behaviour.

2.3.3 Structures/ components of Attitude

Attitude has a tripartite structure. That is, cognitive, affective and behavioural components (Williams Mcluire, 2006). These are not always consistent. Some viewed cognitive and behavioural components as derivation of affect, or affect and behaviour as derivative of underlying beliefs (Fasio et al, 2003).

Cognitive attitude: consists of thoughts and beliefs the person has about the object. Attitudes are often cognitively complex but evaluative. Ishaya, 2012, reported that when a human being is the object of an attitude, the cognitive component is frequently a stereotype, e.g. “people with mental illness are dangerous”.

Affective attitude: the person’s emotions and affects towards the object. Affective attitude results from classical conditioning, whereby, object that ordinarily do not invoke responses but when paired with experience will cause a change in attitude afterwards when such unconditional stimulus is removed. An example is pairing of mental illness with dangerousness, will create a high social distance between people and those that are afflicted with mental illness (Adewuya and Makanjuola, 2008).

Behavioural attitude: how a person tends to act or dispose towards the object (Ishaya, 2012). Attitude is but one determinant of behaviour. Past behaviour also determine attitude. Behaviour attitude results from operant conditioning that is strengthened by rewards.

These three components may not be present always, so a singular dimension has evolved and is known as definition-evaluative attitude.

2.3.5 Theories of Attitude Change and formation

Attitude Change

Attitude can be changed through persuasion, which could be through messages. What then affects the persuasiveness of a message to effect such change in attitude? Petty et al,

1984, identified the following as a means of persuasion that can change attitude either positively or negatively.

1. **Target characteristics-** attitudinal change depends on the characteristics/ nature of the person who receives and processes a message. One of such character is intelligence. Intelligent people are less persuasive by one sided messages. Another important character a person must have to effect change in attitude is 'self esteem'. Higher self esteem is less likely to be persuaded by trivial issues.
2. **Source characteristics**- the source of the message, goes a long way to affect how a person is persuaded. Is the message from an expert? Is the person delivering the message trustworthy? And what are those interpersonal attractions or attractiveness towards the person giving the message? All these can change attitude.
3. **Message characteristics**- the nature of the message plays a role in persuasion. Sometimes presenting both side of the story is helpful to change attitude.

Theory of Attitude Formation

Functionalist theory- Katz, 1938, as cited by Hammond, 2014, offered the functionalist theory for attitude formation. Katz, (1938), believed that attitudes have a functional role in the individual's life, and that people develop their attitudes in order to serve a specific purpose. Furthermore, people change their attitudes once those attitudes no longer serve their intended purpose. Katz (1938) held that attitudes can be instrumental, knowledge, express values or work as a defense to the individual's ego. For instance, having a very positive attitude towards a particular service structure or system or a particular kind of illness, the attitude serves as an excuse to give a better service or render help towards the individual with such illness. However, if this positive attitude changes, the services will no longer be rendered, thereby creating a distance to the person that is mentally ill.

In **'instrumental'** attitude formation, favourable attitudes are developed toward things that aid or are rewarding i.e., rewards are maximized whereas; penalties are minimized (Ishaya, 2012). In other words, health professionals associated more with illness that are less stereotyped and are accorded priority by health policy makers, than mental illness that is highly stereotyped.

In '**knowledge'**, attitudes formation is said to provide meaningful, structured environment, degree or order, clarity, and stability. Attitude helps individuals with the supply of standards for evaluation via such attitudes as stereotype.

While, '**express value'** attitude formation, refer to the expression of basic values that are reinforcing individual's self image. For example if an individual view him/her self as a mental health professional, the image of being such a professional is reinforced by adopting the tenets of treating and associating with those that are mentally ill.

However, **'ego-defensive'** attitude formation, viewed attitude from the point of giving protection to the individual. Some attitudes serve to protect individuals from acknowledging basic truths about themselves or the harsh realities of life. They serve as defense mechanisms. Example, those with feelings of inferiority may develop attitude of superiority.

Learning theory of attitude formation - Learning theory stresses that attitude formation arises from several means. That is, people learn their attitudes from outside sources, such as a child learning to hold a view because they see it in their parents or through a subconscious association from classical conditioning (Hammond, 2014). Hammond, 2014, further suggested that attitudes are not likely to change unless a situation that is being observed forces an individual to rethink about an attitude towards what is observed. For example, in a culture where the knowledge about the cause of mental illness is based on supernatural phenomenon, attitude in seeking remedy is poor or to believe in western medical care is futile (Adewuya and Makanjoula, 2008). This attitude can only be changed if the culture had allowed for other beliefs as causes of mental illness, say biological or psychosocial causes.

Another important form of learning theory in the formation of attitude is the operant conditioning. Behavior or attitudes that are followed by positive consequences are reinforced and are more likely to be repeated, than behaviours and attitude that are followed by consequences (Ishaya, 2012). For example, learning from parents through religion that portrays mental illness to result from committing a sin to a 'supreme being', and such parents rejecting individuals who have mental illness, they children who later

grow will have a rejecting or stereotype attitude towards those with mental attitude. This attitude might be reinforced if such individual become more religious.

Cognitive dissonance theory- feelings of tension may arise when there are two simultaneous inconsistent cognitions. Hammond, 2014, stated that when People's action differ from their attitudes, a natural anxiety will grow within them. Cognitive dissonance suggests that people seek to return to a happy state in their life, where their attitudes and actions are in harmony. For instance, health professionals/ general public have a mindset that exhibit hatred towards the mentally ill and this may cause the formation of attitude that is an opposite of such individuals. Cognitive dissonance theory suggests that such attitude will seek either a change in actions or attitude in order to bring the two into alignment.

Self-perception Theory-Self-perception theory suggests that people can learn about their own attitudes by watching their actions (Hammond, 2014). The idea is that people are always acting in compliance with their attitudes. This theory is very reliant on self-evaluation. As an example, if a health care provider notices himself to be looking for reasons to avoid going to work in a ward that treat the mentally ill, especially children and adolescents with mental health needs, then the individual may identify that he/she has a very negative attitude towards mental illness, especially in Child and Adolescent with mental illness.

2.3.5 The Concept of Stigma

In ancient Greek, stigma is exhibited as a 'visible mark' placed or branded on members of tainted groups such as traitors or slaves, and this leads to degrading and outright rejection. The word stigma has now taken a much psychological meaning, signaling an invisible, internal mark of shame related to membership in a deviant or castigated subgroup (Goffman, 1963, p.9). Stigma process is universal, in that all human societies feature castigation of 'out-groups' (victims of stigmatization) by 'in-groups' (stigmatizers). There are other salient terms such as stereotype (cognitive process viewing out-groups in terms of particular traits), prejudice (negative emotion-laden pre-judgment

of the out-group); and discrimination (behavioural actions that limit the power or rights of members of the castigated group) (Crocker et al, 1998).

Stigmatization that surrounds mental illness is increasingly recognized as a central issue for the entire mental health field (Hinshaw, 2005). Hinshaw, (2005), went further to say that stigmatization in child and adolescent with mental conditions is related to the low status of children through history as well as the continuing devaluation of mental disorders.

Stigma operates on multiple levels and these include individuals, families, schools, communities, public, media, and social policy. It is important to note that institutionalized policies and practices by health professionals reflect stigmatization of mentally ill persons and especially the vulnerable children and adolescents. Overcoming stigma will therefore involve the interaction of the various influences as stated above. This can be done through an interdisciplinary and multi-level perspective on factors influencing stigma and along with their consequences (Pescosolido et al, 2008; Craig & Hinshaw, 2010).

2.3.5.1 Factors that influence and/ or moderate stigma

Stigma attitude is moderated/ governed by six factors (Jones et al, 1984). These factors are: concealability, course, disruptiveness, aesthetic qualities, origin, and peril. Concealability is the relative appearances of stigmatizing attribute, e.g., skin colour is often visible, whereas mental illness can often be concealed (Ciftci, Jones and Corrigan, 2012). Highly visible stigmas leads to immediate discrimination, concealable stigma have other negative consequences. Mental illness can be hidden and this may lead to high social stress and strained social interaction (Beaty &Kirby 2004: Ciftci, Jones and Corrigan, 2012). Course and peril influences the degree of stigma and its negative behavioural consequences (Jorm & Griffiths, 2008; Keller, 2005.)

2.3.6 Prevalence studies on Knowledge, Attitude (stigma) and Practices in Child and Adolescent Mental Health

The perception and stigmatization by the general public, health professionals, and other allied workers towards mental health issues across the globe, have been highlighted in so many studies, but few in CAMHS. The stigma arises from ignorance, lack of knowledge and information that gives rise to the persistent negative attitude (Aydin et al, 2003) and social rejection of people with mental illness (Corrigan, 2005; Vijay et al, 2012) leading into a vicious cycle. Wahl, 1999; Craig & Hinshaw, 2010, documented that the health and mental health professionals such as medical doctors, psychologists, social workers, nurses and trainees/ students as well as research investigators held stigmatizing attitudes and practices towards mental illness and this is the same as found in the general public

The negative attitude and practices by health professional could influence their ability to make holistic decisions to help those with mental illness specially children and adolescents in the society. Similarly, these negative attitudes towards the mentally ill could inhibit the help seeking behaviour of the parents of these children and adolescents or even adult persons with mental illness (WHO, 2001). This could arise because of the perceived fear, distrust and bias they feel people have towards them (Martin et al, 2000; Link et al, 1999). Not seeking health solution will affect treatment and recovery, which will impact on their social and economic life and contributes to feeling of lower self esteem, isolation and hopelessness (U.S. Department of Health and Human services, 1999).

Studies have shown that secondary school students show stigmatizing attitude towards other student with epilepsy which has some form of mental illness component, by endorsing negative attitude towards peers with epilepsy (Ani et al, 2011). Ani et al, (2012), also found that trainee-teachers' student in a Nigerian university, have higher social distance and discriminatory stance on colleagues with sickle cell disease and they tend to stigmatize such peers. Similarly, a study by Walker et al, (2008), in United States found that children between the ages of 8 to 18 years were more likely to make negative attributions to peers with mental health issues such as attention deficit hyperactive disorders (ADHD) and depression than to peers with asthma, a chronic physical condition. Not only that, but these same students have high perception of the likelihood of violence and antisocial behavior towards children with ADHD and depression.

Studies in the South-Western Nigeria on the level of knowledge and attitudes of the general public towards mental illness by Gureje et al, (2005); Adewuya and Makanjuola (2008), found that there is a general good knowledge/ awareness (60 to 90% of respondents) on the causes of mental illness. But when the community's/ general hospitals' social distance (social stigma) scores was determined by the modified Bogardus social distance scale, a high level of negative attitudes (stigma) was found among people in the community/ general hospital towards those with mental illness. This was comparable to what is obtained in the Western world (Stuart and Arboleda-Florez, 2003). Dispelling the assumptions that stigma is more in the Western world than non-Western world. Adewuya and Oguntade (2007), surprisingly, found a high negative attitude among doctors (about 64.1% of them scored higher on social distance scale). These groups of professionals are supposed to be championing the fight against stigma, but they are involved in stigmatization. Who then will do the advocacy for the mentally ill and especially in children, who only seek services through their parents? This contending issue of low awareness/ negative attitudes by health professionals negates the provision of mental health services to those in need of it.

2.4 Factors that Affect Knowledge, Attitudes and Practices in Mental Health Services

Socio-demographic factors such as age, gender, years of working experiences, qualifications, job descriptions, religion and traditional belief and childhood experiences affect the knowledge, attitude and practices among health workers working within teaching hospitals, primary health care setting and general medical facilities, have been found by Aydin et al, 2003, in Turkey, by Kapungwe et al, 2011, in Zambia and Ndetei et al, 2011, in Kenya. Ani et al, 2012, also found that family up-bring was a major contributing factor in the way trainee teachers relate with person with sickle cell disease, which has mental health implication on the child or adolescent with such disease.

Mental illness is often perceived as a test or punishment from God (Abu-Ras, Gheith & Cournos, 2008) and often seen as an opportunity to remedy the disconnection from God or a lack of faith through regular prayer and a sense of self responsibility (Padella et al., 2012. In both Christianity and Islam, the pastors and imams (spiritual leaders) are often

used to intercede in the healing process for the mentally ill (Abu-Ras et al., 2008; Padella et al., 2012). This usually leads to strong belief in these spiritual leaders and relegating modern bio-psycho-social causes or treatment remedies for the mentally ill. It is pertinent to note that this spiritual leaders play central roles in shaping family and communities attitudes and responses to illness (Ciftci, Jones, & Corrigan, 2012; Padella et al., 2012). For example, after the September 11 terrorist attacks in New York, a study carried by Abu-Ras and colleagues (2008), showed that imams have critical roles in promoting mental health of worshipers and attitude towards mental illness. If such roles are misguided it could lead to negative attitudes towards persons or children with mental illness.

In terms of ethno-cultural causes of stigma towards the mentally ill, the normative cultural belief of evil spirit as a cause of mental illness has led to strong stereotype stigma towards the mental illness. This cultural belief may also leads to poor recognition of mental illness in patients by health care providers, because of the confusion in delineating between 'being possessed by evil spirit' or ascribing the mental process as a 'delusion of possession and control. This has also prevented those that are mentally ill to seek psychiatric help (El-Islam, 2008).

Childhood experiences are modeled on what a child learns from the parents and the society in which he grew up. The child grows up in a family which has its values and social standing in the community. The family social standing affects the disclosure of mental illness if any member is afflicted and this because it is considered shameful (Aloud & Rathur, 2009). In a study of Ethiopian families, Shibre and colleagues (2001) reported that 75% family member experienced stigma because a relative has mental illness. They went further and reported that a substantial minority (36.5%) are aware that other community members would not marry into their family because of the mental illness. Having such an experience might be embedded in any family member thereby, making him or her either internalize or externalize the stigma and consequently exhibiting stigmatizing attitude or stereotype on others, especially children with mental illness or difficulties.

CHAPTER THREE

AIMS AND OBJECTIVES/ PURPOSE OF THE STUDY

3.0 GENERAL OBJECTIVE:

The general objective is to explore the knowledge and attitude towards child and adolescent mental health difficulties by health professionals and also there practices in relation to children and adolescents with mental health difficulties.

3.1 SPECIFIC OBJECTIVES:

- To determine health professionals' knowledge about child and adolescent mental health difficulties.
- To determine attitudes of health professionals towards child and adolescent mental health difficulties and associated predictors such as level of exposure to children and adolescents with mental illness and religious practice.
- To determine current practices among health professionals towards children and adolescents with mental health difficulties.

3.2 HYPOTHESIS

- 1. There will be significant differences in the level of knowledge of child and adolescent mental health difficulties among health professionals (e.g. between doctors and nurses)
- 2. On average, more health professionals will have negative attitude towards children and adolescents with mental health problems.
- 3. Health professionals that are more religious are more likely to have negative attitude to children and adolescents with mental health problems.
- 4. Health professionals who have been exposed to children and adolescents with mental health problems will have more positive attitudes towards affected children.
- 5. The practices of health professionals who have had training in child and adolescent mental problems are likely to be better than those with no training.

CHAPTER FOUR

METHODOLOGY

4.1 STUDY DESIGN:

The study is a cross-sectional descriptive study of the level of knowledge, attitudes and practices of health professionals towards child and adolescent mental health difficulties within Jos University Teaching Hospital.

4.2 STUDY LOCATION

The study was conducted in Jos University Teaching Hospital, Jos Plateau in the North-central geo-political zone of Nigeria. Jos the capital city of Plateau State has an estimated population of about 821,618 according to the 2006 National Census (National Bureau of Statistics, 2006). It is a cosmopolitan city and has been tagged 'Home of Peace and Tourism', because of its beautiful sceneries and the good, amiable, hospitable and welcoming people. However, this is no longer the case because Jos and its environs have being witnessing continual community clashes based on ethnicity and religion with no peace insight.

Jos University Teaching Hospital is a 550 bed capacity hospital, located at the outskirt of the city centre. It has recently moved to its permanent location. However, it still runs some services at its old site, which is about 10-15 minute drive to the permanent site.

The old site of the hospital accommodates about 96% of the psychiatric department, which liaises and consults with other departments for effective mental health service delivery to both in- and out-patient of the hospital. The hospital also comprises of other departments. Notably among such are: the departments of Surgery, Internal medicine, Obstetrics and Gynaecology, Paedritrics and Nursing. Others that are involved in clinical

services are: Pharmacy, Social Works and Clinical Psychology. The Administrative and Accounts Department are involved in the administrative and financial affairs of the hospital respectively.

The hospital has two outreach centres in Gindir and Zamko of Mangu and Langtang-North Local Government Councils, respectively. These outreach centres cater for the Plateau-Central and Plateau-South Senatorial districts, respectively.

The hospital caters for the six states that make up the geopolitical zones and also the neighbouring states of Kaduna in the North-West geopolitical zones and also Taraba, Bauchi and Gombe states of the North-East geopolitical zone. The Fulani speaking areas of the Cameroun also benefit from the hospital services.

4.3 SAMPLE SIZE:

The sample size was 395 based on the hypothesis that 64.1% of doctors have a higher level of social distance and stigmatization of mental health illness as found by Adewuya and Oguntade, (2007) in general hospitals in South-Western geo-political zone of Nigeria.

4.3.1 SAMPLE SIZE DETERMINATION:

The sample size was determined by the single proportion sample size determination using the formula:

$$n = Z^2_{\alpha} \times p \times (1-p)/ d^2 \text{ (Bamboye, 2012)}$$

Where:

n= sample size

Z_{α}= value of the Standard normal distribution corresponding to a significant level α (1.96 for a 2- sided test at 0.05 level).

P= proportion (64.1%=0.641) of people with higher level of social distance and stigmatization of mental health illness as found by Adewuya *et al*, (2008).

d= degree of precision or absolute deviation from the true value (0.05), 95% CI.

Therefore, $n= 1.96^2 \times 0.641(1-0.641)/0.05^2$

$n= 353.60$

The attrition rate = 353.6/100-10

= 353.6/0.9

= 392.9

This was rounded up to 395

4.4 STUDY POPULATION:

The study involved the personnel/ workers that are involved in the running of the affairs of the hospital and are in direct contact with children and adolescents. The Departments used are Psychiatry, Paediatrics, Paediatric Surgery, Nursing Services, Social Works, Pharmacy, Administrations (mainstream administrator, records and ward clerks) and Clinical Psychology.

4.5 SAMPLING TECHNIQUE / PROCEDURE

After the identification of the various Departments (non-clinical and clinical) that are involved with children and adolescents either directly or indirectly, a 2-stage stratified sampling method was used for the study.

4.6 STUDY INSTRUMENTS

All participants who met the inclusion criteria were administered the following questionnaire (See appendix III):

4.6.1 Socio-demographic questionnaire:

The semi-structured questionnaire developed by the researcher obtained socio-demographic characteristics of the participants including age, gender, level of education, profession, marital status, religion and ethnicity. The instrument was self-administered, although trained research assistants and the researcher were present to answer question or to provide clarification.

4.6.2 Questionnaires for Knowledge, Attitude (modified Bogardus social distance scale) and Practices:

The questionnaire measured level of awareness, attitude and practices on a 4-point likert scale (1-4) that was adapted and modified by the researcher. The modified Bogardus social distance scale (Adewuya and Makanjuola, 2008), measures the level of people's willingness to participate in social contacts of varying degree of closeness with members of diverse social groups (Karakayali, Nedim, 2009). Health professionals stigmatizing attitude towards children and adolescents with mental illness was assessed with ten questions on social distance modeled after Bogardus Social Distance Scale that has been used widely in different groups (Bogardus, 1933: Adewuya and Makanjuola, 2008: Ani, Ola and Coker, 2012). Verbs in some of the questions were positively reframed (e.g. "would" instead of "would not") to minimize potential distress to respondents who may themselves have suffered from mental illness. The relevant items in the questionnaire are shown in tables 5.20a and 5.20b. The ten social distance scale were summed to create a social distance scale (table 5.20c). Higher scores indicate more stigmatizing attitudes. In

addition to social distance scale, which is a continuous measure of stigma, we also calculated a categorical measure of social distance. As in previous Nigerian studies (e.g. Adewuya and Oguntade 2007), the respondents were classified as having low, medium or high social distance based on the following criteria. Respondents who answered no (definitely no or probably no) to all the social distance questions were classified as having low social distance, respondents with only one affirmative answer (definitely yes or probably yes) was classified as having medium social distance while those with two or more affirmative responses were classified as having high social distance. Given that continuous measures have more analytical power than categorical data, we used social distance scale for purposes of bivariate and multivariate analyses.

In addition to the ten social distance questions, the questionnaire included other items to further assess negative stereotypes adapted from the World Psychiatric Association Global Programme to reduce stigma and discrimination against schizophrenia (Gureje et al, 2005).

Measures for Knowledge

Respondents completed questions assessing their knowledge and awareness of issues related to child and adolescent mental health. Respondents that gave accurate answer to questions about causes or other aspects of child and adolescent mental illness such as "do you think children/ adolescent with mental health problems can be treated only by religious leaders" were given a score of '1' while those who answered incorrectly were scored '0'. These scores were summed to create a knowledge/ Awareness scale. The minimum was 0 and the maximum was 16. Higher scores indicate better knowledge.

Measures for Practice

The health professionals' level of practice and awareness of services (in the institution) towards children and adolescents with mental health problems was assessed with questions that explored 'awareness of CAMHS', 'importance of CAMHS' and whether CAMHS should be recognized in the institution or not. Other variables used for this purpose include whether the health professional has 'received training in CAMHS', 'has treated a child /adolescent with mental health problems', or 'can recognize if a child or an

adolescent has a mental problems and know what help offer'. How the individual rates his/her confidence in treating or recognizing mental health needs of children or adolescents was also incorporated assessed. These items were summed to create a practice scale such that higher scores indicate good practice.

Familiarity/ Exposure to Mental Illness

The respondents' familiarity with mental illness in children and adolescents or the level of respondents' exposure to mental illness was measured by the use of "contact report" (Corrigan, et al, 2001; Holmes, et al, 1999; Ani, Ola & Coker, 2011). In this study, the level of contact report used has nine (9) situations of varying degrees of contact with children and adolescent affected with mental illness. The situation varied from the least intimate contact (1-3), to medium intimacy (4-6), to high intimacy (7-9). All the respondents were instructed to check all of the situations that they have experienced in their lifetime. The higher ranks show closer contact with mental illness, while lower ranks show less contact. For example if 1, 2 and 8 were ticked by individual respondents, the respondent is scored 8 (which is score for having a child or adolescent who suffers from mental illness) as this shows the highest level of contact.

Perceived Family Attitude towards Children with Mental Illness

Four questions which showed good reliability in previous studies (Walker et al., 2008; Ani, Ola and Coker, 2012) were adapted and used to measure 'perceived family attitude'. A likert (4, 3, 2 and 1) scoring was used to derive the scale for family attitudes. The minimum score was 4 while the maximum was 16. A higher score indicates more perceived negative family attitude towards children and adolescents with mental illness.

Perceived Institutional Stigma/ Attitude

Institutional attitude was measured with four (4) item questions. The question were on the perceived institutional policy: to refuse treatment to; not allowing its staff to relate well with; or is not an ethical responsibility of the institution to treat children with mental illness; and finally allowing parents or care giver of other children to discontinue treatment because the institution treats children with mental disorders. Responses such as

strongly agree, agree, disagree and strongly agree were used. These responses are scaled in a positive direction. Likert scores (4, 3, 2 and 1) was adopted and the scores summed. . The minimum score was 4 and the maximum was 16. A higher score indicates more negative institutional attitude towards mental illness.

4.6.3 General Health Questionnaire 12 (GHQ 12):

The general health questionnaire-12 measures the current mental function and focuses on two major areas- the ability to carry out normal functions and the appearance of new and distressing experiences (Goldberg &Williams, 1988). Originally, it was a 60-item instrument, but shorter versions were developed later, such as the GHQ-30, GHQ-28, GHQ-20 and GHQ-12.

The instrument asks whether a respondent has experienced a particular symptom or behaviour recently. It has good content validity (Goldberg and Huxley, 1980) and a good internal consistency with Cronbach's Alpha ranging from 0.77 to 0.93 (Goldberg, 1985) and has been used widely in Nigeria (Ani et al, 2011b). Each question has 4 responses which were scored 0, 0, and 1, 1 (see Appendix III). For example, if an individual ticked response 1 or 2 on any item, such an individual is scored zero (0) for that item, whereas, if the same individual ticked response 3 or 4 on another item, he/she is scored 1. The summed score for any individual ranged from zero (0) twelve (12). Table 5.31, shows the summation of all the scores of respondents. A cut-off score of 2 or more was used as used in previous studies in Nigeria (e.g. Ani et al, 2011b).

4.7 ETHICAL CONSIDERATION

Ethical approval to conduct the study was obtained from the joint Ethical Committee of University of Jos and the Jos University Teaching Hospital, Plateau State (see appendices I and IV). Permission was sought from the various Heads of the Departments used for the study.

Written informed consent (see appendix II) was obtained from individual participants without coercion and the aims and objectives of the study as well as the procedure were

explained to each respondent. Confidentiality was emphasized and respondents were assured that information obtained will be used strictly for the research purpose. Respondents were free to decline participation without any penalty.

4.8 STUDY PROCEDURE

A 2-stage sampling technique was used for this study with the following procedure:

The first stage involved selecting 4 departments from the non-clinical and 8 department from the clinical sections of the hospital. This was based on the fact that the ratio of the non-clinical to clinical departments was 1:2 from the records of the Department of Establishment of the Teaching Hospital.

The second stage involved a systematic selection by using an integer, which was based on the number of personnel in each Department/ Unit of a Department. That is, a proportional selection was used first, to know the number of staff to be recruited from each Department before an integer is used to select individuals for the interview. At the time of the study, Jos University Teaching Hospital has a total staff strength of 2186 (from the Department of Establishment, Jos University Teaching Hospital). Out of these, 1426 persons made up the 12 selected Departments. Each Department population was retrieved from Establishment unit and the proportion for each department was calculated from the 1426 figure. Thereby, a proportional representation for the sampling size was obtained. Based on this, the selection of respondents was carried out on a proportional representation within each unit of the Department. This gave an integer in selecting individuals within each unit of a Department.

The second stage involved the administration of the self-completed questionnaires by research assistants who were trained by the researcher. The research assistants collected the questionnaires immediately after completion by the respondents or asked the respondents to keep the completed questionnaires with the head of such department/ section/ or unit, in case the exigency of duty would not allow for the immediate

completion of the questionnaires. At the end of the exercise the questionnaires were collected by the researcher or the assistants.

4.8.1 INCLUSION CRITERIA:

Health professionals whose roles involved either direct/ indirect contact with children and adolescents in the hospital and who gave consent

4.8.2 EXCLUSION CRITERIA:

Interns (in Medical, Pharmacy, Health Records, Administration, Nursing Services, Audit and Accounts Departments) were excluded, because they are temporary staff and have a short stay during their postings.

4.9 DATA MANAGEMENT

After the collation of the completed questionnaire, data was analyzed by using the Statistical Package for Social Sciences (SPSS) Version 20.0, 2012, for Microsoft Windows. Descriptive continuous variables such as age at last birthday and years of working experiences were summarized by mean and standard deviation. Categorical variables such as gender, type of occupation/ profession, level of education attained, marital status, religion and ethnicity were summarized by frequencies and percentage. Bivariate associations were explored with Chi square for categorical variables, and, t-test, ANOVA, and correlations for continuous variables. Regression analysis was used to test for independent association between social distance (outcome) and predictor variables. The p-value of 0.05 was used for test of statistical significance.

CHAPTER FIVE

RESULTS AND ANALYSIS

This chapter describes the data collected for the project and it is divided into three (3) sections:

- Section I describes the frequency distributions of univariate variables.
- Section II describes the comparisons between variables. Chi-square, t-test, ANOVA and/ or correlation were employed to test for statistical significance
- Section III describes multivariate regression analysis of factors that predict attitudes (stigma) scores.

In each section, the main findings are highlighted by a text, and then followed by either a table (s) or figure that is relevant to the text.

SECTION I

This section on Univariate Descriptive Statistic is presented under the following headings:

- Socio-demographic variables.
- Level of education attained, the departments recruited for the study and years of working experiences of each of the respondents.
- The Proportion of medical doctors and nurses within each of their respective Departments.
- Attitudes (stigma) towards child and adolescent with mental health difficulties/ problems.
- Awareness of Child and Adolescent Mental Health Services (CAMHS) and Practices of Health Professionals.

- Perceived causation and stereotypes (awareness/ knowledge) towards children and adolescent with mental illness.

5.1: Socio-demographics of All Respondents

Three hundred and ninety-five staff were enrolled for the study, 357 successfully completed the questionnaires. This gives a response rate of 90.63%. The socio-demographic details of the respondents as shown in table 5.1 and figure 1 indicates that the age of the sampled population was normally distributed and most of respondents are between the ages of 20-49 years (85.2%) and with a mean age of 37.64 years (SD±8.36). There is a slight female (51.8%) preponderance amongst the respondents.

Table 5.1: Age and Gender

Variables	N (%) or Mean (SD)
GENDER	(n=357)
Males	172 (48.2)
Females	185 (51,8)
Age – Mean (SD)	37.6 (8.4) Range= 21-58
Age groups	
20-29 years	47 (13.2)
30-39 years	160 (44.8)
40-49 years	97 (27.2)
50-59 years	53 (14.8)
Total	357 (100.0)

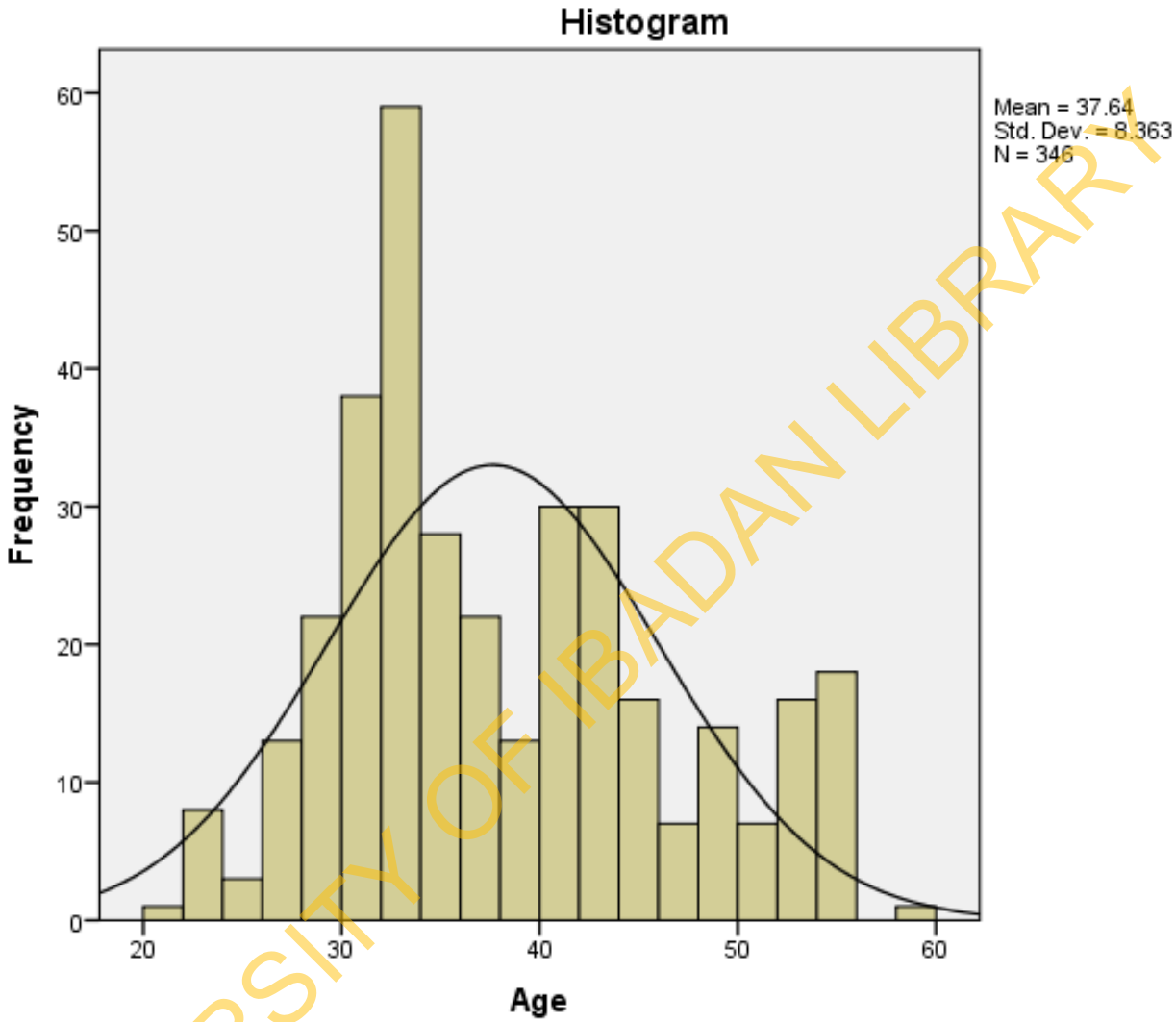

Figure 5.1: Population Distribution of Respondents

5.2: Marital Status, Religion and Ethnic Affiliation of Respondents

Table 5.2 below shows that most of the respondents were married (69.2%). A vast majority of respondents were Christians (89.1%) and 75.4% were from other ethnic nationalities of Nigeria, comprising of Ngas, Berom, Afezere, Mwaghavwel, Taroh, Gomei etc., and not the other three major ethnic groups (Hausa, Igbo, or Yoruba).

TABLE 5.2: marital status, religion and ethnicity of all Respondents

VARAIBLES	FREQUENCY	PERCENTAGE (%)
Marital status		
Single	101	28.3
Married	247	69.2
Separated	1	0.3
Divorced	3	0.8
Widowed	5	1.4
Total	357	100.0
Religion		
Christianity	318	89.1
Islam	39	10.9
Others	0.0	0.00
Total	357	100.0
Ethnicity		
Yoruba	20	5.6
Hausa	23	6.4
Igbo	43	12.0
Fulani	2	0.6
Others	269	75.4
Total	357	100

5.3: Education, Departments and years or working experiences

This study showed that a greater proportion (57.4%) of the respondents were University graduates (table 5.3), while the remaining 42.6% were non- University graduates, comprising of those with secondary education, polytechnic/ nursing/ midwifery certificates.

5.4: Departments

Two hundred and ten (58.8%) respondents were from the Clinical Departments (table 5.3 and figure 5.2), while the remaining 147 (41.2 %) were from the non-Clinical Departments of the hospital. The two groups were compared later to ascertain their level of knowledge, attitudes and practices in relation to child and adolescent mental health.

5.5: Years of Working Experiences

Two hundred and seventy-eight (77.9%) of the respondents, have 1-20 years of working experiences and 79 (22.1%) had more than 20 years of working experiences (table 5.3).

Table 5.3: Frequency Distribution for Level of Education, Departments and Years of Working Experience

Variables	Frequency	Percentage (%)
Highest level of education		
Secondary level of education	2	0.6
Nursing/midwifery certificate	87	24.4
Polytechnic level of education	63	17.6
University level of education	205	57.4
Total	357	100
Departments		
Physicians (medical doctors)	56	15.7
Nurses	137	38.4
Pharmacist	9	2.5
Clinical psychologist	4	1.1
Social workers	4	1.1
Administrators	72	20.2
Accountants	37	10.4
Auditors	13	3.6
Health records officers	25	7.0

Total	357	100%
Years of working experiences		
1-10years	216	60.5
11-20years	62	17.4
21-30years	58	16.2
31-40years	21	5.9
Total	357	100.0

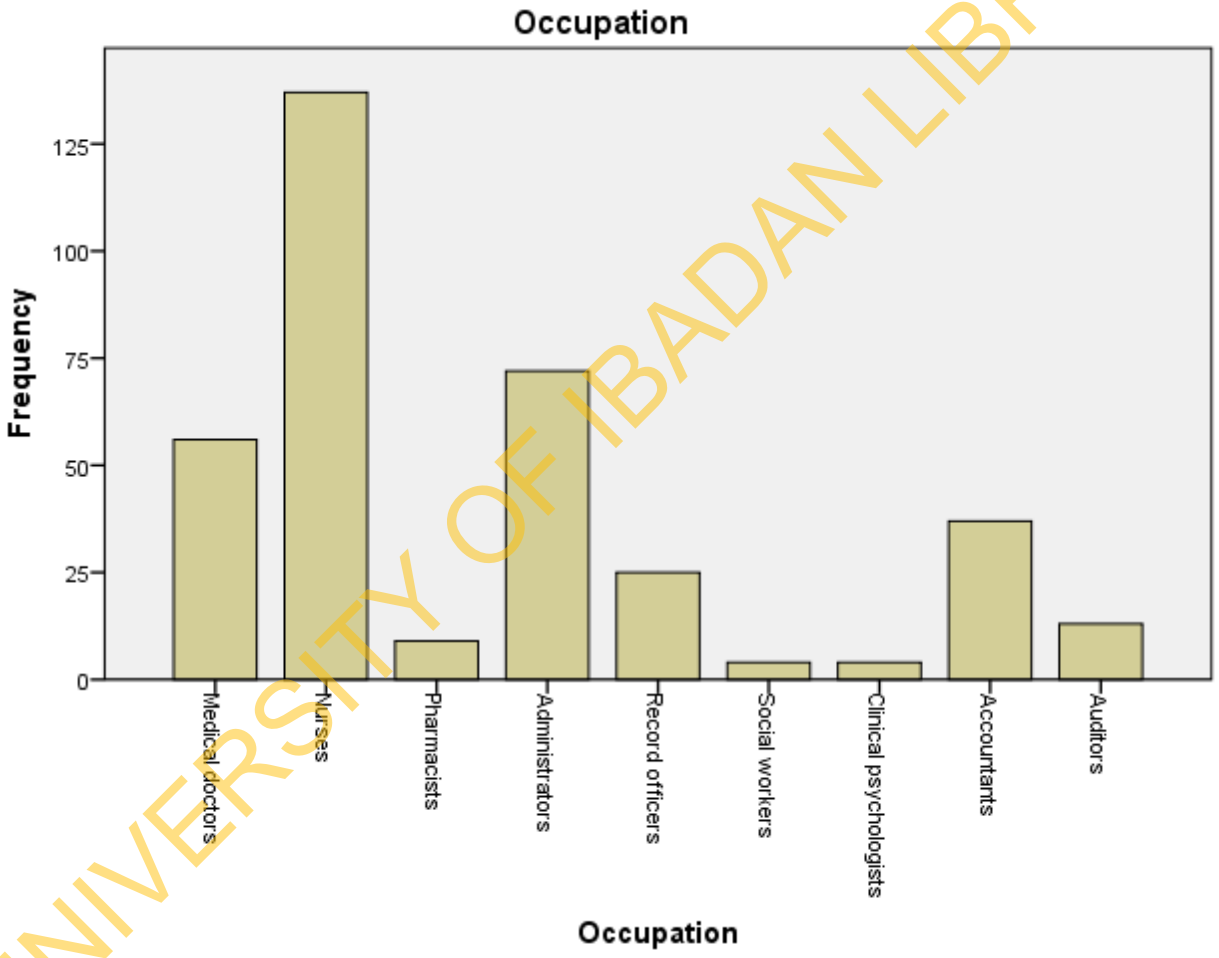

Figure 5.2: Professions of All Respondents

5.6: Proportion of Medical Doctors and Nurses within their respective Department

Within the medical departments (Physicians), Psychiatrists were 6 (10.71%), while 50 (89.29%) were non-Psychiatrists. For the Nursing Department, 22 (16.06%) were psychiatric while the remainder were non-Psychiatric nurses (See tables 5.4).

TABLE 5.4: Frequency Distribution of Medical Doctors

VARIABLES	FREQUENCY	PERCENTAGE (%)
Medical Department		
Psychiatry	6	10.71
Surgery	20	35.71
Family Medicine	19	33.93
Paediatrics	11	19.64
Total	56	100.00
Nursing Department		
Psychiatric Nurses	22	16.06
Paediatric Nurses	17	12.41
General Nurses	98	71.53
Total	137	100.0

5.7: Summary of Socio-demographic Data

The results in this section of the analysis showed that the age of the respondents is normally distributed with a mean age of 37.6 years. There is a slight female preponderance amongst the respondents. As expected in Plateau State, more than three-quarter of the respondents were from other minority ethnic groups of Nigeria. Most of the respondents were University graduates and greater proportions were from the Clinical Departments.

5.8: Perceived Causation and stereotype of Mental Illness in Children and Adolescents among Respondents

Tables 5.5 to 5.8 shows that, 351(98.3%) of respondents were aware that the causes of mental illness in children and adolescents could be from the use of alcohol and other illicit substances, from head injury 319 (89.4%), from brain infection 303 (84.9%) and 77.0% from parents to their offspring. However, more than a quarter (25.5%), believed that mental illness is as a result of evil spell cast on the child or the adolescent.

About stereotyping mental illness, more than three-quarter (75.5%) of the respondents endorsed the stereotype that children and adolescents with mental illness are 'dangerous', 45.7% reported that they are not employable, 41.7% not to be allowed to play with other children, 30.5% not marriageable, 30.3% are not friendly and 23.8% are not intelligent. However, a high proportion, 337 (94.4%) and 324 (90.8%) were against allowing only religious and/or traditional leaders to treat children and adolescents with mental health problems.

Table 5.5: Awareness of bio-psycho-social Causes of Mental Illnesses in Children and Adolescents amongst all Respondents

VARIABLES Bio-psycho-social causes	FREQUENCY	PERCENTAGE (%)
Use of alcohol and other illicit drugs		
Yes	351	98.3
No	6	1.7
Total	357	100.0
Passing from parents to offspring		
Yes	275	77.0
No	82	23.0
Total	357	100.0
Injury to the head		
Yes	319	89.4
No	38	10.6
Total	357	100.0
Infection to the head		
Yes	303	84.9
No	54	15.1
Total	357	100.0

Table 5.6: Other causes of child and adolescent mental illness

Variables	Frequency	Percentage (%)
Breaking of taboo/sinning against the gods		
Yes	48	13.4
No	309	86.6
Total	357	100.0
Evil spell cast on the person		
Yes	91	25.5
No	266	74.5
Total	357	100.0
Being in contact with someone with mental illness		
Yes	6	1.7
No	351	93.3
Total	357	100.0

Table 5.7: Stereotype towards Mental Illness in children and adolescents amongst Respondents

VARIABLES **Do you think children/adolescents with mental health problems can be:**	**FREQUENCY n=357**	**PERCENTAGE (%)**
Friendly? Yes No	 249 108	 69.7 30.3
Intelligent? Yes No	 272 85	 76.2 23.8
Employable? Yes No	 194 163	 54.3 45.7
Marriageable? Yes No	 248 109	 69.5 30.5
Treated in the general hospital? Yes No	 273 84	 76.5 23.5
Treated by non-psychiatrist? Yes No	 133 224	 37.3 62.7
Allowed to play with other children within the wards? Yes No	 208 149	 58.3 41.7s

Table 5.8: stereotypes towards children and adolescents with mental illness

Variables **Do you think children and adolescent with mental problems can be:**	**Frequency**	**Percentage (%)**
Dangerous to the society? Yes No Total	 269 88 357	 75.4 24.6 100.0
Treated only by religious leaders? Yes No	20 337	5.6 94.4
Treated by only traditional healers? Yes No	 33 324	 9.2 90.8

5.9: Knowledge/ awareness Scores and Health Professionals

Tables 5.9 show that the mean knowledge score is 11.0±3.01sd. Figure 2 shows that the knowledge score is normally distributed and those that scored above the mean scores were 63.6%. This indicates that majority of the respondents are knowledgeable about causes of mental illness and hold less stereotype towards children with mental illness.

Table 5.9: Frequency Distribution of Knowledge/ or Awareness Scores of All Respondents

Variable Knowledge/awareness scores	Frequency	Percentage (%)
4	9	2.5
5	12	3.4
6	13	3.6
7	15	4.2
8	33	9.2
9	21	5.9
10	27	7.6
11	51	14.3
12	61	17.1
13	29	8.1
14	39	10.9
15	35	9.8
16	12	3.4
Total	**357**	**100**
Mean ± standard deviation	**11.0 ± 3.01**	
Minimum	**4**	
Maximum	**16**	

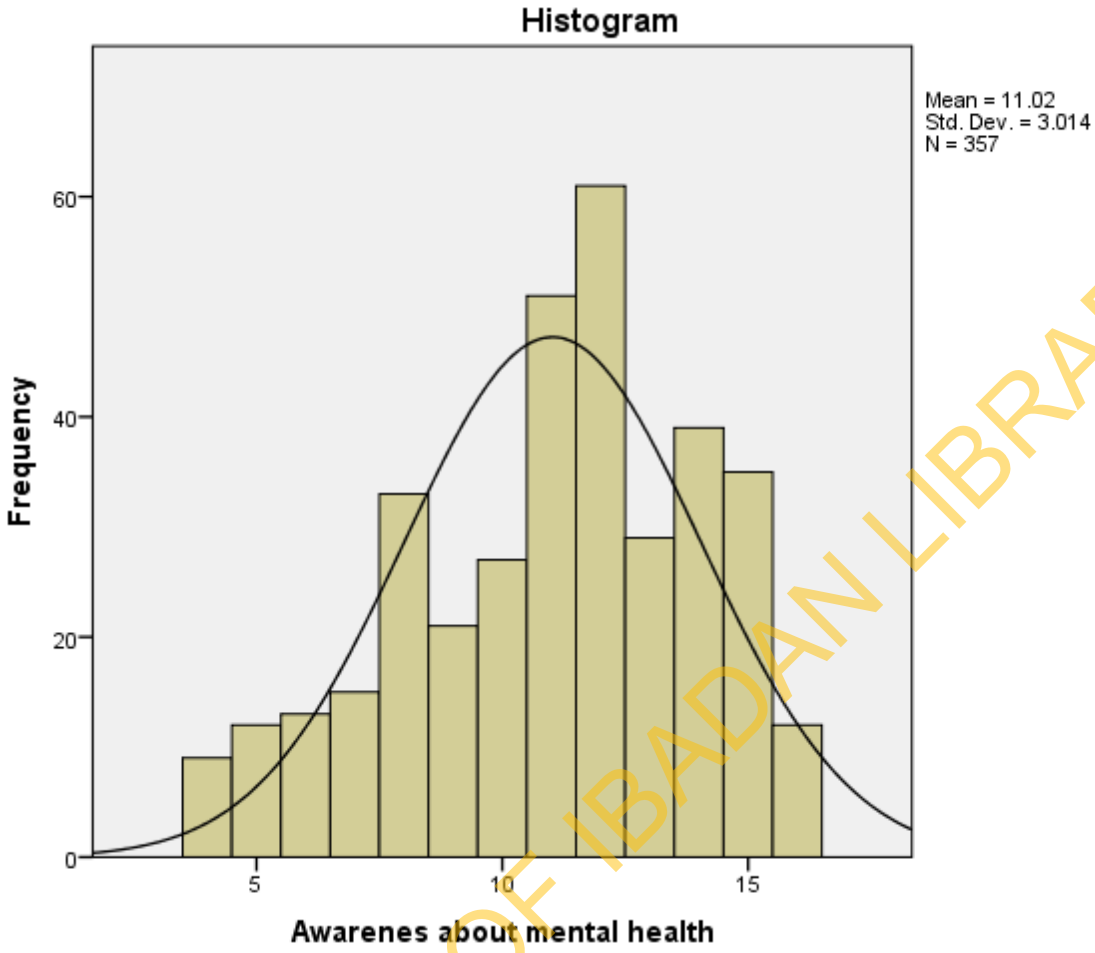

Figure5. 3: Knowledge Scores of Respondents

5.10: Child and Adolescent Mental Health Services and Practices among Health Professionals

Table 5.10, shows that more than 60% of respondents are aware of the presence of CAMHS in the hospital, and 55.7% reported that CAMHS is important, while 35% were not sure. In terms of recognizing CAMHS as being an important component of the health service delivery, a greater proportion (61.9%) reported that CAMHS should be given recognition, with 34.7% not sure. On issues of training, treatment and rating of their confidence in treating or recognizing children with mental health problems (such as tearfulness and saying he/she is hearing voices to kill him/ herself), 116 (67.4%) of respondents had received training in CAMHS, but only 162 (45.4%) had ever provided treatment to a child or adolescent with mental health difficulties (table 5.11). Furthermore, majority of the respondents (80.9 to 91.5%), reported to have high confidence in rating their skills in either giving treatment to / or recognizing a child/ adolescents with mental illness (see table 5.12).

Table 5.10: Child and Adolescent Mental Health Services and its Recognition

VARIABLES	FREQUENCY	PERCENTAGE (%)
Awareness of CAMHS		
Yes	216	60.5
No	141	39.5
Total	357	100.0
Is CAMHS important		
Yes	206	57.7
No	27	7.6
Missing value	124	34.7
Total	357	100.0
CAMHS should be recognized		
Yes	221	61.9
No	12	3.4
Missing value	124	34.7
Total	357	100.0

CAMHS= Child and Adolescent mental health service

TABLE: 5.11 Frequency Distribution of training and CAMHS

VARIABLES	FREQUENCY	PERCENTAGE (%)
Providing treatment for CA with mental illness		
Yes	162	45.4
No	195	54.6
Total	357	100.0
Receiving training in CAMH		
Yes	116	67.4
No	241	32,5
Total	357	100.0
Seeing a C/A that appears to have mental illness		89.4
Yes	319	9.8
No	34	1.1
Missing value	4	100.0
Total	357	
knowing what help to give a C/A who is tearful		
Yes	255	71.4
No	102	28.6
Total	357	100.0
Knowing what help to give a C/A who is talking of killing her/him self		
Yes	311	87.1
No	46	12.9
Total	357	100.0
Knowing what help to give a C/A who hears voices to kill his /her parents		
Yes	268	75.1
No	89	24.9
Total	357	100.0

C/A= Child or/and Adolescent

CAMH= Child and Adolescent Mental Health.

Table 5.12: Rating of Confidence to Help and Recognize Mental Illness

Variables	Frequency	Percentage (%)
Rating of confidence to help a C/A that is mentally ill		
Very good	58	16.2
Good	89	24.9
Average	142	39.8
Limited	58	16.7
Very limited	10	2.8
Total	357	100.0
Rating of confidence to recognize a C/A that is mentally ill		
Very good	57	16.0
Good	142	39.8
Average	140	39.2
Limited	7	2.0
Very limited	11	3.1
Total	357	100.0
Health providers are responsible to identify and treat C/A with mental illness		
Yes	291	81.5
No	66	18.5
Total	357	100.0

C/A= Child or/and Adolescent

CAMH= Child and Adolescent Mental Health.

5.11: Practices Scores for All Respondents

About 71% of all respondents have practices score above the mean score towards Child and Adolescent Mental Health Services and less than 29% scored below the mean score. See table 5.13 and figure 5.4.

Table 5.13: Level of Practice scores of Health Professionals towards Child and Adolescent Mental Health Services

Variables **Practices scores/provision of mental health services**	**Frequency**	**Percentage (%)**
0	16	4.5
1	19	5.3
2	29	8.1
3	40	11.2
4	102	28.6
5	80	22.4
6	71	19.9
Total	357	100.0
Mean ± standard deviation	**4.01±1.63**	
Median	**4.0**	
Minimum	**0**	
Maximum	**6**	

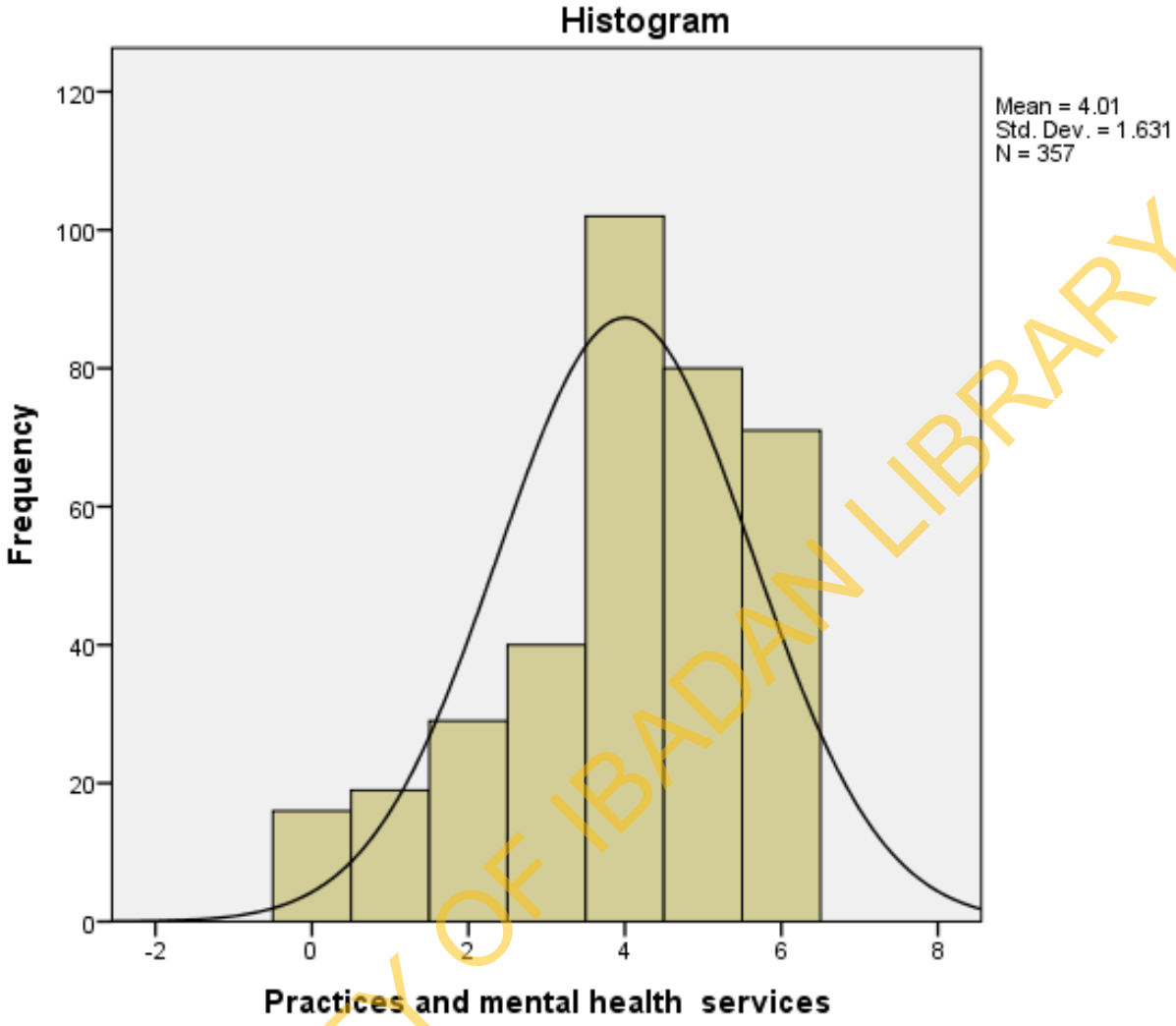

Figure 5.4: Level of Practice and CAMHS Scores of All Respondents

5.12. Familiarity with Child and Adolescent Mental Health Difficulties

In table 5.14, about 39% of respondents have high intimate contact/ or high familiarity/ or exposure (those that ranked from 4 to 9 on the familiarity scale) to mental illness, while 61% have the less intimate exposure/ or contact.

Table 5.14: Frequency Distribution of Familiarity with Mental Health Illness

Variables	**Frequency n= 357**	**Percentage (%)**
I suffer from mental illness (9)	2	0.6
I have a C/A who suffers from mental illness (8)	4	1.1
Either my parents or siblings suffer from mental illness (7)	8	2.2
Either my siblings has a C/A who suffers from mental illness (6)	8	2.2
My C/A has a friend who suffers from mental illness (5)	68	19.0
My nephew/ nice has a friend who suffers from mental health (4)	50	14.0
C/A not a relative suffers from mental illness (3)	129	36.1
I heard about a C/A who suffers from mental health (2)	56	15.7
I never heard of a C/A who suffers from mental health (1)	32	9.0
Total	357	100.0

5.13.1: Level of Religiosity

Table 5.15 and 5.16, shows that almost 80% of respondents are engaged in low religious activities (attending church or mosque 1 to 3 times per week), and while about 61% are involved in special duties in either the church or mosque. This includes, helping the pastor or imam, or leading in programmes as assigned by either the Pastor or the Imam. Less than a quarter of respondents, reported that their religion teaches that 'children with mental illness are possessed by evil spirit'. Only 6.0% reported that their religion tells them to avoid individuals with mental illness and 15% reported that their religion teaches that 'mental illness is dangerous'.

Table 15: Religious activities of Health Professionals

Variables	**Frequency**	**Percentage (%)**
Number of times praying/ doing activities in church/mosque		
Low level activities (1-3 times/week)	284	79.6
Moderate level activities (4-6times/week)	54	15.1
High level activities (7-8 times/week)	19	5.3
Total	357	100.0
Performing special duties in the church/ mosque		
Yes	217	60.8
No	140	39.2
Total	357	100.0

Table 5.16 a: Religious Stereotypes towards Child and Adolescent with Mental Health Problems

Variables	Frequency	Percentage (%)
My religion says to avoid C/A with mental illness		
Yes	2	6.0
No	355	99.4
Total	357	100.0
My religion believes C/A mental illness are possessed		
Yes	84	23.5
No	273	76.5
Total	357	100.0
My religion believes C/A with mental illness are dangerous		
Yes	55	15.4
No	302	84.6
Total	357	100.0

5.13.2: Religiosity scale

Table 16a shows that 251 (71.3%) of respondents have religiosity lower than the mean (3.28±1.56) scores (figure 5.7) for religiosity in all the respondents.

Table 16b: Religiosity Scale

Variables	Frequency	Percentage (%)
1	14	3.9
2	106	29.7
3	131	36.7
4	48	13.4
5	27	7.6
7	22	6.2
8	9	2.5
Total	**357**	**100.0**

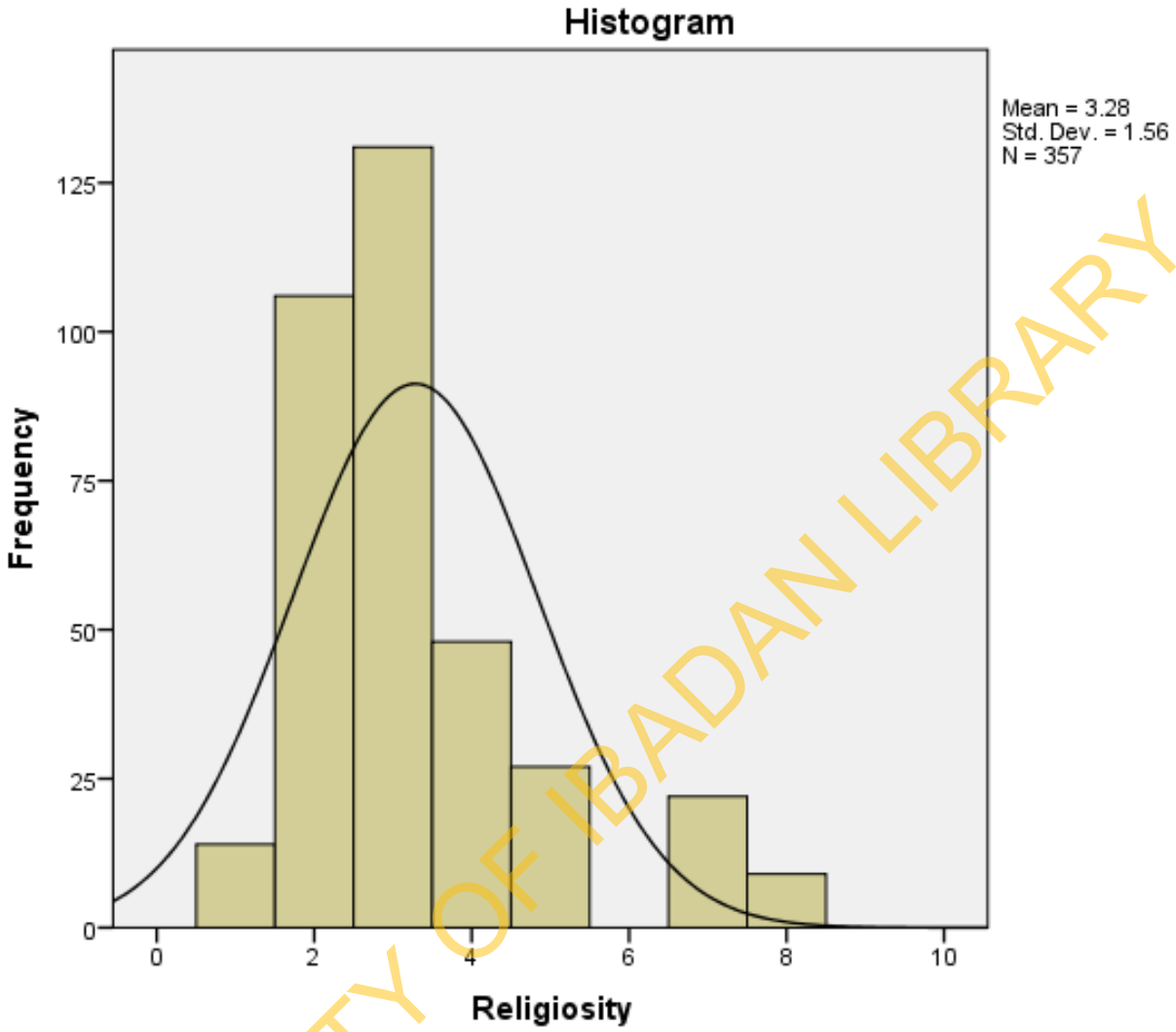

Figure 5.5: Religiosity Scale Histogram

5.14: How Health Professionals' perceive their Family's Attitude towards Child and Adolescent Mental Illness Practice of Medicine

Table 5.17 displays the frequency distribution of 'perceived family attitudes' as reported by all respondents. Seventy-six (20.8%) respondents, agreed that their family would be worried, if they had contact with a child or adolescent with mental illness, while only 25 (7%), reported t that their families are against them working in a ward that treats a child and/ or adolescent with mental illness. Almost 30% think that their family would be ashamed to have a child with mental illness and more than one-third think their families would keep mental illness in children or adolescents as a secret.

Table 5.17: Family Attitudes towards mental illness in Children and Adolescents

Variables **My family (is)**	**Frequency**	**Percentage (%)**
Worried if I have contact with a C/A with mental illness		
Strongly agree	12	3.4
Agree	64	17.4
Disagree	121	33.9
Strongly disagree	162	45.5
Total	357	100.0
Against working with C/A with mental illness		
Strongly agree	6	1.7
Agree	19	5.3
Disagree	141	39.5
Strongly agree	191	53.5
Total	357	100.0
Thinks it is shameful to have a C/A with mental illness		
Strongly agree	16	4.5
Agree	90	25.2
Disagree	177	49.6
Strongly agree	74	20.7
Total	357	100.0
Thinks a C/A with mental illness should be kept secret		
Strongly agree	13	3.6
Agree	120	33.6
Disagree	150	43.6
Strongly disagree	69	19.3
Total	357	100.0

5.15: Frequency Distributions of Family Attitudes Scores

In Table 5.18 and figure 5.5, the higher the scores, the more negative the attitude of the respondent's family is towards mental illness/ difficulties.

Table 5.18: Family Attitude towards Mental Illness

Variables	Frequency	Percentage (%)
5	6	1.7
8	12	3.4
9	12	3.4
10	26	7.3
11	54	15.1
12	104	29.1
13	48	13.4
14	33	9.2
15	19	5.3
16	43	12.0
Total	357	100.0

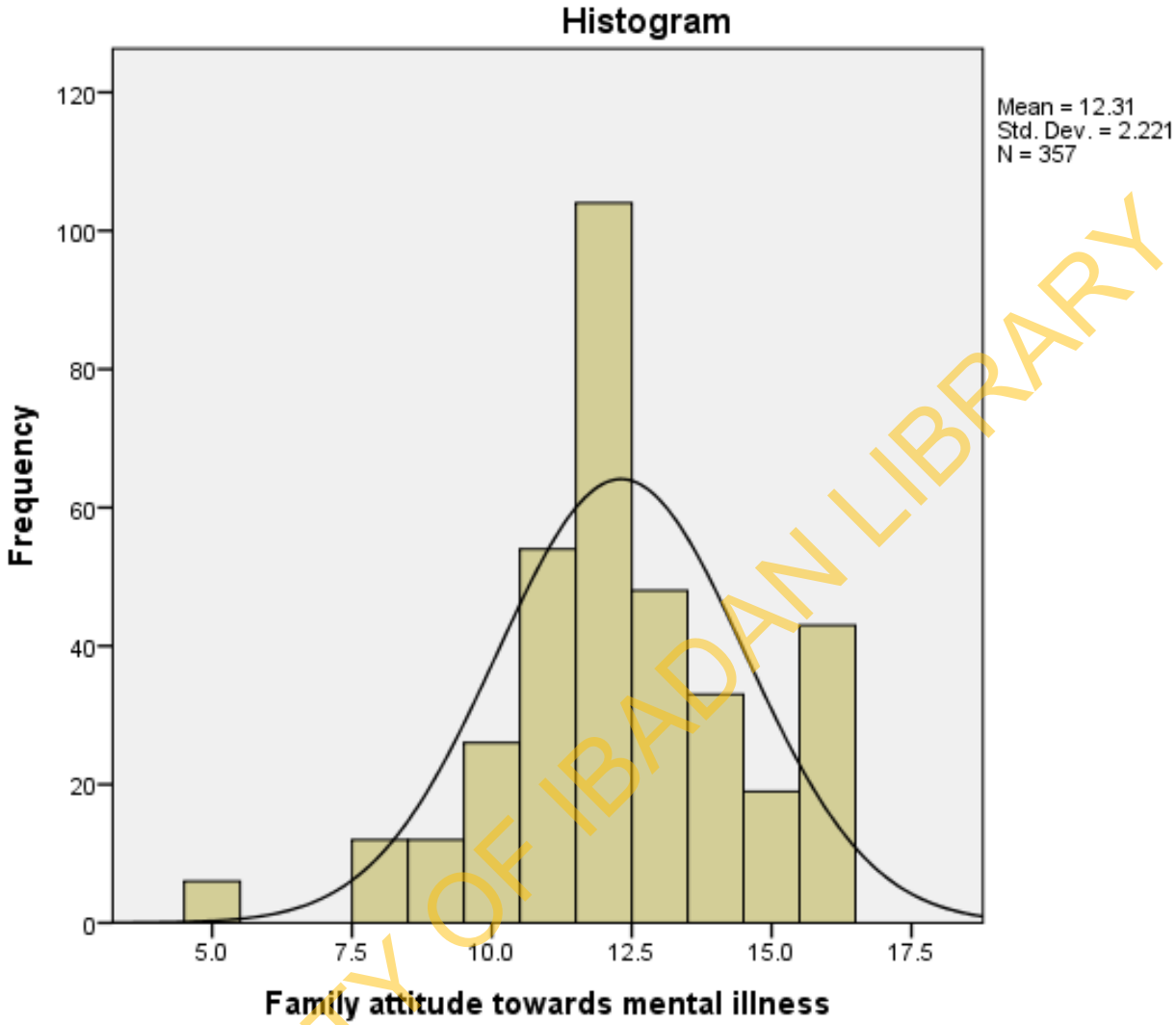

Figure 5.6 Family Attitudes Towards Mental Illness

5.16: Institutional attitudes and practice of health professions

In table 5.19 and figure 5.6, 21 (5.9%) of respondents agreed, that the hospital should refuse treating children with mental health issues whereas, 154 (26.3%) disagreed with the instruction that they should not relate well with a child with mental illness. Three hundred and nine (86.6%) respondents emphatically agreed that they have ethical responsibilities to treat children with mental illness.

Table 5.19: Frequency Distribution of Institutional Attitudes

Variables	Frequency	Percentage (%)
Hospital should refuse treating C/A with mental health problems		
Strongly agree	7	2.0
Agree	14	3.9
Disagree	55	15.4
Strongly disagree	281	78.7
Total	357	100.0
Relating well with C/A with mental health illness in the hospital		
Strongly agree	90	25.3
Agree	173	48.5
Disagree	90	25.2
Strongly disagree	64	1.1
Total	357	100.0
Treating C/A with mental illness leads to discontinuation of care from other parents/caregivers		
Strongly agree	24	6.7
Agree	74	20.7
Disagree	134	37.5
Strongly disagree	125	35.0
Total	357	100.0
I have an ethical responsibility to treat C/A with mental health illness		
Strongly agree	176	49.3
Agree	133	37.3
Disagree	38	10.6
Strongly disagree	10	2.8
Total	357	100.0

C/A= Child and/or Adolescent

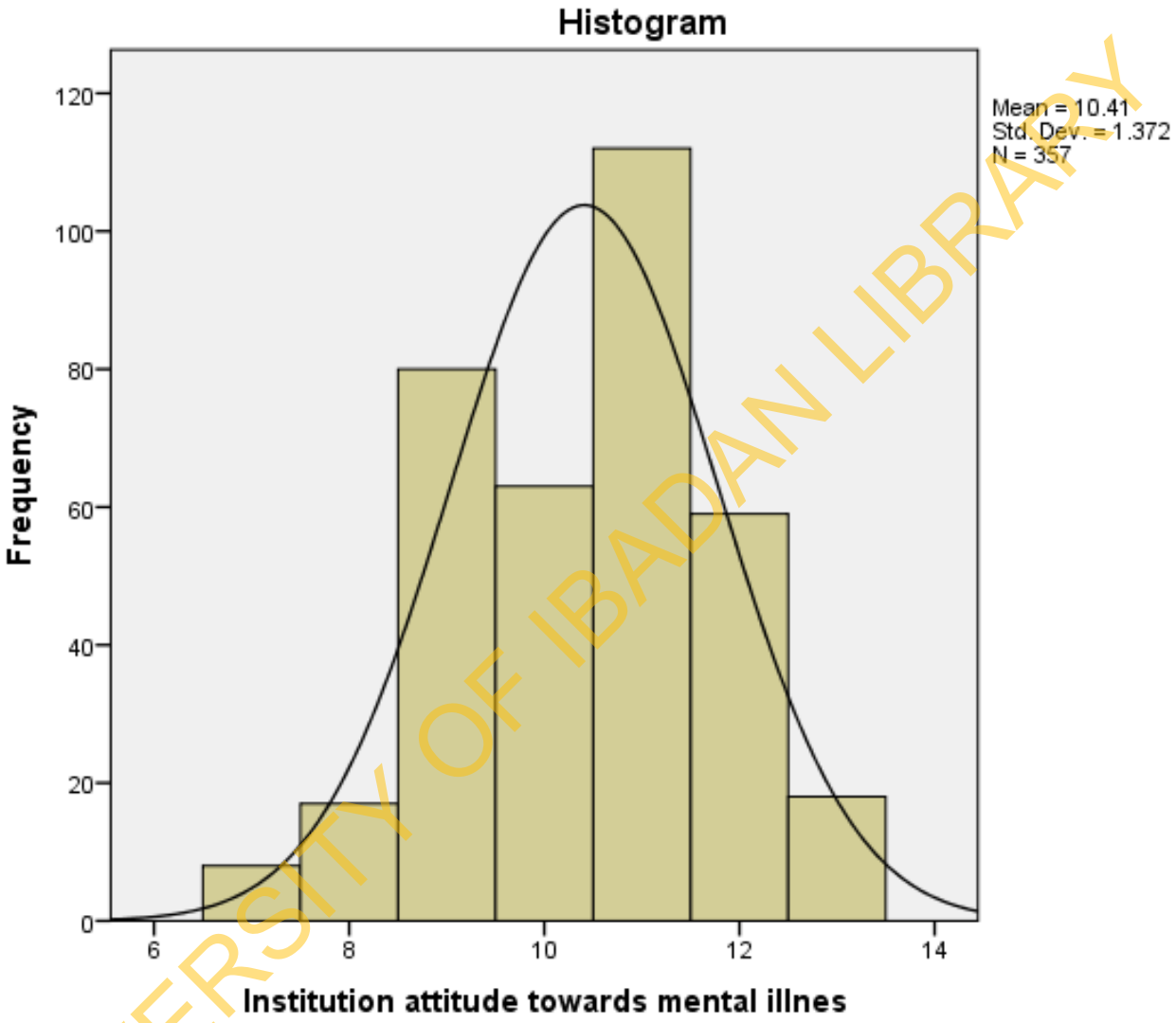

Figure 5.7: Institutional Attitudes towards Mental Illness

5.17: Stigma/ Attitudes of Individual Respondent towards Children and Adolescents with Mental Illness

In table 5.20a, about their social relationship or contact with children with mental illness or mental health problems, 137 (38.2%) respondents felt they would be ashamed if people knew they have a child with mental illness. Ninety-seven (27.4%) would be afraid to have conversation with a child that has mental illness. However, this proportion drops to 17.4% when they were asked if they would worry about working in a ward that admits children with mental illness. More than a quarter (28.3%) would not allow their children to play with a child or adolescent with mental illness. Interestingly, a good proportion of respondents would not be worried about marrying a colleague who works with children or adolescents with mental illness.

Table 5.20a: Frequency Distribution of Attitude (Stigma) Using the Modified Bogardus Social Distance Scale

Variables (social relationship)	Frequency	Percentage (%)
I feel ashamed to relate with others if a C/A in family has mental illness		
Definitely yes	22	6.2
Probably yes	115	32.2
Probably no	95	26.6
Definitely no	125	35.0
Total	357	100.0
I will be afraid to have conversation with a C/A with mental illness		
Definitely yes	9	2.8
Probably yes	88	24.6
Probably no	98	27.5
Definitely no	162	45.4
Total	357	100.0
I will be worried working in a ward that admit C/A with mental illness		
Definitely yes	10	2.8
Probably yes	52	14.6
Probably no	123	34.5
Definitely no	172	48.2
Total	357	100.0
I will not allow my child/relative to be friends with a C/A that has mental illness		
Definitely yes	24	6.7
Probably yes	77	21.6
Probably no	135	37.8
Definitely no	121	33.9
Total	357	100.0
I would be worried marrying a colleague who works with C/A with mental illness		
Definitely yes	28	7.8
Probably yes	42	11.8
Probably no	92	25.8
Definitely no	195	54.6
Total	357	100.0

C/A= Child and Adolescent

Furthermore, table 5.20b, shows that almost 42% of respondents would be worried if their child sits with a child with mental illness in the class and almost the same proportion would be concerned if a relative or their child invites a child with mental illness to their child's birthday or if their child is doing home work with a child who is affected by mental illness. This discouraging picture drops to about 35.0% of those who reported that they would be concerned if their child walks home after school with a child with mental illness. There is a further drop in the proportion 18.8% of respondents who would be concerned if a relative or their child makes a phone call to a child with mental illness.

Table 5.20b: Frequency Distribution of Attitude (Stigma) Using the Modified Bogardus Social Distance Scale

Variables	Frequency	Percentage (%)
I would be concerned about my child/relatives sitting in a class next to a C/A with mental illness		
Definitely yes	31	8.7
Probably yes	118	33.1
Probably no	91	25.5
Definitely no	117	32.8
Total	357	357
I would be concerned about my child/ relatives inviting a C/A with mental illness to their birthday parties		
Definitely yes	22	6.2
Probably yes	126	35.3
Probably no	99	27.7
Definitely no	110	30.8
Total	357	100.0
I would be concerned about my child / relatives doing homework with C/A with mental illness		
Definitely yes	22	6.2
Probably yes	123	34.5
Probably no	79	22.1
Definitely no	133	37.3
Total	357	100.0
I would be concerned if my child/ relatives walking home from school with a C/A with mental illness		
Definitely yes	11	3.1
Probably yes	114	31.9
Probably no	97	27.2
Definitely no	135	37.8
Total	357	100.0
I would be concerned if my child/ relative made phone calls to a classmate with mental illness		
Definitely yes	12	3.4
Probably yes	55	15.4
Probably no	105	29.4
Definitely no	185	51.8
Total	357	100.0

C/A= Child and Adolescent

5.18.1: Individual Attitude towards Children and Adolescent with Mental Health Difficulties

The social distance scores are normally distributed amongst the respondents with a mean of 30.46 ± 6.58SD. See table 5.20c.

Table 5.20c: Frequency Distribution of Individual Attitude (Stigma) Scores (Modified Bogardus Social Distant Scores)

Variable Social distance scores (stigma scores)	Frequency	Percentage (%)
14	6	17
16	6	17
20	1	0.3
21	10	2.9
22	8	2.2
23	3	0.8
24	41	11.5
25	30	8.4
26	1	0.3
27	46	12.9
28	5	1.4
29	21	5.9
30	1	0.3
31	2	0.6
32	37	10.4
33	17	4.8
34	1	0.3
35	28	7.8
36	12	3.4
37	1	0.3
38	3	0.8
39	47	13.2
40	30	8.4
Total	357	100.0
Mean ±standard deviation	30.46 ± 6.58	
Minimum score	14	
Maximum score	40	

5.18.2: Individual Attitude towards Children and Adolescent with Mental Health Difficulties

As in previous Nigerian studies (e.g. Adewuya and Oguntade 2007), the respondents were classified as having low, medium or high social distance based on the following criteria. Respondents who answered no (definitely no or probably no) to all the social distance questions were classified as having low social distance, respondents with only one affirmative answer (definitely yes or probably yes) was classified as having medium social distance while those with two or more affirmative responses were classified as having high social distance. Based on these criteria 60% of the respondents were classified as having high social distance.

Table 5.20d: Social Distance Categories

Categories	**Frequency**	**Percentage (%)**
Low	106	29.7
Moderate	36	10.1
High	215	60.2
Total	**357**	**100.0**

5.19: General Health of All Respondents using the General Health Questionnaire-12 (GHQ-12)

The mean GHQ-12 score for all the respondents was found to be 0.8±1.51 and 309 (86.6%) respondents scored below 2 which indicates that they do not have mental health problems (tables 5.21a and 5.21b respectively). Whether the mental health of respondents affects their knowledge, attitudes or practices towards children and adolescents with mental illness or not, will be explored later in section II of this chapter.

Table 5.21a: Frequency distribution of total General Health Scores of All Respondents

Variable **General Health Score**	**Frequency**	**Percentage (%)**
0	245	68.6
1	51	14.3
2	13	3.6
3	7	2.0
4	17	4.8
5	24	6.7
Total	**357**	**100.0**
Mean ±standard deviation	**0.8 ±1.51**	
Minimum	**0**	
Maximum	**5**	

Table 5.21b: General Health Scale of All Respondents (cut-off point=2)

Variables	Frequency	Percentage (%)
No mental health problems/disorder	309	86.6
Mental health problems/disorder	48	13.4
Total	357	100.0

SECTION II

Bivariate Analysis

This section describes the various biviarate comparisons between the independent and dependent variables (outcome measures).

5.20: General Health and Gender

There is a significant statistical association between having mental health problems and being a female (X^2 =14.126, df= 1. P= 0.0005). See table 5.33.

Table 5.22: Gender of Respondents and Their Mental Health

Variables	Total	General health		Chi-square X^2	Degree of freedom (df)	p-value
		Presence of mental health problems	No mental health problems			
Gender						
Male	172	11 (6.4%)	161(93.6%)			
Female	185	37 (20%)	148 (80.0%)	14.126	1	0.0005
Total	357	48 (13.4%)	309(86.6)			

5.21.1: Social distance / stigma scale and Socio-Demographic Variables

To find out how the various socio-demographic variables affect attitudes of health professionals towards children and adolescents with mental health difficulties, t-test and One-way analysis of variance (*ANOVA) (for variables that have more than two groups) were used to compare the categorical variables with the stigma scale.

Table 5.23a shows that the mean stigma scores differences within the age group is statistically significant (F (3,355) = 4.23, p= 0.006)* i.e., respondents within the age group 30-39 years have a statistically significant high scores on social distance scale and are more likely to show stigma than any other group. The mean differences in the stigma scores between the different ethnic groups was not statistically significant (F (3,355) =1.461, p= 0.225).

In terms of gender, there is a significantly statistically differences between the mean scores scored by males to that of females (t=2.89, df=355, p= 0.04). This indicates that males had high stigma scores than females. There is also a significant statistical differences in the mean stigma scores between Christians and Muslims (t=1.89, df=355, p= 0.018) with Christians scoring higher than Muslims.

In respect to level of education attained by respondents, table 5.23a shows that, University graduates had higher means scores on stigma scale than non-University graduates. This difference is statistically significant (t=3.24, df=355, p=0.001).

Table 5.23a: Attitude (Stigma) Scores of Health Professionals and Socio-Demographic Variables

Variables	Total (n)	Attitude (stigma)scores		t-test	Degree of freedom (df)	p-value
		Mean	Standard deviation			
Age group						
20-29years	47	29.96	6.27			
30-39 years	160	31.14	6.34			
40-49 years	93	31.08	7.39	4.23*	(3,353)*	0.006*
50-59 years	53	27.68	5.36			
Total	357	30.46	6.58			
Gender						
Male	172	31.49	6.57	2.89	355	0.04
Female	185	29.50	6.46			
Marital status						
Married	247	30.53	6.73	0.30	355	0.77
Others	110	30.30	6.24			
Religion						
Christianity	318	30.69	6.73	1.89	355	0.018
Islam	39	28.59	4.81			
Ethnicity						
Yoruba	20	29.85	5.42			
Igbo	43	31.74	5.87			
Hausa	25	28.36	4.80	1.461*	(3, 353)*	0.225*
Others	269	30.44	6.91			
Total	357	30.46	6.58			
Level of education						
University graduates	205	31.41	6.71	3.24	355	0.001
Non-University graduates	152	29.16	6.18			

*ANOVA test

5.21.2: Association between Attitude (stigma) scores and different professional groups and years of working experiences (*ANOVA and T-Test)

When comparing the difference in the mean stigma scores of the various professional groups such as medical doctors, non-medical clinicians (nurses, pharmacists, clinical psychologists and social workers) and non clinical professionals, there was a significant statistically differences in the mean stigma scores (F (3,354) =46, p= 0.0005)* (table 5.23b). This comparison shows that medical doctors scored higher on social stigma than other groups of professionals within the hospital. However, when the mean social (stigma) scores was compared within the Medical Department, there was no statistically significant differences (t=1.22, df =54, p=0.262) (see table 5.33b) between the mean stigma scores Psychiatrists and non-Psychiatrists. And so, are the mean stigma score differences within the Nursing Department. The differences in the nursing department is not statistically significant (F (2,134) = 0.20, p=0.816)*. Furthermore, there was no statistically significantly differences (F (3,353) =1.229, p= 0.225)* (see table 5.23b) in years of working experiences amongst the respondents.

Another interesting finding in this study, is the significant statistical differences found in the mean stigma scores between the Clinical and Non-clinical Departments (t=4.33, df= 355, p= 0.0005) as shown in table 5.23b below. Non-Clinical staff scored higher on stigma towards children and/ or adolescents with mental illness, than clinical staff.

Table 5.23b: Attitude scores and different groups of health professionals

Variables	Total	Attitude scores		t-test	Degree of freedom (df)	p-value
		Mean	Standard deviation			
Professional groups						
Medical doctors	56	34.82	5.01			
Non-medical clinicians	154	27.18	5.93	46.20*	(2,354)*	0.0005*
Non-clinical professionals	147	32.23	6.11			
Total	357	30.46	6.58			
Departments						
Clinical professionals						
Non-clinical professionals	210 147	29.21 32.23	6.63 6.11	4.33	355	0.0005
Medical Doctors						
Psychiatrists	6	36.83	4.19	1.22	54	0.262
Non-psychiatrists	50	34.58	5.08			
Nursing Department						
Psychiatric nurses	22	27.23	5.94			
Paediatric nurses	17	26.29	5.50	0.20*	(2,134)*	0.816*
General nurses	98	27.28	5.93			
Total	137	27.15	5.86			
Years of working experience						
1-10years	216	30.75	6.60			
11-20 years	62	29.55	6.28	1.299*	(6,353)*	0.225*
21-30years	58	31.05	6.85			
31-40 years	21	28.52	6.28			
Total	357	30.46	6.58			

***ANOVA**

5.21.3: Association between Mental Health and Stigma Scores

Table 5.23c shows that the mean differences in the stigma scores by those who had mental health problems and those without is statistically significant. Respondents who have mental health problems scored significantly higher on stigma scale than those without mental health problems.

Table 23c: Attitude (stigma) scores versus General Health of Health Professionals

Variables General health	**Total**	**Attitude (stigma) scores**		**t-test**	**Degree of freedom (df)**	**p-value**
		Mean	**Standard deviation**			
No mental health problems	309	30.10	6.57			
Presence of mental health problems	48	32.75	6.21	2.727	355	0.008
Total	357	31.43	6.39			

5.21.4: Association between stigma scores and training in CAMHS

Tables 5.23d shows that 116 (32.5%) of respondents had received training in CAMHS. Those that had training have a higher mean scores on the social distance than those that did not and this is statistically significant (t=4.855, df=355, p=0.0005).

Table 5.23d: Association between Training in CAMHS and Stigma Scores

Variables **Training in CAMHS**	**Total (n) (%)**	**Stigma scores**		**t-test**	**Degree of freedom (df)**	**p-value**
		Mean	**Standard deviation**			
Yes	116 (32.5)	32.82	5.49			
No	241 (67.5)	29.33	6.76			
Total	357 (100.0)	31.08	6.13	4.855	355	0.0005

5.21.5: Correlation between stigma (attitude) scores and other outcome variables

Table 5.23e shows the correlation between stigma or attitude scores with other outcome variables. There were significant and positive correlations between attitude scores and practices scores (r=0.342, p=0.0005), knowledge scores (r= 0.379, p= 0.0005) and family attitude scores (r= 0.321, p= 0.0005).

Table 5.23e: Pearson's correlation between attitude (stigma) scores and other variables

Variables	Attitude (stigma) scores	
	(r)	p-value
Age	-.0.051	0.3410
Yrs of working experiences	-0.029	0.598
Practice scores	0.342**	0.0005
Knowledge scores	0.379**	0.0005
Family attitude scores	0.321**	0.0005
Familiarity scores	0.047	0.379
Institutional scores	0.095	0.073
Religiosity	-0.102	0.055

***correlation is significant at the 0.05 level (2-tailed)**

****correlation is significant at the 0.01 level (2-tailed)**

5.22.1: Practice Scores versus Socio-Demographic Variables

Table 5.34a shows that the mean practice scores differences within the age group is statistically significant (t=8.753, df= (3,353), p= 0.0005)* i.e., respondents within the age group 30-39 years have a statistically significant high score on practice scale and are more likely to have good practice than any other group. In terms of gender, there is a significant statistical difference between the mean scores scored by males to that of females (t=2.05, df=355, p= 0.041). This indicated that females had higher scores on practice than males. Other important findings that showed statistical significance are: higher mean differences in the practice scores between married and not married (single, separated, divorced or widow (t=2.700, df=355, p= 0.007). This shows that those currently married had better practice than those that are not.

In respect to level of education attained by respondents, table 5.34a shows that, University graduates have high mean scores on practice scores than non-University graduates. This difference is statistically significant (t=3.831, df=355, p=0.0005).

Table 5.24a: Practice scores and Socio-Demographic Variables

Variables	Total (n)	Practice scores		t-test	Degree of freedom (df)	p-value
		Mean	Standard deviation			
Age group						
20-29years	47	3.89	1.90			
30-39 years	160	4.40	1.27			
40-49 years	93	3.89	1.71	8.753*	(3,353)*	0.0005*
50-59 years	53	3.15	1.85			
Total	357	4.01	1.63			
Gender						
Male	172	3.83	1.78	2.05	355	0.041
Female	185	4.18	1.47			
Marital status						
Married	247	4.35	1.43	2.700	355	0.007
Others	110	3.85	1.69			
Religion						
Christianity	318	3.96	1.65	1.739	355	0.063
Islam	39	4.44	1.47			
Ethnicity						
Yoruba	20	3.60	1.43			
Igbo	43	4.23	1.66	0.821*	(3,355)*	0.483*
Hausa	25	4.20	1.26			
Others	269	3.99	1..67			
Total	357	4.01	1.63			
Level of education						
University graduates	205	4.29	1.84	3.831	355	0.0005
Non-University graduates	152	3.63	1.39			

*ANOVA test

5.22.2: Association between Practice scores versus different professional groups and years of working experiences

When comparing the difference in the mean practice scores of the various professional groups such as medical doctors, non-medical clinicians (nurses, pharmacists, clinical psychologists and social workers) and non clinical professionals, there were a significant statistical differences in the mean practice scores (t=5.11, df=(2,354), p= 0.006)* (table 5.34b). This comparison shows that medical doctors are more likely to have high practice (good) scores than other groups of professionals within the hospital. Incidentally, there was no statistically significant difference in practice scores between Psychiatrists and non-Psychiatrists (t=1.28, df=54, p=0.242) (see table 5.34b).

It is noteworthy that the practice scores between the Clinical and Non-clinical Departments, was not significant statistically (t=0.511, df= 355, p= 0.69) as shown in table 5.24b below. The differences in the mean practice scores within the Nursing Department was not statistically significant (F (2,134) = 2.215, p=0.113)*. This study found a significant statistical difference in the mean practice scores between the different groups in terms of years of experiences (F(3,353)=5.332, p= 0.001* (see table 5.33b). The group (1-10 years) has the highest on practice scores.

Table 5.24b: Practice scores and different groups of health professionals

Variables	Total	Practice scores		t-test	Degree of freedom (df)	p-value
		Mean	Standard deviation			
Professional groups						
Medical doctors	56	4.55	0.91			
Non-medical clinicians	154	3.76	1.90	5.11*	(2, 354)*	0.006*
Non-clinical personnels	147	4.06	1.49			
Total	357	4.01	1.63			
Departments						
Clinical	210	3.97	1.78			
Non-clinical	147	4.06	1.49	0.511	355	0.069
Medical doctors						
Psychiatrists	6	5.00	0.89	1.28	54	0.242
Non-psychiatrists	50	4.50	0.91			
Nursing department						
Psychiatric nurses	22	4.32	1.78			
Paediatric nurses	17	3.00	1.97	2.215*	(2,134)*	0.113*
General nurses	98	3.65	1.99			
Total	137	3.68	1.97			
Years of working experience	216	4.23	1.58			
1-10years	62	3.89	1.37			
11-20 years	58	3.29	2.03	5.332*	(3,353)*	0.001*
21-30 years	21	4.10	1.09			
31-40 years	357	4.01	1.63			
Total						

***ANOVA**

5.22.3: Practice Scores versus Mental Health of Respondents

This study also compared how the mental health of respondents' affects practice scores or their practices in CAMHS. The mean practice scores between those that have mental health problems and those that did not is not statistically significant (t=0.159, df=355, p=0.87) (see table 5.24c).

Table 5.24c: Practice scores and Mental Health Scales

Variables **General health**	**Total**	**Practice scores**		**t-test**	**Degree of freedom (df)**	**p-value**
		Mean	**Standard deviation**			
No mental health problems	309	4.01	1.68			
Present of mental problems	48	3.98	1.31	0.159	355	0.874
Total	357	3.99	1.50			

5.22.4: Association between Practices Scores and Training in Child and Adolescent Mental Health Problems

There was a statistically significant differences in the mean scores on practices scores between those that had received training in child and adolescent mental health problems (t=11.46, df=355, p=0.0005). This indicated that those who had received training scored higher than those who did not on practice scores

Table 5.24d: Association between Practice Scores Versus Receiving Training in CAMHS

Variables **Training in CAMHS**	**Total (n) (%)**	**Practice scores**		**t-test**	**Degree of freedom (df)**	**p-value**
		Mean	**Standard deviation**			
Yes	116	5.22	1.10			
No	241	3.42	1.52	11.46	355	0.0005
Total	357	4.32	1.31			

5.22.5: The relationship between Practices Scores and other Outcome Variables

As shown in table 5.24e, there are positive and significant correlations between attitude scale (r=0.342, p=0.000), family attitude scale (r=0.221, p=0.000) and knowledge scale (r=0.138, p=0.009). Whereas, there is a negative but statistically significant relationship between practice scores and age (r= -0.166, p=0.002), institutional attitude scale (r= -0.231, p=0.000) and years of working experiences (r=-0.226, p=0.000).

Table 24e: Correlation between Practice Scores and other Outcome Variables

Variables	**Practice scores**	
	(r)	**p-value**
Age	-0.166	0.002
Years of working	-0.0226	0.000
Attitude scale	0.342	0.000
Institutional scale	-0.231	0.000
Family attitude scale	0.221	0.000
Religiosity	-0.158	0.103
Knowledge scale	0.138	0.009

5.23.1: Association between Knowledge Scores and Socio-Demographic Variables

Table 5.25a shows that the mean knowledge/awareness scores differences within the different age groups is statistically significant (F(3,353)=2.70, p= 0.045)*, i.e., respondents within the age group 50-59 years have a significantly high score on knowledge scale and are more likely to attribute causes of mental illness in children to bio-psycho-social means than any other group. In terms of gender, there is no statistically significant difference between the mean knowledge scores for males or females (t=2.70, df=355, p= 0.398).

The study shows that the difference in mean scores in knowledge/ awareness is statistically significant between Christians and Muslims (t=1.93, df=355, p= 0.036). Christians had higher knowledge than Muslims.

In respect to level of education attained by respondents, table 5.25a shows, that despite University graduates scoring lower than non-university graduates on knowledge/ awareness scores, the difference is not statistically significant (t=1.62,df=355, p=0.105).

Table 5.25a: Association between Socio-Demographic Variables and Knowledge scores of health professionals on the causes of mental illness in children and adolescents

Variables	Total (n)	Knowledge scores		t-test	Degree of freedom (df)	p-value
		Mean	Standard deviation			
Age group						
20-29years	47	10.96	3.57			
30-39 years	160	10.84	2.63			
40-49 years	93	10.77	3.15	2.70*	(3,355) *	0.045*
50-59 years	53	12.09	3.18			
Total	357	11.02	3.01			
Gender						
Male	172	11.16	2.52	0.85	355	0.397
Female	185	10.89	3.41			
Marital status						
Married	247	11.27	3.10	1.047	355	0.296
Others	110	10.91	2.97			
Religion						
Christianity	318	10.92	3.04	1.93	355	0.036
Islam	39	11.90	2.64			
Ethnicity						
Yoruba	20	10.00	4.04			
Igbo	43	10,47	3.70			
Hausa	25	11.04	2.32	1.078*	(3,353)*	0.359*
Others	269	11.02	2.86			
Total	357	11.07	3.01			
Level of education						
University graduates	205	10.80	2.85	1.62	355	0.105
Non-University graduates	152	11.32	3.21			

*ANOVA test

5.23.2: Knowledge/ Awareness Scores amongst Different Professional Groups and Years of Working Experiences

There were no significant statistical differences in the mean knowledge/ awareness scores between the various professional groups such as medical doctors, non-medical clinicians (nurses, pharmacists, clinical psychologists and social workers) and non clinical professionals (t=1.10, df=(2,354), p= 0.334)† (table 5.35b). Likewise, between Psychiatrists and non-Psychiatrists (t=1.81, df=54, p=0.075) (see table 5.35b), between psychiatric nurses and non-psychiatric nurses (t=2.289, df= (2,354), p=0.105)* and between clinical and non-clinical departments (t=1.476, df=355, p=0.141). However, there is significant statistical difference in the mean knowledge scores when different groups of years of working experiences were considered (F (3,353=2.712, p= 0.045)* (see table 5.25b). The group of 31-40 years of working experiences had the highest knowledge score.

Table 5.25b: Knowledge Scores and Different Groups of Health Professionals

Variables	Total	Knowledge scores		t-test	Degree of freedom (df)	p-value
		Mean	Standard deviation			
Professional groups						
Medical doctors	56	11.16	2.44			
Non-medical clinicians	154	11.24	3.37	1.100*	(2,354)*	0.334*
Non-clinical professionals	147	10.74	3.81			
Total	357	11.02	3.01			
Departments						
Clinical	210	11.22	3.14	1.476	355	0.141
Non-clinical	147	10.74	2.81			
Medical Doctors						
Psychiatrists	6	12.83	1.84	1.810	54	0.075
Non-psychiatrists	50	10.96	2.44			
Nursing Department						
Psychiatric nurses	22	10.54	3.59	2.289*	(2,134)*	0.105*
Paediatric nurses	17	9.82	3.73			
General nurses	98	11.58	3.38			
Total	137	11.20	3.49			
Years of working experience						
1-10years	216	10.79	2.73			
11-20 years	62	10.79	3.38	2.712*	(2,350)*	0.045*
21-30 years	58	11.67	3.04			
31-40years	21	12.29	4.17			
Total	357	11.02	3.01			

***ANOVA**

5.23.3: Knowledge Scores versus Mental Health Scores of Respondents

Table 5.25c shows that there is no statistical significant difference (t= 0.274, df= 355, p=0.785 in the mean score on practices scores between those that are having mental health problems and those that do not.

Table 5.25c: Knowledge Scores and General Health of All Respondents

Variables **General health**	**Total**	**Knowledge scores**		**t-test**	**Degree of freedom (df)**	**p-value**
		Mean	**Standard deviation**			
No mental health problems	309	11.04	3.04			
Present of mental problems	48	10.92	2.84	0.274	355	0.785
Total	357	10.96	2.94			

5.23.4: Correlation between Knowledge Scores and Other Variable Outcome

When comparing the relationship between knowledge scores and other outcome variables of the study, table 5.25d shows positive and statistically significant correlation between knowledge and age (r=0.132, =0.015), years of working experience (r=0.142, p=0.008), attitude scale (r=0.399, p=0.000) and practice scale (r=0.138, p=0.009). Other outcome variables that showed positive correlation with knowledge scores are: family attitudes (r=0.181, p=0.001) and familiarity scale (r=0.157, p=0.003). Expectedly, the relationship between religiosity showed a negative but statistically significant relationship with knowledge scores (r=-0.135, p=0.003).

Table 5.25d: Correlation between Knowledge Scores and Other Outcome Variables

Variables	**Knowledge scores**	
	(r)	**p-value**
Age	0.132*	0.015
Years of working	0.142**	0.008
Attitude scale	0.399**	0.000
Practices scale	0.138**	0.009
Family attitude scale	0.181**	0.001
Religiosity	-0.135	0.011
Familiarity scale	0.157	0.003

5.24: Summary of Bivariate Comparisons the Mean Scores of knowledge, Attitude and practice within the respondents

In summary, the analysis in this section of the study show that knowledge level is associated with respondent's age group, religion, years of experience in working, level of practice, social distance, religiosity, perceived institutional attitudes and level of familiarity with mental illness.

Negative attitudes or stigma towards children and adolescents with mental illness was significantly associated with age group, gender, religious affiliation, and level of education. Others are: level of knowledge about mental illness, religious activities, perceived family attitude towards mental illness and practice scores.

Level of practice was associated with age, gender, marital status and level of education. Others are years of experiences, stigma scale, perceived institutional stigma, perceived family stigma and level of exposure to mental illness.

Chapter 5: Section III

5.25: Multivariate Analysis

This section tests the main hypothesis of the study, which is to identify the statistically independent predictors of social distance (stigma). This was achieved through linear regression, in which the social distance scale was the dependent variable. The variables that were significantly associated with social distance (age, gender, religion, years of working in hospital, perceived family attitude towards mental illness, Religiosity, practice scores, knowledge/awareness of mental illness, level of education (university versus non university graduates) and occupation (clinical versus non-clinical staff) were included as independent variables.

Tables 5.26a-c and figure 5.7, shows that the regression model as a whole explained 41.8% ($R^2 = 0.418$) of the variance in social distance/ stigma scores and it is statistically significant ($F(10,320) = 23.03$, $p = 0.0005$). The statistically significant and independent predictors of high social distance/ stigma scores were: age (Beta= -0.157, p=0.038), gender (Beta= -0.148, p= 0.001) religion (Beta= -0.153, p= 0.001), years of working (Beta= 0.200, p=0.009), perceived family attitudes (Beta= 0.267), practices scores (Beta=0.269, p=0.0005), awareness/ knowledge scores about mental health (Beta=0.280, p= 0.0005), University versus non-University educated (Beta=-0.149, p= 0.001), and clinical versus non-Clinical professionals (Beta= -0.286, p= 0.0005). The normal P-P Plot of residuals (figure 5.7) indicates that the assumption of normality was not violated.

Table 5.26a: Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.647[a]	.418	.400	5.122

a. Predictors: (Constant), occupation re-coded, Practices and mental health services, Religion, Religiosity, Awareness about mental health, Gender, educational level 2 re-coded, Age, Family attitude towards mental illness, Years of working experience in the hospital

b. Dependent Variable: Social distance (Stigma)

Table 5.26b: ANOVAa

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	6041.497	10	604.150	23.025	.000[b]
Residual	8396.255	320	26.238		
Total	14437.752	330			

Table 5.26c: Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	10.980	3.414		3.216	.001
Age	-.125	.060	-.157	-2.082	.038
Religion	-3.173	.922	-.153	-3.441	.001
Years of working experience in the hospital	.144	.055	.200	2.616	.009
Family attitude towards mental illness	.799	.136	.267	5.868	.000
Religiosity	-.124	.188	-.030	-.663	.508
Practices and mental health services	1.090	.191	.269	5.697	.000
Awareness about mental health	.624	.101	.280	6.190	.000
Gender	-1.955	.584	-.148	-3.345	.001
University vs non-university graduates	1.992	.607	.149	3.284	.001
Clinical vs non-clinical staff	3.818	.592	.286	6.451	.000

Social distance (stigma)

Charts

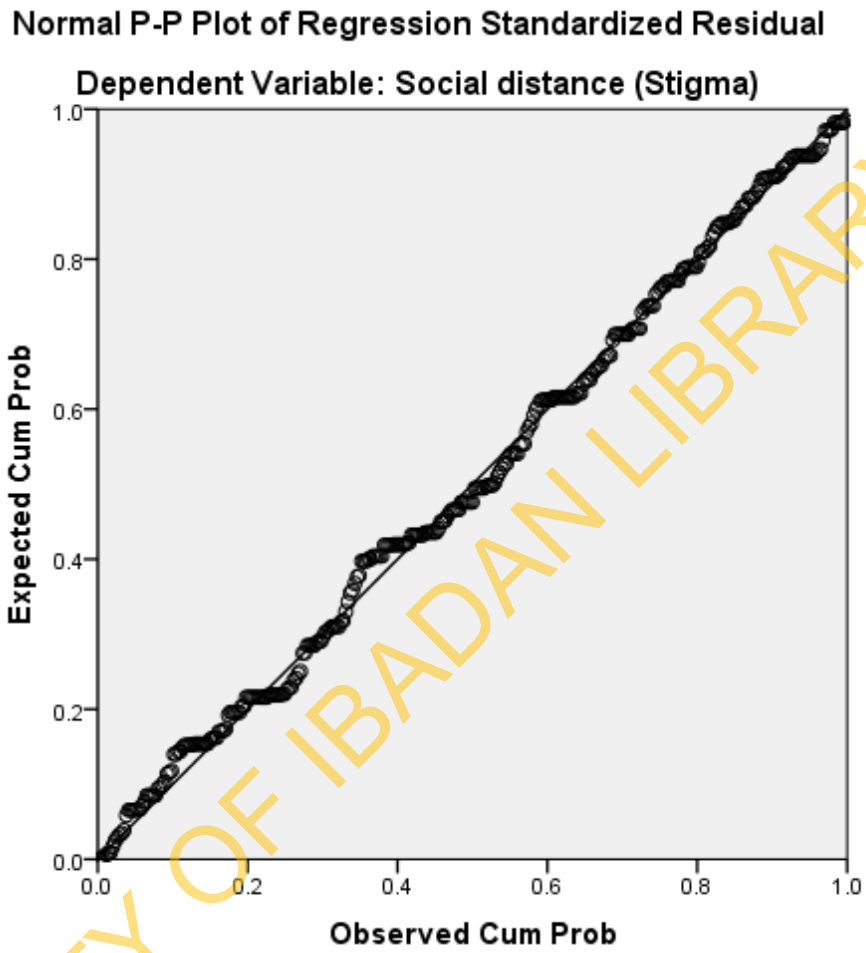

Figure 5.8

CHAPTER SIX

Discussion

The study aimed to explore the knowledge, attitude and practices of hospital staff in Jos University Teaching Hospital, North-Central, Nigeria, in relation to child and adolescent mental health. The study achieved a high response rate of 90.6%. This chapter discusses the main findings. However, only the key results would be discussed.

6.1: Prevalence of stigma

One of the main objectives of this study is to identify the prevalence of stigmatizing attitudes / social distance towards children and adolescents with mental illness. Using the same criteria as in previous studies (e.g. Adewuya and Oguntade 2007), 60.1% of the respondents were classified as having high social distance. This figure is high and similar to the prevalence of 64.1% found by Adewuya and Oguntade (200&) among doctors in Western Nigeria. The high prevalence of stigma found in our study is further illustrated by the fact that 38% of the respondents in this study said they would be ashamed to associate with children with mental health difficulties, 28.3% would not allow their child to play with another child with mental illness, 27.4% would be afraid to talk to an affected child and 17.4% would not work in a ward that admits a child with mental health difficulties. These figures indicate the need for interventions to reduce social stigma against children and adolescent with mental illness in this setting. Next, I will discuss the predictors of stigmatizing attitude, which could help to inform interventions to reduce the high prevalence of social stigma identified by the study.

6.2: Predictors of social distance / stigma

A standard multiple regression analysis identified the statistically significant and independent predictors of high social distance/ stigma scores as younger age, male gender, Christian religious affiliation, longer period of working in the hospital, higher perceived negative attitude by their own families, lower mental health practices scores, lower awareness/ knowledge about mental health, being a non-clinical staff (instead of

clinical), and being university educated (instead of non-University educated). Due to word limit, only the key predictors with potential for mitigating stigma are discussed.

6.3: Age as a predictor of social distance

Younger age was a predictor of social distance/ stigma. This is similar to other findings in Nigeria by Kabir et al, (2004) and Adewuya and Oguntade, (2007). In their respective studies they found that older people have more positive attitudes towards people with mental illness. It is thought that with age and experience, older people tend to have more understanding about the plight of the mentally ill and are more likely to have come in contact with those that are suffering from mental illness. However, this finding contrasts with what has been reported in the Western world, where older people have high social distance towards people with mental illness because they consider such persons to infringe on their social space and disrupt their emotional environment (Stuart and Arboleda-Florez, 2001). The differences in the findings between the Western and non-Western world could be explained by difference in cultures. The significance of this finding includes that older hospital staff that has less stigma could be recruited to contribute to peer-to-peer anti-stigma campaigns targeting the young members of staff.

6.4: Gender as a predictor of social distance

Males in this study had higher social distance when compared to females. This is consistent with other studies of stigma in mental illness (Byrne 2000, Jorm and Wright 2008, Cook and Wang 2010, Ani et al, 2012). This is thought to be related to lower levels of awareness and knowledge among males (Cotton et al. 2006). However, there are other studies that are in contrast to the above, including from Western, Nigeria (Adewuya and Makanjuola; 2005, Kabir et al, 2004; Stuart and Arboleda-Florez, 2001; Adewuya and Oguntade, 2007. In their study, Adewuya and Oguntade, (2007), found that female medical doctors, have higher social distance towards people with mental illness than males. The conflicting findings are difficult to explain. However, the finding of higher social distance in males in our study could be explained by the fact that women do more of the caring role for children in traditional societies like Nigeria. Thus females may be more empathic and accommodating when a child becomes mentally or indeed physically

unwell. One possible practical implication of this finding is that if the resources for an anti-stigma campaign are insufficient to cover both males and females, the resources could be targeted specifically to males – given that they have significantly more social distance than females.

6.5: Knowledge / awareness as a Predictor of Social Distance

As hypothesized, the study found that less knowledge about mental health predicts higher social distance scores. This is similar with other studies of stigma , in which limited knowledge about both mental and physical illnesses have been consistently associated with stigma (Ani et al 2011, Ola et al 2013, Corrigan et al, 2001 and Rho et al, 2010,). The higher the level of knowledge about mental illness, the less the social distance towards people with mental illness. Majority of respondents in the current study showed good knowledge of mental illness. For example, more than 98 % believed that mental illness can result from alcohol and illicit drug use. This is a higher proportion than found by Adewuya and Oguntade (2007) and Adewuya and Makanjuola, (2008) among Doctors' and a community sample in Western Nigeria, respectively. In these two studies, 67.8% of doctors and 80.8% of the community sample believed that the use of alcohol and illicit drug could cause mental illness. Also, whereas the respondents in the study by Adewuya and Makanjuola (2008) showed wide spread belief in supernatural causes of mental illness, the respondents in the current study showed good awareness of bio-psycho-social.

The better knowledge shown by respondents in the current study could be due to improving public understanding of mental illness given that the two previous studies were conducted 6 or more years ago. Evidence from other countries has shown improvement in public knowledge of mental illness over time as more awareness is created through social media. The strong and consistent association shown between limited knowledge and high social distance indicates need for ongoing concerted efforts to educate the public and hospital staff on child and adolescent mental health problems. Incidentally, and contrary to our expectation, there were no significant differences in the

level of knowledge about child and adolescent mental health difficulties, between medical doctors, non-medical clinicians and non-clinical professionals on one hand, and no difference between clinical and non-clinical departments on the other hand. There were also no significant differences in the level of knowledge between psychiatrist and non-psychiatrists and between psychiatric nurses and non-psychiatric nurses. To illustrate the importance of knowledge and education, this study also showed that respondents who said they have had training in child and adolescent mental problems were significantly more likely to be rated higher on the practice scale. Although this is about practice rather than stigma, the same mechanism could be applicable to stigma.

The finding that having a University degree and number of years or work in the hospital were predictors of social distance shows that having high levels of general education or having a long experience of working in a hospital in themselves may not reduce stigma against child and adolescent mental illness. This shows the need to provide specific education and training with accurate information on child and adolescent mental health for all hospital staff irrespective of their educational qualification or years of experience

Interventions to improve knowledge and reduce negative stereotypes need to include the subjects that are often misunderstood about mental illness such as the belief that children or adolescents with mental illness are dangerous (which was endorsed by a quarter of respondents in this study). Other stereotypes such as that affected children are less intelligent, not friendly and not marriageable, which were also endorsed in this study should be vigorously challenged.

6.6: Perceived Family Attitude as Predictors of Social Distance

This study found that more perceived negative family attitudes towards children and adolescents with mental illness are associated with higher social distance. Incidentally, other studies in Nigeria that explored social distance towards people with epilepsy also found perceived family attitude as a good predictor of social distance (Ani et al, 2011a).

This finding could be explained by the fact that the family is an individual's first and most important environments for socialization in early childhood when beliefs about the world are formed. The family unit therefore plays an important role in shaping an individual's social and psychological development, which influences their long-term attitudes and beliefs (Belsky, 2005). It is therefore possible that any negative views held by the health professionals in this study were acquired from childhood through social learning in their families This highlights the importance of including families in interventions to reduce stigmatizing attitude towards mental illness.

CHAPTER SEVEN

Conclusion

This study found a high prevalence of social distance towards children and adolescents with mental illness. The two most important predictors of increased social distance were limited knowledge of child and adolescent mental illness and perceived negative family attitude towards children and adolescents with mental illness. The study also showed that having a University degree was an independent predictor of social distance as indeed was many years the respondent had worked in the hospital. This shows that having high levels of general education or having a long experience of working in a hospital may not reduce stigma against child and adolescent mental illness. This shows the need to provide specific education and training with accurate information on child and adolescent mental health for all hospital staff irrespective of their educational qualification or years of experience.

CHAPTER EIGHT

Limitations

7.1 Methodological issues and Limitations

First, like all measures of attitude, the social distance scale in used in this study could be subjected to socially desirable responding.

Second, the health professionals in this study were based in Jos, Plateau State in North-Central Nigeria, which is an urbanized area comprising of mainly indigenous ethnic minority groups of Nigeria.

Third, it is a hospital based study which makes the findings difficult to generalize.

Fourth, there are likely to be other wider societal influences on health professionals' knowledge, attitudes and practices towards children or adolescents with mental health difficulties such as media portrayals, which was not assessed but are nonetheless important in considering interventions to reduce stigma towards mental illness.

Finally, given that this study is cross-sectional, no causal inferences are implied by any of the association found between social distance and other variables.

CHAPTER NINE

Recommendations

1. Given the high prevalence of social distance found in the study, I recommend a campaign targeting hospital workers - both clinicians and administrators. The goal of the campaign should be to reduce stigma towards children and adolescents with mental illness
2. The anti-stigma campaign needs to include strategies to increase knowledge and prevent misinformation about mental illness.
3. The training programs for staff of the hospital should incorporate mandatory module that focuses on mental illness in children and adolescents
4. Anti stigma campaigns should also include the clergy to promote mental health in religious circles.

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APPENDIX I

ETHICAL CONSIDERATIONS

I will seek approval to interview participants from the various Departmental heads within the hospital.

Confidentiality of Data

The information obtained will not be release to any person or authority, and shall not be used against the respondents, anyway.

Benefits

There will be no harm to participants who fulfill the criteria for eligibility to participate in the research and participation will be entirely voluntary without coercion. Participants will be asked to sign an informed consent form after the nature, aims and objectives and procedure have been clearly explained to them.

RIGHT TO DECLINE

Participants will be allowed to withdraw at any given time, if they choose to without any intimidation.

APPENDIX II

CONSENT FORM

Knowledge, Attitudes and Practices of Health Professionals towards Child and Adolescent Mental Health Services in Jos University Teaching Hospital, Jos-Plateau

Research Objective: To explore the knowledge and attitude towards child and adolescent mental health difficulties by health professionals and also, to understand professionals' practices in relation to child and adolescent mental health difficulties in Jos University Teaching Hospital (JUTH).

Information to Respondent:

I am a Postgraduate Student of the Centre for Child and Adolescent Mental Health of University of Ibadan and wish to find out or learn about your knowledge, attitudes and practices regarding the difficulties of children and adolescents with mental health problems in JUTH. I hope to understand how much members of staff know of these difficulties, how they may approach and if where necessary help children and adolescents with mental problems. The information provided will be used to improve child and adolescent mental health services in general.

Some of the questions may be personal but we encourage all participants to be accurate so we can get an accurate result. Your answer will be treated with confidentiality and will not identify you and as you will remain anonymous. Your name will not be written on the questionnaire or be kept in other records. Your participation is voluntary and you may choose to stop the interview at any time.

Thanks for your assistance.

AGREE TO PARTICIPATE [ ] DISAGREE [ ]

SIGNATURE/ THUMB PRINT……

DATE……..

APPENDIX III

QUESTIONNAIRES/ INSTRUMENTS

SERIAL NUMBER…

SITE: JUTH

SECTION A: SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

INSTRUCTION TO INTERVIEWER: please tick where applicable

1 Age at last birthday……..in years

2 Gender: 1) Male [ ] 2) Female [ ]

3 Marital Status: 1) Single [ ] 2) Married [ ] 3) Divorced [ ] 4) Separated [ ] 5) Widowed [ ]

4 Religion: 1) Christianity [ ] 2) Islam [ ] 3) others [ ] specify……

5 Ethnicity:

1 Yoruba [ ] 2) Igbo [ ] 3) Hausa [ ] 4) Fulani [ ] 5) others [ ] specify……

6 What is your Highest Level of Educational attained?

1) Primary [ ] 2) Secondary school [ ] 3) Polytechnic education [ ] 4) University education [ ]

7 What is your Occupation?

1) Physician [ ] specify department please……
2) Nurse [ ] specify department please……
3) Pharmacist [ ] specify department please…….
4) Administrator [ ] specify department…….....
5) Record clerk [ ]
6) Social worker [ ]
7) Clinical psychologist [ ]
8) Others [ ] specify……

8 Years of working experience in the hospital:……years

SECTION B: AWARENESS ABOUT MENTAL HEALTH

9 What do you think are the causes of mental illness in children and adolescents? (tick Yes or No)

a) Breaking of taboo/ sinning against the gods? Yes [ ] No [ ]
b) Evil spell cast on the person Yes [ ] No [ ]
c) Use of alcohol and other illicit drugs Yes [ ] No [ ]
d) Passing from parents to offspring Yes [ ] No [ ]
e) Injury to the head Yes [ ] No [ ]
f) Infection of the brain Yes [ ] No [ ]
g) By being in contact with someone with mental illness Yes [ ] No [ ]

10 Do you think children and adolescent with mental health can be:
a) Friendly? Yes [ ] no [ ]
b) Intelligent? Yes [ ] no [ ]
c) Dangerous to the society? Yes[ ] no [ ]
d) Employable? Yes [ ] no [ ]
e) Marriageable? Yes [ ] no[ ]
f) Could be treated in the general hospital? Yes [ ] no [ ]
g) Could be treated by non-psychiatrist? Yes [ ] no [ ]
h) Should be treated by only religious leaders in either church/ mosque? Yes [ ] no [ ]
i) Should be treated only by traditional healers? Yes [ ] no [ ]
j) Should be allowed to play with other children within the wards? Yes [ ] no [ ]

11 Are you aware of child and adolescents mental health services in the hospital? Yes [] no[]

12 If 'yes' to question 11, do you think
a) It is important to the overall wellbeing of the child? Yes [ ] no [ ]
b) It should be give a special recognition like other units within the hospital? Yes [ ] no [ ]

SECTION C: YOUR PRACTICES AND CHILD AND ADOLESCENT MENTAL HEALTH SERVICES (tick yes or no)

13 Have you provided treatment for children/ adolescent with mental illness? 1. Yes 2. No

14 Have you ever received training on Child and Adolescent Mental Health? 1. Yes 2. No

15 Have you ever seen a child or adolescent in your clinic that appears to have a mental illness? 1. Yes 2. No

16 If you come across a child or adolescent in your clinic who is tearful and feeling very sad and depressed, would you know what to do for the child to get help? 1. Yes 2. No
If yes, please write down what you would do……

17 If you saw a child in your unit who is talking about killing himself/ herself, would you know what to do for the child to get help? 1. Yes 2.
If yes, please write down what you would do……

18 If you saw a child in your unit who says he/ she is hearing voices telling him to kill his/ her parents, would you know what to do for the child to get help? 1. Yes 2. No
If yes, please write down what you would do……..

19 Over all, how would you rate your confidence in being about to **help** a child or adolescent who is mentally ill? Please cycle 1. Very good 2. Good 3. Average 4. Limited 5. Very limited

20 Over all, how would you rate your confidence in **recognizing** when a child or adolescent who is mentally ill? Please cycle 1. Very good 2. Good 3. Average 4. Limited 5. Very limited

21 Do you believe all health care providers have a responsibility to identify and or treat children or adolescent with mental illness to the best of their ability? 1. Yes 2. No

22 **SECTION D: RELIGION/ FAMILY ATTIDUDE TOWARDS MY PRACTICE**

For the following questions choose the most appropriate response by ticking in the box with the following key:

SA= Strongly agree, A=Agree, D= Disagree, SD= Strongly disagree

Please tick the box that applies **Questions/responses**	SA(4)	A (3)	D(2)	SD(1)
a) My family will be **worried** if I tell them I have contact with children / adolescent with mental health illness in my work				
b) My family is against me working with children with mental illness?				
c) People in my family think that having a child with mental illness is something to be ashamed of				
d) People in my family think that having a child with mental illness is something that should be kept secret from others.				

SECTION E: RELIGION AND MY PRACTICE OF MEDICINE

23. How many times do you go to church or mosque for prayers or religious meeting in a week? ……..

For questions 24 -28, please tick yes or no

24. Do you perform a special duty in church or mosque? Yes [ ] No [ ]

25. What kind of duty (example helping the priest or imam) specify…….

26. My religion teaches that children with mental illness should be avoided? Yes [ ] No [ ]

27. My religion believes that children with mental illness are possessed? Yes [ ]
No [ ]

28. My religion believes that children with mental illness are dangerous? Yes [ ]
No [ ]

SECTION F: INSTUTITION ATTITUDES TOWARDS MENTAL ILLNESS

29. For the following questions choose the most appropriate response by ticking in the box with the following key:

SA=Strongly agree, A=Agree, D= Disagree, SD= Strongly disagree

Questions/responses	SA(4)	A(3)	D (2)	SD (1)
a) The hospital should refuse treatment to children and adolescents with mental health problems				
b) I can relate well with a child/ adolescent with mental health illness in the hospital				
c) If I treat children/ adolescents with mental health illness, other parents/caregiver may be reluctant to continue in my care				
d) As a health professional/ workers I have an ethical responsibility to treat a child/ adolescent with mental illness.				

SECTION G: MODIFIED BOGARDUS SOCIAL DISTANCE SCALE (STIGMA).

30. The following are keys to the following questions about stigma

Definitely yes= DY, Probably yes= PY, Probably no= PN, Definitely yes= DN

SOCIAL RELATIONSHIPS **Please tick the box that you believe applies to each statement below**	DY (4)	PY (3)	PN (2)	DN (1)
A) I will feel ashamed if people knew a child in my family has mental illness?'				
B) I will be afraid to have a conversation with a child / adolescent with mental illness?'				
C) I will be worried about working on the ward that admits children/ adolescents with mental illness?'				
D) I will not allow my child or relative to be friends with a child/ adolescent with mental illness?'				
E) I would you be worried about marrying a fellow worker/colleague who works with children/ adolescents with mental illness?'				
F) I would be concerned about my child or relative sitting in class next to a child/adolescent who has mental illness				
G) I would be concerned about my child or relative inviting a child or adolescent with mental illness to their birthday party				
H) I would be concerned about my child or relative doing home work together with a child or adolescent with mental illness				
I) I would be concerned if I find my child or relative walking home from school together with a child or adolescent with mental illness				
J) I would be concerned if my child or relative made a phone call to a classmate with mental illness				

SECTION H: FAMILIARITY WITH CHILDREN AND ADOLESCENT WITH MENTAL ILLNESS

		Put an X in the bracket if the statement applies to you
31	I suffer or have suffered from mental illness	9[ ]
32	I have a child or adolescent who suffers from mental illness	8[ ]
33	My father or mother or brother or sister suffers from mental illness	7[ ]
34	My brother or sister has a child or adolescent who suffers from a mental illness	6[ ]
35	My child has a friend who suffers from mental illness	5[ ]
36	My nephew or nice has a friend who suffers from mental illness	4[ ]
37	I know a child or adolescent who is not a relative and who suffers from mental illness	3[ ]
38	I have heard of a child or adolescent who suffers from mental illness	2[ ]
39	I have never heard of or know of any child or adolescent who suffers from mental illness	1[ ]

SECTION I: General Health Questionnaire-12

This section is about how you have been feeling recently.

Please place an '×' in the box, which you think most nearly applies to you.

40. Have you recently been able to concentrate on whatever you are doing?

1Better than usual □ 2same as usual □ 3less than usual □ 4much less than usual □

41. Have you recently lost much sleep over worry?

1Not at all than usual [] 2no more than usual □ 3rather more than usual □ 4much more than usual □

42. Have you recently felt you are playing a useful part in things?

1More so than usual □ 2same as usual □ 3less useful than usual □ 4much less useful □

43. Have you recently felt capable of making decisions about things?

1More so than usual [] 2same as usual [] 3 less so than usual □ 4 much less capable □

44. Have you recently felt constantly under strain?

1Not at all □2no more than usual □ 3rather more than usual □ 4much more than usual □

45. Have you recently felt you couldn't overcome your difficulties?

1Not at all □2no more than usual □ 3rather more than usual □ 4much more than usual □

46. Have you recently been able to enjoy your normal day-to-day activities?

1More so than usual [] 2same as usual □ 3 less so than usual □ 4much less than usual □

47. Have you recently been able to face up to your problems?

1More so than usual □ 2same as usual □ 3less able than usual □ 4much less able □

48. Have you recently been feeling unhappy and depressed?

1Not at all □2no more than usual □ 3rather more than usual □ 4much more than usual □

49. Have you recently been losing confidence in yourself?

1Not at all □ 2no more than usual □ 3rather more than usual □ 4much more than usual □

50. Have you recently been thinking of yourself as a worthless person?

1Not at all □ 2no more than usual □ 3rather more than usual □ 4much more than usual□

51. Have you recently been feeling reasonably happy, all things considered?

1More so than usual [] 2about same as usual □ 3less so than usual □ 4much less than usual □

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Ref: JUTH/DCS/ADM/127/XIX/ 5843

Date: 20th January, 2014.

Dr. Friday Philip Tungchama,
Centre for Child and Adolescent Mental Health,
University of Ibadan,
Nigeria.

RE: ETHICAL CLEARANCE/APPROVAL

I am directed to refer to your application dated 12th November, 2013 on the research proposal titled:

"Knowledge, Attitudes and Practices on Health Professionals towards Children and Adolescents with Mental Health Difficulties in Jos University Teaching Hospital" and your appearance before the Ethical Committee on 6th December, 2013.

Following recommendation from the Institutional Health Research Ethical Committee, I am to inform you that Management has given approval for you to proceed on your research topic as indicated.

You are however required to obtain a separate approval for use of patients and facilities from the department(s) you intend to use for your research.

The Principal investigator is required to send a progress report to the Ethical Committee at the expiration of three (3) months after ethical clearance to enable the Committee carry out its oversight function.

Submission of final research work should be made to the Institutional Health Research Ethical Committee through the **Secretary in Room 2, Administration Department,** please.

On behalf of the Management of this Hospital, I wish you a successful research outing.

Hajia R. Danfillo
For: Chairman, MAC

INSTITUTIONAL HEALTH RESEARCH
ETHICAL COMMITTEE
DESPATCHED
20 JAN 2014
JOS UNIVERSITY TEACHING
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