

**HIV AND AIDS RELATED STIGMA AMONG UNDERGRADUATE STUDENTS
AT A UNIVERSITY IN NIGERIA**

By

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DECLARATION

I declare that the study entitled '**HIV AND AIDS RELATED STIGMA AMONG UNDERGRADUATE STUDENTS AT A UNIVERSITY IN NIGERIA**' is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

SIGNATURE: 

DATE: 30/09/2017

DR CHIDIEBERE KALU OGBUREKE

DEDICATION

I dedicate this work to my wife, Ugochi and wonderful children, Grace, Tochukwu and Marygold.

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Let me start by expressing my profound gratitude to Almighty God and all institutions that contributed in one way or the other in making this dissertation (Master of Public Health) possible. These institutions include the University of South Africa, especially the Department Health Studies, and Ambrose Ali University.

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HIV and AIDS RELATED STIGMA AMONG UNDERGRADUATE STUDENTS AT A UNIVERSITY IN NIGERIA

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ABSTRACT

Background: The existence of HIV related stigma and discrimination in institutions of learning across the world is well-documented in the literature. It is also well known that factors such as knowledge about stigma and discrimination, fear of infection, social judgment, legal and policy environment act as actionable drivers and facilitators of HIV related stigma and discrimination. However, research works focusing on how various actionable drivers and facilitators are related to different forms of HIV related stigma and discrimination at universities in Nigeria are scanty.

Purpose: The purpose of this study was to explore and describe the individual correlates of HIV-related stigma among undergraduate students at a public university in Nigeria.

Methods: Quantitative cross-sectional descriptive design was used. Ethical clearance was obtained from the Research Ethics Committee of the University of South Africa. Permission to access the participants was obtained. The study was conducted at Ambrose Alli University which has a population of over 20,000 students. Informed consent was obtained from the participants. Simple random sampling was used to select 404 participants who were handed self-administered questionnaire. Collected data was analysed using All Pearson Chi-square test and Fishers Exact Test ($p < 0.05$). Validity and reliability were also considered.

Results: A total of 391 questionnaires (97%) were returned and considered for analysis. Descriptive summary statistics and cross tabulations were used to analyse data.

The results showed that a high proportion of undergraduate students still have stigmatising behaviours toward people living with HIV. These stigmatising behaviours are associated with certain individual characteristics.

Recommendation: There is an urgent need for political leaders and heads of universities to implement policies and programmes that will enhance knowledge regarding HIV AND AIDS and thereby reduce stigmatizing attitudes among undergraduate students.

KEY WORDS: *Facilitators, HIV related stigma, undergraduate university students, correlates of HIV related stigma, individual profile.*

LIST OF ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome
CI	Confidence Interval
GNP+	Global Network of People Living with HIV
HIV	Human Immunodeficiency Virus
HTC	HIV Testing Counselling
NAC	National AIDS Commission
NAF	National Action Framework
NHSRC	National Health Sciences Research Committee
NSF	National HIV and AIDS Strategic Framework.
NSP	National Strategic Plan
STIs	Sexually Transmitted Infections
SD	Standard Deviation
UNAIDS	Joint United Nations Programme on HIV and AIDS
UNISA	University of South Africa
PEP	Post Exposure Prophylaxis
PMTCT	Prevention of Mother- To- Child Transmission
PLWHA	People living with HIV and AIDS
OR	Odds Ratio

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CHAPTER ONE

ORIENTATION TO THE STUDY

1.1 INTRODUCTION

The first chapter of the study describes the background of the research problem, the statement of the research problem, the aim and objectives of the study, the significance of the study, the theoretical framework of the study, the definition of key concepts, an overview of the research method, and an overview of the structure of the dissertation.

1.2 BACKGROUND OF THE RESEARCH PROBLEM

Stigma has been associated with Human Immunodeficiency Virus and Acquired Immunodeficiency Syndrome since it emerged in the early 80s (The Centers for Disease Control and Prevention 2011:1). HIV and AIDS-related stigma is defined as prejudice, discounting, discrediting discriminatory actions directed at people perceived to have AIDS or HIV, and at the individuals, groups and communities with whom they are associated (Lekas, Siegel and Leider 2011). It is further viewed as any negative feeling or actions against people infected with or affected by HIV and AIDS (Campbell, Nair, Maimane and Nicholson 2007). Different forms of HIV and AIDS related stigma exist: felt, enacted and self-stigma. Felt stigma is intrapersonal and results from the perception of and fears of other people's reaction to the disease. It is the stigma experienced by the person with HIV/AIDS. Enacted stigma on the other hand is interpersonal and results in discrimination. This form of stigma results in actions against persons affected with HIV AND AIDS (Block 2009:1-19). Smart (2009:124) explains self-stigma as the feelings of self-hatred, shame, blame, etc. It is a situation where individuals living with HIV AND AIDS impose feelings of difference, inferiority complex, and unworthiness on themselves (Smart 2009:124).

In a study done in Yemen to describe HIV-related knowledge and AIDS stigma involving 501 undergraduate students. More than half of the respondents agreed people with AIDS should be ashamed of themselves (52%) and 56.5% said they would be afraid if one of their relative got HIV/AIDS.

Still in that report, 66.3% were of the opinion that it is shameful to have people living with HIV and AIDS in Yemen and 60.3% believed that AIDS is a punishment from God for immoral and improper behavior. This study showed that in Yemen HIV was still regarded as a moral failure. Therefore, the research report concluded that educational campaigns in control of the disease in Yemen should present AIDS as a health issue rather than a moral failure. In a Nigerian Study to assess HIV/AIDS related knowledge, attitudes and social distancing towards people with HIV and AIDS, it was discovered that most of the study participants desired moderate to severe distance towards PLWHA (Edet,Edet, Sampson,-Akpan & Ndifon 2012).

In most developing countries including Nigeria, the socio-economic consequences of HIV and AIDS related stigma are compounded with the impacts of high prevalence of HIV and AIDS infections. National interventions for the control and prevention of HIV and AIDS including access to Voluntary Counselling and Testing (VCT) and treatment are largely hindered by stigmatization of individuals who are known to be HIV positive (Roger et al 2012:35). In Ghana, stigma was identified as one of the major barriers in the development of effective prevention, treatment and support for people living with HIV and AIDS (Ghana AIDS Commission 2011). In a study looking at the Mobile Voluntary Testing and Counselling programme (MVCT) in Tanzania, HIV and AIDS related stigma was strongly associated with non-participation to the programme (Ostermann, Reddy, Shorter, Muiruric, Itemba, Njau, Bartlett, Crump, & Thielman 2011). Similar results were shown in studies conducted among university students in Nigeria and South Africa (Edet, Edet, Sampson-Akpan & Ndifon 2012; Mbatha 2013; Mavhandu-Mudzusi & Ganga-Limando 2014). People living with HIV or perceived to be HIV positive are often physically abused, rejected by families and friends, ostracized from communities, and treated differentially by health care professionals and denied jobs or sacked from work out rightly (Katz, Ryu ,Onuegbu , Psaros , Weiser, Bangsberg & Psai 2013 ;UNAIDS 2017). It is argued that HIV and AIDS related stigma is influenced by individual and social factors that act as actionable drivers or facilitators. Successful intervention aimed at reducing HIV related stigma and discrimination at healthcare settings should focus on modifying those drivers or facilitators (Stangl, Brady & Fritz 2012).

It is within the above context that this study was conducted with the view of establishing the prevalence and correlates of HIV and AIDS related stigma among undergraduate students at one university in Nigeria.

1.3 STATEMENT OF THE RESEARCH PROBLEM

Evidence confirms the existence of HIV and AIDS related stigma among university students in African countries including Nigeria. It is also known that HIV and AIDS related stigma impede the efforts to reducing the spread of HIV and other sexually transmitted diseases. Interestingly, several factors known to promote stigmatization of PLHIV can be managed or acted upon. For university students, the social isolation associated with stigma may compromise their academic performances. It is therefore important to look at HIV and AIDS related stigma among university students with the view of assisting in shaping the efforts to reducing the spread of the disease.

However, studies looking at the relationships between the different facilitators of stigma and the prevalence HIV and AIDS related stigma are needed. This study attempted to answer the following main question: “What are the correlates of HIV related stigma among university students at a public university in Nigeria”?

1.4 PURPOSE AND OBJECTIVES OF THE STUDY

The purpose of this study was to determine the individual correlates of HIV related Stigma among undergraduate students at a public university in Nigeria.

The objectives of this study were:

- (1) to describe the facilitators of HIV related stigma among undergraduate students,
- (2) to describe the behaviours of undergraduate students toward people living with HIV, and
- (3) to explore the relationships between the facilitators and behaviours toward people living with HIV related stigma and certain individual characteristics of the participants.

1.5 SIGNIFICANCE OF THE STUDY

Understanding the correlates of HIV related stigma among university students is significant for the prevention of the spread and social impacts of HIV and for improving the academic life of university students. By identifying the individual correlates of HIV related stigma among university students, it is hoped that public health policy-makers will use the results as baseline information to strengthen HIV prevention programmes among university undergraduate students. University management may use the results as baseline information to improve HIV policies and to design stigma-reducing programmes on campus. This information can also be integrated into students' academic support programmes.

The results of this study contribute to the existing body of knowledge regarding HIV related stigma among university students. Finally, researchers can use the results of this study as baseline information for large scale studies on HIV related stigma among university students in the country.

1.6 DEFINITIONS OF KEY TERMS

Correlates of HIV related stigma refer to the variables of the individual profile of the participants that are positively associated with HIV related stigma.

HIV related stigma is a social construct characterised by a deviation from an ideal or expectation, contributing to a powerful discrediting social label that reduces the way individuals see themselves and are viewed as persons (Lekas et al 2011). In this study, HIV related stigma was measured in terms of fear and social judgment towards people living with HIV.

Individual profile in this study refers to the following characteristic of the participants' age, sex, marital status, religion, ethnicity, academic programme and level, and exposure to HIV and AIDS awareness programmes.

Undergraduate university students in this study refer to students who have enrolled officially in the university for the purposes of studying and learning and were at the undergraduate level at the time of data collection.

1.7 CONCEPTUAL FRAMEWORK

Strangl, Brady and Fritz (2012) framework for measuring HIV related stigma was used. The framework is based on the assumption that any individual can anticipate, experience and/or perpetuate HIV related stigma and discrimination, regardless of his or her own HIV status (Strangl, et al 2012). In this framework stigma is divided in five key concepts structured in a hierarchical manner starting from actionable drivers and facilitators at the bottom, to stigma marking, stigma manifestations, stigma outcomes, and stigma impacts at the top of the hierarchy (see Figure 1). It illustrates how stigma functions, how it can be measured and where to intervene. It also highlights the key groups or environments in which stigma-reductions effort should be directed and these are the general population, the family and peers, people living with HIV (PLHIV) and their key populations, and institutions and structures. It is argued that the actionable drivers and facilitators perpetuate HIV stigma and lead to a number of manifestations of HIV stigma and could be changed through interventions (Stangl et al 2012).

The framework describes HIV stigma in terms of impact, manifestations, markers, actionable drivers and facilitators. While drivers fuel HIV stigma, facilitators can abate or perpetuates it depending on how they are applied. Key drivers of stigma can reduce or perpetuate stigmatizing attitudes. For instance, formulations of policies by institutions and cultural facilitators such as strong enforcement of antidiscrimination can reduce stigmatization and discriminatory practices. On the other hand, lack of awareness of stigma or its harmful effects and fear of HIV infection by communities or individuals respectively can increase stigma (UNAIDS 2010:2). Fear of infection and social judgment are widely known to be strong drivers of stigmatization and discrimination associated with HIV AND AIDS. People distance themselves from those who are affected by HIV AND AIDS fearing that they may contact it and knowing the deadly nature of the disease (Edet, Edet, Sampson-Akpan & Ndifon 2012). Those who have contacted the disease are also seen to be receiving the punishment for immoral life (Badahdah & Sayem,2010). Numerous researches have documented fear of infection and social judgment as being at the core of stigmatization of people living with HIV AND AIDS.

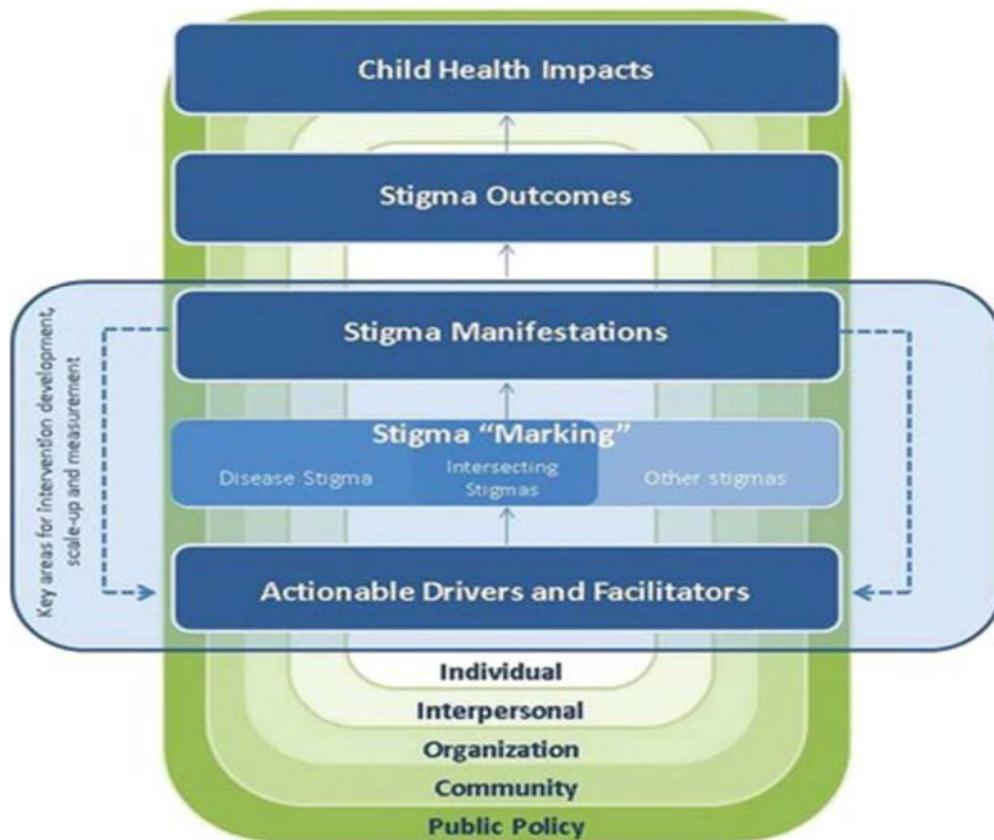


Figure 1: HIV related stigma framework (Source: Strangl, Brady & Fritz 2012)

1.8 OVERVIEW OF THE RESEARCH METHOD

The study was carried out within the quantitative research approach, using analytical cross-sectional design. Probability random sampling technique was used to select the participants. The researcher used self-administered questionnaires to collect data. The researcher adhered to all the ethical principles outlined in the University of South Africa Research Policy as well as the universal ethics principles. Details on research methods and ethical considerations are outlined in Chapter Three.

1.9 STRUCTURE OF THE REPORT

The report consists of five chapters, a list of references and appendixes. **Chapter One** provides the context of the study. **Chapter Two** presents the literature on HIV-related stigma. **Chapter Three** provides details regarding the methodology. **Chapter Four** outlines the results of the study. **Chapter Five** discusses the main findings and concludes with the recommendations and limitations of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

The second chapter provides a review of the literature related to HIV and AIDS related stigma, the global scope of HIV and AIDS related stigma, the types of HIV and AIDS related stigma, the contextual manifestation of HIV and AIDS related stigma, the policy response to HIV and AIDS related stigma, and a conclusion.

2.2 HIV AND AIDS RELATED STIGMA.

All persons with HIV AND AIDS are affected by stigmatization. As such, an understanding of stigma phenomenon and its association with HIV and AIDS is of great importance in the management and control of the pandemic. Weiss and Rama (2006) defined stigma as “a social process or personal experience characterized by exclusion, rejection, blame or devaluation that results from experience or reasonable anticipation of adverse social judgment about a person or group.” It is a complex social phenomenon involving interplay between social and economic factors in the environment and psychological issues of affected individuals (Ogden & Nyblade 2005:7). Broadly speaking, HIV- related stigma refers to unpleasant and dangerous attitudes held against people who are affected by HIV AND AIDS, living or associated with HIV positive individuals (AIDS Committee of Toronto 2012:2). Stigma can manifest in different forms including perceived (also known as felt or anticipated stigma), internalized and enacted stigma. Perceived stigma refers to individuals affected by HIV AND AIDS having the understanding and conviction about negative attitudes associated with the disease and sufferers, and their assumption and expectations that they will experience prejudice, discrimination and reduced social identity due to their condition (Logie & Gadalla 2009; Earnshaw & Chaudoir 2009, Van Brakel 2006). Internalized stigma defines the “degree to which people living with HIV endorse negative beliefs and attitudes about themselves” through, for example self-blame, feeling unworthy, and others (Earnshaw & Chaudoir 2009). While perceived and internalized stigma exist at the level of the human mind and “thinking”, enacted stigma is the actual experience of unfair treatment meted out to people who are affected by HIV AND AIDS due to their serostatus.

HIV and AIDS related stigma is common across different settings. HIV stigma is prevalent within families, communities, institutions such as health care facilities, places of employment, in the social media, and in government policies; as a result of stigma and discrimination, many “PLWHA are subjected to job loss, school expulsion, ostracism, violence, lack of care and support, and loss of property (Nyblade & Carr 2011:2).”

Stigma and discrimination often follow the existing realities of social marginalization or social exclusion. Groups with existing marginalization are left behind in the HIV response in many nations. They are particularly disproportionately affected by HIV, have an increased risk of infection, and yet are the least likely to have access to HIV prevention, testing, and treatment services because of widespread stigma and discrimination. They include sex workers, men who have sex with men (MSM), transgender people, and people who inject drugs, and people in prison (DIFID 2007:2). It is well known that categories of blame often reflect deep social-class biases and that illness is frequently associated with poverty and becomes justification for social inequities. HIV and AIDS is frequently associated with the ‘other’, be it the other race, the other class, the other ethnic group. Nwanna (2005:5) maintains that in Africa, for example, women have been blamed for transmitting HIV.

Research has identified lack of awareness and knowledge about HIV AND AIDS, fear of contracting the HIV virus and being linked with immorality as some of the main forces driving stigma and discrimination (Nyblade & Carr 2011: 3). Today in some communities, there is still lack of knowledge about how HIV and AIDS is transmitted. Some still believe it can be transmitted through casual contact. A study by Badahdah (2010: 390) suggested that “students who knew less about HIV AND AIDS were more likely to stigmatize persons living with HIV AND AIDS than those who knew more. There are places where social judgments link people with HIV to behaviors considered to be improper or immoral (Saki, Kermanshahi, Mohammadi & Mohraz 2015)). According to Koku (2010: 4), HIV AND AIDS is associated with promiscuity and deviant sexual relations.

The attitudes of individuals regarding those affected by HIV AND AIDS may or may not change with socio-demographic factors.

Rampal, Rahnema, Lye & Rahman (2011:130), in a study done in a Malaysia university to assess the factors that influence the attitude of students towards HI/AIDS revealed that the factors of age, gender ethnicity, marital status and educational level were not associated with attitude. This finding was also supported by later studies done by Edet et al (2012:49) and Lalo, Theodhosi, Kamberi & Xhindoli (2015:68). However, some other studies, although conflicting in outcome, showed that discriminatory and stigmatizing attitude change with age. While Hossain and Kippax (2011:177) and Masoudnia (2015:120) reported that older persons had more negative attitudes towards PLWHA, Dahlui, Azahar, Bulgiba, Zaki, Oche, Adekunjo & Chinna (2015:7) stated that younger persons tended to be more negative in their attitude than older persons. In like manner, some works have shown that gender change with attitude in an inconsistent way. Masoudnia (2015:121) reported males having less stigmatizing attitude than females, while Dahlui et al (2015:5) found that female participants showed more positive attitudes towards HIV positive persons than their male counterparts.

The consequences of stigmatization against people living with HIV and AIDS are many. HIV positive individuals can be rejected by family, friends, physically abused including gender based violence, poorly treated by service providers, and may lose employment, educational and housing opportunities (UNAIDS 2010:2). Furthermore, HIV and AIDS stigma prevents people from accessing preventive, treatment and support services thereby making people not to be aware of their status, discouraging disclosure of status to partners, encouraging transmission of infections and increasing mortality from HIV. In a qualitative study done in Thailand to explore association between HIV –related stigma and HIV prevention uptake (Condom use, HIV testing and use of microbicides) among men who have sex with men and transgender (TG) women, it was found that respondents reporting higher total HIV related Stigma scores were less likely to have been tested for HIV, and were less willing to use a rectal microbicide (Logie, Newman, Weaver Roungraphon & Tepjan 2016). Adeneye, Brieger, Mafe, Adeneye, Salami, Titiloye, Adewole & Agomo (2007:337) reported a willingness to be tested rate of 89% among antenatal clients in Nigeria. In a similar study done in Botswana a lower rate of willingness to be tested was found compared to the Nigerian research.

Pregnant clients who expressed unwillingness to be tested for HIV (67%) cited concern for confidentiality of results as reasons for not agreeing to be tested (Nguyen, Oosterhoff, Ngoc, Wright & Harden 2008). It is well known that the first step in accessing treatment services and care is knowing one's status. Although the role of stigma in discouraging starting of antiretroviral therapy (ART) is not well understood, there is strong evidence that stigma and discrimination poses barrier to good adherence to ART (UNAIDS 2009:5). In a systematic and meta-synthesis of impact of HIV related stigma on ART adherence, among 41 qualitative studies, 24 out of 33 cross sectional studies (71%) reported a positive finding between HIV stigma and ART non-adherence, while 6 out of 7 (86%) longitudinal studies stated a null finding (Katz, Ryu, Onuegbu, Psaros, Weiser, Bangsberg & Psai 2013). Other researches carried out in the US, UK, Brazil, Botswana and China (Roberts 2005, Stirratt et al 2006, Ware et al 2006 & Calin et al 2007) provided additional evidence that as stigmatization against people living with HIV AIDS increases or thrives adherence to ART wanes. By discouraging people from prevention, information, testing and treatment, stigma and discrimination increases vulnerability to infection and the likelihood of adopting risky lifestyle and poor disease outcome as a result of delayed or inadequate treatment and poor adherence (UNAIDS 2010:2). The resultant effect of these negative attitudes towards people with HIV and AIDS is increase in the prevalence of the disease, psychosocial dislocations and difficulty in controlling the disease. This study sets out to understand the different types of stigma associated with HIV and AIDS, and what drives and facilitates them. A deepened understanding of these factors is expected to help in the control of the scourge.

2.3 GLOBAL SCOPE OF HIV AND AIDS RELATED STIGMA

In over thirty years of HIV pandemic, HIV and AIDS related stigma remain highly prevalent globally. Many researchers have shown that HIV AND AIDS-related stigma is evident not only in Nigeria but in diverse settings across the World. The stigmatization and discrimination associated with HIV and AIDS is common in Nigeria. The 2009 National Policy on HIV and AIDS, a regulatory document for control of HIV and AIDS in Nigeria developed by National Agency for the Control of AIDS (NACA 2017)) states that stigma and discrimination remains common and that "people will want persons infected with the virus to be as far as possible".

This position was also supported by findings of The Network of People Living with HIV and AIDS in Nigeria (NEPWHAN), a national support group that advocates for the rights of people affected by HIV and AIDS. NEPWHAN maintained in their 2011 People Living with HIV Stigma Index that “HIV stigma was prevalent and ongoing part of Nigerian life”. Many research evidences have revealed that HIV AND AIDS related stigma is not uncommon in Nigeria. An analytical cross sectional study carried out in the Northern part of Nigeria to describe HIV AND AIDS related stigma among health care providers found out that majority of the workers (97.1%) believed that confirmed cases of AIDs should be treated in isolation wards (A Moran 2011:230). This situation exists in spite of studies that have documented high level of HIV AND AIDS awareness among health care workers (Umeh ,2008:233; Umar, Oche & Adeoso 2012:223). The research also revealed that 3.1% of study subjects supported mandatory HIV test for all health care providers. One recent qualitative descriptive cross sectional study found a high level of perceived stigma among PLWHAS living in Lagos, Nigeria. In the study, one of the focused group discussants said: “The society believed that we are promiscuous and unnecessarily sexually active. They said we cannot hold our body long, and that we are suffering for a sin that people believe that we have committed against God. “Another respondent put the negative attitude of society against HIV positive individuals this way: “It has not been easy at all. People discriminate against us every day for an offence we did not commit. My snail had no choice but to withdraw into my shell” (Olalekan 2014:192-193). Nwanna (2005:1) reported a very revealing finding about the level of HIV AND AIDS stigma in the work place in Nigeria. Out of 150 purposive and accidental sample used 80 had worked. Of these 80 persons, 16% were rejected, 36% restricted from sharing toilets and 13% restricted from using canteens and sports facilities. Other findings from the research were as follows: 48% lost their jobs; 16% were threatened with dismissal; the job duties of 26% were changed; 40% were excluded from insurance schemes; 5% were made to undergo mandatory HIV testing. These studies confirm that PLWHA are very much stigmatized and discriminated against within the Nigerian society.

HIV AND AIDS is commonly known to have a global spread. In the same manner, the stigmatization of PLWHA affects all parts of the World. A qualitative Brazilian study involving 34 subjects aimed at analyzing the difficulty related to treatment adherence to highly active anti-retroviral therapy(HAART) by patients living with HIV and AIDS,

all the respondents reported having difficulty concerning the stigma of living with HIV and AIDS. In a similar study done in Vietnam almost all the women respondents had experience of stigma. A study done in Kenya involving many households concluded that a third of HIV positive study subjects had experienced enacted stigma (Odindo & Nwanthi 2008). A research in China, however showed that just above 25% of the study sample had experienced enacted stigma (Li, Wang, Williams & He 2009). Bogart, Cowgill, Kennedy, Ryan, Murphy, Elijah & Schuster (2008) reported that 8 out of US 10 families reported discrimination in contrast to another study in the US (Wingood, Diclemente, Mikhail, McCree, Davies, Hardin, Peterson, Hook & Saag 2007) involving women which put prevalence of enacted stigma at 17%. Comparison of prevalence data of HIV and AIDS related stigma is made difficult by varied stigma measuring tools and the difference in time in which the studies were carried out.

2.4 TYPES OF HIV AND AIDS RELATED STIGMA

2.4.1 Experienced Stigma

Experienced stigma refers to discriminatory actions directed against persons due to particular attributes. It is manifested in various forms and in different settings and has been researched extensively in educational institutions, health care centres, religious places, work places and in family settings (Nwana 2005, Varas-Diaz et al 2005, Family Health International 2008, Greeff, Makoae, Phetlhu, Uys, Naidoo, Kohi, Dlamini, Chirwa & Holzemer 2008, Nyblade & Carr 2011). Study participants in these studies, reported social isolation by family and friends, exclusion from health care services, insults and taunts, ostracization and denied opportunities. PLWHA may actually be meted with clear-cut physical violence. Green, Derlega, Yep & Petronio (2003) reported that study subjects were either aware of instances in which people were physically abused when it was public knowledge that they had HIV/AIDS or feared/had experienced this violence themselves.

2.4.2 Perceived and Anticipated Stigma.

Perceived stigma also known as anticipated or felt stigma is the product of the internalization of shame, blame, hopelessness, guilt and fear of discrimination associated with being HIV-positive (USAID 2006: 1). Numerous studies focusing on internalized stigma found that it is mainly defined by fear, shame, guilt, and denial, loss of hope, loneliness, self-isolation and depression. (Hong, Anh & Ogden 2004, Koku 2010). USAID (2006: 2) claimed that “the process of internalizing stigma is complex, and any person diagnosed as HIV-positive experiences some form of it”. Felt stigma has been described as the fear of being discriminated against as a result of one’s status (USAID 2006). Yebei et al (2008) observed that individuals suffer from felt stigma when they internalize negative perceptions that society holds about them. Being aware of these attitudes, they hold them to be true and anticipate discrimination in schools, health facilities and other institution. Holding these spurious markings about them means they have accepted exclusion to be thrown at them and belief that they are inferior to others in the society or community who are not HIV positive. This study seeks to study the forces that drive stigma in the first place that ends up in internalization.

2.4.3 Courtesy Stigma

Ojieabu Eze, Fashola, Bello & Arute (2014:92) stated that “courtesy stigma is stereotypes, prejudice, and discrimination meted against persons because of their association with marked groups. Therefore, specifically speaking this is a type of stigma attached to people due to their relationship with HIV-positive individuals. For example, as seen in stigmatization of family members of a person identified as having HIV AND AIDS, or stigmatization of health care workers who take care of people living with HIV AND AIDS (PLWHA). According to USAID (2006: 4) this type of stigma also referred to as secondary stigma affects “partners, family members, friends, professionals, and volunteers associated with affected groups”. Courtesy stigma is not only important in the sense that it propagates HIV and AIDS disease, it further isolates PLWHA from their family members, work colleagues, and health care providers.

These group of people that could provide social support and financial support for fear of being associated with HIV and AIDS disease distance themselves from people who are afflicted by the scourge. The PLWHA, who are now found at the receiving end becomes more depressed, isolated from society and may die quickly. The purpose of this study is to describe HIV and AIDS related stigma among undergraduate students so that interventions can be fashioned to fight it. Stigma reduction interventions will deepen understanding of the disease and ultimately reduce stigmatization including courtesy stigma.

2.5 CONTEXTUAL MANIFESTATIONS OF HIV AND AIDS RELATED STIGMA

HIV and AIDS related Stigma and discrimination exists in different contexts and sources including educational institutions, health care centers, family settings, work and religious places (Nyblade & Carr 2011, Family health International 2008).

2.5.1 Educational institution Context

Different forms of AIDS-related stigma and discrimination occurs in educational institutions across the world. Both children and adults with the disease are affected. Family Health International (2008) reported that parents of Children Living with HIV/AIDS (CLWHA) had to submit registration application forms several times before their children were admitted into the school. Hong et al (2008) discussed extensively issues pertaining to HIV transmission noting that even after CLWHA were admitted into the schools, teachers constantly feared that they would transmit the virus to the other children. Furthermore, there is also this problem of stigmatization of CLWHA by their own class or school mates as reported by Brown-Maughan & Spaul (2014). In a study in a Hong Kong University, Huang, Bova, Fennie, Rogers & Williams (2005) reported that a third of the students who participated stated that they would avoid close contacts with an infected student." Another study by El-Gadi et al (2008) found similar attitudes towards PLWHA among Libyan students. In a Nigeria study 165 undergraduate students were involved a descriptive survey to determine HIV related knowledge, attitude and social distance towards PLWHA, most of the respondents (66%) were classified as desiring moderate to severe social distance towards PLWHA.

In contrast, only 26% of nursing students in south western Nigeria engaged in high discriminatory attitude. Presence of stigma amongst students of high institution was further confirmed by a study aimed at assessing attitudes of college students in Tanzania towards PLWHA, which concluded that due to high levels of stigmatizing attitudes among the students, there was a need for intervention programs such as voluntary counselling and testing (VCT) services and that HIV AND AIDS educational programs tailored to colleges students' needs would assist in reducing stigma towards PLWHA (Maswanya, Brown, & Merriman 2009).

2.5.2 Health care facility Context

People living with HIV AND AIDS are commonly stigmatized in health care settings in various ways. They are kept waiting for long time before accessing care (neglected) and attention, gossiped about, called names and giving differential treatment by being asked to undergo HIV test before care is provided to them. (Tanzania stigma-indicators field test group 2005). Ogden & Nyblade (2005) posited that there are three main drivers of HIV AND AIDS stigma in a health care setting: limited recognition of stigma, fear of getting the disease by casual contact, moral judgment and values. Limited recognition of stigma occurs when health care workers do not even realize or understand that their behaviors and actions are stigmatizing towards people living with HIV AND AIDS. Sometimes health care workers out of insufficient knowledge of means of transmission fear that they may contract the disease by every day interactions with clients in hospital settings. In other situations, health care providers hold judgmental attitudes towards PLWHA by blaming them for getting the disease. Research works and findings have shown that some health care professionals sometimes refuse to provide health care services, admit or seek informed consent from PLWHA before testing (Mahendra et al 2006, Ogunjuyigbe, Adeyemi & Obiyan 2009). Because of the stigma and discrimination, PLWHA often refrain from seeking treatment which in turn compromises their well-being. In a Nigeria tertiary level hospital, 81% of PLWHA felt uncomfortable attending clinics for treatment.

Discrediting attitudes towards HIV positive individuals in health care setting and environment is a thing of great concern because it is in health care facilities that people living with HIV AND AIDS seek care and treatment to remain healthy and others seek information, counselling, testing, and other prevention services (Nyblade & Jain 2012).

2.5.3 Workplace Context

HIV and AIDS is a major obstacle to job security. However, it is the fundamental human rights of all persons to earn a living and to have social participation through work. Data from PLWHA stigma index as published by Global Network of People Living with HIV (2012) shows that HIV-related stigma and discrimination impede access to work through the following ways: obstructing entry to the labor market, changing the type of work individuals are allowed to perform, preventing promotion to more senior positions triggering people being fired from their job and impeding access to adult education and training. Kassile et al (2015) in a study done in Tanzania to describe HIV and AIDS related stigma and Discrimination in the workplace stated that 13% of the respondents reported existence of some forms of discrimination while close to 16% of study participants disclosed the existence of complaints on stigma for employees who are affected by HIV and AIDS. Global Network of People Living with HIV (2012) reported findings involving PLWHA stigma index of nine countries in four regions: Kenya, Nigeria, Zambia (sub-Saharan Africa), Estonia and Poland (Eastern Europe), Malaysia and Philippines (Asia) and Argentina and Mexico (South America).

The results of this multi-country study showed that 13% of respondents in Poland to 40% in Kenya and Zambia reported loss of job or source of income during the preceding 12months; 18% Of respondents in Estonia to 45% in Nigeria had lost their job or source of income during the previous 12 months as a result of their HIV status alone; 15% of respondents in Malaysia to 45% in Mexico had lost their employment/source of income as a result of poor health; 5% of respondents in Mexico to 27% in Nigeria were refused the opportunity to work.; 4% of respondents in Estonia to 28% in Kenya had had their work changed or had been refused promotion due to their HIV status; 8% of respondents in Estonia to 54% in Malaysia reported discriminatory reactions from employers once aware of employees once aware of

employees HIV status; 5% in Estonia to 54% in Malaysia reported discriminatory reactions from co-workers who became aware of their colleagues HIV status.

2.5.4 Family setting context

The importance of family support in the management of people with chronic illnesses has long been recognized. Members of the family have potential to improve care processes, patient self-management and patient outcomes (Rosland 2009). In contrast, accounts and documentary evidences abound of family members stigmatizing their HIV positive siblings (Root 2010, Octem 2015). This attitude towards infected family members may be explained by the finding that family members experience HIV related stigma and discrimination because of their association with HIV positive family members and for the fact that stigma is associated with bringing shame to the family ,loosing family “face” and damaging within family relations(Li ,2008).

2.5.5 Religious Place Context

The role of religious institutions in controlling the spread of HIV and AIDS has been found to be two faceted. Although churches are known to have promoted awareness about the disease by educating its members on modes of transmission, high risk behaviors that increase transmission and responsible and positive behavior, religious bodies have also been fingered in the fueling of the stigma of HIV AND AIDS (Krakauer & Newbery 2007, Kosomo 2012). Ironson, Stuetzle & Fletcher (2006) found an increase in religiosity and spirituality after HIV diagnosis and slower progression of the disease over 4 years' period in those with HIV. On the other hand, PLWHA are regarded by some churches as people who were sinful by destroying their bodies which is the temple of God. Because of stigmatization by religious bodies, some people have changed church or stopped practicing their religion (Campbell et al 2011). Madru (2003) posited that HIV is seen as a consequence of sin and immorality and that the use of words such as “impure” and “unclean” were commonly applied to describe individuals affected by HIV and AIDS.

Research conducted by Saki et al (2015) revealed that based on moral values, some people arrived at a conclusion that HIV and AIDS is as a result of the promiscuous lifestyle of sufferers that is worthy of punishment. When people attribute the disease to moral fault, stigma towards PLWHA is made worse (Muturi & An 2010). The study subjects in a research conducted by Malawi interaction for AIDS Association revealed that PLWHA were not allowed to carry out routine religious activities because of their positive HIV status. According to the study, 70% of the respondents reported that they were not allowed to preach while 30% said they were denied important church positions.

2.6 POLICY RESPONSE TO HIV AND AIDS RELATED STIGMA

Stigmatization and discrimination of HIV positive individuals are clear and unfortunate violations of human rights. It undermines effort at curbing the HIV AND AIDS scourge by various stake holders. Currently, it is believed that the AIDs epidemic can be ended by the year 2030. According to UNAIDS (2014), the world is embarking on a fast track strategy to end the AIDS epidemic by 2030. To reach this visionary goals after three decades of the most serious epidemic in living memory, countries would need to use powerful tools available, hold one another accountable for results and make sure that no one is left behind (UNAIDS 2014). A number of benefits were said to be accruable from this strategy especially in low and middle income countries including cutting down 28 million HIV infections between 2015 and 2030, 21million AIDS related deaths between 2015 and 20 30, economic return on investment expected to be 15 times and averting 24 billion of additional costs for HIV treatment. Some of these powerful tools needed to achieve these lofty targets are legal instruments and policy frameworks. The bedrock of AIDs response is an absolute commitment to protecting human rights. (UNAIDS 2014). Policy framework provides for better treatment care and support for people living with HIVAIDs Legal instruments and policies are found at global and national levels, work places, and institutions of learning. They can drive or perpetuate stigma and discrimination depending on how they are used whether in a negative or positive sense. When it is used on a negative sense it includes imposing laws, rules and policies concerning HIV and people living with HIV and AIDS that restrict travel and stay. It also involves enforcement of alienation and compulsory testing and reporting one's HIV status.

There are research evidences of segregation in schools and hospitals in countries like Malaysia, Singapore and Indonesia. These measures are clear violation of fundamental human rights of people living with HIV and AIDS. The outright consequence of this is that apparently healthy individuals would not want to access HIV preventive service like VCT were HIV testing is done to know status. They may fear that positive status will lead to violation of their right and subsequent stigmatization and discrimination (Arrey, Bilsen, Lacor & Deschepper 2015). Some researchers conducted a descriptive qualitative study that explored the situation and human rights of people living with HIV and AIDS in five African countries including Lesotho, Malawi, South Africa, Swaziland and Tanzania (Kohi, Makoae, Chirwa, Holzemer, Phethu, Uys, Naidoo, Dlamini & Greeff 2006). It was discovered from the study that human rights of PLWHA in these countries were violated in many ways including denial of access to adequate or no health care services, denial of home care, termination and refusal of employment, violation of rights to produce food or obtain loan. Additionally, PLWHA were verbally and physically abused. The research concluded by advising government and specialized bodies to protect human rights of all persons.

On the other hand, many countries are known to have made laws and policies that foster access to justice and reduce stigma. In 2007, Vietnam made a law that ensured equity for people living with HIV and outlined legal and policy framework for providing services in the country (UNAIDS: 2010:3). The Tanzanian government in 2008 adopted HIV Law that among other things represented a giant step in the national response by prohibiting discrimination against HIV positive individuals (USAID, 2008). Also, recently, the president of Nigeria, one of the countries with high HIV AND AIDS burden in the world, signed a new anti-Discrimination bill into law. The HIV anti-Discrimination Act 2014 made it a criminal offence to discriminate against people living with HIV and AIDS. The law was against all forms of discrimination of people based on their HIV status including requiring them to take HIV tests as a pre-condition for employment or use of services. The UNAIDS Country Director for Nigeria, Bilali Camera captured the importance of the law thus: "By signing the anti-discrimination bill into law, the Nigerian government has given Nigerians living with HIV a guarantee to access justice and to regain human rights and dignity in a society while enjoying productive lives.

Zero discrimination is the only environment conducive to ending the AIDs epidemic by 2030” (UNAIDS 2015). Human rights are legally guaranteed under international human right law. They protect against actions that interfere with fundamental freedom and human dignity and support the agency of individuals and population (USAIDS 2008). These laws will empower people living with HIV AND AIDS to seek redress whenever their rights are violated and ultimately reduce HIV AND AIDS related stigma.

At educational institutions, like the universities, the provision of positive policies that reduce stigmatization of people living with HIV AND AIDS is important. One of such policies may have to do with raising university student’s awareness of HIV AND AIDS. Increase in knowledge of HIV AND AIDS reduces discriminatory attitudes, which in turn causes a drop in the incidence of the disease. Nyblade and Carr (2011:3) maintained that lack of awareness and knowledge about HIV AND AIDS drive stigma and discrimination. During awareness training programmes in schools, students are taught how HIV virus enters the body and results in AIDS, life styles that put persons to risk, correct and consistent use of condoms, and faithfulness to one’s partner (Healds 2010). Other aspects covered by the training include advising students on how to live positively with HIV AND AIDS and the different types of treatment available for the disease (Chamisa 2014). Methods of delivering HIV AND AIDS awareness training programme varies. Different methods and strategies such as peer education, active learning, targeted education, blanket education, presentations, workshops and campus road shows (Chamisa 2014).

Evidence, emerging from previous studies supports strongly that there is a negative correlation between HIV AND AIDS awareness and discriminatory attitudes of individuals towards people living with HIV AND AIDS (Balfour, Corace, Tasca, Best-Plummer, MacPherson & Cameron 2010; Ouzouni & Nakakis 2012; Mori 2014; Masoudnia 2015;). Report from Mori (2014) showed that there was an association between knowledge about HIV, transmission routes and more positive attitudes towards people affected by HIV AND AIDS. Therefore, making institutional polices that raise awareness of individuals on HIV AND AIDS reduces HIV AND AIDS related stigma.

2.7 CONCLUSION

The effect of stigma and discrimination on PLHIV or those perceived to be positive has posed a challenge in HIV prevention efforts. Due to stigma and discrimination in the country, some people have failed to access condoms, HIV Testing and Counselling (HTC), Prevention of Maternal to Child Transmission (PMTCT), Sexually Transmitted Infection (STI) and Post Exposure Prophylaxis (PEP) services. There is evidence that some interventions reduce stigma associated with HIV and AIDS.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter describes how the study was carried out, detailing the methods, procedures and activities involved. It describes the research approach, the design, the setting, the population, the sample and sampling techniques, data collection procedures, data analysis, and the ethical considerations.

3.2 RESEARCH APPROACH

Quantitative approach was chosen to guide the study. In quantitative approach, the researcher collect quantifiable data related to a set of predetermined variables, which are analysed according to the research questions (Ogbonna 2014:199). The approach is relevant to the study as the researcher intended to generate numerical data in order to determine the individual correlates of HIV related stigma using pre-determined variables.

3.3 RESEARCH DESIGN

The researcher used cross-sectional descriptive design. The researcher collected quantitative data on the variables of interest at a single point tatus of the variables of interest as they exist and to explore possible association between these variables without any manipulation. This is in line with authors (Polit & Beck 2012) who argue that cross-sectional descriptive design is not interested in establishing the causal relationship between variables. It is used to obtain information concerning the current status of the phenomena to describe "what exists" with respect to variables or conditions in a situation and to explore the patterns of association between variables (McMillan & Schumacher 2014).

The descriptive part of this study assisted in the researcher to address the first two objectives of the study (to describe the individual profile of undergraduate students and the extent of HIV related stigma among undergraduate students).

While the analytical part of the design helped the researcher to address the last objective of the study (to explore the relationships between the individual profile of the undergraduate students and the levels of HIV related stigma).

3.4 SETTING AND POPULATION OF THE STUDY

The study was conducted at a public university situated in a sub-urban town in Edo State, South of Nigeria. The university comprises one academic teaching hospital and eleven faculties (Education, Management Sciences, Social Science, Arts, Law, Clinical Sciences, Basic Medical Sciences, Engineering & Technology, Natural Sciences, Agriculture, and Environmental Studies) with about 20,000 students' population.

The target population for this study constituted of all the undergraduate students registered with the eleven faculties. The undergraduate students' population for the eleven faculties was estimated at 16,000.

3.5 SAMPLE AND SAMPLING TECHNIQUE

Sampling is the process of obtaining the sample from the study or total population while a sample is part of a population selected for the study (Bamgboye 2013:71). Sampling is an indispensable technique of research because study of the total population is not possible due to practical limitations of cost, time, feasibility, personnel and accuracy of results (Bamgboye 2013:71). However, a sample should be adequate in order to allow for conclusions drawn from findings to be generalised to the target population. When the sample is smaller than what it should be, the findings cannot be generalised. In another hand, when the sample size is too large resources are wastefully expended (Ogbonna 2014:226).

In this study, the researcher employed a simple random sampling technique to select the participants. In simple random sampling, participants are chosen randomly and entirely by chance, so that each individual has the same probability of being chosen at any stage during the sampling process, and each subset of the sampling frame has the same probability of being chosen for the sample (Bryman 2012:201).

The researcher compiled a sampling frame which consisted of an alphabetical list of the 10,000 registered students with full contact addresses including telephone numbers. To ensure the adequacy of the sample size, the researcher used the formula proposed by Joubert and Ehrlich (Joubert & Ehrlich 2007:347). This formula is described as $n = z^2 pq / d^2$; where n = the desired sample size (when population is greater than 10,000); Z =the standard normal deviate, usually set at 1.96 which corresponds to 95% confidence level; P =the proportion in the target population estimated to have a particular characteristic. If there is no reasonable estimate, then use 50% (i.e.; 0.50); $q = 1-p$; d = degree of accuracy usually set at 0.05. In this study, the proportion of the target population was within certain characteristics giving an estimate of 0.05, the z statistics at 1.96 with the desired accuracy of 0.05 which brings to the minimum sample size of: $n = (1.96)^2 (0.50) (0.50) / (0.05)^2 = 384$. The researcher assumed a response rate of 95% leading to the adjustment of the sample size to 404 ($384/0.95$) to allow for incomplete or non-response. The researcher selected every 10th student from the sampling frame and telephonically contacted every selected student requesting if she/he will be willing to participate in the study. This process continued until the researcher reached the required sample size.

3.6 DATA COLLECTION

3.6.1 Data collection process

Data were collected over twenty-two days. The questionnaires were posted to the participants with instructions to drop the completed questionnaires in sealed boxes which were made available at the entrance of the departments. Participants were given one week to return the questionnaire. To enhance the response rate, the researcher made follow-up calls three days after the mailing of the questionnaires.

3.6.2 Data collection instrument

The researcher used a self-administered questionnaire as an instrument for this study. This questionnaire was designed by the researcher based on the conceptual framework and the review of literature. It was divided into two sections (see Appendix 1). A consent form was attached to each questionnaire (see Appendix 2).

The first section of the questionnaire focused on the individual profile of the participants.

It included close and open-ended questions on age, sex, marital status, religion, ethnicity, academic programme and level, and exposure to HIV and AIDS awareness programmes.

The second section of the questionnaire focused on the HIV related stigma. It contained fifteen items (positive and negative statements) with five points Likert Scale ranging from strongly agree to strongly disagree. Seven items were related to fear and eight items to social judgment. Likert scales are attitude scales in which respondents are asked to choose between several responses categories indicating various strengths of agreement and disagreements rather than ask them to decide whether they agree or disagree with a statement (Ogbonna 2014:232).

3.6.3 Validity and Reliability of the instrument

Validity is a quality criterion referring to the degree to which inferences made in the study are accurate and well founded (Polit & Beck 2012). Validity is divided into different types including internal validity, external validity, face validity, consensual validity, criterion validity, predictive validity; construct validity and content validity (Araoye 2004:150-153). In this study, the internal validity was enhanced by the use of Joubert and Ehrlich (2007:347) formula to calculate the required sample size from the target population. Construct validity was ensured by the use of the conceptual framework and literature in the design of the questionnaire. Face validity was maintained by the use of simple English to avoid any ambiguity.

Reliability is the extent to which similar information is obtained when a measurement is performed more than once (Araoye 2012:154). The questionnaire was reviewed by the two supervisors who approved its contents and structure. It was also administered to 10 undergraduate students before the study to assess the friendliness. All of them indicated that the questionnaire was user-friendly. Furthermore, the questionnaire had a Cronbach's alpha of 0.754.

3.7 DATA MANAGEMENT AND ANALYSIS

The researcher scrutinized each returned questionnaire to ascertain whether all questions were answered as expected. The Statistical Package for the Social Sciences (SPSS Version 21) was used for data capturing, editing and analysis. Summary descriptive statistics were conducted to describe and summarize data. The frequency tables and percentage distribution were used to describe the status of the variables. The five points Likert Scale measuring the HIV related stigma was converted to scores in order to establish the level of stigma. Scores of 4 to 0 were given to positive items and 0 to 4 to negative items. The total score for the scale was 60. Cross tabulations and measures of associations were used to establish the strengths of association between dependent and independent variables (chi-square, fishers exact T-test). All Pearson chi-square analysis tables contained cells with expected count of less than 5. Thus, Fisher's Exact Test was used to conclude the association. The relationship was deemed significant if $p < 0.05$.

3.8 ETHICAL CONSIDERATIONS

Domain specific ethical issues involved in this research is not different from the four universally accepted moral principles which are respect for persons, beneficence, non-maleficence and justice. The study was conducted within these universal ethical principles and the ethics guidelines for postgraduate research prescribed by the University of South Africa. Data collection was only done after the approval of the Higher Degree Committee of the Department of Health Studies (see Appendix 3) and permission from the university Management (see Appendix 4). Participation to the study was voluntary and the researcher ensured that the participants were fully informed about the study. Participants were requested to sign a consent form which was attached to the questionnaire (see Appendix 2). The consent form contained information about the purpose and the scope of the study, the participants' benefits for participating in the study and their right to withdraw if they so wished. Each participant was requested to sign the attached consent form and return it with the completed questionnaire. The designed questionnaires did contain any information that could be traced back to the participants. The returned questionnaires were locked away by the researcher.

No individual names or identifier mechanisms was used in this report. During this study, there was no discrimination on the basis of age, gender, socioeconomic status, religion or ethnicity.

3.9 CONCLUSION

The third chapter described the methodology followed by the researcher to address the research objectives. It provided the rationale and motivation for the selected approach. It also examined how data were processed in the study and how the ethical principles were observed. In the next chapter the results of the main findings are presented.

CHAPTER FOUR

PRESENTATION OF THE RESULTS

4.1 INTRODUCTION

The study was conducted with the purpose of determining the individual correlates of HIV related Stigma among undergraduate students at a public university in Nigeria. In order to address the above purpose, the researcher started by describing the facilitators of HIV related stigma among undergraduate students and their behaviours towards people living with HIV. The final results was obtained by exploring the relationships between the facilitators of HIV related stigma and the behaviours toward people living with HIV.

In this chapter the main results of the findings are structured according to the above objectives. It is divided into three main sections. The first section presents the facilitators of HIV related stigma. The second section deals with the behaviours towards people living with HIV. The third section looks at the relationships between the facilitators of HIV related stigma and the behaviours toward people living with HIV. A conclusion is provided at the end of the chapter.

It is important to note that a total of 391 (97%) out of 404 distributed questionnaires were returned and considered for analysis. This high response rate can be attributed to the interest of the participants to the subject or the follow-up strategies used during data collection.

4.2 FACILITATORS OF HIV RELATED STIGMA

In this study, the facilitators of HIV related stigma referred to the respondents' sociodemographic variables and their knowledge about HIV. Table 1 and 2 provide the frequency distribution of the results.

4.2.1 Socio-demographic variables

The socio-demographic variables included sex, marital status, religion, and ethnicity, type of academic programme, and level of study. As shown in Table 1, of the 391 respondents, 261(67.0%) were between 20 – 24 years old, 207 (53.0%) were males,

356 (91.1%) were singles, 302 (77.2%) were Christians, 126 (32.2%) were of Esan ethnic group with an equal number belonging to other ethnic groups. Of the 391 respondents, 293(74.9%) were from non-clinical programmes and 247(63.2%) were in the first two years of their studies. The distribution of the respondents in terms of sex, religion and ethnicity reflects the general demographic distribution of the Edo State.

Table 1: Frequency distribution of socio-demographic variables (N=391)

Variables		Frequency	Percentage (%)
Age in years	20-24	262	67.0%
	25-29	100	25.5%
	30-34	23	6.0%
	35-39	2	0.5%
	40-44	3	0.7%
	45-49	1	0.3%
Sex	Male	207	53.0%
	Female	184	47.0%
Marital status	Single	356	91.1%
	Married	33	8.4%
	Separated/Widow	2	0.5%
Religion	Christians	302	77.2%
	Muslims	81	20.8%
	Others	8	2.0%
Ethnic Group	Esan	126	32.2%
	Igbo	66	16.9%
	Yoruba	42	10.7%
	Bini	31	7.9%
	Others	126	32.2%
Type of academic programme	Clinical	98	25.1%
	Non-clinical	293	74.9%
Level of study	First 2 years	247	63.2%
	Third to Sixth Year	144	36.8%

4.2.1 Knowledge about HIV

Knowledge about HIV was assessed in terms of the respondents' awareness of the HIV related activities available on campus, participation to HIV and AIDS awareness campaign in the last six months, and attendance of any training on HIV and AIDS in the past six months.

As indicated in Table 2, of the 391 respondents, 293 (74.9%) were not aware of the HIV related activities available on campus, 293 (74.9%) did not participate in any HIV and AIDS awareness campaign in the past six months, and 361 (92.2%) did not attend any forms of HIV and AIDS training in the past six months. Of the 30 respondents who participated in HIV and AIDS related training, 16 (51.7%) were trained on physical features and treatment aspects of HIV and AIDS, 12 (38.7%) on HIV prevention and 3 (9.7%) on HIV and AIDS related stigma. All 30 were undertaking clinical programmes.

Table 2: Frequency distribution of the knowledge about HIV (N=391)

Variables	Frequency & Percentage (%)	
	Yes	No
Knowledge about the availability of HIV related activities on campus:	98 (25.1%)	293 (74.9%)
Participation to HIV and AIDS awareness campaign in the past six months:	98 (25.1%)	293 (74.9%)
Attendance of any forms of HIV and AIDS training in the past six months:	30 (7.7%)	361 (92.3%)

4.3 BEHAVIOURS TOWARD PEOPLE LIVING WITH HIV

A total of fifteen statements with 5 points Likert Scale were used to generate data regarding the respondents' behaviours toward people living with HIV and AIDS. Seven of these statements were related to fear and eight to social judgment toward people living with HIV. The fifteen statements were analysed as multiple response questions. Furthermore, the 5 points Likert Scale were reduced to 3 points. Strongly disagree and disagree were analysed as disagree while strongly agree and agree were analysed as agree. Table 3 and 4 provide the frequency distribution of the results. Seven statements were related to fear toward people living with HIV (Table 3) and eight statements to social judgment (Table 4).

4.3.1 Fear towards people living with HIV and AIDS

As indicated in Table 3, the proportion of undecided respondents' for the seven statements ranged from 27 (6.9%) to 75 (19.0%) for being afraid of sharing eating utensils with a person living with HIV (item 5) and being afraid of buying food from a person living with HIV (item 7) respectively.

The proportion of the respondents who expressed fear toward people living with HIV (agreed with the proposed statements) ranged from 52 (13.3%) to 195 (50.0%) for being afraid of sharing the same classroom with a person living with HIV (item 5) and being afraid of buying food from a person living with HIV (item 7) respectively.

The proportion of the respondents who did not express fear toward people living with HIV (disagreed with the proposed statements) ranged from 121 (31.0%) to 291 (74.4%) for being afraid of buying food from a person living with HIV (item 7) and being afraid of sharing a classroom with people living with HIV (item 1) respectively.

Table 3: Frequency distribution of fear towards PLWH (N=391)

#	Items	Frequency (%)		
		Agree	Undecided	Disagree
1	I am afraid to share the same classroom with a person living with HIV	52 (13.3%)	48 (12.3%)	291 (74.4%)
2	I am afraid to share the same toilet with a person living with HIV	76 (19.4%)	54 (13.8%)	261 (66.8%)
3	I am afraid to maintain the friendship with my friend living with HIV	94 (24.0%)	54 (13.8%)	243 (62.2%)
4	I am afraid to invite a friend living with HIV to my party	107 (27.0%)	46 (12.0%)	238 (61.0%)
5	I am afraid to share eating utensils with a person living with HIV	121 (31.0%)	27 (6.9%)	243 (62.1%)
6	I am afraid to sleep in the same room with a person living with HIV	193 (49.4%)	49 (12.5%)	149 (38.1%)
7	I am afraid to buy food from a person living with HIV	195 (50.0%)	75 (19.0%)	121 (31.0%)

4.3.2 Social judgment toward people living with HIV

The results in Table 4 showed that the proportion of undecided respondents' for the eight statements ranged from 23 (6.0%) to 116 (30.0%) for not allowing HIV positive students to participate in the sporting events with HIV negative students (item 1) and for believing that people living with HIV were promiscuous(item 8) respectively.

The proportion of the respondents who agreed with the proposed statements ranged from 43 (11.0%) to 97 (25.0%) for not allowing HIV positive students to participate in the sporting events with HIV negative students (item 1) and for believing that people living with HIV were promiscuous (item 8) respectively.

The proportion of the respondents who disagreed with the proposed statements varied from 178 (45.0%) for believing that people living HIV and AIDS were promiscuous (item 8) to 325 (83.0%) for not allowing HIV positive students to participate in the sporting events with HIV negative students (item 1) respectively.

Table 4: Frequency distribution of social judgment toward PLWH (N=391)

#	Items	Frequency (%)		
		Agree	Undecided	Disagree
1	HIV positive students should not be allowed to participate in the sporting events with HIV negative students	43 (11.0%)	23 (6.0%)	325 (83.0%)
2	HIV positive children and students should not be allowed to study	48 (12.0%)	35 (9.0%)	308 (79.0%)
3	Persons with HIV and AIDS deserve what they got	58 (15.0%)	45 (12.0%)	285 (73.0%)
4	People with HIV and AIDS should be banned from getting married	60 (15.0%)	47 (12.0%)	286 (73.0%)
5	People with HIV and AIDS should be ashamed of themselves	71 (18.1%)	30 (7.7%)	290 (74.2%)
6	People living with HIV and AIDS should be blamed	75 (19.2)	48 (12.3%)	268 (68.5%)
7	HIV and AIDSs is a punishment from God for bad behaviour	83 (21.0%)	54 (14.0%)	254 (65.0%)
8	People with HIV and AIDS were promiscuous	97 (25.0%)	116 (30.0%)	178 (45.0) %

4.4 INDIVIDUAL CORRELATES OF HIV RELATED STIGMA

In order to establish the individual correlates of HIV related stigma, the researcher started by changing all the correct statements into positive statements. The 5 points Likert scale were translated to scores. The score of zero was given to undecided, while the scores of 3 and 4 were given to agree and strongly agree respectively, strongly disagree and disagree were given the score of 1 and 2 respectively. The maximum score was 60 points with 30 as a mid-point. The score of 30 and less was equated to stigmatising behaviour. In general, 272(69.6%) of respondents scored 30 or less (meaning that they expressed stigmatising behaviours toward people living with HIV) and 119 (30.4%) scored above 30 points (meaning that they did not expressed stigmatising behaviours toward people living with HIV).

Thereafter, the researcher used the binary logistic regression to model the relationships between the measurement variables of the facilitators of stigma and the score of the stigmatising behaviours. The relationship was deemed significant at the P-value of < 0.05. Only significant results are reported in this section. Table 5 provides the results of the binary logistic regression analysis.

With regard to the relationships between the socio-demographic variables and HIV stigma, Table 5 showed that four variables (ethnicity, religion affiliation, type of programme, and the level of study) were significantly associated with HIV related stigma score with P-value of 0.007; 0.0001; 0.0001 and 0.0001 respectively (all <0.005).

In terms of the mean score and standard deviation of HIV related stigma, students of Yoruba ethnic group were more likely to display stigma against PLWH than students of other ethnic groups with a mean score of 34.85 and a SD of 8.475. Students of Christian affiliation were less likely to display stigma against PLWH than others with a mean attitude score of 40.15 and a SD of 8.757. Students doing non-clinical sciences were more likely to display stigma against PLWH than those doing clinical sciences with a mean score of 37.57 and a SD of 8.372. Students in the first two years of studies were more likely to display stigma against PLWH than those with more than two years of studies with a mean score of 37.84 and a SD of 8.112.

Table 5: Binary analysis of the socio-demographic variables and stigma

Variables	HIV related stigma			
	Mean Score	Standard Deviation	T-test	P-value
Age in years: ▪ 20-24 ▪ >24	38.85 39.62	8.528 8.970	0.686	0.408
Sex: ▪ Male ▪ Female	39.64 38.50	8.551 8.791	1.679	0.196
Marital status: ▪ Single ▪ Married ▪ Separated/Widow	39.25 37.39 49.00	8.646 8.955	1.010	0.388
Religion: ▪ Christians ▪ Muslims ▪ Others	40.15 35.60 34.88	8.757 6.833 12,241	10.211	0.0001
Ethnic Group: ▪ Esan ▪ Igbo ▪ Yoruba ▪ Bini ▪ Others	39.91 39.71 34.85 41.32 38.78	8.573 8.112 8.475 7.523 9.062	3.561	0.007
Type of academic programme: ▪ Clinical ▪ Non-clinical	43.68 37.57	7.943 8.372	40.161	0.0001
Level of study: ▪ First 2 years ▪ Third to Sixth Year	37.84 41.27	8.112 9.188	14.755	0.0001

With regard to the relationships between knowledge about HIV and HIV stigma, Table 6 showed that there is no significant association between availability of HIV and AIDS awareness program and stigma mean score. The mean score of those who answered yes was 40 while that of students who said NO was 39.01. Turning to Attending HIV and AIDS campaign in the last six months those who had not attended any campaign were less likely to stigmatize than those who said they had attended. However when respondents who replied NO to attending campaign were stratified into Clinical faculty and Non-clinical faculties, undergraduate students from clinical faculty were less likely to stigmatize people who were HIV positive than study subjects from non-clinical faculties. Analyzed data did not show any significant association between completing training in any aspect of HIV and AIDS and stigma mean score.

Table 6: Binary analysis of the knowledge about HIV and stigma

Variables	HIV related stigma			
	Mean Score	Standard Deviation	T-test	P-value
Awareness of available HIV and AIDS activities on campus: <ul style="list-style-type: none"> ▪ Yes ▪ No 	40.00 39.01	7.826 8.763	0.450	0.503
Participation to HIV and AIDS awareness campaign in the past six months: <ul style="list-style-type: none"> ▪ Yes ▪ No 	35.03 39.54	7.402 8.694	9.500	0.002
Attendance of HIV and AIDS Training in the past six months: <ul style="list-style-type: none"> ▪ Yes ▪ No 	38.17 39.18	8.272 8.711	0.378	0.539

CHAPTER FIVE

DISCUSSION, RECOMMENDATIONS, LIMITATIONS AND CONCLUSION

5.1 DISCUSSION

The study examined the HIV related stigma among undergraduate students at a university in Nigeria. In general, the results showed that the majority of students (n=272, 69.6%) display stigma against PLWH. These results differ from the study done by Lalo et al (2015:57) which showed that 53% of students did not display stigma against PLWH. Similarly, Edet et al (2012:49) in their research about attitudes of students towards HIV positive persons reported that 66% of respondents had favorable attitudes towards People living with HIV and AIDS.

Furthermore, this study showed that most students were not knowledgeable about HIV related issues. The majority of them were not aware of the HIV and AIDS activities available on campus (74.9%), did not participate in any HIV awareness campaign in the past six months (74.9%) and did not attend any HIV and AIDS training (92.3%) in the past six months. These figures were far lower than the findings from studies conducted at Benson Idahosa University, Nigeria (Omage 2013:316) and University of Fort Hare (Chamisa 2014:160), South Africa which showed that a large proportion of students were knowledgeable about HIV related issues. In the Nigeria study, 36% of respondents agreed to have attended seminars on HIV and AIDS while 60.8% had a subject where they learnt about HIV and AIDS. In the University of Fort Hare study, 50% of sample respondents agreed to have attended HIV and AIDS awareness programme in the past.

When items that denote fear towards PLHIV were considered (Table 3), the study revealed that roughly half (49.4%) expressed unreasonable fear by being afraid of sleeping in the same room with a person living with HIV while just above one-fifth (24%) of subjects responded in the affirmative regarding the attitude item that states: "I am afraid to willingly and freely care for my friend with HIV". The result of this study regarding proportion of respondents who frowned at the idea of sleeping in the same room with somebody with HIV was far higher than what Lalo et al (2015:64) got in their study for similar item(26.8%).

Lui, Sarangapany, Begley, Coote & Kishore (2014:6) reported lower percentage (19.8%) compared to the findings of this research of sample respondents rejecting a statement that they would freely care for a friend or relative who came down with HIV/AIDS. Lalo et al (2015:64) however reported that a slightly higher proportion, 24.72% did not like the idea of caring for a friend with HIV.

The results indicated that 31% of study subjects agreed that they had problem sharing eating utensils with someone who is HIV positive. When this result was compared with studies done by Lalo et al (2015:64) and Lui et al (2014:6) that used similar statement as above, lower percentages of 16.95%(roughly half) and 22% respectively were found for participants who were not at ease with sharing eating utensils with a person living with HIV.A strikingly high proportion of study subjects 49.8%(roughly half) preferred not to buy food from a vendor who was living with HIV/AIDS. Comparing this finding to the results of a study done in Fiji Island (Lui et al 2014:6) among medical and nursing students to assess their attitudes towards people living with HIV/AIDS a lower value, 20.5% of respondents said they would not buy food from a HIV positive food vendor .The lower figure gotten from the Fuji students compared to the result of index research regarding statement on buying food from a HIV positive food seller may be due to the fact that the Fuji student participants were entirely made up of medical and nursing students while the current study respondents were drawn from different departments and faculties. Medical and nursing students have a better knowledge of how HIV is transmitted than students from other areas of study and so less likely to have fear of infection from mere buying of food from a HIV positive food vendor. A study done in China (Albrektsson, Alm, Tan, & Andersson 2009:55) showed that Chinese medical students and foreign medical students had better knowledge of HIV/AIDS including routes of infection than non-medical students.

Regarding social judgment towards PLHIV, as seen on **Table 4**, the highest proportion of respondents believed that PLHIV were promiscuous (25%).This was followed by slightly above one-fifth (21%) of subjects who were convinced that HIV and AIDS was a punishment from God for wrong doing. Lui et al 2014:6 reported higher percentage of participants (30.9%) accepting that HIV/AIDS was a punishment from God for wrong doing.

When asked question such as whether HIV/AIDS is a penalty for indulging in immoral lifestyle, a significant proportion of respondents (67%) in a study carried out in South Africa (Van Dyk & Van Dyk 2007) did note with the statement that “HIV is God's directive for sinners. The South African research unveiled a population with very low level of judgmental attitude which enhances efforts aimed at reducing stigmatization of PLHIV.

The results regarding the association between socio demographic factors and university student's attitude towards people who are HIV positive is very revealing. From the table, it can be seen that there is no statistically significant association between age ($p\text{-value} = 0.408 > 0.05$ t-test), sex ($p\text{-value} = 0.196 > 0.05$ t-test) or marital status ($p\text{-value} = 0.388 > 0.05$ t-test) of research respondents and the attitudes of respondents involved in this study. Results of previous studies (Rampal et al 2011:130, Bamidele et al 2012:49, Lalo et al 2015:68) conducted in Nigeria and elsewhere were consistent with the findings of this research regarding age, sex or marital status. Some other similar studies that showed change of discriminatory and stigmatizing attitude with age but were however inconsistent. On the one hand, Hossain and Kippax (2011:177) and Masoudnia (2015:120) reported that older persons had more negative attitudes towards PLHIV while on the other hand Dahlui et al (2015:7) stated that younger persons tended to be more negative in attitude than older persons. In like manner, while Masoudnia (2015:121) reported males having less stigmatizing attitude than females, Dahlui et al (2015:5) found that female participants showed more positive attitudes towards HIV positive persons than their male counterparts.

The remaining socio-demographic variables such as tribe ($p\text{-value} = 0.007 < 0.05$) religion ($p\text{-value} = 0.0001 < 0.05$ t-test), faculty ($p\text{-value} = 0.0001 < 0.05$ t-test) and level of study ($p\text{-value} = 0.0001 < 0.05$ t-test) were found to be statistically significantly associated with attitudes of students who participated in the study. Students from clinical faculties were less likely to stigmatize than those from non-clinical faculties. This can be understood from the fact the HIV discourse belong to clinical studies much more than other areas of study. So students from clinical faculties have a higher chance of being aware of HIV/AIDS than those from non-clinical faculties. Results of other studies however contradicts the findings of this present study.

Mulu, Abera & Yimer (2014:81) did not find any significant association between tribe (ethnicity), religion and discriminatory or stigmatizing tendencies of study participants. Furthermore, the work of Maimaiti, Shamsuddin, Abdurahim, Tohti & Maimaiti (2010:55) did not demonstrate any significant difference between the stigmatizing behaviors of medical and non-medical students. In contrast, many previous researches (Mulu et al 2014:84, Gandhi, Dharmalingam, Poreddi, & Chandra 2015:25) were consistent with the finding of this study that the higher the level of study, the more positive attitudes students hold towards HIV positive individuals. A possible explanation for this is that the higher the level of study of students, the more knowledgeable they are (including acquiring knowledge in HIV/AIDS), then the less discriminatory they would be towards PLHIV. This reasoning is corroborated by a study carried out at a Chinese university which revealed that students in the final year of study had more and better knowledge regarding HIV/AIDS than the first year students (Maimaiti et al 2010:55).

The results showed no significant association between awareness of HIV related activities on campus and HIV related stigma. This is not surprising because having knowledge of presence of such programme does not necessarily translate to being part of it and knowing what it is all about. It is participating in the programme and gaining knowledge about HIV/AIDS that may have impact on stigmatizing attitudes of individuals by increasing HIV/AIDS knowledge base of such persons (Messer, Pence, Whetten, Whetten, Thielman, O'Donnell & Ostermann 2010:5, Thanavanh, Harun-Or-Rashid, Kasuya, Sakamoto 2013:1).

However, It is very clear that there is a significant association (p-value of 0.002 <0.05 t-test) between attending HIV and AIDS programme or not attending and HIV related stigma. This association was surprisingly in favour of those who said "NO" as shown by the mean stigma score of 35.03 (YES) and 39.54(NO) This means that those who answered in the negative were less likely to stigmatize PLHIV than those who answered in the affirmative. This finding is in contrast with the results of many researches ((Badahdah 2010:389, Balfour et al 2010:886, Ouzouni & Nakakis 2012 :129, Mori 2014; Masoudnia 2015:119) which stated a negative correlation between HIV/AIDS awareness or knowledge and discriminatory attitudes of individuals towards PLHIV.

5.2 RECOMMENDATIONS

Having stated and noted the findings of this study, the following recommendations are helpful:

- Governments at all levels and heads of tertiary level institutions of learning in Nigeria should work together to formulate and implement policies that will improve HIV and AIDS awareness among university students. Students should also be encouraged to participate in programmes from such policies.
- There is a need for government of Nigeria to conduct a large scale national study involving many universities.

5.3 LIMITATIONS

The current study is limited by certain factors. The researcher employed cross-sectional design and used small sample size. There may also be issue with validity of self-report and the validation of the questionnaire on face value. Finally, the study made use of nonrandom convenience sampling method and was restricted to only one university. Therefore, findings from the index research work cannot be generalized to other undergraduate student populations in other Nigerian universities. Future research may include larger sample of undergraduate students pooled from more tertiary level institutions in Nigeria to improve generalizability.

5.4 CONCLUSION

This study attempted to unveil and describe HIV/AIDS related stigmatizing attitude among undergraduate university students in Nigeria. The results of the research suggest that discriminatory and negatives attitudes against people living with HIV/AIDS are quite prevalent in Nigeria universities and that Nigerian undergraduate students are not sufficiently aware of HIV/AIDS. It is therefore important for governments at all levels and managers of institutions of higher learning to implement strategies that will enhance HIV/AIDS awareness among young people at tertiary level educational institutions in Nigeria. Increase in HIV/AIDS awareness is expected to reduce stigmatization and this would in turn decrease the spread of HIV/AIDS.

LIST OF REFERENCES

Adeneye A K, Brieger M A, Mafe A A, Adeneye K K, Salami M A, Titiloye T A, Adewole & Agomo PU .2007. Willingness to Seek HIV Testing and Counseling Among Pregnant Women Attending Antenatal Clinics in Ogun State, Nigeria. *International Quarterly of Community Health Education*, 26(4): 337-353.

AIDS Committee of Toronto.2012. HIV-related Stigma: Synthesis Paper. From: [http://www.actoronto.org/research.nsf/pages/act.research.0390/\\$file/HIV-related%20Stigma.pdf](http://www.actoronto.org/research.nsf/pages/act.research.0390/$file/HIV-related%20Stigma.pdf)(accessed 20 November, 2016).

Amoran OE. 2011. HIV related stigmatizing attitude and practice among Health workers in Northern Nigeria. *Journal of Infectious Disease and Immunity*, 3(13):226-232.

Albrektsson M, Alm L, Tan X & Andersson R.2009.HIV/AIDS Awareness, Attitudes and Risk Behaviour Among University Students in Wuhan, China. *The Open AIDS Journal*, Vol.3:55-62.

Araoye MO.2004.*Research Methodology with Statistics for Health and Social Sciences*. Ilorin: Nathadex Publishers.

Arrey AE, Bilsen J, Lacor P & Deschepper R.2015."It's My Secret": Fear of Disclosure among Sub-Saharan African Migrant Women Living with HIV/AIDS in Belgium.*PLOS ONE*10 (3):e0119653.

Badahdah AM, Sayem N.2010.HIV-related knowledge and AIDS Stigma among College Students in Yemen. *East Mediterr Health Journal*, Vol.16 (8):901-906.

Bamgboye E A. 2013.*Lecture Notes on Research Methodology in the Health and Medical Sciences*. Ibadan: Folbam Publishers.

Balfour L,Corace K, Tasca GA, Best-Plummer W, MacPherson PA & Cameron DW.2010.High HIV knowledge relates to low stigma in pharmacist and university health science students in Guyana, South America. *International Journal of Infectious Diseases*, 14(2010):881-887.

Block, RG.2009.Is it just me? Experiences of HIV-related Stigma. *Journal of HIV/AIDS & Social Sciences*, 8(2009):1-19.

- Bogart LM, Cowgill BO, Kennedy D, Ryan G, Murphy DA, Elijah J, Schuster MA. 2008. HIV-related stigma among people with HIV and their families.: qualitative analysis. *AIDS and Behaviour*, 12(2):244-254.
- Bryman A. 2012. *Social Research Methods*. 4th edition. Oxford University Press.
- Brown-Maughan B & Spaul N. 2014. HIV-Related Discrimination among Grade Six Students in Nine Southern African Countries. *PLOS ONE* 9 (8):e102981.
- Campbell, C., Nair, Y., Maimane, S. and Nicholson, J., 2007. 'Dying twice': a multi-level model of the roots of AIDS stigma in two South African communities *Journal of Health Psychology*, 12(3), pp.402-416.
- Calin T, Green J, Hetherington J & Brook G .2007. Disclosure of HIV among black African men and women attending a London HIV clinic. *AIDS Care* 19: 385-391.
- Campbell, C., Nair, Y., Maimane, S. and Nicholson, J., 2007. 'Dying twice': a multi-level model of the roots of AIDS stigma in two South African communities *Journal of Health Psychology*, 12(3), pp.402-416.
- CDC. 30 Years of HIV/AIDS.
2011 From: <http://www.cdc.gov/nchhstp/newsroom/docs/CDC-HIV-30th-Fact-Sheet-508c.pdf> (accessed 13 September 2013).
- Chamisa SF & Mjoli TQ. 2014. HIV/AIDS Awareness Training Programmes and Risk Behaviour among Students. *Journal of Hum & Ecol*, 46(2):157-164.
- Dahlui M, Azahar N, Bulgiba A, Zaki R, Oche OM, Adekunjo FO et al. 2015. HIV/AIDS Related Stigma and Discrimination against PLWHA in Nigeria Population. *PLOS ONE* 10(2):e0143749.
- Deacon, H. 2006. Towards a sustainable theory of health –related stigma: lessons from the HIV/AIDS literature. *Journal of Community & Applied Social Psychology*, 16(6):418-425.
- Earnshaw V. & Chaudoir S. 2009. From conceptualizing to measuring HIV stigma: a review of HIV stigma mechanism measures. *AIDS & Behavior*, 13: 1160-1177.

Edet OB, Edet EE, Sampson-Akpan PE & Ndifon W. 2012. HIV/AIDS-Related Knowledge, attitudes and Social Distance towards People Living with HIV/AIDS Among Undergraduate Students in Calabar. *International Journal of Health Sciences and Pharma Research*, 2(3) 41-56.

Ei-Gadi S, Abudher A, Sammud M. 2008. HIV-related knowledge and Stigma among high school students in Libya. *International Journal of STDS AIDS*, 19(3):17883.

Family Health International. 2008. Stigma and discrimination in Nepal. Community attitudes and the form and consequences for people living with HIV/AIDS. Impact-implementing AIDS prevention and care project –USAID.

Gandhi S, Dharmalingam M, Poreddi V & Chandra R. 2015. Under graduate nursing students' knowledge and attitude towards people living with human immunodeficiency virus/acquired immunodeficiency syndrome. *International Journal of Advanced Medical and Health Research*, 2(1):22-27.

Ghana AIDS Commission. 2011. Stigma and Discrimination of People Living with HIV in Ghana: A major challenge in the fight against AIDS. From: http://www.orinam.net/content/wpcontent/uploads/2011/09/ANTI_Stigma_Brochure_final_13_9.pdf (accessed 25 April 2013).

Global Network of People Living with HIV. 2012. Evidence Brief: Stigma and Discrimination at Work. Findings from the People Living with HIV Index. From: https://www.gnpplus.net/assets/wbb_file_updown/4621/Stigma%20and%20Discrimination%20at%20work.pdf (accessed 5 March 2017).

Greeff M, Makoe LN, Phetlhu R, Uys LR, Naidoo JR, Kohi TW, Dlamini PS, Chirwa ML & Holzemer WL. 2008. Disclosure of HIV status: experiences and perceptions of persons living with HIV/AIDS and nurses involved in their care in Africa. *Qual Health Res*, 18(3):311-324.

Green K, Derlega VJ, Yep GA & Petronio S. 2003. Privacy and disclosure of HIV in interpersonal relationships: A sourcebook for researchers and practitioners. Mahwah, NJ: Erlbaum.

HEAIDS. 2010. Creating space for HIV and AIDS in the curriculum – A Rapid Assessment of curricular responses in South African Higher Education Institutions. Pretoria: Higher Education South Africa.

Hong K T, Anh NTV & Ogden J .2004. "Because this is the disease of the century": Understanding HIV and AIDS-related stigma and discrimination in Vietnam. International Center for Research on Women. From: <https://www.icrw.org/wp-content/uploads/2016/10/Understanding-HIV-and-AIDS-related-Stigma-and-Discrimination-in-Vietnam.pdf>(accessed 5 January 2014).

Hossain MB, Kippax S.2010.HIV-related Discriminatory Attitudes of Healthcare Workers in Bangladesh. *J Health Popul Nutrition*, 28(2):199-207.

Huang J, Bova C, Fennie KP, Rogers A & Williams AB .2005. Knowledge, attitudes, behaviors, and perceptions of risk related to HIV/AIDS among Chinese university students in Hunan, China. *AIDS Patient Care and STDs*, Vol. 19(11), 769-777.

Ironson G, Stuetzle R., & Fletcher M A. 2006. An increase in religiousness and spirituality occurs after HIV diagnosis and predicts slower disease progression over 4 years in people with HIV. *Journal of General Internal Medicine*, 21, (5) 62–68.

Joubert, G & Ehrich R (eds).2007.*Epidemiology: a research manual for South Africa*.2nd edition. Cape Town: Oxford University Press.

Kassile T, Anicetus H, Kukula R.2015.HIV/AIDS-Related Stigma and Discrimination in Workplaces in Tanzania. *Rwanda Journal Series F: Medicine and Health Sciences*, Vol 2(1):31-41.

Katz IT, Ryu AE, Onuegbu, AG, et al.2013. 'Impact of HIV-related stigma on treatment adherence: systematic review and meta-synthesis' .*Journal of International AIDS Society* 16(2):18640.

Koku EF.2010.HIV-Related Stigma Among African Immigrants Living with HIV/AIDS in USA.*Sociological Research Online*, 15(3):5.

Kohi TW, Makoae L, Chirwa M, Holzemer WL, Phetlhu DR, Uys L et all.2006. HIV and AIDs Violates Human Rights in Five African Countries. *Nurs Ethics*, 3 (4):404-415.

Krakauer, M. & Newbery, J. 2007. Churches' responses to HIV/AIDS in two South African communities. *Journal of the International Association of Physicians in AIDS care*, 6 (1):27-35.

Lalo R, Theodhosi G, Kamberi F & Xhindoli J.2015.Stigma and HIV/AIDS: Attitudes of Vlora University Students towards People Living with HIV. *The Journal of Macro Trends in Health and Medicine*, 3(1):57-71.

Lekas H, Siegel K & Leider, J. 2011. Felt and enacted stigma among HIV/HCV-coinfected adults: The impact of stigma layering. *Qualitative Health Research*, 21(9): 1 205-1219.

Li L, Wu Z ,Wu S , Jia M , Lieber E & Lu Y .2008.Impact of HIV/AIDS Stigma on family identity and interactions in China. *Fam Syst Health*, 26 (4):431-442.

Li X, Wang H, Williams A & He G.2009.Stigma reported by people living with HIV in South Central China. *Journal of the Association of Nurses in AIDS Care*, 20(1):22-30.

Logie C & Gadalla T. 2009. Meta-analysis of health and demographic correlates of stigma towards people living with HIV. *AIDS Care* 21(6), 742-753.

Logie CH, Newman PA, Weaver J, Roungraphon S & Tepjan S.HIV-Related Stigma and HIV Prevention Uptake Among Young Men Who Have Sex with Men and Transgender Women in Thailand.2016.*AIDS Patient Care and STDs*, 30(2):92-100.

Lui PSC, Sarangapany J, Begley K, Coote K & Kishore K.2014.Medical and Nursing Students Perceived Knowledge, Attitudes, and Practices concerning Human Immunodeficiency Virus.ISRN Public Health, Vol.2014: Pages 1-9.

Madru, N. 2003. Stigma and HIV: Does the social response affect the natural course of the epidemic? *Journal of the Association of Nurses in AIDS Care*, 14(5), 39–48.

Maimaiti N ,Shamsuddin K, Abdurahim A, Tohti N & Maimaiti R.2010.Knowledge,Attitude and Practice Regarding HIV/AIDS among University Students in Xinjiang. *Global Journal of Health Science*, 2(2):51-60.

Mahendra VS, Gilborn B, George- Samson R, Mudoj S, Jadav I, Gupta S, et al.2006. Reducing AIDS related Stigma and Discrimination in Indian Hospitals. Horizons Final Report. New Delhi: Population Council/Horizons Programme. From: <http://www.popcouncil.org/pdfs/horizons/inplhafriendly.pdf>(accessed 24 May 2015).

Masoudnia E.2015.Public perceptions about HIV/AIDS and discriminatory attitudes toward people living with acquired immunodeficiency syndrome in Iran. *Journal of Social Aspects of HIV/AIDS*, 12(1):116-122.

Maswanya E S, Brown G & Merriman G. 2009. Services and attitudes to people living with HIV/AIDS among college students in Dar-es-Salaam, Tanzania. *East African Journal of Public Health*, 6(3), 244-7.

Mavhandu-Mudzusi A H & Ganga-Limando M. 2014. Being Lesbian, Gay, Bisexual, Transgender and Intersex (LGBTI) students at a South African rural-based university: Implications for HIV prevention. *African Journal of Nursing and Midwifery*, 16 (2):125-138.

Mbatha B. 2013. AIDS-Related Stigma as a barrier to HIV and AIDS Prevention, Care and Treatment in South African Public Universities. *Mediterranean Journal of Social Science*, 4 (2) 517-524.

McMillian JH & Schumacher S. 2014. *Research in education: evidence-based inquiry*. 7th edition. Harlow Essex: Pearson.

Messer LC, Pence BW, Whetten K, Whetten R, Thielman N, O'Donnell K & Ostermann J. 2010. Prevalence and predictors of HIV-related stigma among institutional- and community-based caregivers of orphans and vulnerable children living in five less wealthy countries. *BMC Public Health* Vol.10:504.

Mori I. 2014. HIV Public Knowledge and Attitudes. National AIDS Trust. From: <https://www.ipsos-mori.com/Assets/Docs/Publications/sri-health-hiv-public-knowledge-and-attitudes-2014-report.pdf>. (accessed 4 January ,2014).

Mulu W, Abera B & Yimer M. 2014. Knowledge, attitude and practices on HIV/AIDS among students of Bahir Dar University. *Science Journal of Public Health*, 2(2):78-86.

Muturi N & An S. 2010. HIV and AIDS Stigma and Religiosity Among many African American Women. *Journal of Health Communication*, 15:388-401.

NACA. 2017. Factors Driving Continued HIV Transmission along key Transport Corridors in Nigeria. From: <http://naca.gov.ng/conclusion-structural-individual-factors-driving-continued-hiv-transmission-along-key-transport-corridors-nigeria/> (accessed 14 March 2018).

Nguyen TA, Oosterhoff P, Ngoc YP et al. 2008. Barriers to access prevention of mother-to child transmission for HIV positive women in a well-resourced setting in Vietnam. *AIDS Research and Therapy*, 5:7.

Nwanna C R. 2005. Social consequences of HIV/AIDS: Stigma and discrimination in the workplace in Nigeria. Paper presented at the XXV International Population Conference held at the Vinci Convention Centre, Tours, France, 18-23. July 2005.

Nyblade, L. & Carr, D. 2011. HIV/AIDS-related stigma and discrimination: A study of health care providers in Bangladesh. *Journal of the International Association of Physicians in AIDS Care*, 10: 97- 104.

Nyblade L & Jain A.2012."Scaling up Policies, Interventions, and Management for Stigma-Free HIV prevention, care, and Treatment Services."Working Paper #3.Washington DC: Future Group Health Policy Project.

Octem P.2015.The Role of Family in Attributing Meaning to Living With HIV and its Stigma in Turkey. *SAGE open*, 1-15.

Odindo MA, Nwanthi MA.2008.Role of Governmental and Non-Governmental Organization in Mitigation of Stigmatization and Discrimination Among HIV/AIDS Persons in Kibera, Kenya. *East African Journal of Public Health*, Vol.5 (1):1-5).

Ogden JA, Nyblade L.2005.Common at its core: HIV-related stigma across contexts. International Center for Research on Women. From: <https://www.icrw.org/wp-content/uploads/2016/10/Common-at-its-Core-HIV-Related-Stigma-Across-Contexts.pdf> (accessed 6 July 2016).

Ogunjuyigbe PO, Adeyemi EO & Obiyan MO.2009.Attitudes towards people living with HIV/AIDS: Implication for infection and spread of HIV/AIDS in Lagos State Nigeria. *Journal of Chinese Clinical Medicine*, 4(3):167-177.

Ogbonna, C.2014.The Basics in Biostatistics Medical Informatics & Research Methodology.Jos: Yakson Printing Press.

Omage MI & Omage BO.2013.Assessing the extent of HIV/AIDS education and prevention among secondary school students in Oredo, Benin City, Nigeria. *International Journal of Sociology and Anthropology*, 5(8):311-322.

Olalekan AW, Akintunde AR, Olatunji MV.2014.Perception of Societal Stigma and Discrimination Towards People Living with HIV/AIDS in Lagos, Nigeria: a qualitative Study.*Meter Sociomed* ,26(3):191-194.

Ojjeabu WA, Eze UIH, Fashiola OS, Bello SI & Arute JE.2014.HIV/AIDS Related Stigmatization and Discrimination. African Journal of Pharmaceutical Research and Development, 6(1):37-43.

Ostermann J, Reddy EA, Shorter MM et al.2011.Who tests, Who doesn't, and Why? Uptake of Mobile HIV Counselling and Testing in the Kilimanjaro Region of Tanzania.PLos One, Vol.31 (1): e16488.

Ouzouni C & Nakakis K.2012.HIV/AIDS knowledge, attitudes and behaviours of student nurses. Health Science Journal, 6(1):129-150.

People Living with HIV Stigma Index.2011.The Network of People Living with HIV andAIDSinNigeria.From:http://www.stigmaindex.org/sites/default/files/reports/Nigeria%20StigmaIndex%20final_HighRs.pdf(accessed 19 November 2016).

Polit DF & Beck CT .2012.Nursing Research: Generating and Assessing Evidence for Nursing Practice. Philadelphia: Lippincott Williams &Wilkins.

Rampal L, Rahnama R, Lye M & Rahman H.2011.Factors Influencing Students Attitudes towards HIV/AIDS in a Public University, Malaysia. Global Journal of Health Sciences, 3 (1):128-134.

Roger P.2012.HIV, stigma &discrimination.NAM.From:<http://www.aidsmap.com/files/e1001097.pdf>(Accessed 19 June 2016).

Root R.2010.Situating experiences of HIV-related Stigma in Swaziland. Global Public Health, 15(5)523-538.

Rosland A.2009. Sharing the care: The role of Family in Chronic Illness. California HealthFoundation.From:https://www.hasc.org/sites/main/files/file-attachments/sharing_the_care.pdf(accessed 17 June 2015).

Saki M, Kermanshahi SMK, Mohammadi E & Mohraz M.2015.Perception of Patient With HIV/AIDS From Stigma and Discrimination. Iran Red Crescent Medical Journal 17(6) e23638.

Smart R.2009.HIV/AIDS-Related Stigma and Discrimination.UNESCO.From:http://www.iiep.unesco.org/fileadmin/user_upload/Cap_Dev_Training/pdf/1_4.pdf(accessed 5 July 2013).

Stangl AL, Brady L & Fritz K. 2012.Measuring HIV stigma and Discrimination. InternationalCenterforResearchonWomen.From:http://strive.lshtm.ac.uk/sites/strive.lshtm.ac.uk/files/STRIVE_stigma%20brief-A3.pdf(Accessed 11 March 2017).

Stirratt M J , Remien R H, Smith A, Copeland O Q, Dolezal C & Krieger D. 2006. The Role of HIV Serostatus Disclosure in Antiretroviral Medication Adherence. *AIDS & Behavior*, 10: 483-493.

Taking Action against HIV Stigma and Discrimination Guideline Document and Supporting Resources.2007. DFID Department for International Development. From: <http://www.icrw.org/wp-content/uploads/2016/10/DFID-Taking-Action-Against-HIV-Stigma-and-Discrimination.pdf>(accessed 12 September 2016).

Thanavanh B, Harun-Or-Rashid M, Kasuya H & Sakamoto J.2013.Knowledge ,attitudes and practices regarding HIV/AIDS among male high school students in Lao Peoples Democratic Republic. *Journal of International AIDS Society* Vol.16:17387.

Umar AS, Oche MO & Adeoso AA.2012.Discriminatory practices of health workers towards people living with HIV/AIDS in Sokoto, Nigeria. *Journal of AIDS and HIV Research*, 4(9):223-228.

Umeh CN, Essien EJ, Ezedinachi EN & Rose MW. 2008. Knowledge, Beliefs and Attitudes about HIV/AIDS related issues and the Sources of Knowledge among Health Care Professionals in Southern Nigeria.*JR Soc Promot Health*, 128(5):233-239.

UNAIDS.2005.HIV-Related Stigma, Discrimination and Human Rights Violation: Case Studies of Successful Programmes. From: http://data.unaids.org/publications/irc-pub06/jc999-humrightsviol_en.pdf(accessed 14 March 2018).

UNAIDS.2010.Report on global AIDS epidemic. From: http://www.unaids.org/globalreport/Global_report.htm(accessed 24 June 2016).

UNAIDS.2014.Fast-Track: Ending the AIDS Epidemic by 2030.From: http://www.unaids.org/sites/default/files/media_asset/JC2686_WAD2014report_en.pdf(accessed 5 June 2016).

UNAIDS.2015.Nigeria Passes Law to Stop Discrimination related to HIV.From: http://www.unaids.org/en/resources/presscentre/featurestories/2015/february/20150211_nigeria_law(accessed 20 October 2016).

UNAIDS .2017. 'Agenda for zero discrimination in health-care settings'.From: http://www.unaids.org/sites/default/files/media_asset/2017ZeroDiscriminationHealthCare.pdf(accessed 18 June 2017).

USAID.2005.Measuring HIV Stigma: Results of a Field Test in Tanzania. From: <https://www.icrw.org/wp-content/uploads/2016/10/Working-Report-Measuring-HIV-Stigma-Results-of-a-Field-Test-in-Tanzania.pdf>(accessed 01 July 2017).

USAID.2006.Breaking the Cycle: Stigma, Discrimination, Internal Stigma, and HIV.From:http://www.policyproject.com/pubs/generalreport/Breaking_the_Cycle.pdf(accessed 5 May 2013).

USAID.2008.Tanzania Adopts HIV/AIDS Law: USAID Assistance Culminates in Law Prohibiting Discrimination Against PLHIV.From: http://www.healthpolicyinitiative.com/Publications/Documents/589_1_TZ_HIV_Legislation_FINAL_8_26_08.pdf(accessed 15 May 2015).

USAID.2010.The Health Policy Initiative in Tanzania: End-of-Project Report (2005-2008).From: http://pdf.usaid.gov/pdf_docs/Pdacq702.pdf(accessed 25 May 2014).

Van Brakel, WH. 2006. Measuring health-related stigma – a literature review. *Psychology, Health & Medicine*, 11(3): 307-334.

Van Dyk PJ, Van Dyk AC .2007.Does the church deliver? Perceptions among South Africans about role of the church in HIV/AIDS field. *Ecclesia JRG*.28 (2):682-697.

Varas-Diaz N, Serrano-Garcia, I &Toro-Alfonso, J. 2005. AIDS-related stigma and social interaction: Puerto Ricans living with HIV/AIDS. *Qualitative Health Research*, 15(2): 169-187.

Ware N M. Wyatt M & Tugenberg T. 2006. Social relationships, stigma and adherence to antiretroviral therapy for HIV/AIDS. *AIDS Care*, 18(8): 904-910.

Weiss MG & Rama K.2006.Stigma intervention and research for international health. *Lancet*, 367,536.

Wingood GM, Diclemente RJ, Mikhail I, McCree DH, Davies SL, Hardin JW, Peterson SH, Hook EW and Saag M. 2007. HIV Discrimination and the Health of Women Living with HIV. *Women & Health*, 46(2-3):99-112.

Yebei VN, Fortenberry JD, Ayuku DO. 2008. Felt Stigma among people living with HIV/AIDS in rural and urban Kenya. *Journal of African Health Science*, 8(2):97-102.

APPENDIX 1: DATA COLLECTION INSTRUMENTS

Questionnaire No: _____ (for office use)

Introduction: This questionnaire consists of THREE sections. The first section seeks information regarding socio-demographic data. The second and third sections seek information about knowledge and behaviour related to HIV related stigma respectively.

Please,

- Complete each question independently
- Please do not discuss the questions with a fellow student
- Remember, the answer must reflect your personal understanding or views
- Do not write your names into the questionnaire
- Kindly drop the completed questionnaire in the drop box provided at the entrance of your department
- The completion of this questionnaire will not take you more than 45 minutes.

SECTION I: SOCIO-DEMOGRAPHIC DATA

Note: Please answer by placing a cross (X) or entering the answer in the space provided where applicable.

Questions	Answer	Office use only
1. Your age in years		
2. Your sex		
3. Your marital status		
4. Your religion		
5. Your ethnic group		
6. What academic department are you registered with		
7. Your current level of study (eg 1 st year)		

SECTION II: KNOWLEDGE ABOUT HIV

Questions	Answer	
	Yes	No
1. Are you aware of the HIV related activities on campus?		
2. In the past six months, have you participated in any HIV and AIDS awareness campaign?		
3. In the past six months, have you attended any forms of HIV and AIDS training?		

SECTION III: BEHAVIOUR TOWARDS HIV and AIDS

The statements below are related to your personal understanding or views on HIV and AIDS related stigma. Please, rate each statement using the scale provided against the statement. The scale consists of 5 points ranging from strongly disagree to strongly agree. Each statement must be evaluated by placing a cross (x) under the point which best represents your view.

SD: strongly disagree; D: disagree; Ud: undecided; A: agree; SA: strongly agree

#	Items	Your views				
		SD	D	Ud	A	SA
1	I am afraid to share the same classroom with a person living with HIV					
2	I am afraid to share the same toilet with a person living with HIV					
3	I am afraid to maintain the friendship with my friend living with HIV					
4	I am afraid to invite a friend living with HIV to my party					
5	I am afraid to share eating utensils with a person living with HIV					
6	I am afraid to sleep in the same room with a person living with HIV					
7	I am afraid to buy food from a person living with HIV					

8	HIV positive students should not be allowed to participate in the sporting events with HIV negative students					
9	HIV positive children and students should not be allowed to study					
10	Persons with HIV and AIDS deserve what they got					
11	People with HIV and AIDS should be banned from getting married					
12	People with HIV and AIDS should be ashamed of themselves					
13	People living with HIV and AIDS should be blamed					
14	HIV and AIDSs is a punishment from God for bad behaviour					
15	People with HIV and AIDS were promiscuous					

APPENDIX 2: UNISA ETHICAL CLEARANCE



**UNIVERSITY OF SOUTH AFRICA
Health Studies Higher Degrees Committee
College of Human Sciences
ETHICAL CLEARANCE CERTIFICATE**

REC-012714-039

HS HDC/380/2014

Date: 10 December 2014 Student No: 4650-857-0
Project Title: HIV and AIDS related stigma among undergraduate students at a University in Nigeria.
Researcher: Chidiobere Kalu Ogburnke
Degree: Masters in Public Health Code: DIS4986
Supervisor: Ms FH Mfidi
Qualification: M Cur
Joint Supervisor: Prof M Ganga-Limando

DECISION OF COMMITTEE

Approved



Conditionally Approved



Prof L Roats
For CHAIRPERSON: HEALTH STUDIES HIGHER DEGREES COMMITTEE

L. Roats (Prof)

M. Moleki
Prof MM Moleki

ACADEMIC CHAIRPERSON: DEPARTMENT OF HEALTH STUDIES

PLEASE QUOTE THE PROJECT NUMBER IN ALL ENQUIRES

APPENDIX 3: NHRSC ETHICAL CLEARANCE



AMBROSE ALLI UNIVERSITY, EKPOMA HEALTH RESEARCH ETHICS COMMITTEE

NHREC registration number: NHREC/12/06/2013

Date: 25th April, 2016

Notice of Full Approval after full Committee Review

Re: Protocol's full title including official abbreviations: *HIV and AIDS Related Stigma among Undergraduate Students at a University in Nigeria.*

Health Research Committee assigned number: *008/16*

Name of Principal Investigator: *OGBUREKE CHIDIEBERE KALU*

Address of Principal Investigator: *Department of Health Studies, University of South Africa, South Africa.*

Date of receipt of valid application: *22nd January, 2016*

Date of meeting when final determination of research was made: *21st April, 2016*

This is to inform you that the research described in the submitted protocol, the consent forms, advertisements and other participant information materials have been reviewed and *given full approval by the Health Research Ethics Committee.*

This approval dates from *21/04/2016* to *20/04/2017*. If there is delay in starting the research, please inform the HREC so that the dates of approval can be adjusted accordingly. Note that no participant accrual or activity related to this research may be conducted outside of these dates. *All informed consent forms used in this study must carry the HREC assigned number and duration of HREC approval of the study.* In multiyear research, endeavor to submit your annual report to the HREC early in order to obtain renewal of your approval and avoid disruption of your research.

The National Code for Health Research Ethics requires you to comply with all institutional guidelines, rules and regulations and with the tenets of the Code including ensuring that all adverse events are reported promptly to the HREC. No changes are permitted in the research without prior approval by the HREC except in circumstances outlined in the Code. The HREC reserves the right to conduct compliance visit your research site without previous notification.

Prof. F.O Okogbo
Chairman, HREC

APPENDIX 4: PARTICIPANT INFORMED CONSENT FORM

Research project entitled: HIV and AIDS related stigma among undergraduate students at a university in Nigeria

Dear Participant,

My name is **Ogbureke Chidiebere Kalu**, I am a conducting a study as part of my study toward the degree of master's in public health with the University of South Africa. The study is being conducted under the supervision of Dr FS Mfidi and Prof M Ganga-Limando of the Department of Health Studies.

You have been chosen to participate in this study as a student at this university. More than 400 students will be participating in this study. The purpose of this study is to determine the individual factors associated with HIV related Stigma among undergraduate students.

Participation in this study is strictly voluntary and failure to volunteer will not result in any disciplinary action against you. Your answers are anonymous. Your name will not be written on the questionnaires. Your names will never be used in connection with any of the information you tell us. You do not have to answer any questions that you do not want to answer. You may withdraw from this study at any point. However, your honest answers to these questions will help us better understand the individual factors associated with HIV related stigma among students.

We would greatly appreciate your help in responding to this survey. The Questionnaire may take about 30 minutes to complete.

Participating in this study may not benefit you directly, however potential benefit for participating in this study is personal satisfaction that the information provided will help us and the rest of the university management to understand the determinants of HIV related stigma at our campus.

If you have any questions about this study, please contact :

Dr Dr Ogbureke Chidiebere Kalu ; Cellphone: +23408034710580 or Dr FH Mfidi
(supervisor) on +27124296731

Please sign the attached consent and return it with the completed questionnaire at
the box place at the entrance of your department.

CONSENT FORM

I have read the foregoing information. I consent voluntarily to participate as a
respondent in this research.

Print Name of Participant_____

Signature of Participant _____

Date _____

Day/month/year