# KNOWLEDGE, RISK BEHAVIOURS AND USE OF HIV COUNSELLING AND TESTING SERVICES AMONG KOGI STATE POLYTECHNIC STUDENTS, LOKOJA, NIGERIA

BY

ABIOSE IBILOLA, HARUNA
Matric Number 66628
B.Sc. Human Nutrition (Ibadan)

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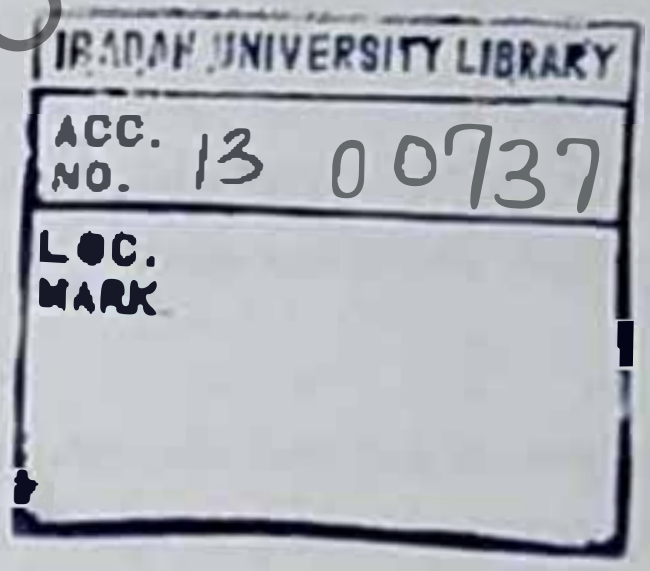
## Dedication

Dedicated to the One true God, the Author and Finisher of my faith; my holding bar; my Glory and the Lifter of mine head.

Also dedicated to Abutu, whose patience, encouragement and love is forever appreciated.





## Acknowledgements

My gratitude goes to all those who made this work a success by donating their time, resources and offering timely advice. I acknowledge the guidance, encouragement and patience of my supervisor – Dr. Fred Oshiname, who played the role of more than a supervisor; he was a big brother who never gave up on me.

Special thanks to the head of department – Professor A.J. Ajuwon for the constant support I received from him in the course of my studentship in the department of Health Promotion and Education. I also want to appreciate Professor O. Oladepo who never failed to keep me and my colleagues on our toes by constantly challenging us to be the best we can be. My gratitude also goes to Drs. I.O. Olaseha and O. Arulogun who played an active role in forging my Public Health path. I want to appreciate M.A. Titiloye ("lawyer") and Yomi Kanmiwi who spent valuable time to go through my work and offer meaningful contributions. My thanks also go to Mr. D. Ladoja who analysed the data generated during this study.

I would like to appreciate my research assistants Uche, Tayo, Abubakar, Malime, Iganya, Kontongs and Olem. The time you all gave is greatly appreciated. To Oluwafemi Dipeolu (my "Sub-supervisor"), words cannot express how much I appreciate you. You have been a true friend. To all my colleagues and classmates (2003/2004 set), meeting you was a great experience. I wish you all the best. To my friends Onikepe, Omolara (O_m_r_a), Yetunde and Busola, thank you for always being there.

To my parents, Abiodun and Olapeju Akinpelu, thank you for your constant support and prayers; my siblings, Oluseun, Omokehinde, Oluwemimo, Olusegun, Olumayowa and Eegbo, you are the best. I couldn't ask for better siblings than you. To Abutu, thank you for your constant support, love, encouragement and tolerating my many absences from home during this programme. I appreciate you daily for being who you are. *Na fedo wel*

God, your manifold blessings are without end. Thank you.

**Ahlose Ibilola, HARUNA**

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Abiose Ibilola, IFARUNA

## ABSTRACT

In Nigeria, students in institutions of higher learning are at great risk of HIV infection Although HIV Counselling and Testing (HCT) is an effective approach to HIV prevention not much has been documented about the perceptions and utilisation of HCT services among students in tertiary institutions. In addition HIV related risk practices among students have not been fully explored. This study was therefore designed to determine the level of knowledge, risk behaviours and use of HCT services among Kogi State Polytechnic students, Lokoja.

A three-stage random sampling technique was used to select 660 students from the two campuses of Kogi State Polytechnic located at Lokoja and Osam. A self-administered questionnaire which included a 17-point AIDS knowledge scale as well as a 16-point HCT Knowledge Scale was used for data collection. Eight Focus Group Discussions (FGDs) were used to collect qualitative data. The questionnaire and FGD guide were also used to collect data on risk behaviours and pattern of use of HCT services. Descriptive, Chi-square and t-test statistics were used to analyze the quantitative data at 5% level of significance while content analysis was done in respect of the qualitative data.

The respondents' mean age was 22.8 ± 3.3 years and 62.0% were males. The correctly listed symptoms of AIDS included persistent cough (52.6%), frequent fevers (46.8%), and unusual skin rashes (42.0%). The mean knowledge score on AIDS was 11.1 ± 3.2 out of a maximum score of 17. Slightly above half (52.8%) had heard about HCT and their mean knowledge score on HCT was 3.9 ± 4.5 out of a maximum score of 16. The mean scores for males and females were 4.2 ± 4.5 and 3.4 ± 4.3 respectively, with a significant difference. The students in the Higher National Diploma programme had a significantly higher HCT mean knowledge score (5.7 ± 5.2) than those in the Ordinary National Diploma programme (3.6 ± 4.3). The HIV-related risk practices among the students included concurrent multiple sexual partnership (16.2%), unprotected sex (12.6%) and sharing of skin-piercing equipment (5.8%). Majority (66.2%) of the respondents (270 males, 167 females) had ever had sexual intercourse and of this, 64.5% had sex within the three months preceding the study. Among the students who were sexually active 68.4% used condom in their last sexual

experience and the reasons given for non-use of condom by respondents during their last sexual intercourse included mutual fidelity (29.9%) and being negative in their previous HIV test (12.0%). Of the 5.8% respondents who had ever injected psychoactive drugs, 43.2% had ever shared needles with someone thus creating opportunity for HIV infection. Few students comprising 59 (8.9%) males and 37 (5.6%) females had ever received HCT services and many respondents (47.7%) were willing to receive the services if given the opportunity. Most of the FGD discussants disclosed that a large number of students indulge in sexual intercourse on campus and yet many of them dislike the use of condom. Many discussants also revealed that some female students of the institution exchange sex for money, a practice that put them at higher risk of HIV infection.

There are HIV-related risk practices, gaps in knowledge and low level of utilization of HIV Counselling and Testing among the respondents. Peer-education and public enlightenment are needed to address these concerns.

Key-Words: AIDS-related knowledge, Risky practices, HIV Counselling and Testing, Polytechnic Students

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## Certification

I hereby certify that this study was carried out by HARUNA, Ibilola Abiose in the Department of Health Promotion and Education, Faculty of Public Health, College of Medicine, University of Ibadan. Nigeria.

SUPERVISOR

8/3/2012

Date

**Frederick O. Oshiname, MPH, M.A., PhD**

Senior Lecturer in Health Education,

Department of Health Promotion and Education,

Faculty of Public Health, College of Medicine,

University of Ibadan, Nigeria.

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## List of Abbreviations

| | |
|---|---|
| ANC | Ante-natal Care |
| ERS | Eliza Rapid Simple Tests |
| FDA | Food & Drug Administration |
| FMoH | Federal Ministry of Health |
| FSWs | Female Sex Workers |
| HEAP | HIV and AIDS Emergency Action Plan |
| HIV | Human Immunodeficiency Virus |
| HCT | HIV Counseling and Testing |
| IBBS | Integrated Biological and Behavioural Surveillance |
| IPPF | International Planned Parenthood Federation |
| KDSACA | Kogi State Action Committee on AIDS |
| MARPs | Most-At-Risk populations |
| NACA | National Agency for the Control of AIDS |
| NAFDAC | National Agency for Food and Drug Administration Control |
| NASCP | National AIDS/STDs Control Programme |
| NEACA | National Expert Advisory Committee on AIDS |
| NIMR | Nigeria Institute of Medical Research |
| NNRIMS | Nigeria National Response Information Management System |
| NSF | National Strategic Framework |
| OVC | Orphaned and Vulnerable Children |
| PHC | Primary Health Care |
| PLWHAs | Persons Living with HIV and AIDS |
| PMTCT | Prevention of Mother to Child Transmission |
| STIs | Sexually Transmitted Infections |
| TB | Tuberculosis |
| UNAIDS | Joint United Nations Programme on HIV and AIDS |
| UNFPA | United Nations Population Fund |
| VCCT | Voluntary Counseling and Confidential Testing |
| WHO | World Health Organization |

## Operational definition of terms

| | |
|---|---|
| Risk Behaviour | A particular way of acting or conducting oneself which can cause injury, damage, loss or predispose one to a problem. |
| Utilization | Practical or effective, habitual use of something. |
| Youth | Persons in a time period from ages 15 to 24. |
| HIV Counselling and Testing | HIV Counselling and Testing is the process whereby an individual or couple undergoes counselling to enable him/her/them to make an informed choice about being tested for HIV. This decision must be entirely the choice of the individual/s and he/she/they must be assured that the process will be confidential. |

# CHAPTER ONE

# INTRODUCTION

## Study Background

One of the greatest health problems threatening the human race today is the Acquired Immune Deficiency Syndrome (AIDS) pandemic. In 2007, an estimated 2.7 million people were newly infected (Joint United Nations Programme on HIV and AIDS (UNAIDS), 2008). After peaking in the late 1990s, the global rate of new infections has slowed and the number of new infections has declined. However, new infections continue to occur in young people. It has been revealed that one out of every seven infected persons is someone under the age of 15 years, and 45% of new infections occur in young people aged 15-24 (UNAIDS, 2008). Young people therefore constitute a group that requires special attention in terms of HIV prevention and control.

Most of the new infections occur in sub-Saharan Africa (UNAIDS, WHO, 2008). The high rates of HIV infection among the youth makes it crucial to institute prevention programmes aimed at mitigating its effects on this age group. One of the strategies for the prevention of HIV is Voluntary Counselling and Testing (VCT). There is therefore increasing interest in extending the services to young people in various communities including those in school settings.

Counselling and Testing for HIV (HCT) allows individuals to know their HIV status and it thus serves as the gateway for both HIV prevention and for early access to treatment, care and support (Kamenga, 2000; Peltzer, Matseke I, Mzolo and Majaja, 2009). Many approaches to HIV prevention and care require people to know their HIV status (UNAIDS, 2001). Knowing ones status enables someone who is HIV negative, to avoid risky practices with a view to remaining negative; and those who are positive, to seek access to treatment, care and support, and to reduce the risk of HIV transmission to others including their partners (United Nation's Population Fund (UNFPA), 2002).

The HCT is the process by which an individual undergoes counselling to enable him or her make an informed decision or choice about being tested for HIV (Federal Ministry of Health (FMoH), 2003; Ekanem and Gbadegesin, 2004). This decision must entirely be the choice of the individual and s/he must be assured that the process will be confidential. The service has been carried out in many places with excellent results; it is cost effective and constitutes the gateway to most HIV related services including provision of antiretroviral drugs (Jerene, Endale and Lindtjorn, 2007). However, a major challenge in most sub-Saharan countries is that many people, including young persons, do not know their HIV status even when counselling and testing services are available.

The most effective intervention to reduce transmission depends on individuals' awareness of their HIV status. Awareness of one's status in turn depends upon the availability of information on Voluntary and Counselling services (Ekanem and Gbadegesin, 2004). A knowledge of one's positive status enables one to be more motivated to adopt healthier lifestyles that improve ones health status and slows the progression from HIV infection to full blown AIDS. For example, knowing ones HIV positive status enables one to avoid further risks of infection with other viral strains and Sexually Transmitted Infections (STIs), seek for early treatment for opportunistic and HIV infections, eat healthy food, avoid tobacco and reduce stress (UNFPA, 2002). Knowing one is HIV positive not only provides an opportunity to protect ones sexual partner(s) but also creates an opportunity to plan for the future from an informed position (Coates, Grinstead, Gregorich, Sweat, Kamenga, Sangiwa, Balmer, and Furlonge, 2000).

Counselling and Testing for HIV is acknowledged in the international community as an effective and pivotal strategy for both HIV and AIDS prevention and care (Family Health International (FHI), 2004). This has boosted interest and support for HCT as a valuable component of a comprehensive HIV and AIDS programme among international organizations including the National AIDS Programmes of many countries and donors (FHI, 2004).

The following constitute the rationale for HCT according to FHI:

*It is a vital point of entry to other HIV and AIDS services including*

*prevention of mother-to-child transmission (PMTCT), prevention and clinical management of HIV related illnesses, tuberculosis control, psychosocial and legal support.*

*Many people now want to know their HIV sero-status.*

*HCT provides benefits for those who test positive as well as those who test negative. The HCT services alleviate anxiety, increases client's perception of their vulnerability to HIV, promote desirable behavioural change, facilitate early referral for care and support including access to anti-retroviral therapy and contribute to the reduction of social stigma in the community.*

*The HCT services offer a holistic approach that addresses HIV in the broadercontext of peoples' lives.* (FHI, 2001).

There is very little information on young peoples' behaviours relating to HCT in terms of whether they are able to change and sustain changes in their sexual behaviour following HCT (Family Guidance Association of Ethiopia (FGAE), *2001*). In many developing countries HCT has not been widely made available to young people (Erulkas, 2000). In a study conducted in Uganda and Kenya, it was noted that young people do actively seek and receive HCT even though the services have not been designed specifically for them (Gomes, Ferreira, Silva and Silva, 2000). In Nigeria, young people's levels of knowledge and practices relating to HCT have not been fully investigated. However, a study conducted among young persons in Ibadan revealed that young persons have limited knowledge of HCT and under-utilise this service (Ajuwon, Titiloye, Oshiname and Oyewole, 2010/2011).

One of the policy objectives of the Kogi State government is to reduce the incidence and prevalence of HIV and AIDS in the state, provide prevention, care, treatment and support for women, children and other vulnerable groups. A major strategy for achieving this would be to establish HCT centres across the state (Kogi State Ministry of Budget & Planning, 2004). This study explored Kogi State polytechnic students' knowledge, risk behaviours and use of HCT services with a view to throwing some light on issues that should be taken into consideration in the design of HCT services for in-school young people.

Statement of the problem

Young people are adversely affected by the HIV epidemic. Of the 1.7 billion young people worldwide, 5.4 million are estimated to be living with HIV. This age group also has the highest rates of STIs excluding HIV. Young people are particularly vulnerable to HIV infection for social, political, cultural, biological, and economic reasons (UNFPA, 2010).

In 2007 about 40% of new infections among people aged 15 years and over were among young people aged 15 to 24 years (UNAIDS, 2007). Sub-Saharan Africa is home to almost two-thirds (61%) of all youth living with HIV (3.28 million) with 76 per cent of them being females.

In a paper delivered by Kajavivi and Otaala (2003) at the Association of African Universities (AAU) conference of Rectors, Vice Chancellors and Presidents, it was stated that young people in institutions of higher learning in Africa were at high risk of HIV transmission and infection. This observation was based on the prevalence of risky sexual practices among them. Sexual networking among young persons in institutions of higher learning include various sexual practices such as inter-generational sexual relations (having older females/males as sex partners); sexual experimentation, prostitution on campus, unprotected casual sex and multiple sexual partnership (Kajavivi & Otaala, 2003). In a study conducted among unmarried male undergraduates, high-risk sexual behaviour was reported among them (Adewole and Lawoyin, 2004). This is likely to be the case among young people in institutions of higher learning in Kogi State who have the same characteristics as those in the aforementioned study.

The 2010 National HIV Sero-Prevalence Sentinel Survey revealed that HIV prevalence was highest in North Central (NC) Zone (7.5%). A detailed appraisal of the HIV and AIDS prevalence rates of the seven (7) states making up the NCI geopolitical zone of Nigeria, reveals that Kogi state ranks 5th with a prevalence rate of 5.8% (FMoH, 2010). This prevalence rate is higher than the National prevalence of 4.1%.

As in most parts of Nigeria, HCT services in Kogi state are mainly targeted at pregnant women. Other populations that require these services including blood

donors, Injecting Drug Users (IDUs), sex workers and young people in institutions of higher learning are relatively ignored. One of the major institutions of higher learning in Kogi state is the Kogi State Polytechnic Lokoja. It has a large population of young people who could be vulnerable to HIV infection. There is however dearth of information about the students of the institution in terms of their:

1. Knowledge and perception of HIV and AIDS and HCT;
2. Risk practices which increase vulnerability to HIV infection;
3. Attitudes to HIV and HCT;
4. Pattern of utilisation of HCT services.

This study was therefore designed to address these concerns.

**Justification**

Before HIV-related services targeted at students in institutions of higher learning can be established, there is a need to determine what their views are with regards to their perceptions, attitudes and willingness to use such services if made available. The study is therefore justified based on the fact that it has potential for yielding baseline information for designing and institutionalising youth-friendly HIV and AIDS prevention programmes including HCT services.

**Research questions**

The following questions were formulated to guide the study:

1. What is the level of knowledge of Kogi State Polytechnic students about HIV and AIDS?
2. What HIV risk behaviours are the students involved in?
3. What knowledge and perception of HCT do the students have?
4. What are the students' attitudes to HCT?
5. What is the pattern of utilisation of HCT centres among the students?
6. What are the factors which may influence the students' acceptance and utilisation of HCT services?

**Broad objective**

The main objective of this study was to determine the HIV and AIDS-related perceptions, risk behaviours and pattern of utilisation of HIV Counselling & Testing (HCT) services among Kogi State Polytechnic students.

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**Specific objectives**

The specific objectives of the study were to:

1. Assess the students' level of knowledge of HIV and AIDS.
2. Identify the students' HIV risk behaviours.
3. Assess their knowledge and perception of HCT.
4. Determine the attitudes of the students to HCT.
5. Determine pattern of use of HCT service among the students.
6. Determine the factors that may influence the students' acceptance and utilisation of HCT services.

**Study variables**

The independent variables for the study include age, religion, marital status, ethnic group, gender and level of study. The dependent variables that were examined included knowledge, perceptions, risk behaviours and pattern of utilisation of HCT.

# CHAPTER TWO
# LITERATURE REVIEW

## The Origin and Epidemiology of HIV and AIDS

### The Global Perspectives

Since its discovery over two decades ago, AIDS has become a pandemic on a global scale (Kormawa, 2005). Its origin and spread are somehow controversial.

The history of HIV and AIDS in the USA began in about 1969 when HIV was claimed to have entered the country through a single infected immigrant from Haiti (Amitabh, 2007).

This led to widespread unscientific claims that Haitians were responsible for the AIDS epidemic in the USA. However, at the 14th Conference of Retroviruses and Opportunistic Infections (CROI) in Los Angeles in March 2007, a group of international scientists presented data based on complex genetic analysis of 122 early samples of HIV-1, group M, subtype B (most common strain in the USA and Haiti) showing that the strain had probably been brought to Haiti from Africa by a single person around 1966; a time when many Haitians would have been returning from working in Congo (Carter, 2005). Genetic analysis then showed that subtype B spread slowly from person to person on the island before being transferred to the USA probably by a single individual, at some point between 1969 and 1972. Worobey (2008) and colleagues had in a paper gave a 99.7% certainty that HIV subtype B originated in Haiti before passing it to the USA (Chong, 2004).

The HIV infection was first officially detected among homosexual men in the USA in 1981 (Nigerian Institute of Medical Research (NIMR), 2005). This population is most severely affected by HIV and are the only risk group in which new HIV infections have been increasing steadily since the early 1990s (Centres for Disease control and Prevention (CDC), 2010). Doctors found, what they thought was, a rare form of cancer, called Kaposi's sarcoma, in many males. This cancer was usually associated with elderly men of the Mediterranean ethnicity. This observation resulted in an early hypothesis (and misconception) that AIDS resulted from behaviour specific to gay men (NIMR, 2005). This hypothesis was largely dismissed when the syndrome was later observed in other demographic groups in Europe, America and Central Africa.

African perspectives

One aspect of HIV and AIDS epidemiology that is common worldwide especially in sub-Saharan Africa, is the tendency for socially disadvantaged groups to be at greater risk of infection. In Africa, long-distance truck drivers and sex workers were the earliest groups infected (Williams, Gouws, Lurie and Crush, 2002; Burayo, 1991; Marcus, 2001). AIDS has manifested as a primarily heterosexual disease, accounting for 93 percent of adult infections in sub-Saharan Africa (Webb, 1997).

In sub-Saharan Africa, the epidemic has been devastating businesses including industries. It is threatening every economic sector in many nations, targeting workers in both blue and white-collar positions, including health workers, government employees, farmers, students and teachers (Kermode, Holmes, Langkham, Thomas and Gifford, 2005; UNAIDS, 2004a; UNAIDS, 2003a). Within the private and public sector, high levels of illness-related absenteeism and loss of skilled workers have led to lower profits, greater difficulty delivering products, services and higher costs of production, training and insurance (Semakula, Nabiryo and Lukubo, 2004).

Nigerian perspectives

In Nigeria, the first case of AIDS was reported in 1986 (NACA, 2003; 2009). Since then the infection has spread to become an epidemic affecting different populations and sparing no geographical area in the country. HIV and AIDS has negatively impacted every sector of the economy, and continues to threaten the national development gains of the past decades. The effect of HIV and AIDS remains great as it continues to devastate individuals, families and households; it affects individuals' their physical, social, psychological, and economic well-being. HIV and AIDS constitute a leading developmental challenge of the nation as well as her capacity to achieve the Millennium Development Goals (MDGs) (NACA, 2009).

Despite mounting concerted interventions, the challenge of HIV and AIDS has continued to increase in Nigeria, particularly in terms of the number of people infected and affected. Estimates from the Joint United Nations Programme on HIV and AIDS (UNAIDS), for example, show a rise of 400,000 in the number of people living with AIDS in Nigeria between 2001 and 2008. The NACA has stated that according to the United Nations general Assembly Special Session (UNGASS) report,

2,980,000 people were living with HIV in Nigeria as at 2009 (NACA. 2010). The National AIDS Spending Assessment (NASA) for the Period: 2007-2008 showed that Nigeria has the second largest HIV and AIDS epidemic in the world after India and South Africa and the largest in the West African sub-region (NACA, 2010). These realities necessitate urgent review of the national response and strategies with a view to achieving a more effective control of the epidemic. The national policy constitutes the cornerstone and veritable instrument for renewed and sustained national efforts to combat the challenges posed by HIV and AIDS.

The key epidemiological implication of the country's sero-prevalence rate is that the infection has become generalized in the country. In other words, HIV and AIDS have extended beyond the commonly classified high-risk groups and are now common in the general population (FMoH, 2006). Although there are variations in the mean sero-prevalence rates obtained in different parts of the country, the results of the national survey have shown that no part of Nigeria is spared from the scourge of HIV and AIDS. All the states of Nigeria have average prevalence of over 1% among women receiving ante natal care. The 2005 national sero-prevalence rate showed that the HIV sero-prevalence rates among the states ranged from 1.6% in Ekiti to 10.0% in Benue state (FMoH, 2006). There was no marked difference in HIV prevalence between urban and rural areas.

The result of the periodic national HIV sero-prevalence survey, which is obtained through sentinel survey of antenatal care attendees, showed an increase from 1.9 percent in 1991 to 5.8 percent in 2001. The HIV prevalence then declined to 5.0 percent in 2003 and went further down to 4.4% in 2005. This decline unfortunately was followed by a rise to 4.6% in 2008. However, from 2005 to 2010 the prevalence of HIV in Nigeria has stabilized within the range of 4.4% in 2005 and 4.1% in 2010 (*FMoH, 2010*).

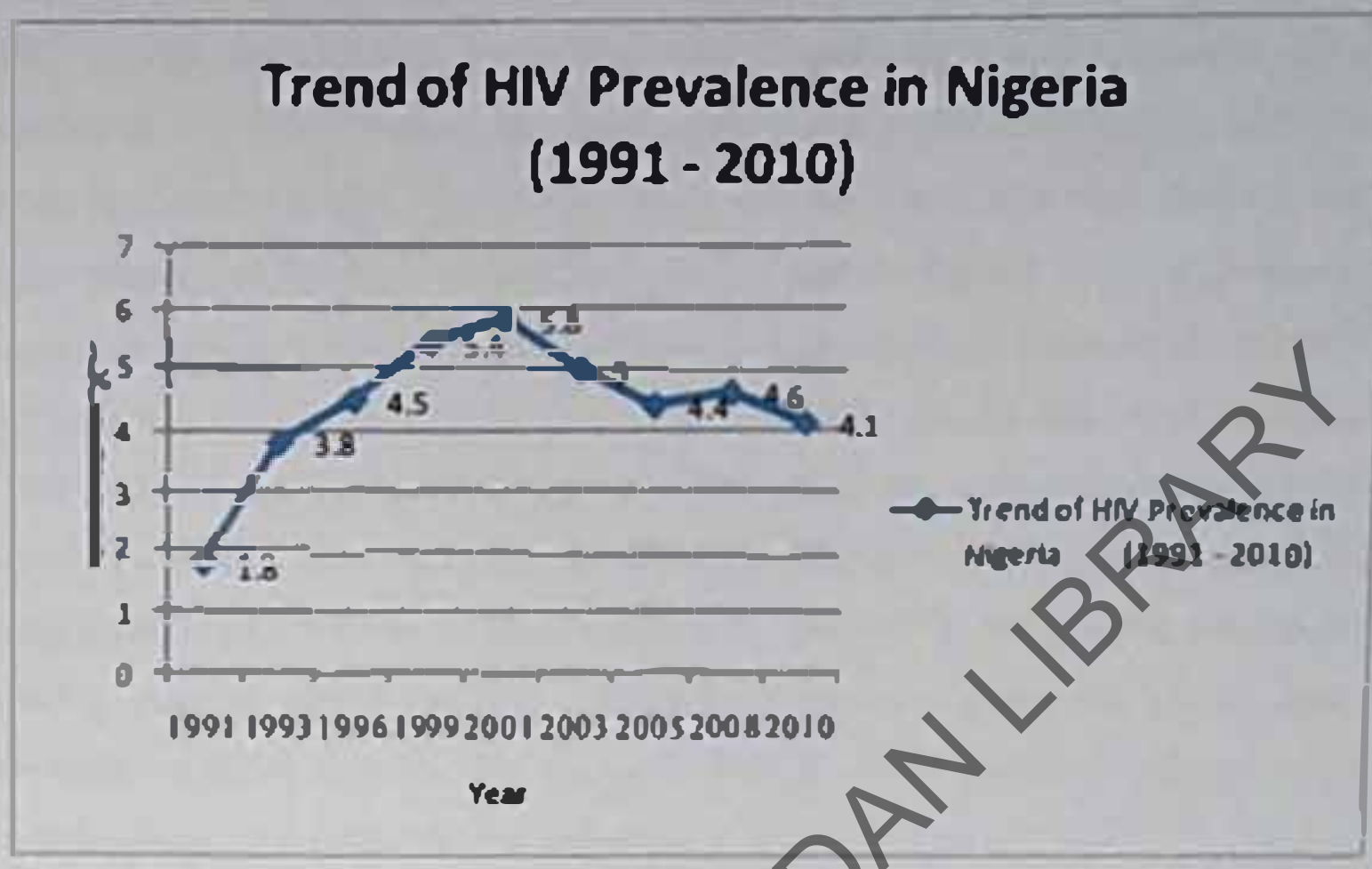


**Figure 2.1: Trend of HIV Prevalence in Nigeria (1991 - 2010)**

Based on the latest result of the 2010 sentinel survey, overall national prevalence of HIV is 4.1% and an estimated 3.1 million people in Nigeria are living with HIV and AIDS. Though the sentinel survey has been conducted among antenatal clinic attendees since 1991, in general, the most-at-risk groups include sex workers and their clients; Intravenous Drug Users (IDUs); Men who have Sex with Men (MSM); and mobile populations such as long-distance drivers and uniformed services personnel including the police, army, navy and air force. Young people, prisoners and people in other custodial settings also constitute highly vulnerable groups. The result of mode of HIV transmission analysis in Nigeria, carried out by the National Agency for the Control of AIDS (NACA) in 2008, showed that about 62% of new infections occur among persons perceived to be involved in "low risk sex" in the general population including married sexual partners. The rest of the new infections (38%) were attributable to IDUs, Female Sex Workers (FSWs), MSM and their partners who constitute about 3.5% of the adult population.

The leading route of HIV transmission in Nigeria is through heterosexual sex, accounting for over 80% of infections. Mother-to-child transmission and transfusion of infected blood and blood products rank next as common routes of infection, each accounting for almost ten percent of infections. However, other modes of transmission, particularly Intravenous Drug Use (IDU) and same-sex intercourse, are slowly growing in importance. The factors which promote HIV epidemic in Nigeria include: low risk perception, possession of multiple concurrent partners, informal transactional and inter-generational sex, lack of effective services for Sexually Transmitted Infections (STIs), and poor quality of health services. Gender inequality, poverty and HIV/AIDS-related stigma and discrimination also contribute to the continuing spread of the infection (NACA, 2009).

The epidemiology of HIV with special reference to level of infection and trend varies across the geopolitical zones in Nigeria. The 2008 national survey, for example, shows the HIV sero-prevalence level as ranging from 1.0% in Ekiti State (South-West geo-political zone) to 10.6% in Benue State (North-Central geo-political zone). Seventeen states and the Federal Capital Territory (FCT) recorded sero-prevalence of at least 5%. Seroprevalence level was 7% or higher in seven states: Benue (North-Central zone) 10.6%; Nasarawa (North-Central zone) 10.0%; Kaduna (North West

zone) 7.0%; Akwa Ibom (South-South zone) 9.7%; Bayelsa (South-South zone) 7.2%; Cross River (South-South zone) 8.0%; and Rivers (South-South zone) 7.4%. The median sero-prevalence rate for the geo-political zones varies considerably: North-Central, 5.4%; North-East, 4.0%; North-West, 2.4%; South-East, 3.7%; South-South, 7.0% and South-West, 2.0%. The FCT, with a sero-prevalence of 9.9% is one of the worst affected geographical areas in the country. Whereas urban population recorded higher prevalence than the rural in most states, the reverse is the case in nine states and the FCT. The geographic dissimilarities in the dynamics of the epidemics suggest that the influence and contributions of various high-risk behaviours may vary in their relative importance in the various communities and geographical settings within the Country (NACA, 2009).

**National response to HIV and AIDS**

Nigeria's national response to HIV and AIDS commenced shortly after the official declaration of the first AIDS case in 1986 with the establishment of a National Expert Advisory Committee on AIDS (NEACA). It was mandated to report directly to the Minister of Health. The establishment of the National AIDS and STI Control Programme (NASCP) in the Federal Ministry of Health in 1988 marked the beginning of a more coordinated response; it was however essentially a health sector response. The era of multi-sectoral response began in 1999 with the National Action Committee on HIV and AIDS established to coordinate the multi-sectoral response and to report to the established Presidential Committee on AIDS. The National Action Committee later metamorphosed into a full agency, the National Agency for the Control of AIDS (NACA), in 2007 by an Act of the National Assembly to further strengthen its coordinating role and the overall national response. The State Action Committee on AIDS (SACA) and the Local Government Area Action Committee on AIDS (LACA) are the coordinating bodies at the sub-national and local levels. Like NACA, several SACAs have become self-accounting government agencies across the country.

The country had previously developed two national policies on HIV and AIDS (one in 1997 and another in 2003) as part of the efforts to strengthen the national response. In order to further strengthen the response, the HIV and AIDS Emergency Action Plan (HEAP) was developed to guide the national response between 2001 and 2003. The

HEAP was not fully implemented for various reasons. One of the major challenges was the funding constraint (Mafeni and Fajemisin, 2003). It was replaced by the National Strategic Framework (NSF) in 2005. The NSF I was in operation since 2005 till the end of 2009 as a skeletal structure on which HIV plans and activities were hinged on. The 2005 – 2009 NSF has been reviewed and a new NSF II 2010 – 2015 is in place (*NACA, 2010*). The NSF I had most of the resources available to the National Response expended on Behaviour Change programmes. The NSF II stresses that prevention remains the most important strategy and the most feasible approach for reversing the HIV epidemic since there are no vaccines and no medical cure (NACA, 2010). Consequently 2 objectives of the prevention thematic focus include:

- At least 80% of adults accessing HCT services in an equitable and sustainable way by 2015.
- At least 80% of most at-risk-populations accessing HIV counselling and testing by 2015.

A critical look at these objectives reveals that young persons aged 18 – 24 years who are in institutions of higher learning are left out untargeted.

As in most African countries, monitoring of the HIV epidemic in Nigeria was primarily through sentinel surveillance, targeting pregnant women attending antenatal care services in line with the global guidelines from the World Health Organization (WHO). From 1999, when the country embraced a multi-sectoral response approach, it became quite apparent that the HIV sentinel surveillance was grossly inadequate to monitor the epidemic and related responses. Against this background, Nigeria identified the need for a more robust, standardized and unified monitoring and evaluation framework in 2002. The initiative resulted in the Nigeria National Response Information Management System (NNRIMS) framework that was to guide monitoring and evaluation of interventions implemented under the HEAP. The NNRIMS framework was officially launched in April 2004 (NACA, 2007). These developments had enabled the country's national response to operate under the framework of the "Three Ones" principle – One coordinating agency (NACA), one strategic framework plan (NSF), and one monitoring and evaluation framework (NNRIMS) (NACA, 2007).

The "Three Ones" key principles operate on the following framework:

- **Key Principle I - One agreed HIV and AIDS Action Framework that forms the basis for coordinating the work of all partners**

  An agreed, common HIV and AIDS Action Framework is a basic element for coordination across partnerships and funding mechanisms, and for the effective functioning of a National AIDS Coordinating Authority. Such a framework calls for clear priorities for resource allocation and accountability, making it possible to link priorities, resource flows and outcomes/results.

- **Key Principle II - One National AIDS Coordinating Authority with a broad based multi-sector mandate.**

  A National AIDS Coordinating Authority requires legal status and a formal mandate that will define the degree of autonomy, specify formal reporting lines (information and policy instruction) to Government authorities at ministerial and administrative levels; and spell out areas of accountability in terms of policy implementation, partner inclusion and programme/development outcomes.

- **Key Principle III - One agreed M&E framework for overall national monitoring and evaluation**

  While multiple systems exist, and a set of indicators linked to the UNGASS Declaration on commitment on AIDS are available with buy in from key agencies, no functional "best practice" model for Monitoring and Evaluation (M&E) for country-wide responses has yet to be accepted. The absence of an operational common M&E framework in most countries has hampered efforts to increase capacity for quality assurance, national oversight and adequate use of M&E for policy adaptation (UNAIDS, 2004).

Nigeria has experienced a number of other positive results in her HIV and AIDS national response since 1999. These positive results include an increase in the level of awareness of HIV and AIDS and a reduction in the level of stigma between 2003 and 2007. A comparison of the 2003 and 2007 National HIV/AIDS and Reproductive Health Survey (NARHS) results also show that the proportion of people who took HIV test increased from 6.6% to 14.4% for females, and from 7.7% to 14.7% for males. The Nigeria National Response to HIV and AIDS Update published by NACA in 2009 indicates that 675,555 pregnant women received HIV counselling and testing

in the context of Prevention of Mother-To-Child Transmission of HIV (PMTCT) by December 2008. The number of people living with HIV accessing antiretroviral therapy was about 13,500 in 2004 (*FMoH, 2005*); the Sustainability Analysis of HIV and AIDS Services in Nigeria (HAPSAT) of 2009 showed that the figure has increased to 269,000 by March 2009 (NACA, 2009)

However, considerable challenges still remain in the HIV response. These challenges include the following: unimpressive proportion of persons accessing HCT; inadequate and inequitable access to Antiretroviral Therapy (ART); and increase in the number of AIDS-related Orphans and Vulnerable Children (OVC). Several population-based surveys, including Nigeria Demographic and Health Survey (NDHS) (NPC, 2003; NPC, 2008), NARHS (FMoH, 2003; FMoH, 2005; FMoH, 2007), and HIV/AIDS Behavioural Surveillance Survey (FMoH, 2005), have reported a gap between awareness and comprehensive knowledge of HIV prevention on the one hand, and between knowledge and behaviour on the other hand. The final report of the 2008 NDHS, for example, indicates that while awareness of HIV was almost universal (88% of women aged 15 to 49 years and 94% of men aged 15 to 59 years), only half of women and almost three-quarters of men age 15-49 (53% and 72%, respectively) know that consistent use of condoms is a means of preventing the spread of HIV (National Population Commission (NPC), 2009).

Sixty-eight percent of women and 83% of men know that limiting sexual intercourse to one HIV-negative partner can reduce the chances of contracting HIV. It was noted in the NDHS report that educational level was associated with higher level of HIV knowledge. High-risk sexual behaviour such as sexual intercourse with a person who is neither a spouse nor a cohabiting partner was higher among the more educated people. Furthermore, only a third of women aged 15 to 49 years and half of men aged 15 to 59 years (33% and 53% respectively) who had sexual intercourse with a non-spousal or non-cohabiting partner between 2007 and 2008 used condom during the last of such sexual encounter.

The result of the Integrated Biological and Behavioural Surveillance Survey (IBBS) conducted in 2007 also showed a fairly high level of risk behaviour among selected groups of most-at-risk populations (MARPs) for HIV and AIDS. The MARPs

included transport workers, IDUs and members of the police force. Additionally, a high level of stigma is still attached to certain risk-behaviour groups like FSWs, drug users, and MSM; this tendency adversely affects volume and quality of outreach to such groups in the country. Furthermore, there is inadequate funding as well as technical capacity for HIV and AIDS programme management particularly at sub-national levels.

**The physical, mental, social and economic burden of HIV and AIDS**

The physical burden

One important effect of HIV and AIDS epidemic on the health of Nigerians is the reduction in life expectancy. As reported by the Federal Ministry of Health in the report of the 2008 National HIV Sero-prevalence Survey, Nigeria had witnessed a negative trend in life expectancy lately. According to NACA (2009), the Human Development Report produced periodically by the United Nations Development Programme, has revealed that whereas the life expectancy in the country increased from 45 years in 1963 to 51 years in 1991, it has subsequently decreased to 46.5 years by 2005. The HIV and AIDS epidemic is likely to have been one of the major contributors to this reduction in life expectancy.

Another major outcome of HIV infection is the reduction of the body's immune system's ability to fight infections. As a result, certain bacteria, viruses, fungi, and other organisms which do not usually cause infections in healthy people, can cause infections in people with a weakened immune system. These infections are called "Opportunistic infections" (OIs) (Kovacs and Masur, 2000). These Opportunistic infections and other disease conditions which are associated with HIV and AIDS could be bacterial (tuberculosis, respiratory infections, enteric infections), fungal (candidiasis, histoplasmosis, pneumonia), viral (herpes simplex virus disease, human papilloma virus infection); and parasitic (toxoplasmosis, leishmaniasis).

*Mental Health Consequences*

Studies have consistently reported a higher prevalence of mental health problems among HIV-infected people compared to the general population or hospital samples (Coumos & Forstein, 2000; Green & Smith, 2001; Hartzell, Janke, & Weintrob, 2008).

The psychological challenges a person with HIV and AIDS faces vary from individual to individual. Each HIV and AIDS situation is as unique as the people involved. There are individuals who might face catastrophic changes not only in their personal and job relationships, but in their physical bodies and in their self-images and self-esteem (Bezuidenhoudt, Elago, Kalenga, Klazen, Nghipondoka, and Ashton, 2006). As a result of these changes in both working and personal relationships, the behaviour of those infected may change. They may become withdrawn, aggressive, and rude to colleagues and friends. This may be because the infected person may feel (or imagine) being victimized. Infected, and in some cases, affected, people can experience a decrease in self-esteem as they are no longer confident in themselves or what they can achieve. This is likely caused by the stigma within society against infected and affected people. They are seen as lesser persons and are at times devalued. This in itself is of course detrimental to the person's well-being. Coping with being infected involves confronting fear and denial while maintaining hope. Infected persons are normally in fear because they have to adjust to a new lifestyle. It is not easy to accept that one is infected and thus shock and disbelief, leading to denial, is a frequent initial response (Bezuidenhoudt et al., 2006).

According to Walstein and Chandler (1998) there are emotional responses that are symptoms of the psycho-logical effects that people have when infected or affected with HIV and AIDS. Infected persons may be confronted with having to re-examine their sexual identity and the behavioural choices they have made in support of that identity. When one associates HIV and AIDS with what society has traditionally considered immoral, the infected person then has to work through his/her feelings in order for his/her sexual identity to be reaffirmed in a way that will allow for feeling good about oneself.

Persons with HIV and AIDS may be caused to see themselves as undesirable by others who view them as "contagious". This in itself is an emotional situation that can cause infected people to withdraw, not disclose their feelings, and become socially isolated. Inevitably this may lead to an emotional breakdown because these feelings continue to be suppressed. The most destructive stressor is that of feeling isolated (Bezuidenhoudt et al, 2006). This isolation can have many causes, including the loss

of support by lovers, family, and friends. Additional feelings of isolation may result from the need to change their sexual practices and take more precautions to protect themselves and others. Another destructive stressor is that of feeling dependent. The dependency occurs when the infected person must rely heavily on family and friends for emotional and financial support, particularly when they have to apply for social services assistance.

There are complex psychological and social issues that impact a family's ability to cope with HIV and AIDS infection. Individuals who participated in high-risk behaviour that lead to HIV infection may experience intense guilt, shame, and anger. These emotions may be intensified for women who transmit HIV infection to their children. Furthermore, the stigma related to HIV infection may lead to social isolation. Often, individuals do not disclose their HIV status to family members, including the infected child, and their community for fear that they and their children will be misueated. This isolation prevents families from obtaining valuable social support during difficult times (Tomaszeski, 2001).

*Social Consequences*

Many people infected with HIV and AIDS must contend with the social repercussions of stigma. Stigma and discrimination against Persons Living with HIV and AIDS (PLWHAs) and other persons affected by the condition worsens the spread and the impact of the epidemic. Due to fear of discrimination, PLWHAs are less inclined to live freely, declaring and acknowledging their HIV status. This leads to continued under-reporting of the epidemic, a resistance to the use of Voluntary Confidential Counselling and Testing (VCCT) services, a persistence of denial tendency by the general population and a prolongation of the "*hidden state*" epidemic in spite of its increasing spread and negative impact in the country (NACA, 2003). Counselling and testing is an important strategy against the spread of HIV and AIDS and a key entry point for needed medical, psychological, social, and legal interventions for HIV positive Nigerians and their families. Among the interventions which play a pivotal role both in treatment and in prevention, HIV testing and counselling stands out as the most important.

Increase in poverty, especially in households affected by HIV and AIDS is a great social effect of the pandemic. In Nigeria, poverty is a major factor driving the epidemic; it is both a cause and an effect of HIV and AIDS. Reduction in amount of individual and family discretionary funding for essential needs including nutrition, education, health and living conditions further drives the disease. Costs associated with the AIDS epidemic are related to lives lost, suffering of families, extreme social, economic, and emotional burdens on caregivers and orphans left behind, loss of productivity and food security, and the staggering costs and overwhelming demands on health systems. Poverty increases the chances of contracting HIV and AIDS: the poor are less knowledgeable of HIV and AIDS transmission modes; less aware of methods to protect themselves and have limited access to healthcare which could increase protection from contracting HIV such as effective treatment for STIs (NACA, 2003).

Loss of social supports which may lead to isolation is another social burden borne by those who are infected with HIV. Discrimination, abuse or abandonment all combine to make HIV infection more of a burden than it should be. This may in turn induce depression and difficulties in dealing with family issues and tasks leading to faster progression of the disease. One of the most critical effects is that it robs the family of their only "social security" system; productive members are taken out of the equation when they become ill and die (May, 2003). There is also disruption within families and communities as they respond to issues associated with increased incidence of HIV and AIDS within their families and the communities.

Another major social effect on the society is the increasing number of orphans generated by the epidemic (NACA, 2003). Due partly to the Nigerian high total fertility rate, the large population size, and the HIV prevalence, Nigeria is estimated to have an exceedingly large number of children who were orphaned by AIDS. The social impact of this is expected to be great. There will be tremendous strain on the social systems to cope with such a large number of orphans. Many of these Nigerians may go without adequate healthcare and schooling, increasing the burden on society In future years. Children affected by AIDS will be at risk of suffering from child abuse, prostitution and other forms of other social crimes, and may themselves become HIV positive (NACA, 2003).;

*Economic Consequences*

While HIV and AIDS cut across all socio-economic groups, its economic impacts are greater on the poor, powerless and the marginalized (Grant and Palmiere, 2003). From the time of diagnosis, poor households feel the economic impact of the disease. In Chad for instance, the average costs of AIDS for patients and their families are very high. On average, a household spends USD78.6 (₦11, 397.00) a month directly on AIDS treatment and care (Wyss, Hutton and Dickhor, 2004). Cross (2001) in her study on rural households in South Africa further asserts that the de facto per capita income may fall to as low as R50 (₦1, 000.00) per month. The households therefore spend considerable amounts of money on consultation and treatment fees, and transport. Households experience greater spending on health care and associated costs (O'Donnell, 2004; Wyss et al. 2004).

The chronically ill person is often unable to work leading to reduced income and output in agricultural production. Chronic illness coupled with the need to care for the ill, by other household members, takes valuable time away from productive activities leading to double loss of income thus exposing households to risks such as food insecurity and exposure to HIV transmission (O'Donnell, 2004). In addition, De Waal and Whiteside (2003) have found that diversion of labour coupled with the care of children orphaned as a result of the death of their parents to AIDS-related diseases further impoverishes the household. HIV and AIDS strikes persons at the prime of their lives thus exerting a heavy toll on the economic well-being of the household. The death of a productive member comes with a reduced or loss of income (Cross, 2001; O'Donnell, (2004); absence of savings and other assets to cushion the impact of illness and death (Cohen, 1998). For households that are solely dependent on agriculture, the death of a member means that the contribution to agricultural production and income from that person is permanently lost. However, this may also be the case for people working in the industry.

Grant and Palmiere (2003) found in their study in Bulawayo, Zimbabwe that HIV and AIDS affected households experience a 40% drop in household income, which is bound to impact the decisions and the psychological wellbeing of the household. The lack of time is viewed as the contributory factor to dip in household income. Although the households attempt to diversify, they are unable to add a lucrative income-

generating project. Households may be forced to change their livelihood strategies to counter the impacts of the loss and reduced household income. Households are forced to cut back on their livelihoods to accommodate a lower average monthly income, and an increase in the number of people living within the household. This effectively means that households sink deeper into poverty and likely chances to avert the economic impact are very low or non-existent for some very poor households. The HIV and AIDS epidemic undercuts the ability of the households to cope with shocks. Assets are likely to be liquidated to pay for the costs of care. Sickness and caring for the sick prevent people from migrating to find additional work (Wiggins, 2005).

The HIV and AIDS epidemic affects the social and economic development by deterring efforts towards achieving set goals. The epidemic increases the cost of achieving set developmental goals by decreasing the size of the workforce – as it affects mainly adults in their most productive years of life (15 – 49 years). Conversely, having a job is important to PLWHAs as they are often impoverished by the infection and subsequent disease (Lan, 2001). As the disease progresses to recurrent illness and death, their need for medical and nursing care increases. Also their health needs will tend to vary. In the early stage of the disease, PLWHAs tends to spend a lot of money trying to seek a cure for the different opportunistic infectious disease which they have before a diagnosis is often made. Once the diagnosis is made they require antiretroviral therapy, treatment of other infections and nursing care. These all cost money and in resource constrained settings the costs are actually borne by the family members (Wiggins, 2005). Money for other essentials is diverted to purchasing medication to the end that feeding and other important needs are compromised. In these resource-constrained settings where many families live below the poverty line, a diagnosis of HIV leads to chaos and disrupts the operational balance of the family structure. Poverty overstretches already weak coping capacities and pushes vulnerable individuals and families into disorganization and crises.

**Policies relating to HIV, AIDS and HIV Counselling and Testing**

The overall goal of the Nigerian National Policy on HIV and AIDS is to control the spread of HIV and AIDS in Nigeria. As part of the strategies for achieving this, the policy identifies the importance of upholding and protecting the rights of all Nigerians

including people living with or affected by HIV and AIDS. It addresses the vulnerability of certain social groups, including women and children, to HIV and AIDS and contains appropriate measures for ensuring that the disease condition is addressed (NACA, 2009).

The first National Policy aimed at addressing the HIV and AIDS epidemic was developed in 1997 by the Federal Ministry of Health. It was designed to limit the spread of HIV and AIDS in the country at a time the epidemic was evolving and the information and knowledge of the epidemic was limited (NACA, 2009). By 2001, the country formulated a new National Policy on HIV and AIDS which entailed the adoption of a multisectoral approach to her response in order to ensure the full involvement of all sectors of the economy relevant to the control of the HIV epidemic. In addition, all sectors were encouraged to develop plans and process frameworks to mitigate the impact of the epidemic (NACA, 2009). The policy review on HIV and AIDS was a product of extensive and comprehensive participation of all stakeholders and a wide representation from all tiers of society in the spirit of a multisectoral and multidisciplinary approach to prevention and control of HIV (NACA, 2009).

The current policy that was reviewed in 2009 places individuals (people) at the centre of the response. HIV is an infection that can affect any individual man, woman, or child, rich or poor. Therefore, there is need to empower individuals, families, communities with the knowledge and ability to protect themselves from infection and provide support for those individuals and families living with or affected by HIV to lead healthy and productive lives (NACA, 2009).

As access to anti-retroviral treatment is scaled up, there is a critical opportunity to simultaneously expand access to HIV prevention, which continues to be the mainstay of the response to the HIV epidemic (UNAIDS/WHO, 2000). The UNAIDS/WHO (2000) has a policy statement on HCT. It is described as client-initiated testing to learn about his/her HIV status. The test remains critical to the effectiveness of HIV prevention. Pre-testing counselling may be provided either on an individual basis or in group settings with individual follow-up. The policy promotes the promotion of knowledge of HIV status among any population that may have been exposed to HIV

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through any mode of transmission. The statement also encourages the use of rapid tests so that results are provided in a timely fashion. It also promotes immediate follow-up immediately with a first post-test counselling session for both HIV-negative and HIV-positive individuals.

The UNAIDS/WHO policy on HCT largely provided a template for the formulation of the Nigerian policy. Recognizing the usefulness of HCT services, Nigeria commits herself to the establishment and support of a network of HCT services that will provide the citizenry with affordable and accessible quality HCT services (NACA, 2003). The provisions of the policy include the following:

- The government shall promote the adoption of socially acceptable and ethically appropriate programmes that facilitate the early diagnosis of HIV and AIDS in all public and private health institutions.
- HCT shall be universally available and accessible.
- Appropriate counselling and the maintenance of confidentiality shall be assured during the provision of voluntary HIV testing.
- All screening facilities shall apply the prescribed national protocol for HIV testing provided by the Federal Ministry of Health.
- Voluntary counselling shall be routinely offered to all couples applying for marriage licenses and women attending ante-natal clinics; in neither case will it be mandatory.
- HCT and pre- and post-test counselling shall be an integral part of Primary Health Care (PHC) services. Counselling shall include appropriate information on safer sexual practices, family planning counselling and referrals to family planning services when necessary.
- As part of counselling of HIV positive individuals, counsellors shall encourage HIV positive individuals to live positively with their condition.
- All centres providing HCT services shall be certified by the Government using guidelines as detailed in the protocols of the FMoH.
- All new screening reagents for use in the country shall be certified and licensed by National Agency for Food & Drug Administration Control (NAFDAC) in collaboration with the FMoH and NACA.

- Subsequent lots/batches of these reagents shall undergo periodic quality assurance tests before they are marketed.
- Post voluntary counselling in the event of a positive HIV test should include the information on the risk of HIV transmission to future children, nutritional counselling, counselling on Anti-Retroviral, counselling on safer sexual practices, family planning counselling and referrals to family planning services when necessary (NACA, 2003).

HIV Counselling and Testing (HCT) is a form of HIV testing aimed at a client who wishes to know his/her HIV status and initiates the process (FMoH, 2003). It is the process by which an individual undergoes counselling which enables him/her to make an informed choice about being tested (Ekanem and Gbadegesin, 2004), or take appropriate HIV-related action (International Planned Parenthood Federation (IPPF), United Nations Population Fund (UNFPA), 2004). This decision must be entirely the choice of the individual and s/he must be assured that the process will be confidential. The HCT is one of the few effective and affordable methods for reducing the transmission of HIV (Alemu, Abseno, Degu, Wondmikin, and Amsalu, 2004). The service provides opportunity for clients to obtain referral to additional medical care, preventive and psychological services (Mariano, 2005). It is a gateway to prevention and treatment (Obermeyer and Osborn, 2007).

Studies have shown that knowledge of one's HIV status is associated with positive behaviour change (Babalola, 2007). It should be noted that HCT services were designed when treatment for AIDS was not available in most of the world (McCauley, 2004). Therefore, the original design of HCT services stressed the making of a personal plan with a provider as a way of motivating people who were HIV-positive or HIV negative to change their behaviour in ways that would prevent their passing the virus to someone else or becoming infected. Now that treatment is becoming more widely available, more health planners see HCT as a way of identifying those who need care (McCauley, 2004).

The client-centred nature of counselling promotes trust between the counsellor and the client so that there is an opportunity for in-depth discussion of HIV and AIDS, including how to prevent it. Counselling helps people identify the implications of a

negative or positive result (WHO, 2003) and helps them think through practical strategies for coping with the test result (UNAIDS. 2002). Post-test counselling supports people in understanding their test result and its implications, whether the result is positive or negative. Counselling also helps clients explore whom they might share the test result with, and how to approach sharing their test result. Follow-up counselling supports clients in coping with issues raised as a result of learning HIV status, and is relevant for both clients that test positive or negative (IPPF & UNFPA, 2004).

Publicly funded HIV antibody counselling and testing were initiated in USA in March 1985 to provide an alternative to determining HIV status during donation of blood only. At that time, little was known about the prevalence and natural history of HIV infection. Counselling was considered as an essential adjunct to HIV testing. The counselling addressed the accuracy and consequence of test and was designed to help persons interpret the meaning of positive and negative results. HIV counselling was based on the recognition that learning about ones HIV status may be difficult for certain clients (Dejene, 2001).

According to Dejene (2001), with increased understanding about the scope and severity of the HIV epidemic and the predictive value of positive test, HIV counselling and testing were expanded. Persons seeking care for STIs, family planning, childbirth, or substance abuse were counselled and tested in an attempt to reduce their risk for HIV transmission. He noted that the primary public health purposes of counselling and testing are to help uninfected individuals initiate and sustain behavioural changes that reduce their risk of becoming infected and to assist infected individuals in avoiding infecting others.

The history of HIV testing shows that the issue has always stirred much controversy. In the mid-1980s, when tests became available, public health measures that were commonly accepted for other diseases (such as compulsory testing, contact tracing, and quarantine) were called into question (Obermeyer and Osborn, 2007). Fears of the social and political consequences of mandatory reporting of HIV-positive status, and concerns that such measures could lead to discrimination and "drive the epidemic underground," prevailed over traditional public health approaches, and only

confidential and anonymous testing was considered acceptable (Bayer, 1991). With the availability of treatment, however, such exceptionalism came to be less defensible, and scaled-up testing is increasingly advocated both as a gateway to treatment and prevention and as a way to "normalize" and de-stigmatize HIV (Koo, Begier, Henn, Sepkowitz and Kelleiman, 2006).

*Benefits of HCT*

The HCT has the potential for providing clients with much more than an HIV test and its results (Fischer, Reynolds, Yacobson, Barnett and Schueller, 2005). It can be an opportunity to offer health services and education and an important way to begin encouraging clients to make informed decisions about their health. The HCT is an effective strategy for facilitating behaviour change for both clients that test negative and positive. It enables uninfected people to remain so and enables those infected with HIV to plan for the future and prevent HIV transmission to others (Nqojane, 2009)

Different studies have shown the effects of HCT including a decrease in unprotected sexual intercourse, a reduction in multiple partners, an increase in condom use, and more clients choosing abstinence. Although HCT is a relatively costly service, it is seen to be a cost-effective intervention for behavioural change (IPPF & UNFPA, 2004).

In addition, HCT plays a pivotal role in the public health response to the HIV epidemic and is a vital point of entry to HIV and AIDS services including primary prevention, Prevention of Mother-to-Child Transmission (PMTCT), antiretroviral therapy, management of HIV-related illnesses, tuberculosis control and psychosocial support (Sherr, Lopman, Kakowa, Dube, Chawira, Nyamukapa, Oberzaucher, Cremin and Gregson, 2007). From a human rights perspective, HCT can play a role in addressing stigma and discrimination. Making HCT more accessible enables people to know their status thereby helping to break the cycle of silence, myths and misconceptions that fuel the epidemic and may assist in the normalization of having an HIV test (Sherr et al., 2007).

According to Fischer et al (2005) comprehensive HCT services and appropriate follow-up referrals have the potential to:

- Increase general awareness of HIV and AIDS;

- Increase clients' understanding of their vulnerability;
- Reduce anxiety for those who test negative;
- Ease acceptance of HIV-positive status;
- Encourage both HIV-positive HIV-negative clients to adopt safer behaviours, such as abstinence, faithfulness, and condom use as appropriate;
- Encourage HIV-positive client to seek proper care and, when necessary and available, appropriate treatment;
- Offer compassionate support to reduce the stigma which HIV-positive clients may face;
- Reduce the likelihood of unintended pregnancy by discussing clients' desire for children and providing information about contraception and referrals as needed;
- Help prevent transmission of HIV and other STIs;
- Help reduce the transmission of HIV from mothers to their children;
- Where appropriate, help couples discuss HIV infection status in situations that could lead to greater faithfulness, reduced marital conflict, and less partner violence pertaining to testing and disclosure.

Table 2.1 summarises the benefits of HCT to clients that test negative, those that test positive, and to the society.

Table 2.1: Expected benefits of HCT for clients and society

| Benefits to HIV negative clients | Benefits to HIV positive clients | Benefits to society |
|---|---|---|
| • Can be a strong motivating factor to remain negative. and supports and enables changes in sexual behaviour to avoid infection;<br>• Enables informed decisions about sexual relationships. informing partners of HIV status, contraceptive methods, safer sex, pregnancy and Breastfeeding;<br>• Improves uptake of Sexual Reproductive and Health services through referral<br>• Provides opportunities and support to inform partners of the benefits of being tested;<br>• Supports women or couples to prevent mother to child transmission. | • Promotes early uptake of care and support services;<br>• Promotes changes in behaviour to prevent infecting others with HIV and prevent becoming re-infected with HIV or other STIs;<br>• Supports women/couples to prevent mother to child transmission;<br>• Enables informed decisions about sexual relationships, informing partners of HIV status, contraceptive methods, safer sex, pregnancy and breastfeeding;<br>• Improves planning for the future;<br>• Supports adherence to anti-retroviral therapy (where available). | • Promotes awareness and knowledge of HIV and AIDS, potentially leading to reduced transmission in the wider community;<br>• Contributes to a more supportive environment for safer sexual behaviour;<br>• Encourages openness and reduces fear and stigma surrounding HIV;<br>• Stimulates a community response in support of people with HIV, including the development of care and support for people living with HIV AND AIDS;<br>• Supports human rights. |

*Source: IPPF & UNFPA (2004)*

*Guiding principles for HCT*

According to WHO (2007), guiding principles for expanded testing and counselling include:

I. *HIV testing must be voluntary*

The crucial elements in obtaining informed consent are:

- providing pre-test information on the purpose of the testing and on post-test services and support;
- ensuring understanding;
- respecting the rights of clients to decide whether to be tested.

II. *Post-test support and services are crucial*

The results of HIV testing should always be offered to the persons who are tested, along with appropriate post-test information, counselling, and referral for care, support and treatment.

III. *Confidentiality must be protected*

In the rare event that confidentiality has to be breached, actions must be guided by ethical and rational considerations.

IV. *Accountability*

This involves making the best use of resources and monitoring and evaluating HIV testing and counselling services for quality assurance.

The key objective of testing within the context of HCT is the client's request for diagnosis. Mandatory HIV testing is neither effective for Public Health purposes nor ethical (WHO, 2003). The presence of antibodies against HIV in the blood, saliva or urine confirms a diagnosis of HIV. Positive test results are confirmed using additional tests. A system for HIV testing on-site or through referral must be developed. The client agrees to HIV testing through giving their informed consent. The process of obtaining informed consent varies; nevertheless all those offered the test should be

helped to reach an adequate understanding of what is involved (*WHO, 2003*). The physical environment must allow private discussions between client and counsellor. The service provider must keep clients' personal details private. Clients must have access to prevention, care and support services as available. Referral services should be made with respect for the client's confidentiality (Fischer et al., 2005).

HIV counsellors are trained people who provide pre and post-test counselling to clients who present for HIV testing, and this involves giving accurate information about HIV/AIDS which will enable the clients to make informed decision about testing (Adekeye, 2010). Counsellors must be non-judgmental, empathetic, respectful, and supportive. Staff with counselling duties must be trained in HIV counselling techniques.

The counselling component of HCT is in three stages and these are:

*Pre-test counselling* – Pre-test counselling is confidential counselling that will enable an individual to make an informed choice about being tested for HIV (United Nations Children's Fund (UNICEF), 2009). According to WHO (2003), this decision must be left entirely to the individual and must be free of coercion. To make an informed choice about testing, an individual needs to consider the potential benefits and risks associated with testing (Adekeye, 2010).

The main objective of pre-test counselling is to prepare a client for taking an HIV test. The counsellor explains what an HIV test is and also corrects any myths or misinformation about HIV. The counsellor then discusses the implications of knowing one's sero-status and ways to cope with either a positive or negative diagnosis (Nqojane, 2009).

While individual one-to-one counselling offers the best standard of support to clients, alternative models of providing pre-HIV test information are also available. Pre-HIV test counselling may be offered to couples. In some situations where there are many clients or where the HIV test is offered as part of Provider-Initiated Testing and Counselling (PITC) and opportunities for one-on-one counselling are limited (because of time or human resource constraints), group pre-test information may be offered (WHO, 2007). Information can be given in a group, but the informed consent

component must always take place in a one-on-one setting to ensure that the patient's choice is autonomous and not coerced. The detailed content of a pre-test counselling session is summarized in Appendix II.

*Post-test counselling* – Post-test counselling is done primarily to ensure that individuals understand the meaning and implications of their test results (UNICEF, 2009). The foundation of good post-test counselling is established during a client's pre-test counselling session. If pre-test counselling is done well, then good rapport has already developed between the counsellor and the client. If the client tests positive for HIV antibodies, post-test counselling must make it easier for him or her to adapt to life with HIV and STI infection. Suicide presents a significant challenge to counsellors. There are two periods when people with HIV are more likely to attempt suicide (UNICEF, 2009).

When someone is first diagnosed, suicide may occur as an impulsive response to the emotional turmoil that follows. The second period of high risk occurs late in the course of the disease when complications of the nervous system resulting from AIDS develop, capacity to earn income declines, and people feel they are a burden to family members and carers (Chader, Himelhoch and Moore, 2006). Consequently, after the diagnosis counsellors are required to conduct suicide risk assessments and to manage suicidal thoughts throughout the course of illness. Post-HIV test counselling is typically provided by the counsellor who conducted the pre-test counselling. However, a counsellor may have to provide counselling to an individual who was tested without his or her knowledge and consent. Counsellors providing post-test counselling under the latter circumstances may report having to manage client anger, which is often projected onto the counsellor. A detailed checklist outlining the content of a post-test counselling session is found in Appendix III.

*Follow-up counselling* – Many clients may return with additional questions, fears and concerns. This applies to both HIV positive individuals and HIV negative individuals and those who are involved in caring for or living with HIV-infected people (Ross and Deverell, 2004).

For many, becoming infected with HIV reactivates previously unresolved issues such as acceptance of sexual orientation, specific traumatic events such as sexual assault, or unresolved relationship problems (Trotta, Ammassari, Murri, Monforte, and Antinori, 2007). Infected and affected individuals may also need practical assistance such as referral to welfare services, liaison with caregivers, the preparation of wills, and the organization of substitute care for children. Counsellors must work with multiple clients who present a range of problems that vary across the disease continuum. The counsellor should listen to the client, help the client prioritize their concerns, and enable the client to take up relevant referrals to access the most appropriate care and support services available for their needs, if these needs cannot be met by the service provider directly. Counselling and testing services should be monitored and evaluated, both quantitatively and qualitatively, to ensure the services are of high quality (WHO, 2003).

*Guidelines for HCT in Nigeria*

In 2003, the Federal Ministry of Health (FMoH) released the National Guidelines for HIV and AIDS Voluntary Counselling and Testing. The aim of the national guidelines is to ensure standardization and provision of high quality services. It is also intended to ease monitoring and evaluation processes. The national guidelines cover various areas such as establishment of HCT services; operational procedures for HCT services; laboratory testing of HIV; HCT record keeping, data management as well as monitoring and evaluation. An overview of these areas is worth presenting starting with establishment of HCT services.

*Establishment of HCT Services*

HCT services may be established at the State/NGO or site levels. Establishing HCT services involves 3 steps which are as follow:

- **Assessment Phase** – this involves a detailed situational analysis which will encourage the development of supportive policies and ensure that HCT services are tailored to the unique epidemiological, cultural, behavioural and economic context of each state or site. This phase is crucial as it informs key design decisions. It is done using rapid participatory methods and key informant interviews with all stakeholders including potential clients and service providers.

- **Design phase** – activities during this phase include the following:
  - A sensitisation/strategic planning meeting to create awareness, discuss results of situational analysis, map out strategies and address policy issues;
  - Establishing policy, procedural guidelines and minimum standards for HCT services e.g. determination of the most effective, affordable, acceptable and feasible HIV test method; development of minimum Standard Operational Procedures (SOP) for service delivery; development of national monitoring and evaluation plan and data collection instruments; as well as design and development of support system for counsellors.
  - Holding a national design workshop among stakeholders including implementers and funders to ensure consensus is reached on the design and service delivery models to be implemented; identify sustainability needs and opportunities; determine where within the government structure HCT services should be managed; reach a consensus on shortlisted potential HCT sites.
- **Implementation phase** – this phase involves recruitment of national project staff if HCT services are being instituted as a national programme; identification of the government focal person for HCT who will be the contact person especially when there is a need to resolve policy related issues; conduct of team building sessions and participatory needs assessments at each site for state/NGO level implementation; developing operating agreements that describe the roles and responsibilities of each partner; conduct of state level training for all site staff such as counsellors, supervisors, site managers, laboratory staff; and procurement of HIV test kits. During this phase, promotional strategies should be developed and implemented.

According to FMoH (2003), minimum requirements for the HCT service include the following:

- **Staff** – made up of the HCT coordinator who will be a trained counsellor with some experience in management, receptionist, counsellors, medical laboratory scientist and community coordinator whose responsibility it is to link the

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services with the community not only for demand creation but also for support and care of HCT clients.

- **Space** – issues of confidentiality and privacy are a concern to those who wish to know their status. Efforts must be made to ensure that there is adequate space where HCT services can be provided in a private and confidential manner. Two counselling rooms, a laboratory, one or two waiting areas and one patient screening (reception) room are the minimum recommended space
- **Equipment** – different equipment are needed for each room in an HCT site. The counselling room will require 3 easy chairs, desk and chair, 2 steel filing cabinets, storage space for Information, Education and Communication(IEC) materials; basic equipment for the reception/screening room include cash box, desk and chair, steel filing cabinet, office supplies (paper, files, staplers etc); the waiting area should have a television and video player, 2 benches and enough chairs to sit 20 people at any given time, open display of educational materials; and the laboratory will require a working counter, refrigerator, desk and chair, running water, sink, soap and towels, medical consumables (such as gloves, needles, syringes/lancets, swabs, spirit), lockable storage for test kits, adequate light source and waste disposal facilities.

*Operational Procedures for HCT Services*

The national guidelines (FMoH, 2003) also spell out the SOP of the various activities making up HCT services. These activities include the following:

- Registration and client flow – patients should always be referred to the HCT registration desk whenever they request HCT. The receptionist should be trained to explain procedures to the clients and how long they may wait.
- Waiting period – all HCT sites should endeavour to provide same-day or same-hour results to clients. However, they should not be pressured into receiving same-day results if they are reluctant to do so.
- Informed decision-making – clients should be helped to understand the importance of HIV-testing and allowed to make an informed decision about taking the test.
- Informed consent – all HCT sites should endeavour to document that all persons being tested have voluntarily and freely consented to being tested.

- Confidentiality and anonymity – strict control must be maintained over access to clients' names and test results.
- Minimum age – anyone 18 years of age and above requesting HCT should be considered able to give full, informed consent. Young people under 18 who are married, pregnant, parents, engaged in behaviour that puts them at risk or are child sex workers should be considered 'mature minors' who can give consent for HCT.
- Testing of children – when children are brought to a HCT site for testing, the counsellor should meet with the parents or guardians to determine the reasons for testing.

*Laboratory testing of HIV*

According to the national guidelines (FMoH, 2003) only HIV test kits approved by FDA and National AIDS/STDs Control Programme (NASCP)/NAFDAC may be used for HCT in the country. Most of these are ELIZA Rapid Simple (ERS) tests. HIV test kit used for screening must have very high sensitivity and must be specific. The degree of accuracy should be about 99.5%. A positive screening test should be followed by a confirmatory test.

*HCT Record Keeping, Data Management, Monitoring and Evaluation*

Handling of HCT records and data will require confidentiality and efficiency. The national guidelines include the provisions:

- Data Collection System – a national system for the collection and analysis of HCT data has been developed and is overseen by the Federal Ministry of Health (FMoH). It is to be adhered to by all HCT providers.
- Data collection Instruments – national HCT record form and data collection form should be used at all HCT sites, including government and mission hospitals. Clients should always be informed that no names are recorded on the form to reassure them of confidentiality of the information.
- Data recording – the counsellor should complete the HCT record form with every client before s/he leaves the counselling room.

- Coding System – a standardised system of assigning codes or reference numbers to clients for identification purposes should be developed and used within each institution.
- Record Keeping – a filing system for HCT records should be developed; records should be stored in a secure room with lockable cabinets and must be kept confidential.
- Data Entry and Transfer – at each HCT site, a senior member of staff should be identified with the responsibility for collating data from HCT record forms. The data should be forwarded to the state or local government information office on a monthly basis.
- Data Analysis and Reporting – it is intended that HCT data can be used for understanding HCT demand and utilisation, surveillance and for improving the management of HCT services.
- Monitoring and Evaluation – the HCT database should be used to monitor and evaluate HCT services in each site, local government, state and national level.

**Willingness to adopt and pattern of uptake of HCT services among young people**

Young people actively seek and receive HCT even where HCT services have not been designed specifically for them (Family Health International (FHI), 2002). Various researches have revealed that many young people in countries with high HIV prevalence want to know their HIV status (FHI, 2003). Uptake of HCT by young people (aged 13-19 years) is reported to be increasing in Brazil. Forty percent of those attending the AIDS Testing and Counselling (ATC) site in Bangkok, Thailand, described themselves as "students." In the United States, 900,000 records of people who had undergone HIV testing were reviewed. It was noted that 13% of them were teenagers aged 13-19-years-old (Boswell and Baggaley, 2002).

A study carried out in East Africa revealed that 77.0% of young people interviewed in Nairobi said they would like to take advantage of HCT services (The Population Council, 2001). In the same research, 90.0% of young people in Uganda said the same thing. In a study conducted among University students in Jimma, Southwest Ethiopia, over 86% of the 500 student participants had a favourable attitude towards HCT (Tefera, Chalil and Yoseph, 2002). In another study conducted among Ugandan urban

youth, it was reported that 77% of the respondents indicated their willingness to adopt HCT with a view to knowing their HIV sero-status (Alex, Bahemuka, Ariono and Denis, 2002). In Zambia an increasing number of young adults are reported to be seeking HCT, especially in the context of premarital testing at the Kara Clinic (UNAIDS, 2002). In a study among young persons in Ibadan, 82.6% of respondents expressed willingness to take HCT if it is provided free of charge and there is a guarantee of confidentiality of results (Ajuwon et al, 2010/2011)

In a study conducted among Aboriginal Canadian youth, the most common reasons provided for not getting tested were a self-perception of being at low risk for HIV and the self-perception of not having had sex with an infected person (Judy, Randy, Catherine, Chris, Tom, Ted, Tracey and Susan, 2008). In the study conducted by Ajuwon et al (2010/2011), fear of stigmatization, perceived exorbitant cost of testing, lack of knowledge of where HCT services are available, and belief that HCT is meant only for sexually active persons are some reasons militating against the use of HCT services.

According to McCauley (2002) studies relating to the adoption of HCT among the youth in the United States provide evidence that some young adults adopt safer sexual behaviours after testing. Studies among adults in developing countries report behavioural change after receiving HCT on a range of indicators, including condom use, reduction in number of partners, and reduction in STIs incidence (McCauley, 2002). A multi-centre HCT efficacy trial in Kenya, Tanzania, and Trinidad found a number of changes due to HCT (Voluntary HIV Counselling and Testing Efficacy Group, 2000). These changes include decline in the proportion of individuals who had unprotected sex with non-primary partners, among the group that received HCT as compared with the group that received a health education intervention only. Young people who had taken an HIV test in Kenya and Uganda decided to adopt safer sexual behaviours after the test (The Population Council, 2001). This combined evidence suggests that HCT may help youth in Nigeria to adopt safe behaviours.

Although HCT is becoming increasingly available in the developing and middle-income countries there is still great reluctance on the part of many people to be tested. There are several possible contributory factors that must be addressed if HCT is to

have an important role in HIV prevention and care. In this regard studies showed that HIV testing might have far reaching implications and consequences for the person being tested. Although there are important benefits to knowing one's HIV status, HIV infection in many communities is a stigmatising condition and this do lead to negative outcomes for people who tested positive (Kobusingye, 2004). People with HIV may experience social rejection and discrimination. As a result stigma may actively prevent people from accessing care, gaining support and preventing onward transmission. In a study conducted among IDUs in Yunnan, China, respondents pointed out that stigma and discrimination was the major reason for not accessing HCT services (Kobusingye, 2004). Urban Ugandan youth who participated in a study on knowledge and acceptability of HCT also mentioned stigma as one of the reasons why they would not want to access the services (Alex et al, 2002).

The HORIZONS project has revealed that young people usually seek an HIV test while they are healthy (The Population Council, 2001). Having HIV symptoms and feeling ill are seldom reasons that tested youth give for finding out their serostatus. While the most commonly cited reason by 8.9% of Ugandan youth was just to know their status other reasons include distrust of partner, being worried and exposure to HIV risk. However, focus group discussions with youth in Kenya revealed that young people seek tests only when ill (The Population Council, 2001). Some studies have revealed several factors that affect the uptake of HCT. One of such factors is fear. The perception of fear of a positive HIV test result was the most common reason given for not being tested among respondents in a high risk area in China (Ling, Junqiao, Lijuan, Jing and Baosen, 2009). In the study conducted among Ugandan youth, 4.1% of the respondents said they had not gone for HCT because they fear a positive result (The Population Council, 2001). A study among young adults in a Nigerian University also cited fear of a positive result as a major reason why most young people were not accessing HCT (Folaranmi, Kuti, Omole, Olarenwaju and Fatusi, 2008).

Several studies have shown that people have a self-perception that they cannot be infected with HIV and therefore do not access HCT services. Despite unprotected sex with multiple partners and blood transfusion with unscreened blood, IDUs surveyed in

China did not consider themselves to be at risk of HIV infection (Kobusingye, 2004). This was also true for the youth in Kenya, Uganda and Ethiopia. (The Population Council, 2001; Tefera et al, 2002). Other factors that affect uptake of HCT, as revealed in previous studies, include long time of waiting for results, unfriendly health staff and lack of perceived benefits (UNFPA & IPPF, 2004; Tefera et al, 2002, The Population Council, 2001).

Testing for HIV is the gateway to treatment, care, and prevention. To scale up treatment and prevention, rapid increases in both the volume of testing and the ability to counsel those who are tested are needed. The adoption of testing, however, is very low globally (Obermeyer and Osborn, 2007).

Recent estimates based on surveys in 12 high-burden countries in Sub-Saharan Africa indicate that a median of just 12% of men and 10% of women in the general population have been tested for HIV and received the results (WHO, 2007). Even in more developed countries, about 20% to 30% of seropositive individuals are unaware that they are HIV positive (Centre for Disease Control and Prevention, 2004). The implication of this is that most people living with HIV get tested only when they already have advanced clinical disease (De Cock, Bunnell and Mermin, 2006).

A considerable proportion of the information on the levels and demographic determinants of testing comes from studies of specific groups at risk (Obermeyer and Osborn, 2007). In low-HIV-prevalence countries of the Northern hemisphere, attention has been directed primarily on men who have sex with men, as well as migrants and intravenous drug users. In Africa, most studies come from programs for pregnant women and high-risk groups such as mine workers, truck drivers, and sex workers. The last 2008 Nigeria Demographic and Health Survey -NDHS (NPC, 2009) revealed that overall, 49% of women and 65% of men know a place where they can get an HIV test. Younger female (40%) and male (52%) respondents (age 15-19) are somewhat less likely to know a place where they can go to be tested for HIV. Unmarried women (45%) and unmarried men (55%) who have not yet initiated sexual activity are also less likely to know a place to obtain an HIV test. This implies that coverage of the services in Nigeria is still low.

Although it is clear that practical constraints, delay in test results, and lack of knowledge hinder the utilisation of HIV testing, the major barrier is individuals' reluctance to acknowledge that they are at risk even when in fact they are; this has been documented in studies in Canada (Worthington and Myers, 2003), rural Tanzania (Killewo, Kwesigabo, Comoro et al., 1998), Ethiopia (Sahlu, Kassa, Agonafer et al., 1999), northern Thailand (Jiraphongsa, Danmoensawai and Greenland., 2002), pregnant women in the United Kingdom (Jha, Gee and Coomarasamy, 2003), poor Brazilian women whose partners are HIV positive (Bastos and Hacker, 2006).

Research indicates that everywhere, gender significantly shapes attitudes toward testing (Obermeyer and Osborn, 2007). Men tend to underestimate their risk for HIV infection more than do women, despite reporting more high-risk behaviours, and women have more fears about testing than do men (Sahlu et al., 1999).

New approaches to the delivery of testing services have had positive effects on utilisation. Using rapid tests and providing tests in locations and in conditions that are convenient to clients—such as at workplaces, health facilities, and mobile clinics and at night—have been shown to increase utilisation (Obermeyer and Osborn, 2007). Home-based voluntary Counselling and testing facilitates reaching family members, and the routine offer of testing in clinical settings appears to overcome many of the barriers that hindered earlier efforts (Serafim, Ferraz and Chequer, 2006; Rotheram-Borus, Leibowitz and Hizel, 2006 ).

## Conceptual framework for the study

The two conceptual frameworks adopted to facilitate the design of this study will be reviewed briefly. These are the Health Belief Model (HBM) and the Transtheoretical (or "Stages of Change") Model.

### *Health Belief Model*

The HBM is a psychological model that attempts to explain and predict health behaviors. This is carried out by focusing on the attitudes and beliefs of individuals (Ngojane, 2010). It was first developed in the 1950s by the social psychologists Hochbaum, Rosenstock and Kegels working in the United State Public Health

Services. They maintain that health-related behaviours with reference to a given health problem are determined by whether individuals:

- perceive themselves to be susceptible to the health problem;
- regard the health problem as serious;
- are convinced that treatment or prevention activities are effective yet not overly costly in terms of money, effort or pain;
- are exposed to a cue to take a health action.

The model was developed in response to the failure of a free Tuberculosis health screening programme (Campbell, Foulis, Maimane, and Sibiya, 2005; ReCAPP, 2004). The programme provided adults with free Tuberculosis screening x-rays from mobile units conveniently located in various neighbourhoods. When few adults came out for the free services, programme organizers began investigating why more adults did not come out. Hochbaum, however, began to study what motivated the few who did come out. He quickly learned that their perceived risk of disease and perceived benefits of action were crucial factors in their motivation.

According to Weston (2006) and Barbour (2008) the HBM is characterised by several constructs or concepts. These are perceived susceptibility, perceived severity, perceived benefits, and perceived barriers. These concepts account for people's readiness to act. The concepts of self-efficacy and "Cues to action" were added by Rosenstock in 1988 to help the HBM better fit the challenges of changing habitual unhealthy behaviours, such as living a sedentary life, smoking, or obesity. The concept of "Cues to action" activates readiness to change and stimulates actual overt-behaviour. The concept of "self-efficacy" or "self-esteem" is needed for individuals to successfully perform an action. It relates to an individual's self-confidence in performing an act.

The HBM was used in this study to guide the assessment of the following factors which could be associated with likelihood of accepting or not accepting HCT: socio-demographic variables (modifying factors), perceived threat, perceived barriers/constraints, perceived benefits, and cues to action.

- *Perceived threat* is a combination of "perceived seriousness" and "perceived susceptibility." Perceived seriousness was assessed by how

serious the students think HIV and AIDS threatened the health of their school community. Perceived susceptibility was assessed by the students' perceived chances of contracting the disease and their possibility of protecting themselves.

- *Barriers* are the potential negative aspects of a particular health action. These are militating factors. In this case they represent those factors that may prevent the students from accepting HCT for HIV and AIDS prevention. A similar study conducted among pregnant women (De Paoli, Manongi and Klepp, 2004) revealed that the barriers included social stigma associated with having HIV and AIDS, inaccessibility of service venue, confidentiality not guaranteed at service venue and disclosure of results to spouse or relatives.
- The students knowledge of benefits of using HCT services could be facilitating factors promoting their use e.g. HIV positive persons are assured of early treatment, care and support services are made available, while HIV negative persons can take better precautions against infection.
- *Cues to action* are those situations that could activate the students' readiness to accept HCT. Examples of such situations include other students visiting HCT centres, knowing an infected person that died and witnessing agony experienced by an infected person.

The inherent key variables in the model were used to facilitate the design of the instruments for data collection (see figure 2.2 for the adaption of the model relating to the adoption of HCT).

*The Transtheoretical Model*

The Transtheoretical Model is also called the "stages of change model" (Prochaska, Butterworth, Redding, Burden, Perrin, Leo, Flaherty-Robb and Prochaska, 2008). It is arguably the dominant model of health behaviour changes, having received unprecedented research attention (Armitage, 2008). James O. Prochaska of the University of Rhode Island and colleagues developed the Transtheoretical model beginning in 1977 (Prochaska and DiClemente, 2005). It is based on an analysis of different theories of psychotherapy hence the name "transtheoretical." (Prochaska and

Norcross, 2010). The model consists of four "core constructs": "stages of change," "processes of change," "decisional balance," and "self-efficacy."

In the Transtheoretical Model, change is a "process involving progression through a series of stages (Prochaska, and Velicer, 1997). The stages are as follow:

*Pre-contemplation* – At this stage "people are not intending to take action in the foreseeable future, and are most likely to be unaware that their behaviour is problematic".

- *Contemplation* – "people are beginning to recognize that their behaviour is problematic, and start to look at the pros and cons of their continued actions."
- *Preparation* – "people are intending to take action in the immediate future, and may begin taking small steps towards change"
- *Action* – "people have made specific overt modifications in their life style, and positive change has occurred"
- *Maintenance* – "people are working to prevent relapse," a stage which can last indefinitely"
- *Termination* – "individuals have zero temptation and 100% self-efficacy... they are sure they will not return to their old unhealthy habit as a way of coping.

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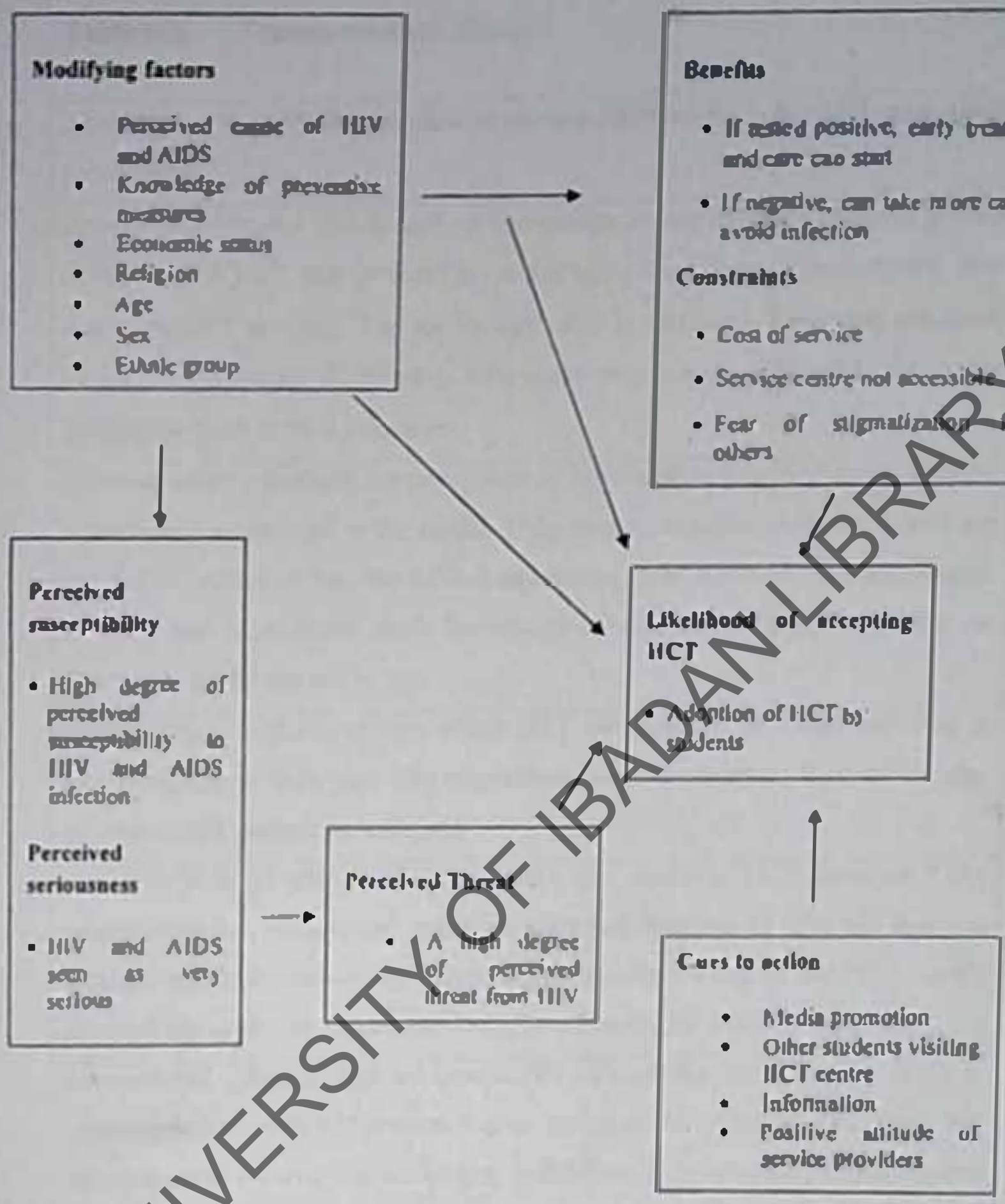


**Figure 2.2:** Health Belief Model Applied to acceptability of HCT for HIV and AIDS prevention

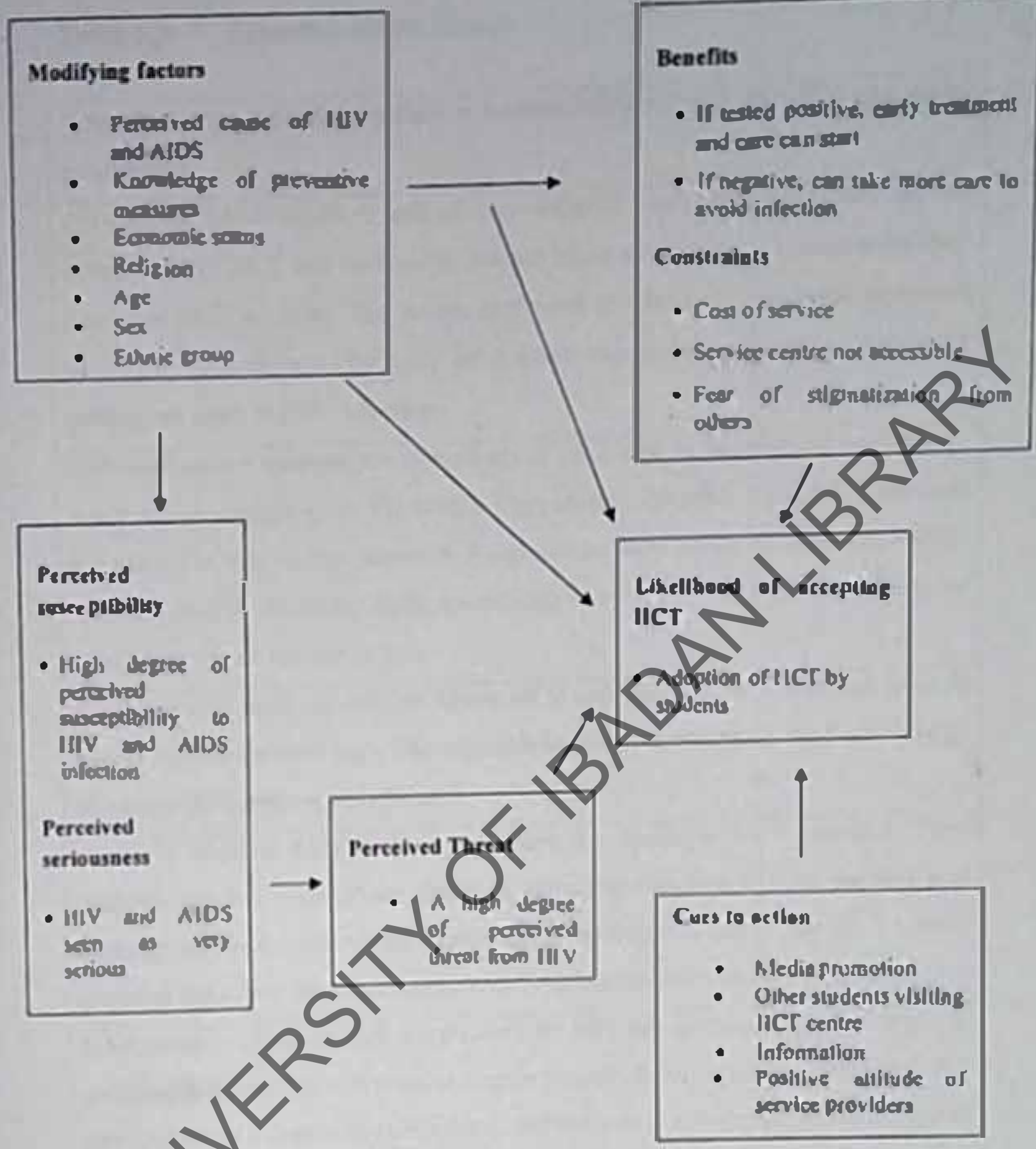


**Figure 2.2: Health Belief Model Applied to acceptability of HCT for HIV and AIDS prevention**

**Table 2.2: Transtheoretical Model**

| **Transtheoretical Model Applied to acceptability of HCT for HIV and AIDS prevention** |
|---|
| *Pre-contemplation* – due to lack of knowledge or information, students are not even aware of HCT and its benefits are not being considered. Consequently they don't use HCT services. The survey tool used in this study contained questions which explored some of the risky behaviours respondents engaged in that could predispose them to HIV infection. |
| *Contemplation* – students are now aware of HCT and its benefits via campaigns, sensitisation workshops or the media. They start to consider using HCT services but not yet acting on this intention. Respondents were asked on their knowledge of HCT and its benefits. Such knowledge could start off decision taking on whether to go for the test or not. |
| *Preparation* – students enquire where HCT services can be found and what it would require on their part. The respondents were assessed on their knowledge of where HCT centres were located. |
| *Action* – students actively go out to seek the available HCT services. They undergo pre-test counselling, make an informed decision to take the test and undergo post-test counselling. Questions on previous visits to the HCT centre revealed the action the respondents took based on the information they had. |
| *Maintenance* – students that test positive for HIV use the recommended drugs & adopt behaviours that will prevent further spread of the infection. Those that test negative adopt behaviours (abstinence, faithfulness to uninfected partner, regular condom use) that will ensure they are not in danger of getting the infection. The instrument did not assess changes in behaviour of the respondents who had previously accessed the service. |

# CHAPTER THREE

# METHODOLOGY

This chapter describes the research methodology used to facilitate the conduct of this study.

## Study design and scope

The study was a descriptive cross-sectional survey aimed at determining perceptions, risk behaviours and pattern of utilisation of HIV Voluntary Counselling & Testing (HCT) services among Kogi state polytechnic students using both qualitative and quantitative methods.

## Description of study setting

Lokoja is the capital of Kogi state in the north-central zone of Nigeria. The town has been an important community in Nigeria since the colonial era. The British government established a consulate in the town in 1865. Lokoja was eventually made the first capital of Nigeria by the British colonial authorities. The capital was later transferred to Jebba in January 1900. However, the inauguration of Lord Lugard as Governor of the then Northern Protectorate took place in Lokoja on January 1, 1900 (Swanzy, 1943).

Lokoja was made a state capital when Kogi state was created out of the old Benue and Kwara states on November 14th 1991. The state is the most centrally located of all states in Nigeria and is specifically located in the North Central geopolitical zone. It lies between Longitudes $5^0 18'$ East and $7^0 54'$ East of the Greenwich, and Latitudes $6^0 30'$ North and $8^0 42'$ North of the equator (*ActionAid International Nigeria (AAIN), 2004*). Lokoja is popularly called "*the confluence city*", a slogan derived from its geographical location being the point where the two major rivers flowing through Nigeria – Rivers Niger and Benue – meet. Lokoja is within two hours drive from the Federal Capital Territory (FCT).

Lokoja is a heterogeneous community. It consists of people with different ethnic backgrounds. The main ethnic groups in the community include Hausa, Yoruba, Igala, Ebira, Nupe and Tapa. The major language spoken in Lokoja is Nupe/Bassa. It is

believed that Lokoja was derived from a Yoruba term "*Ilukoyo*" which means "a collection of settlements". The community is blessed with several historical sites or monuments which also serve as tourist attractions. They include

- A cenotaph which was erected in memory of Nigerian and British soldiers who died in World War I and World War II. This monument features three heavy artillery guns.
- The European Cemetery where the colonialists who died in Nigeria were buried.
- One of Lord Lugard's then senior staff quarters which now houses the National Commission for Museums and Monuments, Lokoja.
- The Iron of Liberty monument depicting the spot where slaves were freed in 1860
- Relics of warehouses of the defunct Royal Niger Company
- The first prison yard in northern Nigeria which is now a laundry room in Kogi Hotels.
- Tombs of the deposed emirs of Kano, Bida, Gumel and Zaria.
- One of the earliest primary schools in Nigeria – The Holy Trinity Primary School founded in 1865 by the legendary Bishop Ajayi Crowther.

One major social activity that takes place in Lokoja is the popular Sallah parade which takes place a day after every Muslim festival. During this festival young boys and girls mix freely and interact. The Fulani cattle rearers also have a festival in which they come into the town from the bushes and indulge in sexual escapades with one another or any other willing person. These festivals and social events have potential for favouring the transmission of HIV.

The Kogi state polytechnic which constitute the setting for the study was established in January 1993 by the administration of the then governor, Prince Audu Abubakar. It took off with 840 students and 70 members of staff. Today the polytechnic has two campuses. The Lokoja main campus and Osara satellite campus. The Osara campus is about twenty-five (25) minutes drive away from the main campus along the Lokoja-Okene road At the time of this study, the school had a student population of 2,461 (See Appendix I for details of the faculties and departments of the polytechnic).

The polytechnic has one health centre with one resident doctor, two nurses and one laboratory technician. The prevailing health problems on the campus included skin infections, stomach upsets and malaria. The health centre does not provide HCT services.

**Study population**

The study population consisted of students of Kogi State Polytechnic Lokoja resident on both main and satellite campuses. The population was made up of students in different departments and at different levels of study. Overall there were 2,461 students in the institution at the time of the study.

**Sample Size and Sampling Procedure**

A sample of the population had to be obtained for the study. This was done using cluster, proportionate and simple random sampling techniques. The sampling process involved the following steps:

Step I – Sample size determination to get the number of students to be involved in the study was calculated using the prevalence of young people willing to use HCT services. A previous study undertaken among unmarried male undergraduate students in the University of Ibadan (Adewole and Lawoyin, 2004) revealed that 51% of respondents expressed willingness to use HCT services. This proportion was used to calculate the study sample size using the following formula:

$$N = \frac{(Z^{1-\alpha/2} + Z^{2\beta})^2 pq}{d^2}$$

where N = sample size

Z = the standard normal deviance at 95% confidence level = 1.96

d (margin of error) = 5%

p (expected prevalence of willingness to use VCT) = 51%

q = 1-p = .49

u (level of significance) = 0.5

$\beta$ (type 2 error) = 20%

power = 80%

$$\frac{N = 7.8 \times .51 \times .49}{(0.05)^2} = 780$$

Actual sample size was seven hundred (700).

Step 2 – A record review was conducted in the institution to determine the total student population. The review showed that there were 2,461.

Step 3 – The students were stratified into four based on their level of studies. The number of students in each level is shown in table 3.1.

**Table 3.1: Number of students in each level (2006/2007 Session)**

| Level | Number of students |
|---|---|
| OND 1 | 1174 |
| OND 2 | 917 |
| HND 1 | 223 |
| HND 2 | 147 |
| Total | 2,461 |

*Source: Kogi State Polytechnic Records office (2007)*

Step 4 – The proportion of students to be studied at each level was calculated using the formula below:

$$\text{Proportion of level X} = \frac{\text{Total number of students in level X} \times \text{sample size}}{\text{Total number of students in Polytechnic}}$$

E.g. Proportion of OND 1 students $\rightarrow \frac{1174 \times 700}{2461} = 334$

The total sample selected from each level based on the formula above is shown in table 3.2.

$\beta$ (type 2 error) = 20%

power = 80%

$$N = \frac{7.8 \times .51 \times .49}{(0.05)^2} = 780$$

Actual sample size was seven hundred (700).

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**Table 3.1: Number of students in each level (2006/2007 Session)**

| Level | Number of students |
|---|---|
| OND I | 1174 |
| OND 2 | 917 |
| HND I | 223 |
| HND 2 | 147 |
| Total | 2461 |

*Source: Kogi State Polytechnic Records office (2007)*

Step 4 – The proportion of students to be studied at each level was calculated using the formula below:

$$\text{Proportion of level X} = \frac{\text{Total number of students in level X} \times \text{sample size}}{\text{Total number of students in Polytechnic}}$$

E.g. Proportion of OND I students $= \frac{1174 \times 700}{2461} = 334$

The total sample selected from each level based on the formula above is shown in table 3.2.

Table 3.2: Sample of students selected from each level

| Level | Total Number | Sample selected |
|---|---|---|
| OND 1 | 1174 | 334 |
| OND 2 | 917 | 261 |
| HND 1 | 223 | 63 |
| HND 2 | 147 | 42 |
| Total | 2,461 | 700 |

Step 5 – The proportion of students in a particular level to be selected from each department was calculated using the following formula:

$$\frac{\text{Number of OND 1 students in dept.} \times \text{Sample of OND 1 respondents}}{\text{Total number of OND 1 students in school}}$$

E.g. the sample of OND 1 students selected from department of Arts & Industrial Design was as follows

$$\frac{11 \times 334}{1174} = 3$$

A table showing the number of students selected from each department based on above calculation is found in table 3.3.

Table 3.3: Number of students selected from each department and level

| S/N | Faculty | Dept. | Sample of students in OND 1 | Sample of students in OND 2 | Sample of students in HND 1 | Sample of students in HND 2 | Total |
|---|---|---|---|---|---|---|---|
| 1 | Art Design and Printing | Arts & Ind. Design | 3 | 7 | 4 | No students | 14 |
| 2 | Management Studies | Accountancy | 69 | 69 | 21 | 17 | 176 |
| | | Business Admin. | 78 | 70 | 12 | 7 | 167 |
| | | Public Admin. | 131 | 78 | 18 | 7 | 234 |
| | | Sec. Studies | 18 | 11 | 2 | 4 | 35 |
| 3 | Applied Sciences | Computer | 9 | 8 | 0 | 0 | 17 |
| | | Statistics | 9 | 9 | 3 | 3 | 24 |
| | | Science Lab. Tech. | 11 | 5 | 0 | 0 | 16 |
| 4 | Engineering | Mineral Res. Eng. | 3 | 2 | 3 | 4 | 12 |
| | | Metallurgical Eng. | 3 | 2 | 0 | 0 | 5 |
| Total | | | 334 | 261 | 63 | 42 | 700 |

**Table 3.3: Number of students selected from each department and level**

| S/N | Faculty | Dept. | Sample of students in OND 1 | Sample of students in OND 2 | Sample of students in HND 1 | Sample of students in HND 2 | Total |
|---|---|---|---|---|---|---|---|
| 1 | Art Design and Printing | Arts & Ind. Design | 3 | 7 | 4 | No students | 14 |
| 2 | Management Studies | Accountancy | 69 | 69 | 21 | 17 | 176 |
| | | Business Admin. | 78 | 70 | 12 | 7 | 167 |
| | | Public Admin. | 131 | 78 | 18 | 7 | 234 |
| | | Sec. Studies | 18 | 11 | 2 | 4 | 35 |
| 3 | Applied Sciences | Computer | 9 | 8 | 0 | 0 | 17 |
| | | Statistics | 9 | 9 | 3 | 3 | 24 |
| | | Science Lab. Tech. | 11 | 5 | 0 | 0 | 16 |
| 4 | Engineering | Mineral Res. Eng. | 3 | 2 | 3 | 4 | 12 |
| | | Metallurgical Eng. | 3 | 2 | 0 | 0 | 5 |
| Total | | | 334 | 261 | 63 | 42 | 700 |

Step 6 – The students who were eventually involved in the study were selected using simple random sampling (ballot method). A lecture time involving all the students (both males and females) in a particular level was used for selection.

**Inclusion and exclusion criteria**

Only registered students of the polytechnic who were willing to participate in the study were included in the survey. Would-be students who came searching for admission and those who were not willing to participate or sick at the time of the study were excluded from the survey.

**Methods and Instruments for data collection**

A combination of quantitative and qualitative methods of data collection was employed.

*Qualitative method*

The qualitative method used was the Focus Group Discussion (FGD). An unstructured 11 item FGD guide (Appendix IV) was used to conduct FGDs. The rationale for conducting FGDs was to document opinions or clarify perceptions related to HIV, AIDS and HCT. Areas covered in the discussion included problem students face on campus, AIDS and the perception of its seriousness, probable exposure to HIV infection on the campus, knowledge of HCT and places where the services are rendered in Kogi state. The FGD also explored the students' opinion on the establishment of HCT services on the campus.

*Quantitative method*

Semi-structured interview was the quantitative method used. A validated semi-structured questionnaire (See Appendix V) prepared in English language was used to elicit responses from respondents of the study. The questionnaire was developed after a review of the literature. The results of the conducted FGDs were also used to fine tune or modify the questionnaire. It consisted of seven sections labelled as A, B, C, D, E, F and G. Section A focused on demographic information while section B dwelt on Knowledge about HIV and AIDS; section C focused on Knowledge about HCT and section D dealt with perceptions of HCT. Attitude to HCT, HIV-related risk practices and pattern of utilisation and willingness to use HCT services were explored in

sections E, F and G respectively. The questionnaire included two knowledge scales – a 17-point scale for assessing knowledge about AIDS and a 16-point scale for assessing knowledge about HCT making a total of 33 knowledge score.

**Reliability and validity**

Validity

In order to ensure the validity of the instruments, the semi-structured questionnaire was first given an in-house pre-test among colleagues, doctoral students, health education specialists and lecturers at the department of Health Promotion and Education. Inputs from these resource persons were used to further develop the instrument.

Reliability

In order to ensure the reliability of the semi-structured questionnaire, a pre-test was conducted on a sample size of 70 students (10% of target population). The pre-test population consisted of students of the Federal College of Education, Okene. The pre-test enabled the investigator to:

- Determine the length of time required to administer a questionnaire.
- Check logical sequence of questions and made necessary modifications where required.
- Determine whether the questions were clear and simple enough for respondents to understand.

Furthermore, analysis of the pre-test was done using Cronbach's alpha coefficient technique of the Statistical Package for Social Sciences (SPSS). Alpha (Cronbach's) is a model of internal consistency. The analysis was done to ascertain how consistent the results would be for different items of the instrument (*William, 2006*). A result showing correlation of coefficient greater than 0.05 is said to be reliable. The analysis of data collected during the pre-test showed a result of 0.8 which showed that the instrument was very reliable.

*Recruitment and Training of Interviewers*

Seven Research Assistants (2 for the FGD; 5 for the semi-structured interview) were

sections E, F and G respectively. The questionnaire included two knowledge scales – a 17-point scale for assessing knowledge about AIDS and a 16-point scale for assessing knowledge about HCT making a total of 33 knowledge score.

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*Recruitment and Training of Interviewers*

Seven Research Assistants (2 for the FGD; 5 for the semi-structured interview) were

recruited to facilitate data collection; they were trained for one day. One of the criteria for selecting the Research Assistants (RAs) was knowledge of topic under study. The training covered general data collection procedures and techniques, background information on HCT services, how to facilitate consent, review of questionnaires to ensure completeness, and issues relating to privacy, interpersonal relations and ethics in social research.

**Data Collection Process**

*Conduct of the FGDs*

A total of eight (8) FGDs were conducted. In each of the 4 faculties, one department was selected randomly for the FGD. For each level of study there was one FGD for males and one for females.

Before the conduct of the FGDs, lecture time tables were obtained from the Heads of department to determine which lecture time is likely to have almost all the students of a particular level of study in attendance. Thereafter, with the consent of the head of department and lecturer in charge, the researcher visited each lecture class with her team. The study was introduced to the students and were made to understand that the data collection process would involve 2 stages – FGD and filling of questionnaires. Students who expressed willingness to be part of the study were randomly selected to make up 4 groups (male and female) of 10 discussants each in OND 1 and 2 respectively. Similarly, there were 4 groups (male and female) selected from HND 1 and HND 2 levels with 7 and 6 discussants respectively.

The selected discussants were given an opportunity to select the time and venue for the discussions. In some cases the Heads of departments volunteered their offices which were acceptable to the students; in some other cases, they chose times when classes were empty. They also suggested a day convenient for them.

Before discussions started, the researcher set the tone by enquiring about the studies of the students and how they were faring. When they were relatively relaxed, the students were once again introduced to the study and what the discussions would entail. They were assured of anonymity and encouraged to speak up if they found any aspect of the process too uncomfortable. Use of names was not allowed in the course

of discussions. Their permission was sought for the use of a tape recorder. The researcher moderated each FGD while the 2 RAs took care of recording and note taking. At the end of each discussion, the discussants were provided with light refreshment.

*Semi-structured Interview*

Quantitative data were collected within two (2) weeks. The researcher together with 5 RAs collected data from selected respondents. Lecture times were the most suitable for getting respondents and the lecturers were of great assistance in this regard. Following the number to be selected as shown earlier in Table 5, respondents were selected using balloting system e.g. where 3 respondents were required out of a total of 15, "Yes" was written on 3 pieces of papers while "No" was written on 12 pieces of papers. Students who picked the "Yes" were enrolled into the study.

Once the needed number of students was available they were taken to an empty class to limit distractions. The selected respondents were introduced to the research team and they were informed of what was required of them with emphasis on their willingness and honesty. Efforts put in place to ensure honesty included anonymity of respondents and self-administration of questionnaires. This encouraged their openness and free expression of opinions. However, the researcher in collaboration with the RAs assisted the respondents where necessary.

**Data management, analysis and presentation**

Among the important ethical issues observed while in the field was confidentiality concerning the information collected from respondents.

The qualitative data obtained from the FGDs were gathered using tape recorders and notes. The audio cassettes were labelled by numbers and the date of the interviews/discussion conducted. People who had complete access to these recorded audio cassettes were only the researcher while the assistants had limited access. Apart from being mentioned in consent forms assurance of keeping the information confidential was repeatedly stated during the introduction to every participant. Moreover, they were told that the information provided was for research purpose and

not for any other use. The researcher was responsible for keeping recorded tapes and the transcripts. The data were transcribed and analysed using thematic approach.

The quantitative data collected were collated, edited and coded by the researcher using a coding guide. The data in each questionnaire were entered into a computer for analysis. The knowledge section comprised a total of 33 items. Each correct response was assigned 1 point while 0 was assigned to every wrong knowledge-related answer. The SPSS was used to facilitate the analysis of the data. Data were analysed using descriptive statistics, Chi-square, T-test and F-test. The results are presented in tables, graphs and charts in chapter 4.

**Ethical considerations**

Ethical approval was sought from the Ethical Review Committee of Oyo State Ministry of Health, Ibadan (Appendix VII). The purpose of this was to ensure that this study conformed to generally accepted scientific principles and international ethical guidelines required in research involving human subjects.

Participants' informed consent was obtained using an informed consent form (Appendix VIII). This was attached to the questionnaire. Confidentiality of the information disclosed by each participant was assured during and after the data collection. Permission was also sought from the school authorities before commencement of the study.

**Limitation of the study**

The results from the study cannot be generalized to all the students in institutions of higher learning in Kogi state in particular and Nigeria in general.

# CHAPTER FOUR

## RESULTS

The findings from the quantitative and qualitative surveys are presented in this chapter with the FGD findings blended with quantitative results. The findings are organized into the following sections:

- Socio-demographic characteristics;
- Knowledge about HIV and AIDS;
- HIV-related risk practices;
- Knowledge about HIV Counselling and Testing (HCT);
- Perceptions about HIV Counselling and Testing (HCT);
- Attitude to HIV Counselling and Testing (HCT);
- Pattern of utilisation and willingness to use HIV Counselling and Testing (HCT) services.

### Socio-demographic Information

The socio-demographic characteristics of respondents are presented in table 4.1. The respondents' ages ranged from 16 to 40 years. The proportion of adolescents aged 16-19 years was 27.8% while young persons aged 24 years and below accounted for 53.5%. Most of the respondents (98.2%) were from the main campus of the polytechnic based in Lokoja while the remaining proportion (1.8%) was from the Osara campus. Majority (62.0%) of the respondents were males, christians were 69.1% and 83.9% were undergoing the Ordinary National Diploma (OND) programmes. Most (93.2%) respondents were singles while only 4.5% were married. The ethnic affiliations of the respondents included Igala (30.6%), Ebira (22.3%) and Okun (29.5%). Details of other ethnic groups can be found in the table under reference. About one third (33.0%) were from the department of Public Administration; 25.3% from the department of Accountancy and 22.7% from the department of Business Administration. The other departments represented in the study are highlighted in figure 4.1.

**Table 4.1: Respondents' Socio-demographic Characteristics**

N=660

| Characteristics | | No. | % |
|---|---|---|---|
| Sex: | Male | 409 | 62.0 |
| | Female | 251 | 38.0 |
| Age* | 16-20 | 184 | 27.8 |
| | 21-25 | 353 | 53.5 |
| | 26-30 | 110 | 16.7 |
| | 31-35 | 10 | 1.5 |
| | 36-40 | 3 | 0.5 |
| Marital status: | Single | 615 | 93.2 |
| | Co-habiting | 9 | 1.4 |
| | Married | 30 | 4.5 |
| | Separated | 4 | 0.6 |
| | Divorced | 1 | 0.2 |
| | Widowed | 1 | 0.2 |
| Religion: | Islam | 202 | 30.6 |
| | Christianity | 456 | 69.1 |
| | Traditional | 2 | 0.3 |
| Ethnic group: | Ebira | 147 | 22.3 |
| | Igala | 202 | 30.6 |
| | Okun | 195 | 29.5 |
| | Others** | 116 | 17.6 |
| Level of study: | OND | 554 | 83.9 |
| | HND | 106 | 16.1 |

*Mean age = 22.8±3.3; Median age = 22.0

**Others include Igbo (4.4%), Ogori (0.2%), Kakanda (0.9%), Nupe (0.3%), Bassa Nge (0.9%), Edo (0.6%), Ijagba (0.6%), Yoruba (1.2%), Tiv (0.2%), Hausa (1.5%), Tapa (0.5%), Idoma (0.5%), Bassa Komo (0.2%), Oworo (0.2%) and those who did not reveal their ethnic group (5.6%).

**Figure 4.1: Respondents' courses of study**

N=660

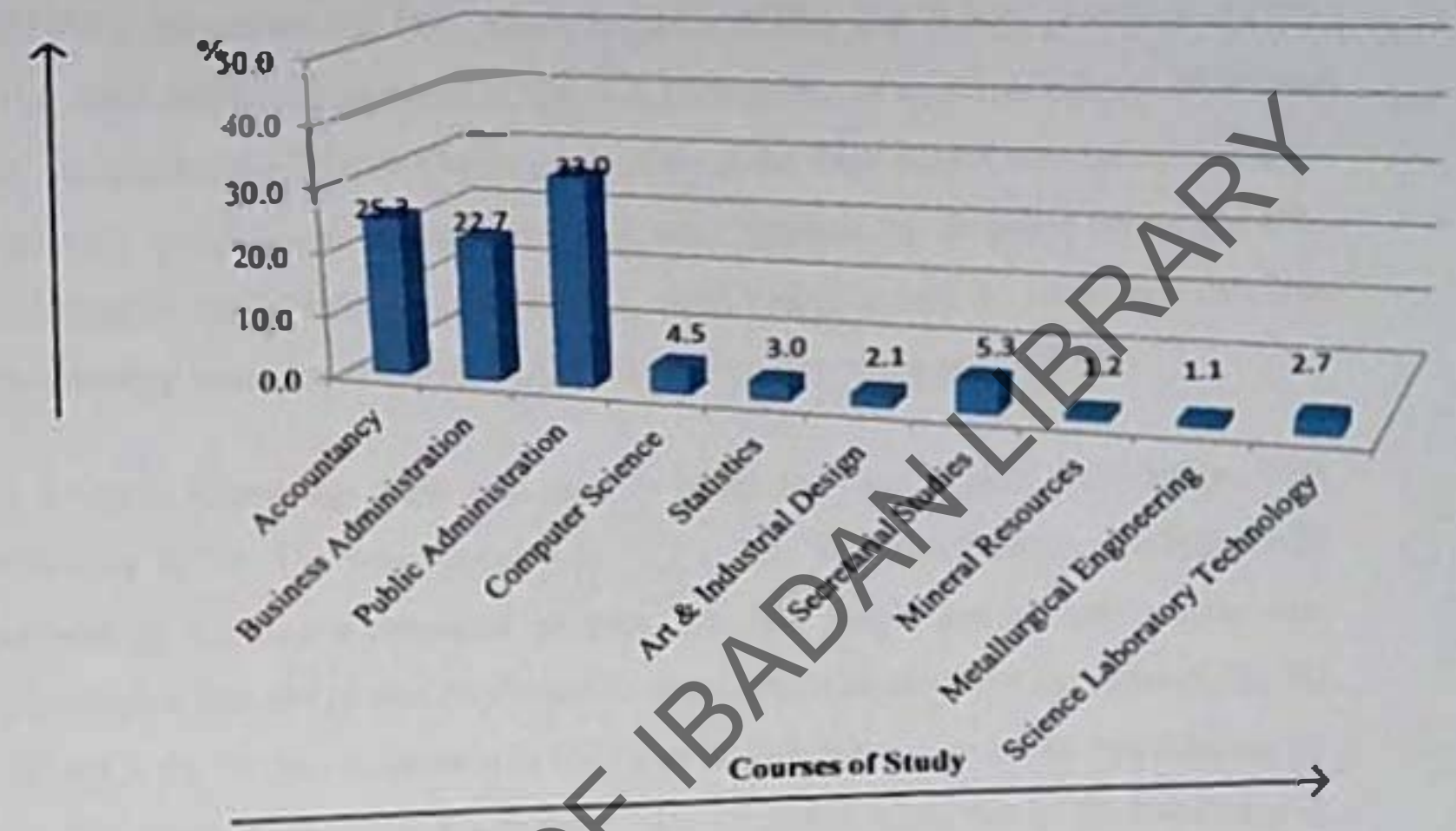
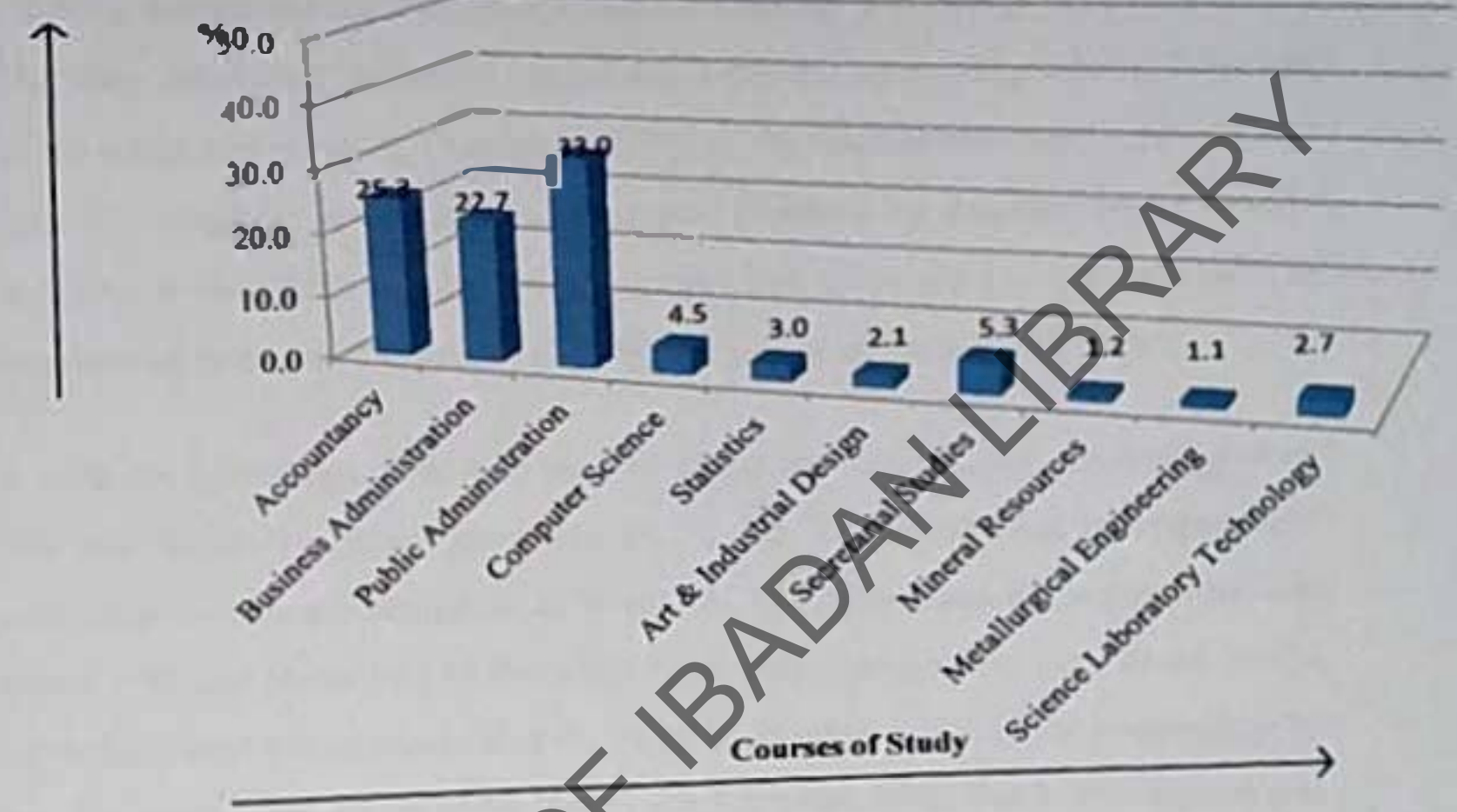


Figure 4.1: Respondents' courses of study

N=660



## Awareness and knowledge of HIV and AIDS

Almost all the participants (97.4%), had ever heard of AIDS while approximately the same proportion (97.0%) had ever heard of HIV (table 4.2). Friends (53.5%) topped the list of sources of information about AIDS. This was followed by television (48.3%). The other sources included radio (47.3%), newspapers (38.0%), school (35.9%), magazines (32.5%), health worker (32.0%) and family members (24.2%). The other details can be found in figure 4.2. Table 4.3 shows respondents' knowledge of the symptoms of AIDS. Over half (52.6%) of the respondents mentioned prolonged deep dry coughing as a symptom. This was followed by frequent fevers (46.8%), recurring or unusual skin rashes (42.0%), rapid loss of weight by 10 pounds (40.8%), long-lasting episodes of diarrhoea (27.9%) and cancer of the skin (18.8%).

A 17-point knowledge scale was used to assess the respondents' knowledge about HIV and AIDS. The mean score was 11.1 ± 3.2. The distribution of respondents' knowledge scores are presented in table 4.4. The proportion of respondents who scored 50% and above was 84.8% while those who scored <50% constituted 15.2%. Table 4.5 shows the comparison of the mean knowledge scores of the respondents by sex. The mean score for the males was 11.1 ± 3.0 points while that of the females was 11.0 ± 3.5 with a difference found to be statistically insignificant ($p>0.05$). Table 4.6 also highlights the comparison of mean knowledge scores of the respondents by level of study. The mean score for OND respondents was 10.9 ± 3.2 while that of the HND respondents was 12.1 ± 3.1. The difference was found to be statistically significant ($p<0.05$).

Discussants in all the FGDs were unanimous in their perception of HIV and AIDS as a real health problem. Like their survey counterparts, discussants had fair knowledge of HIV and AIDS. There were however some misconceptions among the discussants, for instance majority of the groups erroneously believed that unprotected sex, sharing sharp instruments and blood transfusion with unscreened blood were the causes of AIDS instead of regarding them as practices which may facilitate the transmission of HIV. Typical views which reflect the discussants' limited knowledge and misconceptions of HIV and AIDS include the following:

- *"AIDS is caused by a virus that cannot be seen by the naked eye. I don't know the name of the virus."* (OND 2 male)
- *"One of the major causes of AIDS is the way people "sleep" with each other without using condom."* (OND 1 male)
- *"I laughed when you asked that question because someone asked me the same question last week. I think it is caused by a microorganism."* (HND 1 male)
- *"I can't really say what causes it but I know the disease is real."* (OND 2 female)
- *"When people "sleep" with animals they can get AIDS. I heard of an incidence that happened last week in this town where a lady was forced to "sleep" with an animal. I believe the disease can be got from a human and animal."* (OND 1 female)

One discussant in the OND 1 male group had a fair knowledge of the disease. He said,

- *"I know AIDS is caused by HIV but I cannot remember the full meaning."*

Most discussants were however able to state correctly the various ways by which the virus gets transmitted from person to person. Their views on the mode of transmission of the virus/disease included the following:

- *"One main way that the disease can be passed from one person to another is by sleeping with each other without any protection (unprotected sex). I mean skin to skin method."* (OND 2 female)
- *"When you share a razor blade with someone that already has the disease you can get it too."* (HND 1 male)
- *"I think taking blood from someone you are not sure of (i.e. unscreened blood) can also make you have the virus."* (OND 1 male)
- *"The major way I am aware of is through having sex with someone who has the disease."* (HND 2 female)

Majority of the male and female discussants across OND and HND levels were not sure if an infected mother could pass it to her unborn child. Typical comments were as follow:

- *"I don't know if a mother can pass it to her child or not. I have been told that the mother's blood and that of the baby do not mix so how is it possible for the mother to infect her child?"* (OND I female)
- *"I don't know much about a woman passing the disease to her baby."* (OND I male)

One student was able to express the possibility of an infected mother infecting her unborn child. The belief relating to mother to child transmission was expressed thus:

- *"Well, since the baby is in the mother's womb, definitely he will get it."* (OND 2 male)

The discussants had various views on the treatment of AIDS. These included the following:

- *"I do not think it can be treated. I want to believe research is still on-going."* (OND I male)
- *"AIDS can be treated with prescriptions given by a doctor."* (OND I female)
- *"AIDS can be treated by care and absence of stigmatization."* (OND 2 male)
- *"It is a pity that after all these years and the amount of noise made about this disease, there is still no treatment. The government should try to encourage research."* (OND 2 female)
- *"I don't think it can be treated in any way. Once you have it, you have it."* (HND I male)
- *"When you test your blood and you turn out positive, you will be given treatment."* (HND I female)
- *"I heard somebody mentioning ARV (I think) drugs used in treating AIDS. But I cannot say if it is effective."* (HND 2 male)
- *"I believe it can be prevented using condom and by abstaining from sex. Prevention is better than cure. It is better not to even get it than to start looking for how to treat it. People should use condom or stay away from sex."* (HND 2 female)

Only the OND 2 male discussants believed there was a cure for AIDS while every other group said there was no cure. Comments of discussants relating to the incurability of AIDS included:

- *"I do not believe there is any cure for this disease. Just like my friend said about treatment earlier on, research is still on-going. May be there will soon be a cure."* (OND 1 male)
- *"As far as I know, there is still no cure. The drugs given by a doctor can only make you feel better for a little while."* (OND 1 female )
- *"I don't think there is a cure yet. They are still researching."* (OND 2 female)
- *"A cure for AIDS? No. None yet."* (HND 1 male)
- *"There is no cure for the disease. All the noise that was made about some people finding a cure was all false."* (HND 2 male)
- *"I know there is no cure because I still heard it on news yesterday."* (HND 1 female)
- *"AIDS has no cure."* (HND 2 female)

Majority of the groups were of the view that AIDS is a problem on the polytechnic campus. Typical responses in this regard were as follows:

- *"It is not only a problem on this campus but in Nigeria as a whole. But I will agree since this is a gathering of young people (i.e. the institution), it could be more of a problem here."* (OND 1 male)
- *"I have heard that some students have the disease but I do not think they are that many."* (OND 1 male)
- *"The last time some people came to this campus to do a test on students, we heard that some people tested positive. Since it is not written on any body's forehead you can't say who has it or not. I will say the disease is definitely a problem on this campus."* (OND 2 male)
- *"Some girls on this campus have tested positive to HIV. If those girls sleep with guys without using protection you already know what will happen. And that is how it will continue to spread."* (OND 2 female)

- *"This campus is a breeding ground for AIDS. Students are very careless. You need to see the way they share razor blades without caution. It has been said repeatedly that you can't know who has it by looking at a person's face. Another thing is that students also have sex without using "umbrella" (condom). That one na suicide o! Me I love myself. My "umbrella is always with me 24/7(24 hours each of the seven days in the week)."* (HND 1 male)

Three groups had differing views. Their responses included:

- *"The reason why we don't want to say anything is because it is not an issue students go around broadcasting. I for one cannot say if AIDS is a problem on this campus or not."* (OND 1 female)
- *"AIDS is not a problem. According to the last test that was done on this campus, we heard that only 1% of those tested were HIV positive. But the students that came out were so few."* (HND 2 male)
- *"I cannot say. I know only myself."* (HND 2 female)

**Table 4.2: Respondents' awareness about HIV and AIDS**

N=660

| Awareness about HIV and AIDS | No. | % |
|---|---|---|
| Ever heard about AIDS: | | |
| Yes | 643 | 97.4 |
| No | 7 | 1.1 |
| No response | 10 | 1.5 |
| Ever heard about HIV: | | |
| Yes | 640 | 97.0 |
| No | 8 | 1.2 |
| No response | 12 | 1.8 |

**Figure 4.2: Respondents' sources of information about AIDS**

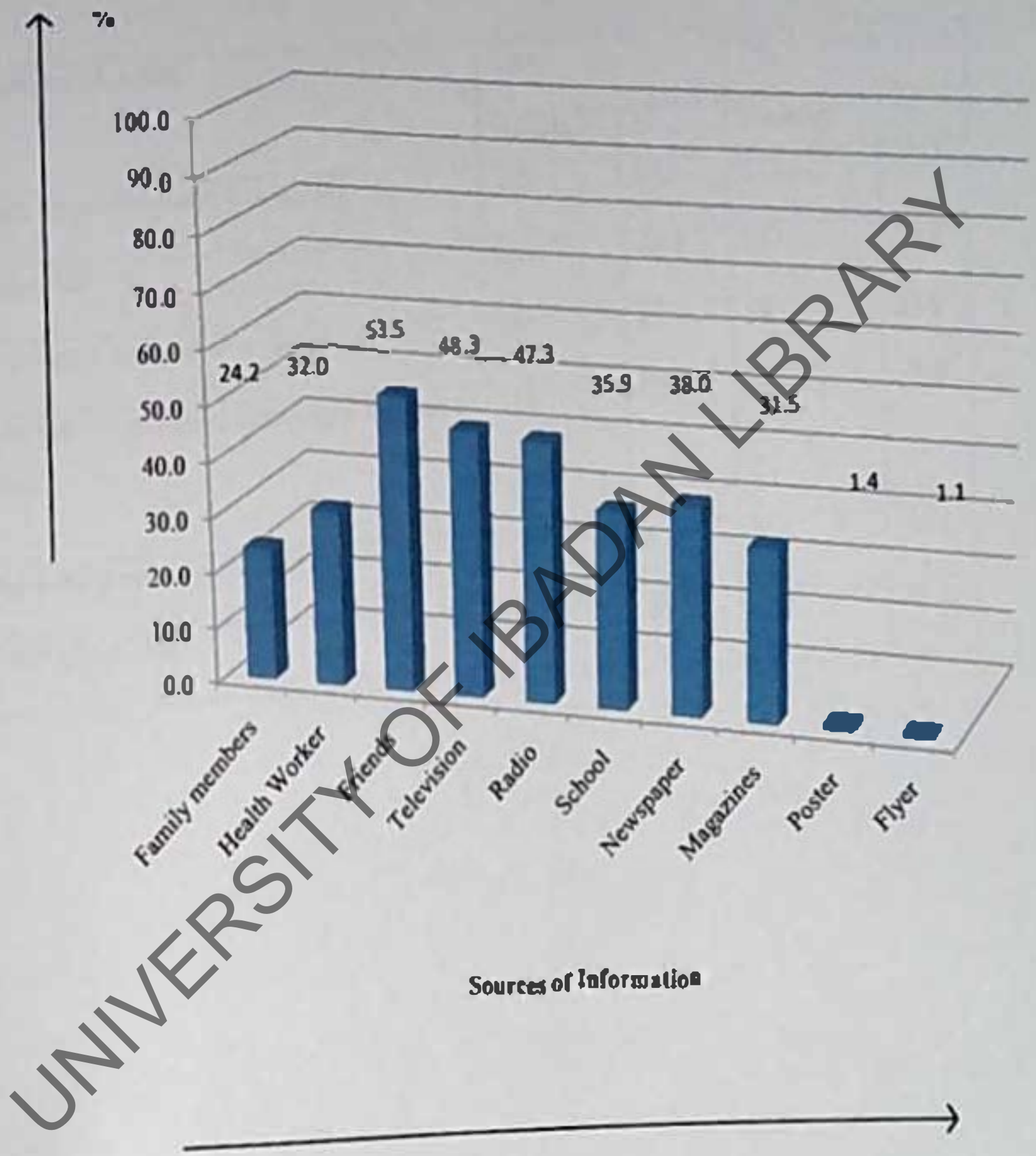


Table 4.3: Respondents' knowledge of symptoms of AIDS

N=660

| Symptoms of AIDS | Yes | | No | |
|---|---|---|---|---|
| | Number | % | Number | % |
| Periods of prolonged dry coughing | 347 | 52.6 | 313 | 47.4 |
| Frequent fevers | 309 | 46.8 | 351 | 53.2 |
| Recurring or unusual skin rashes | 277 | 42.0 | 383 | 58.0 |
| Rapid loss of 10 pounds of weight not due to dieting | 269 | 40.8 | 391 | 59.2 |
| Long-lasting episodes of diarrhoea | 184 | 27.9 | 476 | 72.1 |
| Cancer of the skin | 124 | 18.8 | 536 | 81.2 |

**Table 4.4: Distribution of respondents' knowledge scores on HIV and AIDS**

N=660

| Scores* obtained | No. of respondents | % |
|---|---|---|
| 1 – 4 | 34 | 5.2 |
| 5 - 8 | 66 | 10.0 |
| 9 – 12 | 357 | 54.1 |
| 13 – 17 | 203 | 30.7 |

*Maximum score = 17 points

Mean score = 11.1 ± 3.2

Respondents with 9 points and above (i.e. 50% and above) = 84.8%

Respondents with <9 points (i.e. less than 50%) = 15.2%

Table 4.5: Comparison of respondents' mean knowledge scores on HIV and AIDS by sex

| Sex | Number | Mean | Variance | Std. Deviation | p-value | t-value |
|---|---|---|---|---|---|---|
| Male | 409 | 11.1 | 9.2 | 3.0 | 0.9 | 0.2 |
| Female | 251 | 11.0 | 12.0 | 3.4 | | |
| Total | 660 | 11.1 | | - | | |

Table 4.6: Comparison of respondents' mean knowledge scores on HIV and AIDS by level of study

| Level of study | Number | Mean | Variance | Std. Deviation | p-value | t-value |
|---|---|---|---|---|---|---|
| OND | 554 | 10.9 | 10.1 | 3.2 | 0.0004 | 3.6 |
| HND | 106 | 12.1 | 9.7 | 3.1 | | |
| Total | 660 | 11.5 | | | | |

**Sexual relationship and HIV-related risk practices**

A total of 472 (71.5%) respondents said they had at least a boy/girl friend (see table 4.7). This figure shows that more than half of the total male sample (70.7%) and more than half of the total female sample (72.9%) had at least a boy/girl friend (table 4.8) This difference was not statistically significant (p>0.05). The table shows the number of boy/girl friends the respondents had. A total of 336 (71.2%) had only one boy/girl friend while 136 (28.8%) constituted the proportion of respondents that had two or more friends of the opposite sex.

A majority of the respondents (66.2%) had ever had sex; of this 42.7% had had sex in the three months preceding the study. Comparison based on sex, showed that 71.9% and 57.0% of males and females respectively had ever had sex (table 4.9). This comparison was found to be statistically significant (p<0.05). A total of 193 (47.3% males; 37.8% females) respondents out of those that had had sex in the three months preceding the study used condom during their last sexual episode. A comparison of condom use by sex (table 4.10) showed a statistically significant difference (p<0.05) Respondents who did not use condom, (31.6%) cited various reasons for not using. These included mutual trust between them and their partners (37.1%); lack of enjoyment of sex with condom (16.9%); and sexual partner was spouse (12.4%) (See table 4.7 for details).

Other risk behaviours exhibited by the respondents are also highlighted in table 4.7. Some of the respondents (13.9% - 41 males; 20 females) stated that they had given or received money and/or gifts in exchange for sex. Comparison of this sexual behaviour by sex, age, level of study and knowledge of HCT are highlighted in table 4.11. These comparisons were not statistically significant (p>0.05). Some of the respondents (5.8% - 36 males; 6 females) used needles to inject themselves with drugs, while 42.1% shared needles with others. Table 4.12 shows comparison of mean knowledge score of HIV and AIDS by sexual behaviour (giving/receipt of gifts/money in exchange for sex). The difference was found not to be statistically significant (p>0.05).

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The FGDs also revealed that HIV-related risk practices are prevalent among the respondents. HIV-related risk practices among the respondents included the following revelations by the discussants:

- *"Students keep multiple sexual partners. A lot of guys sleep with two or more different girls."* (OND 1 male)
- *"Students dislike using condoms. So many still indulge in unprotected sex."* (OND 1 male)
- *"On this campus it is survival of the fittest. Our girls exchange money for sex and also indulge in 'Aristo' (doting older men).* (OND 1 male)
- *"I know that sharing of razor blades is not encouraged these days but the truth is we are so used to it even right from our homes that we really do not see any harm in it."* (OND 1 female)
- *"Though it is not an excuse but many students, especially the females, are from poor homes where money for the basic things of life is scarcely available. We have to pay tuition fees, feed in school, buy handouts and a lot of other needs have to be met. It is not surprising that the females give sex in exchange for money and other material things."* (OND 1 female)
- *"Apart from having multiple sex partners, we know that the girls on this campus can do anything for money. What I mean is that we have heard that some of them sleep with animals just for money."* (OND 2 male)
- *"The ladies on this campus are especially exposed to the infection in our barbing salon. We have only one on campus and there are days when the crowd in the salon can be very overwhelming for the barber. On such days, he does not even have time to sterilize his clipper before using it on the next person. More often than not we have no choice as going to town can be more expensive for us."* (IND 1 male)
- *"I cannot say of any case where girls sleep with men for money but I know a lot of unprotected sex and sharing of razor blades is happening on this campus."* (IND 1 female)

Many of the discussants were not sure if any student had the disease on the campus or not. Some responses were as follows:

- *"I can't say whether HIV exists on campus."* (HND 1 male)
- *"I've not seen any student with it so I cannot say if it is here (i'e the institution) or not."* (OND 1 female)
- *"I'm not sure if anyone has it here (i.e. the institution)."* (OND 1 male)

Some of the discussants were very sure that the disease was on the campus as revealed in the following statements:

- *"Yes they are here o! Students do all sorts of things but man must survive now. You can't blame some of them. Even me I dey hustle."* (OND 2 male)
- *"I won't be surprised if they are among us. You can't imagine the kind of things students do."* (OND 2 female)
- *"With the rate of unprotected sex that goes on in this campus, definitely some students have it."* (HND 2 female)

- *"I can't say whether HIV exists on campus."* (HND 1 male)
- *"I've not seen any student with it so I cannot say if it is here (i.e the institution) or not."* (OND 1 female)
- *"I'm not sure if anyone has it here (i.e. the institution)."* (OND 1 male)

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- *"I won't be surprised if they are among us. You can't imagine the kind of things students do."* (OND 2 female)
- *"With the rate of unprotected sex that goes on in this campus, definitely some students have it."* (HND 2 female)

Table 4.7: Respondents' HIV-related risk practices

| Risk | No. | % |
|---|---|---|
| **Have boy/girl friend (N=660):** | | |
| Yes | 472 | 71.5 |
| No | 148 | 22.4 |
| Not applicable | 28 | 4.2 |
| No response | 12 | 1.8 |
| **Number of boy/girl friends having (N=472):** | | |
| One boy/girl friend | 336 | 71.2 |
| More than one boy/girlfriend | 136 | 28.8 |
| **Ever had sex (N=660):** | | |
| Yes | 437 | 66.2 |
| No | 198 | 30.0 |
| No response | 25 | 3.8 |
| **Had sex in the 3 months preceding study (N=437):** | | |
| Yes | 282 | 64.4 |
| No | 136 | 31.1 |
| No response | 20 | 4.5 |
| **Use of condom during last sexual encounter (N=282):** | | |
| Yes | 193 | 68.4 |
| No | 89 | 31.6 |

Table 4.7: Respondents' HIV-related risk practices

| Risk | No. | % |
|---|---|---|
| **Have boy/girl friend (N=660):** | | |
| Yes | 472 | 71.5 |
| No | 148 | 22.4 |
| Not applicable | 28 | 4.2 |
| No response | 12 | 1.8 |
| **Number of boy/girl friends having (N=472):** | | |
| One boy/girl friend | 336 | 71.2 |
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| **Ever had sex (N=660):** | | |
| Yes | 437 | 66.2 |
| No | 198 | 30.0 |
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| **Had sex in the 3 months preceding study (N=437):** | | |
| Yes | 282 | 64.4 |
| No | 136 | 31.1 |
| No response | 20 | 4.5 |
| **Use of condom during last sexual encounter (N=282):** | | |
| Yes | 193 | 68.4 |
| No | 89 | 31.6 |

Table 4.7b

| Reasons for not using condom during last sexual encounter (N=89): | No | % |
|---|---|---|
| I need a child | 2 | 2.2 |
| We trust each other | 37 | 41.6 |
| My sexual partner is my spouse | 11 | 12.4 |
| You can't enjoy it | 15 | 16.9 |
| It is not 100% safe to prevent HIV | 3 | 3.4 |
| I used withdrawal method | 1 | 1.1 |
| I don't like it | 3 | 3.4 |
| It affects the womb | 2 | 2.2 |
| We have done HIV test | 11 | 12.4 |
| No place to get it (i.e. condom) | 2 | 2.2 |
| Religion does not permit use of condom | 2 | 2.2 |
| **Ever given/received money and/or gifts in exchange for sex (N=438):** | | |
| Yes | 61 | 13.9 |
| No | 337 | 76.9 |
| Not applicable | 31 | 7.1 |
| No response | 9 | 2.1 |
| **Ever used needles to inject self with drugs (N=660):** | | |
| Yes | 38 | 5.8 |
| No | 595 | 90.2 |
| Not applicable | 2 | 0.3 |
| No response | 25 | 3.8 |
| **Shared needles with someone else (N=38):** | | |
| Yes | 16 | 42.1 |
| No | 19 | 50.0 |
| No response | 3 | 7.9 |

Table 4.8: Proportion of respondents who had at least one friend of the opposite sex by gender

| Sex | Have boy/girl friend | | Chi-square value | p-value |
|---|---|---|---|---|
| | Yes (N = 472) | No (N = 188) | | |
| Male (N = 409) | 289 (70.7%) | 120 (29.3%) | 0.3 | 0.5 |
| Female (N = 251) | 183 (72.9%) | 68 (27.1%) | | |

**Table 4.9: Gender distribution of respondents in terms of whether they had ever had sex**

| Sex | Ever had sex | | Chi-square value | p-value |
|---|---|---|---|---|
| | Yes (N = 437) | No (N = 223) | | |
| Male | 294 (71.9%) | 115 (28.1%) | 14.8 | 0.00 |
| Female | 143 (57.0%) | 108 (43.0%) | | |

Table 4.10: Comparison of prevalence of use of condom during last sexual encounter by sex

| Sex | Use of condom at last sexual encounter | | Chi-square value | p-value |
|---|---|---|---|---|
| | Yes (N = 193) | No (N = 244) | | |
| Male (N = 294) | 139 (47.3%) | 155 (52.7%) | 4.8 | 0.00 |
| Female (N = 143) | 54 (37.8%) | 89 (62.2%) | | |

**Table 4.11: Distribution of respondents who indulged in HIV risk practices by selected demographic characteristics**

N = 61

| Demographic Variables | Indulgence in risky sexual practices* | | p-value |
|---|---|---|---|
| | Yes (%) | No (%) | |
| **Age (Years)** | | | 0.4 |
| 16 – 25 | 11.5 | 88.5 | |
| 26 – 35 | 86.9 | 13.1 | |
| >35 | 1.6 | 98.4 | |
| **Sex** | | | 0.9 |
| Male | 67.2 | 32.8 | |
| Female | 32.8 | 67.2 | |
| **Level of Study** | | | 0.06 |
| OND | 90.2 | 9.8 | |
| HND | 9.8 | 90.2 | |

*The risky sexual practices include giving or receiving gifts or money in exchange for sex

Table 4.12 Comparison of respondents' AIDS mean knowledge scores by Indulgence in sex in exchange for money/gifts

| | Knowledge of AIDS | | | | | |
|---|---|---|---|---|---|---|
| Involvement in transactional sex | Number | Mean scores | Variance | Std. Deviation | p-value | t-value |
| Yes | 61 | 11.0 | 8.4 | 2.9 | 0.4 | 0.8 |
| No | 337 | 11.3 | 9.1 | 3.0 | | |
| Total | 398 | 11.2 | - | - | | |

**Knowledge about HIV Counselling and Testing (HCT)**

A total of 349 respondents accounting for 52.8% were aware of HCT. The remaining 47.2% who were not aware of HCT were exempted from answering any other questions on HCT.

Television (60.5%) topped the list of the sources of information about HCT. Other sources included radio (53.9%), newspapers (47.3%), school (42.7%), and health workers (41.0%). Details of other sources are presented in figure 4.3. Many of the respondents (49.0%) first heard of HCT while in secondary school (see figure 4.4). Some others first heard about it while at the state polytechnic Lokoja (15.5%) and church (12.9%) (see figure 4.4 for other details).

Most of the discussants had also heard about HCT and gave their sources of information as television, radio, awareness campaigns on campus, church and newspapers. The radio was however more frequently mentioned. All discussants in the HND I male group, three discussants in the OND 2 female group and two discussants in the OND 2 male group had never heard about HCT. Below are some of their responses:

- *"I don't know what HCT is."* (HND I male)
- *"I have never heard of it. Can you tell us more?"* (HND I male)
- *"I cannot say what it is."* (OND 2 female)
- *"Both of us seem to be the only ones who do not know what it is. Please explain it."* (OND 2 male)

The mean knowledge score was 3.9 ± 4.5. A total of 13.2% scored 8 points and above. The distribution of the knowledge scores are presented in table 4.13. The comparison of the HCT mean knowledge scores of the respondents by sex is presented in table 4.14. The mean knowledge score for the males was 4.2 ± 4.6 while that of the females was 3.4 ± 4.3 with a significant difference ($p<0.05$). Table 4.15 highlights the comparison of the mean knowledge scores of the respondents by level of study in the polytechnic. The mean score for OND respondents was 3.6 ± 4.3 while that of the HND respondents was 5.7 ± 5.2 with a statistically significant difference ($p<0.05$).

A few (32.1%) of the respondents were aware of the places where HCT services were provided in Kogi state. Table 4.16 shows the places listed by respondents' where HCT services were offered in the state. The Federal Medical Centre, Lokoja, was mentioned by 14.6% of the respondents; General Hospital, Obangede was mentioned by 25.0% of the respondents. Other places mentioned by the respondents included General Hospital, Kabba, (8.9%), school medical centre (8.9%) and Crowther Memorial Anglican Church, Lokoja (1.8%). Other details are presented in the table under reference.

Among the discussants, just a few of them mentioned the following places as sites where HCT services are provided within Lokoja:

- *"Federal Medical Centre, Lokoja."* (OND 2 male)
- *"Agmedics laboratories."* (HND 1 female)
- *"St. John's hospital, Kabba."* (HND 1 female)
- *"General hospital, Okene."* (OND 2 male)
- *"School of nursing, Obangede."* (HND 2 female)

The respondents assessed themselves on the extent of their knowledge about HCT. Figure 4.5 shows that more than half, (57.0%), felt that they did not have sufficient knowledge about HCT. The issues relating to HCT which respondents wanted to know included how to prevent HIV induced stigmatization (0.5%), issues relating to the HIV test itself (20.6%), where to get drugs to treat the infection (12.1%), how to relate to People Living with HIV (PLWHIV) (4.0%), location of HCT services (7.0%), mode of operation of HCT centres (5.5%), more information about HIV (9.0%), how to provide HIV-related counselling people in need (5.0%), how to know when one's partner has the infection (0.5%), when symptoms of AIDS start (3.5%) and how HIV is transmitted (4.0%).

**Figure 4.3 Respondents' sources of information about HCT**

N=349

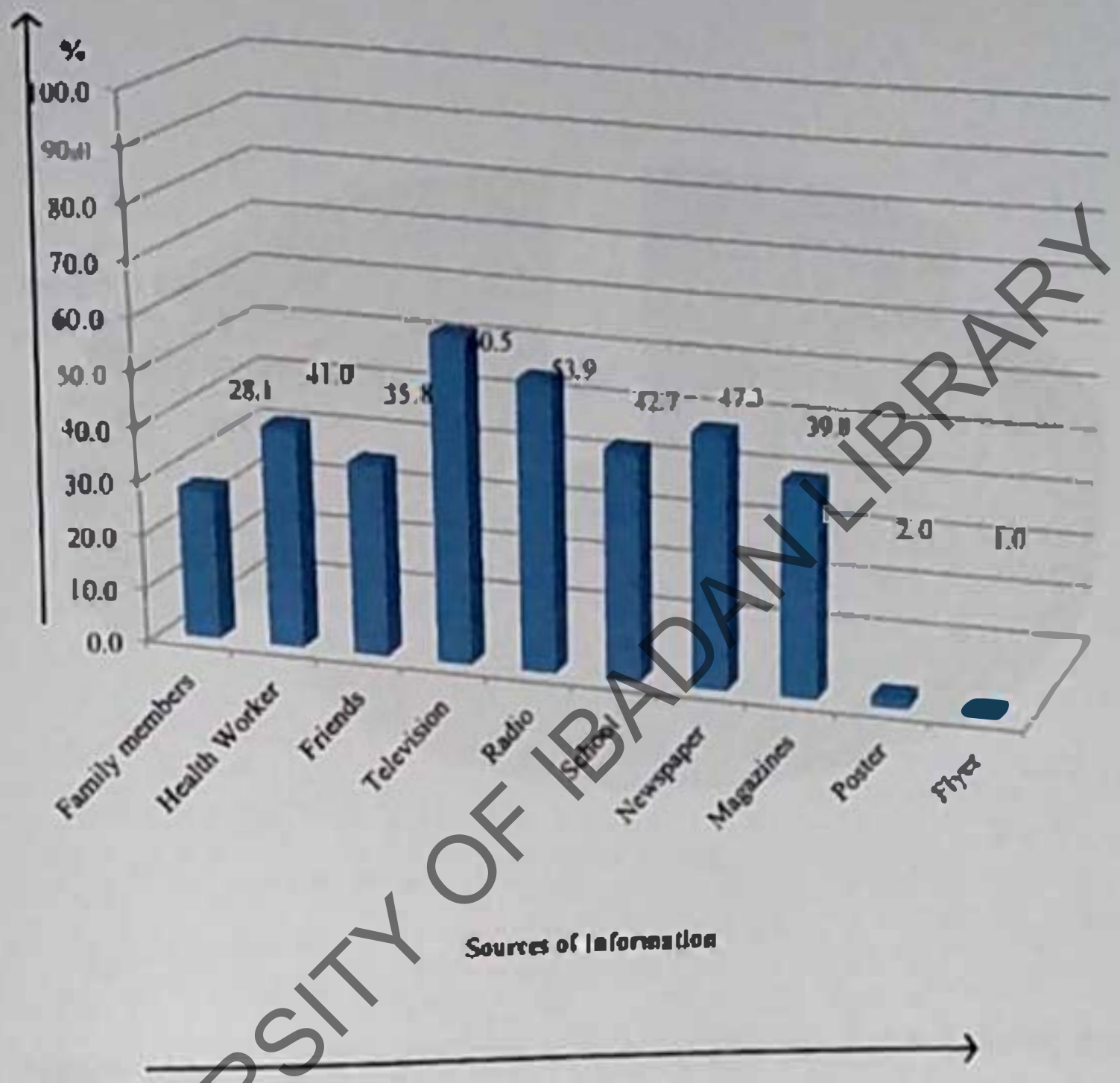
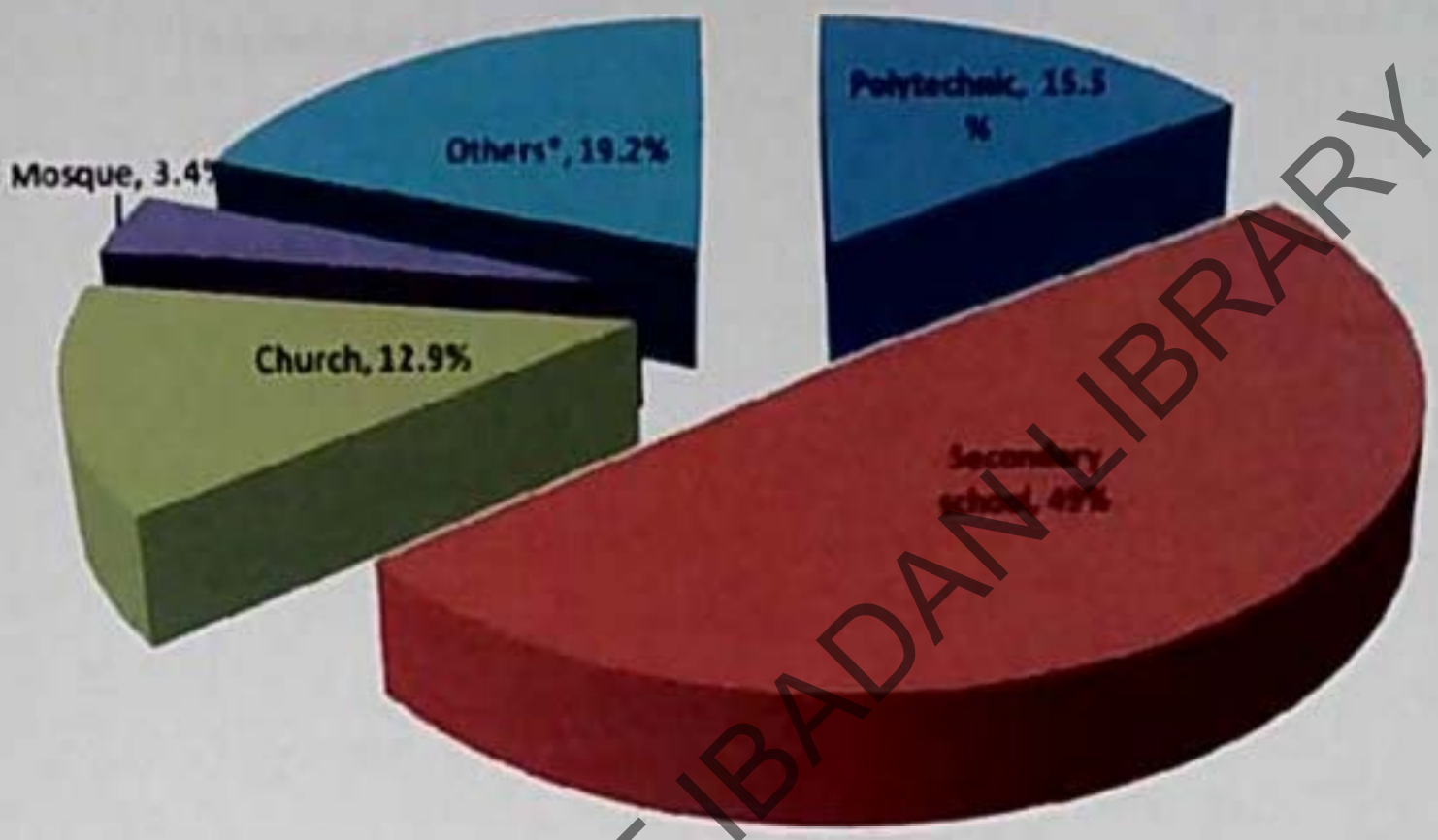


**Figure 4.4: Place of first awareness of HCT**

N=349




*Others include market (2.0%), HIV campaign (4.3%), home (0.9%), NYSC camp (2.3%) and no response (9.7%)

**Table 4.13: Respondents' knowledge scores relating to HIV Counselling and Testing (HCT)**

N=349

| Range of knowledge scores* | No. | % |
|---|---|---|
| 1 – 5 | 165 | 47.3 |
| 6 - 10 | 101 | 28.9 |
| 11 - 15 | 63 | 18.1 |
| 16 | 0 | 0 |

*Maximum score = 16

Mean score = 3.9 ± 4.5

Table 4.14: Comparison of respondents' HCT mean knowledge scores by sex

| | Knowledge of HCT | | | | | |
|---|---|---|---|---|---|---|
| Sex | Number | Mean | Variance | Std. Deviation | p-value | t-value |
| Male | 409 | 4.2 | 20.7 | 4.6 | 0.02 | 2.4 |
| Female | 251 | 3.4 | 18.6 | 4.3 | | |
| Total | 660 | 3.8 | | | | |

Table 4.15: Comparison of respondents' HCT mean knowledge scores by level of study

| Level of study | Number | Mean | Variance | Std. Deviation | p-value | t-value |
|---|---|---|---|---|---|---|
| OND | 554 | 3.6 | 18.1 | 4.3 | 0.00001 | 4.6 |
| HND | 106 | 5.7 | 26.7 | 5.2 | | |
| Total | 660 | 4.7 | - | - | | |

Table 4.16: Respondents' awareness and location of places where HCT services are offered in Kogi State

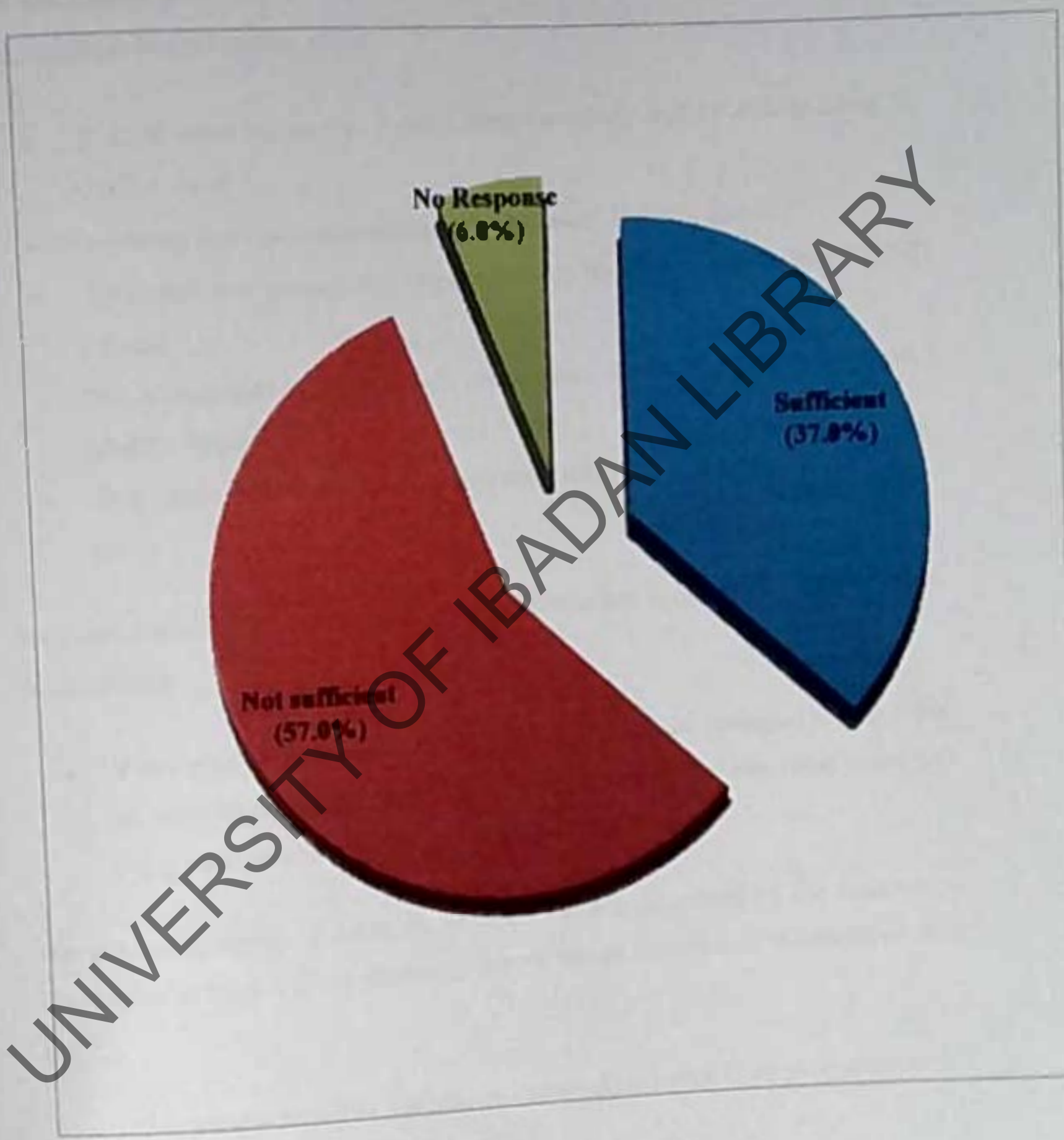
N=349

| Knowledge of where HCT services are offered | Number | % |
|---|---|---|
| Awareness of places where HCT is offered in Kogi state (N=349): | | |
| Yes | 112 | 32.1 |
| No | 206 | 59.0 |
| No response | 31 | 8.9 |
| Location of HCT services (N=112): | | |
| *Federal Medical Centre, Lokoja | 50 | 44.6 |
| *General Hospital, Obangede | 28 | 25.0 |
| *General Hospital, Kabba | 10 | 8.9 |
| School medical centre | 10 | 8.9 |
| State specialist hospital | 5 | 4.5 |
| School of Nursing Obangede | 4 | 3.6 |
| *Okene General Hospital | 3 | 2.7 |
| Crowther Memorial Anglican Church | 2 | 1.8 |

*Places where HCT services are actually offered

Figure 4.5: Respondents' self-assessment of their sufficiency of knowledge relating to HCT

N=349



**Perceptions about HIV Counselling and Testing (HCT)**

This section includes respondents' perceptions relating to HCT and AIDS generally. The discussants perceived AIDS to be a very serious disease condition. Typical views that highlight this perception were:

- *"If AIDS were not serious I don't think everybody will be talking about it."* (OND 1 male)
- *"Anything that can lead to death is very serious."* (HND 2 female)
- *"Of course it is serious. Any disease that has no cure is very serious."* (HND 2 male)
- *"No disease can be taken lightly. All diseases, including AIDS, are serious."* (OND 1 female)
- *"It is something to be taken seriously especially since it has no cure."* (HND 1 male)

Only one discussant perceived the disease condition not to be serious. According to the discussant:

- *"I don't believe it is really serious. I'm sure it can be managed even if it has no cure. Hypertension does not have a cure but those who have it are still living their normal lives."* (OND 2 male)

The perceived burden of AIDS on an individual was expressed by the discussants. The burden or effects of the disease on the individual are inherent in statements such as:

- *"I'm putting myself in that person's shoes. Depression is an understatement. I will probably die."* (OND 1 female)
- *"No matter the amount of noise made that being infected does not mean the end of your life, it can make one run mad."* (OND 2 female)
- *"I heard of one person that tried to kill herself when she heard she had the disease. I cannot imagine how she felt."* (HND 1 male)

- *"That thing is like a death warrant. Ha! I can't imagine if I was told today that I have HIV. There will be no need to live again. God forbid!"* (OND 2 male)
- *"Nobody can concentrate on his studies after hearing such news."* (HND 2 male)

The effects of the disease on the family are inherent in the following statements.

- *"I think the family will feel ashamed and not trust the individual again."* (HND 1 male)
- *"At least 60% of the families might see it as the end of life for that person and become sad even before he dies."* (OND 2 female)
- *"Some families can become divided over the situation. Some will support the person while others will not."* (HND 2 female)

The effects on the society are summarized in the following quotes:

- *"I will tell you the truth. The way we still see this disease in this country 95% of people will not want to have anything to do with such a person."* (HND 2 male)
- *"His family will stop sponsoring his education. They will think it is a waste since he is going to die. He could end up becoming a drop out and a problem to the society."* (OND 2 female)
- *"Most offices might refuse to employ such a person. What do you expect after that? He/she could resort to stealing."* (HND 1 female)

The survey respondents were requested to state the factors responsible for why many people do not want to test for HIV. The major factors listed included fear of knowing that one has the virus (73.6%), fear that other people would get to know about one's HIV status (71.6%) and fear of stigmatization of HIV positive individuals (69.3%) (See table 4.17).

Table 4.18 highlights respondents' opinion of what other people would think if they decided to go for HIV testing. Many respondents (45.5%) said their friends of the opposite sex would support it, 41.9% said their other friends will support it, while

- *"That thing is like a death warrant. Ha! I can't imagine if I was told today that I have HIV. There will be no need to live again. God forbid!"* (OND 2 male)
- *"Nobody can concentrate on his studies after hearing such news."* (HND 2 male)

The effects of the disease on the family are inherent in the following statements:

- *"I think the family will feel ashamed and not trust the individual again."* (HND 1 male)
- *"At least 60% of the families might see it as the end of life for that person and become sad even before he dies."* (OND 2 female)
- *"Some families can become divided over the situation. Some will support the person while others will not."* (HND 2 female)

The effects on the society are summarized in the following quotes:

- *"I will tell you the truth. The way we will see this disease in this country 95% of people will not want to have anything to do with such a person."* (HND 2 male)
- *"His family will stop sponsoring his education. They will think it is a waste since he is going to die. He could end up becoming a drop out and a problem to the society."* (OND 2 female)
- *"Most offices might refuse to employ such a person. What do you expect after this? He/she could resort to stealing."* (HND 1 female)

The survey respondents were requested to state the factors responsible for why many people do not want to test for HIV. The major factors listed included fear of knowing that one has the virus (73.6%), fear that other people would get to know about one's HIV status (71.6%) and fear of stigmatization of HIV positive individuals (69.3%) (See table 4.17).

Table 4.18 highlights respondents' opinion of what other people would think if they decided to go for HIV testing. Many respondents (45.5%) said their friends of the opposite sex would support it, 41.9% said their other friends will support it, while

69.3% said their fiancé/fiancée would support such an action. The details about what would be the reactions of respondents' significant others are shown in the table.

Other perceptions of the respondents with regards to HCT are presented in table 4.19. A total 33.7% respondents strongly agreed that anyone suspected of having HIV but refused to go for HCT should be forced to do so; 44.4% strongly agreed that every student should be tested for HIV before admission in to the polytechnic. Many of the discussants were of the opinion that everybody should go for HCT service irrespective of their health status as shown in the following quotes:

- *"I think everybody should go but I won't lie o. Me I can't go."* (HND 2 female)
- *"You don't have to wait till when you are ill before going to test for HIV. The main issue is summoning up the courage to go."* (HND 1 female)
- *"It is good to check so you can be assured that you are free."* (OND 2 male)
- *"We have heard that it does not show on the face of an infected person so no one can really be sure. It is good to go for the test so you can be sure."* (HND 1 male)

On when a person should go for HCT 67.0% said a person could go for testing anytime so as to know his/her HIV status and 23.2% said it should be done before marriage (see table 4.19 for details). Several of the respondents (28.9%) were of view that HIV was a problem on their campus (see figure 4.7). The reasons for regarding HIV to be a problem are presented in table 4.20. The reason that topped the list was that unprotected sex (46.5%) was very rampant on campus. This was followed by the disclosure that some students had tested positive to HIV (40.6%).

When asked about their chances of being infected by HIV, 55.6% respondents said they could never be infected and 10.9% said there was some chance of their being infected. The details of reasons adduced for their perceived vulnerability to HIV are presented in table 4.21. Majority of male and female discussants believed that the chances of students on the campus being infected by HIV are very high. Views relating to the vulnerability of the student population included:

- *"I said very high because students have sex a lot and they do not use condom."* (OND I male)
- *"My opinion is that it is very high. It is not just sex but also sharing of razor blades which is very common in this school."* (HND 2 female)
- *"I will say there is a 20% chance. Students are very smart of They know how to look after themselves."* (OND 2 female)

**Table 4.17: Perceived reasons/factors accounting for people's non-willingness to test for HIV**

N=349

| Factors/reasons responsible for why many people do not want to test for HIV* | Number* | | | |
|---|---|---|---|---|
| | Yes (%) | No (%) | Don't Know (%) | No Response (%) |
| Fear of knowing that one is having the virus | 73.6 | 5.4 | 2.3 | 18.6 |
| Fear that other people will get to know about one's HIV status | 71.6 | 7.2 | 2.3 | 18.9 |
| Fear of stigmatization of HIV positive individuals | 69.3 | 7.7 | 4.9 | 18.1 |
| People do not know where to go for the test | 45.8 | 26.6 | 5.7 | 21.8 |
| Lack of treatment for HIV positive individuals | 41.5 | 27.2 | 6.6 | 24.6 |
| Locating HCT centre too close to one's neighbourhood | 28.7 | 34.4 | 14.0 | 22.9 |
| Locating HCT centre in a hospital | 27.8 | 35.8 | 14.3 | 22.1 |
| HCT centre too far away from one's neighbourhood | 25.2 | 40.7 | 13.8 | 20.3 |
| One can be detained if one is found to be having HIV | 24.1 | 49.9 | 5.4 | 20.6 |
| Unfriendly attitude of HCT providers | 23.5 | 41.3 | 12.9 | 22.3 |
| Cost of HCT | 17.8 | 50.1 | 9.5 | 22.6 |
| Painful effects of needles | 14.0 | 56.4 | 7.7 | 21.8 |
| Long time of waiting for results | 12.6 | 53.6 | 13.2 | 20.6 |

*These were multiple responses

Table 4.18: Respondents' perceptions of other people's reaction if they decided to go for HCT services

| Categories of people and what their reactions might be | No. | % |
|---|---|---|
| **Boy/girl friend (N=275):** | | |
| Would Support it | 125 | 45.5 |
| Would Condemn it | 53 | 19.3 |
| Would be Sceptical/Suspicious | 73 | 26.5 |
| Don't know | 24 | 8.7 |
| **Other friends (N=258):** | | |
| Would Support it | 108 | 41.9 |
| Would Condemn it | 78 | 30.2 |
| Would be Sceptical/Suspicious | 46 | 17.8 |
| Don't know | 26 | 10.1 |
| **Fiancée (N=261):** | | |
| Would Support it | 181 | 69.3 |
| Would Condemn it | 32 | 12.3 |
| Would be Sceptical/Suspicious | 29 | 11.1 |
| Don't know | 19 | 7.3 |
| **Mother (N=262):** | | |
| Would Support it | 182 | 69.5 |
| Would Condemn it | 33 | 12.6 |
| Would be Sceptical/Suspicious | 20 | 7.6 |
| Don't know | 27 | 10.3 |
| **Father (N=261):** | | |
| Would Support it | 186 | 71.3 |
| Would Condemn it | 29 | 11.1 |
| Would be Sceptical/Suspicious | 19 | 7.3 |
| Don't know | 27 | 10.3 |
| **Relations (N=261):** | | |
| Would Support it | 140 | 53.6 |
| Would Condemn it | 44 | 16.9 |
| Would be Sceptical/Suspicious | 43 | 16.5 |
| Don't know | 34 | 13.0 |
| **Pastor/Imam (N=259):** | | |
| Would Support it | 190 | 73.4 |
| Would Condemn it | 31 | 12.0 |
| Would be Sceptical/Suspicious | 15 | 5.8 |
| Don't know | 23 | 8.8 |
| **Peers/School mates (N=256):** | | |
| Would Support it | 89 | 34.8 |
| Would Condemn it | 73 | 28.5 |
| Would be Sceptical/Suspicious | 59 | 23.0 |
| Don't know | 35 | 13.7 |
| **Neighbour (N=262):** | | |
| Would Support it | 88 | 33.6 |
| Would Condemn it | 58 | 22.1 |
| Would be Sceptical/Suspicious | 70 | 26.7 |
| Don't know | 46 | 17.6 |

Table 4.19: Respondents' views on HCT

| Respondents' Views | No | % |
|---|---|---|
| **Anyone who is suspected of having HIV but refuses to go for HCT should be forced to do so (N=303):** | | |
| Strongly Agree | 102 | 33.7 |
| Agree | 64 | 21.1 |
| Undecided | 18 | 5.9 |
| Disagree | 90 | 29.7 |
| Strongly Disagree | 29 | 9.6 |
| **Every student should be tested for HIV before admission in to this polytechnic (N=302):** | | |
| Strongly Agree | 134 | 44.4 |
| Agree | 83 | 27.5 |
| Undecided | 12 | 3.9 |
| Disagree | 35 | 11.6 |
| Strongly Disagree | 38 | 12.6 |
| **Time when people should go for HCT (N=285)** | | |
| Anytime so as to know ones status | 191 | 67.0 |
| When one falls sick every now and then | 25 | 8.7 |
| Before marriage | 66 | 23.2 |
| When one wants to travel abroad | 3 | 1.1 |

**Figure 4.6:** **Respondents' view on whether HIV is a problem on campus or not**

N=349

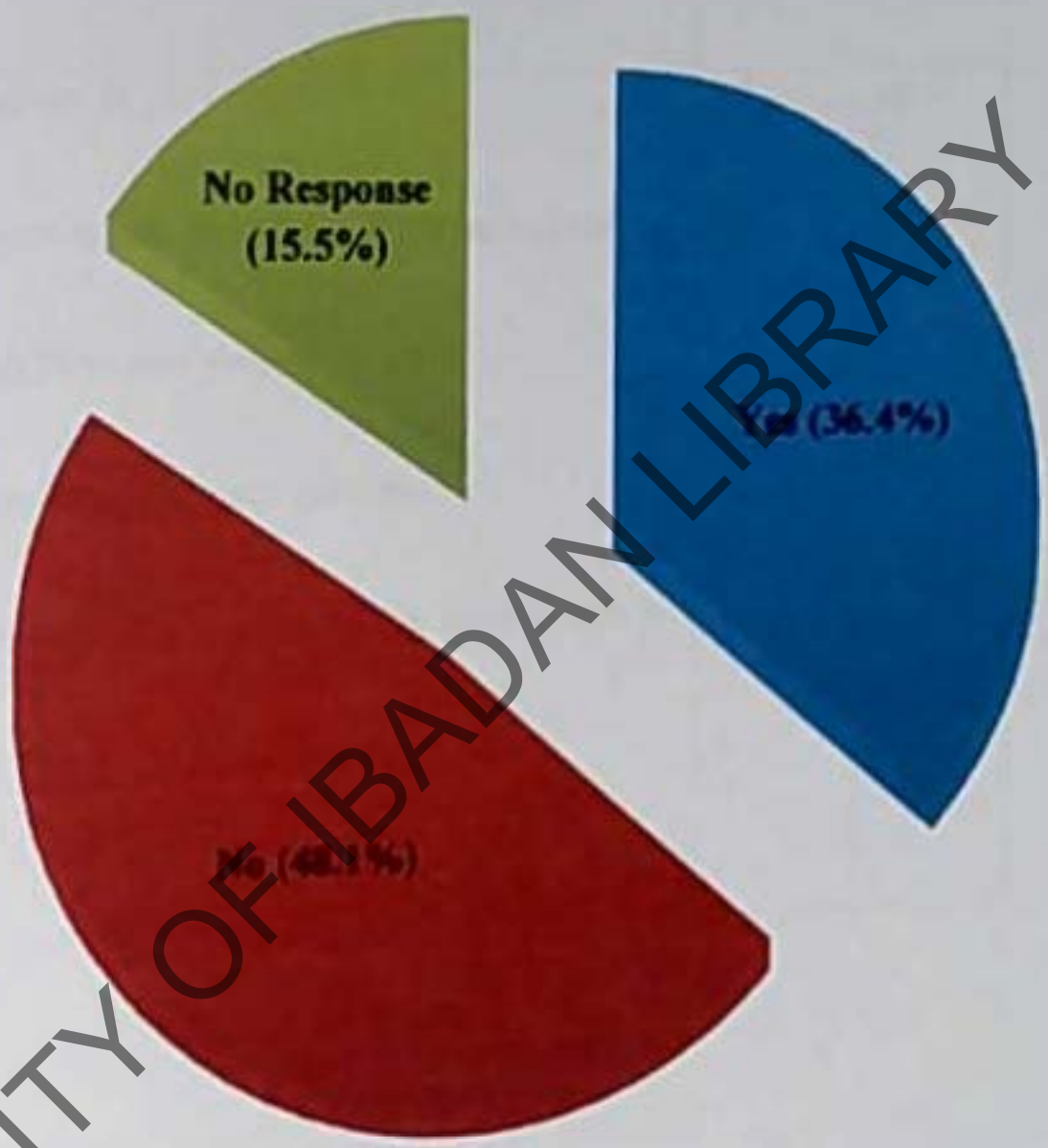


**Table 4.20: Respondents' reasons for perceiving HIV to be a problem on campus**

N=101

| Reasons for perceiving HIV to be a problem on campus | No. | % |
|---|---|---|
| Unprotected sex is very rampant | 47 | 46.5 |
| Some students tested positive at the medical centre | 41 | 40.6 |
| HIV and AIDS is everywhere | 9 | 8.9 |
| Students don't choose right partners | 2 | 2.0 |
| There is discrimination so those that have it hide it | 1 | 1.0 |
| Awareness of HIV is still relatively low | 1 | 1.0 |

**Table 4.21: Respondents' responses regarding their perceived pattern of vulnerability to HIV**

| Perceived chance of being infected and reasons adduced | No. | % |
|---|---|---|
| **I can never be infected with HIV (N=194)** | | |
| Indulgence in HIV-related precautionary measures | 119 | 61.3 |
| I am extraordinarily created/unique in nature/filled with the blood of Jesus | 2 | 1.0 |
| Abstaining from sex | 51 | 26.3 |
| Avoidance unsterilized equipment | 22 | 11.3 |
| **There is some chance that I can be infected with HIV (N=38)** | | |
| It comes in different ways | 10 | 26.3 |
| I do not take precautions/use condom | 16 | 42.1 |
| **There is a high chance of me being infected with HIV (N=23)** | | |
| I have a person living with the virus | 3 | 13.0 |
| My husband ask for sex while he has extramarital affairs | 7 | 30.4 |
| I share blade and needles/unsterilized metals | 13 | 56.5 |
| **I do not know my chances of being infected by HIV (N=94)** | | |
| I don't think about it | 13 | 13.8 |
| I used to have unprotected sex long ago but I have stopped | 42 | 44.7 |
| I am a virgin but I share razor blades | 3 | 3.2 |
| Not interested | 16 | 17.0 |
| No response | 20 | 21.3 |

### Attitude to HIV Counselling and Testing (HCT)

The respondents' attitude to HCT was measured using their responses to statements about HCT. Table 4.22 highlights these attitudinal statements.

Overall, majority of the respondents had positive attitudinal disposition to the use and desirability of HCT. For example, a majority (67.0%) disagreed with the belief that HCT is for sexually active persons alone (42.4% - disagree; 24.6% strongly disagree). Other positive dispositions among the respondents are inherent in their rejection of the beliefs that those who patronize HCT centres are HIV positive persons (51.1% - disagree; 34.5% - strongly disagree); only people who suspect that they are HIV positive should go for HCT (55.1% - disagree; 24.3% - strongly disagree). A majority (47.7% - agree; 40.6% - strongly agree) were of the view that going for HCT is a good practice for everyone.

Many discussants expressed views that showed negative attitude to adoption of HCT. Such views included:

- *"At all, at all! You might even go to the health facility and be given a positive result that is not yours. We have heard of such things happening."* (OND 2 female)
- *"You mean I should just get up and go to the health centre to request for HIV test? Impossible!* (HND 1 male)
- *"It doesn't sound normal that a person will just get up, go to the health centre and ask to be tested for HIV. That is my opinion sha."* (HND 1 male)

Other views of the FGD participants with regards to their attitudes included:

- *"I think it will benefit us if an HCT centre is set up on this campus. It might help stop spread of HIV infection."* (HND 1 female)
- *"No, they should not bring any HCT centre here. Students will be too afraid to use it."* (OND 2 male)

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Other views of the FGD participants with regards to their attitudes included:

- *"I think it will benefit us if an HCT centre is set up on this campus. It might help stop spread of HIV infection."* (HND 1 female)
- *"No, they should not bring any HCT centre here. Students will be too afraid to use it."* (OND 2 male)

- *"You don't know the way things happen on this campus. If one or two students go there and tested positive and the news leaks out, I can bet you that no one will go there again."* (HND 2 female)
- *"Students will not go there because everyone will think they have AIDS."* (OND 1 male)
- *"Let us not deceive ourselves. No student will go near the place unless they are really sick."* (OND 2 female)
- *"Nobody will use it unless it is made compulsory. And even then, I cannot guarantee anyone will go near the place."* (OND 1 female)

Discussants offered their suggestions on how an HCT centre should be designed and operated in the campus. These are summarised as follows:

- *"The centre should be at the students' centre where the high rate of activities will serve as a cover for anyone going for the test."* (OND 2 male)
- *"Almost all students have their lectures in the morning till about 4pm. I suggest that a testing centre be open from 6pm to 12 midnight."* (OND 2 female)
- *"I think it should be in the health centre so that when someone goes there, other people will not really know what they have gone for."* (HND 1 female)
- *"The staff must be people who do not talk much. People who talk too much can leak any secret."* (HND 2 female)
- *"Any nurse working there must not behave "somehow" and think that everyone that comes for the test is a wayward person."* (OND 1 female)
- *"I think the testing place can be located anywhere far from the students' hostels so that nobody will see anyone going there."* (HND 1 female)
- *"The services should be free. It is not good to ask students to pay for a test which could change their life forever."* (HND 2 male)

**Table 4.22: Respondents' attitude to HCT**

| Attitudinal Statements | Attitudinal Disposition* | | | | |
|---|---|---|---|---|---|
| | SA (%) | A (%) | U (%) | D (%) | SD (%) |
| HCT is for sexually active individuals alone (N=281) | 42 (14.9) | 38 (13.5) | 13 (4.6) | 119 (42.4) | 69 (24.6) |
| Those who visit HCT centres are HIV positive persons (N=278) | 13 (4.7) | 23 (8.3) | 4 (1.4) | 142 (51.1) | 96 (34.5) |
| HCT is not necessary because it causes unnecessary anxiety or fear (N=274) | 32 (11.6) | 64 (23.4) | 9 (3.3) | 109 (39.8) | 60 (21.9) |
| HCT centres are not necessary in our school because people will think we have AIDS on campus (N=277) | 27 (9.8) | 46 (16.6) | 9 (3.2) | 117 (42.2) | 78 (28.2) |
| It is advisable for all students to go for HCT (N=277) | 133 (48.0) | 111 (40.1) | 6 (2.2) | 14 (5.1) | 13 (4.6) |
| Only people who suspect that they are HIV positive should go for HCT (N=272) | 21 (7.7) | 24 (8.8) | 11 (4.1) | 150 (55.1) | 66 (24.3) |
| It is good for everyone to go for HCT occasionally (N=272) | 104 (38.2) | 124 (45.6) | 13 (4.8) | 25 (9.2) | 6 (2.2) |
| HCT is not necessary because the stress that follows the test is worse than the HIV itself (N=264) | 27 (10.2) | 27 (10.2) | 23 (8.8) | 121 (45.8) | 66 (25.0) |
| Only people who have been living wayward lives should go for HCT (N=266) | 29 (10.9) | 28 (10.5) | 9 (3.4) | 119 (44.7) | 81 (30.5) |
| Going for HCT is a good practice for everyone (N=266) | 127 (47.7) | 108 (40.6) | 9 (3.4) | 14 (5.3) | 8 (3.0) |
| I will use a HCT service whether it is free or not (N=263) | 92 (35.0) | 114 (43.3) | 40 (15.3) | 13 (4.9) | 4 (1.5) |
| I cannot go for HCT because people will think I am infected by HIV (N=269) | 22 (8.2) | 36 (13.4) | 17 (6.3) | 123 (45.7) | 71 (26.4) |
| I am willing to ask my sexual partner to go for HCT (N=264) | 122 (46.2) | 96 (36.4) | 27 (10.2) | 11 (4.2) | 8 (3.0) |

*SA – Strongly Agree; A – Agree; U – Undecided; D – Disagree; SD – Strongly Disagree

**Pattern of utilisation of and willingness to use HCT services**

Over half of the respondents (56.4%) had never gone for HCT. Only 27.5% had ever done so (see table 4.23). Of the 27.5% that had ever done so, a majority (55.2%) used the HCT services because they wanted to know their status. Some respondents (20.8%) went to an HCT centre with a friend and they seized the opportunity to use the HCT service too.

The 56.4% respondents who had never used an HCT centre were requested to adduce reasons for their action. Lack of interest (44.7%) topped the list of the reasons provided (for details see table 4.23). When asked if respondents would be willing to go for HCT if the opportunity is provided, only 21.8% replied in the affirmative. (See figure 4.7). The reasons for willingness to utilise HCT services if there was the opportunity are provided in table 4.24. Three (7.0%) respondents wanted to know how HIV affects the opposite sex, one (2.3%) respondent said "*to know how HIV is transferred through unsterilized equipment.*" A total of 90.7% just wanted to know their status.

Perceived benefits of HCT services mentioned by the focus group discussions were as follows:

- "*Even if the result is negative, I'm very sure that whoever goes for the test will change the way he behaves. Me I never get liver to go (I have not summoned up the courage to go for the test).*" (OND 1 male)
- "*One advantage that I have heard about testing for HCT is that they talk to people who test positive so that they will not be depressed*" (OND 1 female)
- "*You will get free condoms.*" (OND 2 male)
- "*I believe HCT will reduce anxiety.*" (HND 1 female)
- "*People will behave better.*" (HND 2 male)

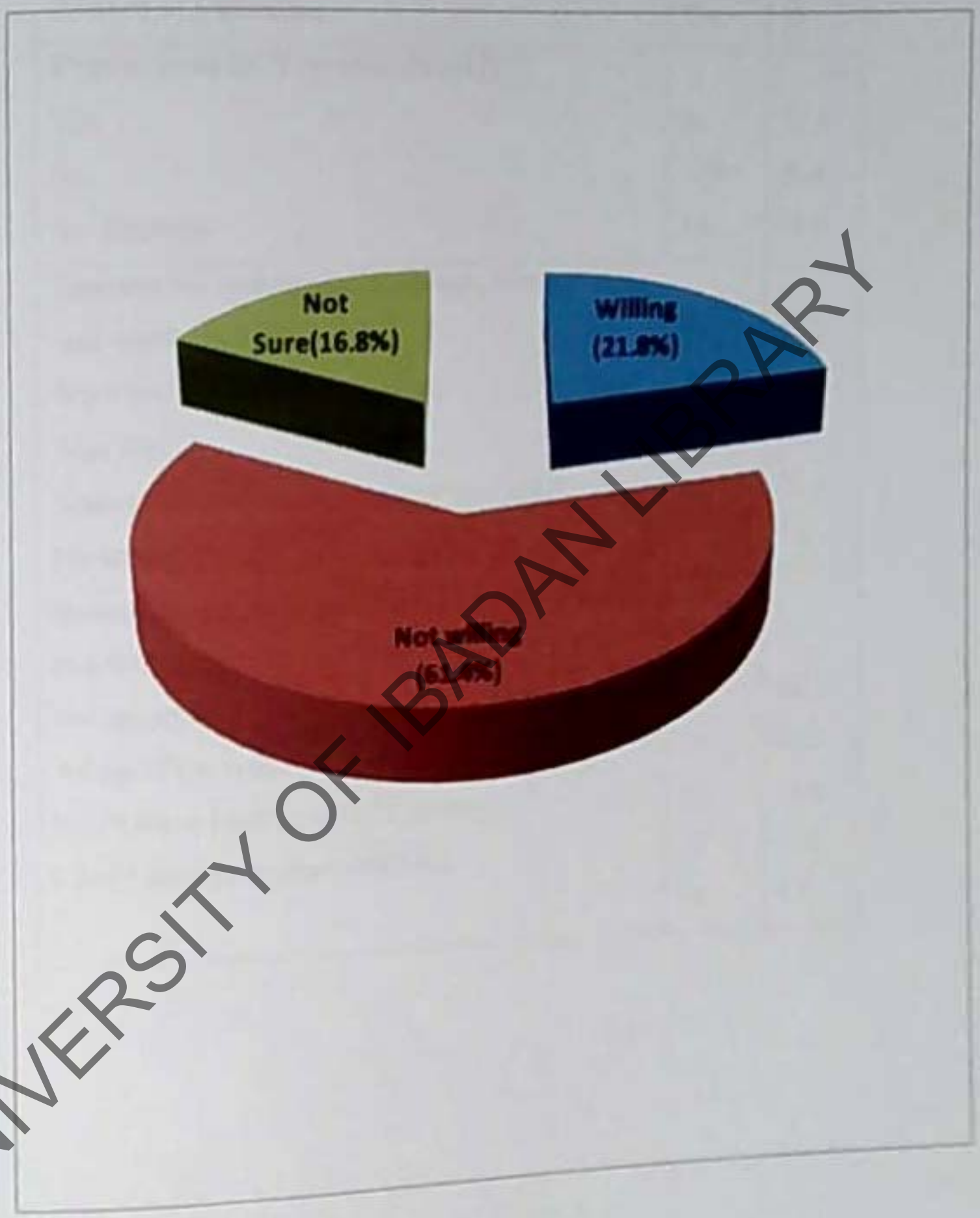
Of the 121 respondents that were not willing to go for HCT, 79.3% said they had done HIV test before, 11.6% had the fear of being positive, while 9.1% said they were worried about people's reaction.

The opinion of the focus group discussants was explored in respect of what the reaction of students would be if HCT was made compulsory; the reactions are captured in the following responses;

- *"Haba! We are adults and it is our health. Nobody should force us to do what we don't want to do."* (OND 2 female)
- *"If their reason of making HCT compulsory is to help the ones who turn out positive, then I agree it should be made compulsory. However if they want to expel the HIV positive ones then my answer is no."* (HND 2 male)
- *"Making testing compulsory will help the school authorities to know the state of health of the students and help out where necessary."* (OND 2 female)
- *"I do not believe it should be made compulsory. It is our health and we have a choice."* (OND 2 male)
- *"What will making it compulsory achieve? Then they should make sure no student is pregnant before coming into this institution."* (HND 2 female)

**Figure 4.7: Respondents' Willingness to go for HCT**

N=197*




*These consisted only of respondents who have never utilised HCT services

Table 4.23: Respondents' Pattern of Utilisation and Willingness to use HCT Services

| Pattern of Utilisation | No. | % |
|---|---|---|
| **Ever utilised HCT services (N=349)** | | |
| Yes | 96 | 27.5 |
| No | 197 | 56.4 |
| No Response | 56 | 16.0 |
| **Reasons for utilising HCT services (N=96)** | | |
| Just wanted to know status | 53 | 55.2 |
| Went with a friend and tested too | 20 | 20.8 |
| Was very ill | 5 | 5.2 |
| Wanted to know more about HIV and AIDS | 11 | 11.5 |
| No response | 7 | 7.3 |
| **Reason(s) for not utilising HCT services (N=197)** | | |
| Not interested | 88 | 44.7 |
| No opportunity to go | 32 | 16.2 |
| Afraid of the outcome | 37 | 18.8 |
| Don't know location of HCT centres | 22 | 11.2 |
| I don't indulge in unprotected sex | 18 | 9.1 |

**Table 4.24: Reasons why respondents would go or not go for HCT if provided the opportunity**

| Reasons | No. | % |
|---|---|---|
| **Why would you be willing to go for HCT? (N=43)** | | |
| To know how HIV affects the opposite sex | 3 | 7.0 |
| To know how HIV is transferred through unsterilized equipment | 1 | 2.3 |
| Just to know my status | 39 | 90.7 |
| **Why would you not want to go for HCT? (N=121)** | | |
| Have done the test before | 96 | 79.3 |
| Fear of what people will think/say if found to be positive | 25 | 20.7 |

# CHAPTER FIVE

# DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

Young persons are a highly vulnerable population in Nigeria with respect to HIV infection. The latest sero-prevalence study shows that the prevalence of HIV infection in young persons aged ≤24 years is 2.4%. Tertiary school students are particularly vulnerable to HIV and AIDS due to their unsafe sexual behaviour and experimentation with alcohol and drugs as well as their failure to perceive themselves as being at risk of infection (Ojikutu, Adeleke, Yusuf, and Ajijola, 2010). The prevalence of HIV among young persons in the North central geopolitical zone where the study was conducted is 7.5% (NACA, 2010). This is clearly above the national average of 4.1% (FMoH, 2010). This implies that students of the polytechnic are vulnerable to the infection.

## Socio-demographic information of participants

The average age of the respondents was 22.8 years, implying that they were mostly young people. More than half of the respondents were males, a trend which has also been observed in similar studies involving young people in recent years in institutions of higher learning (Ojikutu et al., 2010; Folaranmi et al., 2008; Tefera et al., 2002; The Population Council, 2001). Majority of the respondents were in the OND programme at the time of this study. This was so because more courses were offered at the OND level than at the Higher National Diploma (HND) level at the Kogi State Polytechnic. Several HND courses were yet to be accredited and so were not been run at the time of the study.

## Knowledge about HIV and AIDS and HCT

The respondents possessed a reasonable level of knowledge of HIV and AIDS. This is consistent with the findings of similar studies conducted among Nigerian youth in Lagos (Durojaiye, 2009) and University students in Southwest Ethiopia (Tefera et al., 2002).

The level of awareness of HIV and AIDS was very high (97.4%) among the respondents; just a small percentage, 2.6% of the respondents had never heard of HIV

and AIDS. This is consistent with findings from previous studies on HIV and AIDS (Ogundipe, 2007; Alemu et al., 2004; Tefera et al., 2002). The result of a study conducted in River state, Nigeria which revealed that 93% of the adolescents had heard of HIV and AIDS also confirms this finding. though this level of awareness was not found to correlate with their HIV and AIDS knowledge level (Wodi, 2005). This may be related to the aggressive campaigns on HIV and AIDS that have occurred over the years. Respondents' knowledge of AIDS was however low in some areas. A typical example is in respect of skin cancer as one of the likely symptoms of AIDS. Only few respondents mentioned cancer of the skin as one of the symptoms of AIDS. This might be connected with the fact that this symptom is rare in this part of the world. This suggests the need for public enlightenment programmes to focus on the signs and symptoms of AIDS.

It has been reported that in some cases people's overall knowledge about the nature of HIV and AIDS could be low despite their high level of awareness of the disease condition (Wodi, 2005; Isibor and Ajuwon, 2004); such a situation was not noted in this study. Though FGD discussants were aware of the pandemic, many of them could not differentiate between the cause of the infection and its modes of transmission. Contributions made by several of them showed that they equated modes of transmission with the cause of the infection. This pattern of use of the concepts of "modes of transmission" and "cause" of the infection interchangeably has been observed in other studies (Mphaya, 2008; Hlinay, 2008).

Friends were listed as the most popular source of information about HIV and AIDS. This buttresses the findings from other researches that peers are [illegible] people's primary sources of information about a range of reproductive health issues (Ling et al. 2009; The Population Council, 2001). According to the

Population Council (2001), findings from the HORIZONS project revealed that a majority of youths obtained information about HIV and AIDS from peers. The findings from this study suggest that peer education approach holds great potential for the successful dissemination of HIV and AIDS-related information among students of the institutions. Most other studies on HIV in Nigeria have revealed that the mass media is the primary source of information (Durojaiye, 2009).

It is noteworthy that health workers were not listed as a major source of information about HIV and AIDS by the respondents. A plausible factor could be that the youths constitute a relatively healthy segment of the population and so their contact with health care providers for exchange of information is often restricted. Furthermore, most people in Nigeria including the in-school population studied indulge in self-medication in primary health care; as a result, young people seldom interact with health workers. Lastly, few health care providers in Nigeria indulge in community-based HIV and AIDS intervention projects; so limited opportunities exist for them to share HIV and AIDS-related information with the youths in the communities including schools.

More than half of the respondents were aware of HCT and the mass media constituted their commonest sources of information about the service. The electronic media (Radio and Television) topped the list of the sources of information about HCT. This reinforces the important role of the mass media in health communication in Nigeria. In a similar study carried out among Polytechnic students in Southeast Nigeria (Ikechebelu, Udigwe, Ikechebelu and Imoh., 2006) and another study on use of HCT services in a high risk area of China (Zhou, Guo, Fan, Tian and Zhou, 2009) the mass media and churches were the most common sources of information on HCT.

On the other hand, detailed knowledge about HCT was not high. The mean knowledge score among the Kogi state Polytechnic students on HCT was 3.9 out of a maximum of 16 points. This indicates a rather low level of knowledge about HCT. The major benefit of HCT that discussants in the FGD could mention was that HCT reduces the anxiety associated with not knowing ones HIV status. This

low knowledge of HCT among the respondents might not be unconnected with the fact that information relating to HCT is mostly available in hospitals and antenatal clinics that are not accessible to young people in school settings.

Of the 349 respondents that had ever heard of HCT, 59.0% were not aware of places where HCT services could be obtained in Kogi state. The implication of this is that information dissemination about HCT should include disclosure about the centres where the services are provided. It is to be noted that the HCT centre not too far from the study setting is the Federal Medical Centre, Lokoja. The General Hospital Obangede and Okene General Hospital mentioned by some respondents are other sites where the services are provided in Kogi state. Most of these centres mainly provide services relating to Prevention of Mother to Child Transmission (PMTCT). They are neither youth friendly nor youth sensitive. The General Hospital Obangede is the MTN Foundation HCT centre which has been championing the social marketing of the benefit of HCT in the prevention of HIV infection in Kogi State.

When asked to assess themselves on their knowledge of HCT, more than half (57.0%) of the respondents felt they had insufficient knowledge about HCT and expressed a desire to know more about the service. This unmet educational need should be addressed through appropriate strategies. In depth knowledge of HCT has potential for facilitating its adoption by students.

**HIV risk behaviours, risk perception and attitude to HCT**

Though knowledge is a key behavioural antecedent (Green & Kreuter, 1991) within the context of HIV and AIDS, findings from this study seem to indicate that awareness of the condition does not translate to the adoption of preventive measures. There was a significantly high level of risky sexual behaviours among the respondents even though their knowledge about HIV and AIDS was high. The college environment has been found to provide opportunities for HIV high-risk behaviours; such high risk behaviours include unsafe sex and multiple partnerships (Adefuye, Abiona, Balogun and Lukobo-Durrell, 2009). According to Durojaiye (2009), this explains why the pandemic of HIV remains on the increase among young people. He observed that though knowledge of sexual

aspects of the disease was quite high in the study group, their low risk-perception hindered their commitment to positive behaviour change. In an earlier study by Okunbor and Agwubike (2007) on assessing strategies for reducing HIV and AIDS scourge among students of five tertiary institutions in Edo State, Nigeria, it was observed that some respondents perceived themselves as not vulnerable to AIDS. This is consistent with findings from this study where high level of risky sexual behaviour was observed against the backdrop of low risk perception as displayed by some of the respondents. This finding is also similar to that of some other studies which revealed that a majority of young people had a low risk perception of HIV and AIDS in Nigeria (Odu., Asekun-Olarinmoye, Bamidele, Egbewale, Amusan and Olowu, 2008; Harding, Anadu, Gray and Champeau, 1999). However, discussants in the FGDs believed otherwise. In majority of the groups the perception of susceptibility to HIV infection was high and the reason adduced for this was the high level of risky sexual behaviours among students of the institution which could facilitate the transmission of HIV. The risk practices mentioned by the discussants were unprotected sex and high volume of sexual activity.

The attitudes of the respondents to HIV and AIDS as well as HCT could be gleaned from their responses. An appreciable number of the respondents believed that HCT is for sexually active individuals alone. Few of them were of the view that HCT is not necessary because it causes unnecessary anxiety and fear. These responses are indicative of a negative attitude to HCT.

The opinion of some of the respondents was that anyone suspected of having HIV but refuses to go for HCT should be forced to do so. This is also a negative attitude because it negates the voluntary principle of HCT and peoples' fundamental human rights generally. Some of the respondents also believe that every student should be tested for HIV before admission in to the polytechnic. These attitudinal predispositions have potential for leading to discrimination against HIV infected people. The belief among most respondents that an individual should make use of HCT services anytime so as to know his/her HIV status however reflects a positive attitudinal predisposition. The design of

educational programmes geared towards the prevention HIV and the promotion of HCT should take the negative attitudinal predisposition into consideration.

**Pattern of utilisation of HCT services and factors influencing the adoption of the services**

Utilisation of HCT services among survey respondents is quite low in spite of the high level of knowledge of HIV and AIDS. Of the 349 respondents that had heard about HCT, only 27.5% had ever utilised HCT services. Respondents in this category were mainly male HND students. The reasons given for using the services included desire to know their HIV status, influence of peers who took the test, ill-health and desire to know more about HIV and AIDS. These responses indicate that if programmes are targeted at educating young people on HCT, there could be an increase in the utilisation of the services. Detailed knowledge about HCT was quite low (only about 26.1% got high scores on the knowledge scale); this may have hindered or contributed to the lack of utilisation of HCT services by the respondents. The low risk perception among the respondents constitutes another possible barrier to the adoption of HCT. Previous studies conducted in the United States and Canada (Worthington and Myers, 2003), rural Tanzania (Killewo et al., 1998), Ethiopia (Sahlu et al., 1999), northern Thailand (Jiraphongsa et al., 2002), United Kingdom among pregnant women (Jha et al., 2003), and among some Brazilian women whose partners were HIV positive (Bastos and Hacker, 2006) attested to these influencing factors.

One finding, which is recurrent in many studies which adversely affects the adoption of HCT is fear (Mphaya, 2006; Sukari, 2008; Hiruy, 2008; Zhou et al, 2009). The forms of fear include fear of knowing one has the virus; fear that other people will get to know about one's HIV status; and fear of stigmatization of HIV positive individuals. This is not surprising, since HIV could be life threatening. It has been noted that fear of the following social consequences are particularly of great concern: rejection by loved ones; loss of job or housing; discrimination; and violence (Hutchinson, Corbie-Smith, Thomas, Mohanan, and

del Rio, 2004). Because of worries about the attendant social consequences, individuals often do not execute their plans to take HIV tests.

In six African countries, a study has shown that two thirds or more of respondents stated they would like to get tested, but the proportion of those who reported being tested was much lower, around 15% in some settings (Glick, 2005). The main barrier was anxiety related to the result. Another study done in Guraghe zone, Ethiopia also cited anxiety about the result as the main reason for not being tested (Wondimagegn, 2004). The FGDs discussants in this study also alluded to this.

Attitude of health workers or providers such as unfriendliness towards young people in particular was also given as a reason by the discussants for not accessing the services even after they had decided to do so. The negative attitudes of health workers as a barrier to the utilisation of HCT services have also been reported in other studies (Mphaya, 2006; Obermeyer and Osborn, 2007).

**Implications of findings for Health Education**

The findings of this study have reiterated the fact that HIV and AIDS-related services directed primarily at young people are inadequate. Information and services relating to HCT are majorly available in hospitals and antenatal clinics that are not accessible to young people. Considering that young people are a source of new infections, there is urgent need to intensify HIV and AIDS education. The planning, development, implementation, monitoring and evaluation of HCT services tailored to address the peculiar needs of young people in school settings is particularly advocated. Health education is a combination of learning experiences designed to facilitate voluntary adaptation of behaviour conducive to health (Green, Kreuter, Deeds and Partridge 1980). It is concerned with reinforcing and changing knowledge, attitudes and behaviour of people through effective communication of factual information, with the aim of helping them to ensure an optimum well-being. Health education can therefore be used to bridge the gap between health information and risk-free health practices within the context of HIV and AIDS.

Low risk-perception is also a major challenge in the fight to reduce the prevalence of the disease and the prevention of new infections. Despite being aware that unprotected sex and sharing of sharp piercing instruments involves some degree of risk, many of the respondents maintained that they could not be infected with HIV. This feeling of invulnerability could hinder commitment to behaviour change. Human Immunodeficiency Virus and AIDS programmes should not only focus on abstinence, avoiding multiple sexual partners, consistent use of condoms but also on changing risk perception. Well designed public enlightenment programmes and peer education could be used to address the problem of low risk perception.

Studies have shown that an appropriate perception of risk is insufficient to guarantee the adoption of protective behaviour (Adedimeji. 2005; Blum, McNeely and Nonemaker 2002). The successful prevention or control of the spread of the epidemic among young people in Kogi state, especially students of Kogi State polytechnic depends on the extent to which programme and policy interventions address peculiar environmental and socioeconomic circumstances compelling young people to engage in risky sexual behaviours. The implication is that the control and prevention of HIV among in-school young people, like most population, requires a holistic or ecological approach

The findings of this study have revealed the behaviours (practices), behavioural intentions and behavioural antecedents which should be addressed with appropriate HIV and AIDS education strategies in institutions of higher learning. In addition, they could be relied upon for the design of learning experiences or educational interventions for making institutions of higher learning health promoting environments for young people. Interventions such as training, peer education, counselling and policy advocacy are useful health promotion and education strategies that could be used.

A major concern relating to findings from this study is the prevalence of several HIV-related risky behaviours especially among those that had stayed longer in the institution. Preventing and controlling the AIDS epidemic at Kogi state

polytechnic requires an intensive programme of behaviour change. One of the priorities is to direct attention at the students that come in newly into the institution to facilitate the early adoption of preventive measures that can be sustained for a long period. Well designed behaviour change communication programmes are likely to be the most effective, as messages can be tailor-made to meet their specific needs and the challenges posed by their social environment and relationships. Also, it is possible to use participatory approaches which involve the students themselves directly in finding solutions to their own problems and therefore achieve more fundamental behaviour changes.

The findings from this study suggest that young people are more likely to seek out their friends or peers in obtaining health-related information. The Peer Education Plus (PEP) model has proven to be an effective tool in ensuring that groups obtain accurate and correct information from their peers. This tool has been used in 13 communities across Nigeria among various groups considered to be most-at-risk for HIV infection such as Sexual Service Providers (SSPs), Most-at-Risk-Males (MARMs - potential customers of SSPs, long distance drivers, uniformed service men) and Out-of-School-Youth (Society for Family Health (SFH) and ActionAid International Nigeria (AAIN), 2006). An evaluation of the programme after 18 months to determine the impact of the intervention revealed the following: peer education was the most effective intervention among men; increase in condom use among SSPs and young people; men who were members of peer education were two and a half times more likely to use condoms at last sex with non-marital partners than those who were not members; and SSPs who were exposed to peer activities were twice as likely to use condoms consistently in their last five sex acts compared to those who were not. The evaluation also showed that young women who received peer education were four times as likely to use condoms in their last sexual act with a non-marital partner compared with those who were not members.

Though this intervention was primarily aimed at improving and sustaining condom use, it can be adapted to suit the setting and Population such as students of the Kogi state polytechnic which constitutes the focus of this study. The

findings of this study could be used as a training needs assessment for the design and development of a training curriculum for selected peers in the institution.

Evidence from this study has shown that HCT services designed specifically for young people are not in existence in the institution. This could be a major barrier to students not accessing HCT. However, there is evidence that by involving the target population in intervention programmes targeted at them, there is a higher likelihood of achieving success. When provided with necessary means, skills and training, young people can be important advocates for interventions aimed at addressing their reproductive health needs including HIV and AIDS prevention and control. Given the opportunity to speak up, young people can introduce more youth sensitive perspectives to policy-making processes. For example, in 2005, a UNFPA-supported pilot project recruited young people in Botswana to contribute to the National AIDS Coordinating Agency through a midterm review of the National Strategic Framework for HIV/AIDS. In Thailand, young people were recruited to contribute to the national development frameworks that guided all UN programming in those countries (UNFPA, 2007).

The management and staff of the institution have crucial roles to play in the prevention and control of HIV infection and AIDS. A strategic principle that should be employed is the principle of involvement. While focus is primarily on the students of Kogi state polytechnic, it is important that the management and staff of the institution are involved in planning, implementation and evaluation relating to HIV, AIDS and HCT-related interventions in the institution. The ecological approach has greater chances of success. This is to ensure support and full participation at the highest level of the academic community and to facilitate the formulation of a comprehensive HIV and AIDS prevention and control policy in the institution.

## Conclusion

The level of awareness of HIV and AIDS is high among Kogi state polytechnic students. There are however several areas where the knowledge of the study

participants need to be upgraded. In addition, their perceptions relating to their vulnerability to the disease condition need to be addressed.

Negative and positive perceptions about HIV and AIDS towards PLWHA exist among participants in the institution. The negative perceptions and attitudes have potential for promoting stigmatisation and discrimination in the institution which can serve as barriers to prevention and control of HIV and AIDS.

Despite respondents' high level of awareness, health-seeking behaviours relating to accessing HCT services is still low among the respondents. However, they have expressed the desire to utilise HCT services if made available on their campus. Findings from this study can be used to design HCT programmes and services that are youth-friendly and provide high quality counselling and testing. These services must also address the peculiar needs of young people with relation to their sexuality and emotional needs.

This study has also shown that risk perception influence behaviours of young people. It has also shown that HIV-related stigma and discrimination exist among the students and these could serve as obstacles to the fight against the disease condition.



**Recommendations**

Based on the findings from this study, the following recommendations are offered:

1. As it is being done in secondary schools, HIV and AIDS education should be included in the curriculum of the institution.
2. Advocacy and sensitisation strategies should be used to influence key policy and decision makers in the school to ensure that young in-school populations have access to appropriate HCT services.
3. There is urgent need for the planning, development and implementation of HCT services tailored towards the needs of Kogi state polytechnic students. This can be done using the National Guidelines for HIV and

AIDS Voluntary Counselling and Testing as a framework and relying on the findings of this study.

4. HIV and AIDS prevention and control programmes should be institutionalized in the institution with a view to upgrading the students' knowledge and tackling their low-risk perception of the condition.

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## APPENDIX I

### Faculties and Departments in Kogi State Polytechnic

| Faculty | Departments |
|---|---|
| **Main Campus (Lokoja)** | |
| Art, Design and Printing | • Fine Arts & Industrial Design |
| Management Studies | • Accounting<br>• Business Administration<br>• Public Administration<br>• Secretarial Studies |
| Applied Sciences | • Computer Studies<br>• Statistics<br>• Science Laboratory Technology |
| **Osara Campus** | |
| Engineering | • Mineral Resources Engineering<br>• Metallurgical Engineering |

## APPENDIX II

### Checklist for HIV Pre-test Counselling

**Counselling goals**

- To help the client make an informed choice about whether to take the HIV test based on full and accurate information on the advantages and disadvantages of knowing her/his HIV status.
- To explore the client's knowledge on HIV/AIDS and provide correct information.
- To assess the client's potential exposure to HIV.
- To encourage the client to take appropriate action to reduce their risk of contracting HIV or transmitting it to others.
- To explain the process of testing.
- To help clients prepare themselves for the test result and the issues that may arise after learning their HIV status.

**HIV pre-test counselling session**

- Welcome the client;
- Discuss reason for attending;
- Explore client's knowledge about HIV and modes of transmission (sexual, MTCT, and blood), correct any misconceptions, and fill in any gaps in knowledge;
- Help client to assess personal risk of HIV infection
- Help the client make a plan to reduce their risk of HIV (and other STIs), including a discussion about condoms and how to use them. Provide condoms.
- Find out what the client knows about the test and give information about the HIV test.
- Explain that the test is a blood test, and that the test will show whether or not there are HIV antibodies in the blood. If the test result is positive, other tests are done to confirm the result.

- Explain what is meant by HIV positive, HIV negative, and indeterminate test results, and the implications of each.
- Explain what is meant by the window period.

- Explain that the blood sample will be taken today if s/he decides to take the test.
- Explain when the results will be ready.
- Explain that the results are given during a post-test counselling session when the results will be discussed with the counsellor.
- Explain that the procedure is entirely voluntary.
- Explain that results are confidential and how clients' confidentiality is protected
- Inform the client of the cost of the test, and determine whether they are eligible to have the cost reduced or waived.
- Allow time for client to think through issues, ask questions and get clarification.
- Help clients to prepare for a positive or negative test result. Discuss how they might react, how others (partner, family, community) might react, and how they have coped with difficult times in the past.
- Explore risk of depression, suicide, violence, etc.
- Help client come to her/his own decision about taking the test, restating that the process is entirely voluntary.
- Give assurance of confidentiality of both Counselling and testing
- Obtain informed consent if client decides to take the test.
- If the client decides not to take the test, help them summarise their risk reduction plan, and tell the client that s/he can come back to discuss anything further.
- Provide information about referral services appropriate for the client's needs identified during the session (e.g. family planning, STI treatment, domestic violence, support for drug users/families of drug users, support for victims of rape, etc.).
- Provide condoms and ensure client knows how to use condoms.

- Discuss follow up arrangements for post-test counselling.

*Source: IPPF and UNFPA (2004)*

## APPENDIX III

### Checklist for HIV Post-test Counselling

**Counselling goals**

- To help clients understand the meaning of and come to terms with their HIV test result
- To help clients express their feelings about the result
- To help clients make a plan of action for the immediate and short term future
- To help clients decide what to do about disclosing their test result to partners and others
- To help clients reduce their risk of HIV and take action to prevent infection to others
- To help clients access the medical and social care and support they need

**HIV post-test counselling**

- Welcome the client.
- Ask client how s/he has been feeling since they had the blood drawn for the HIV test.
- Ask client if s/he has any questions or s/he wants to talk over anything before you give the result.
- When the client is ready, give the test result clearly and wait for the client to respond before proceeding.
- Ensure that the client understands the meaning of the result.
- Encourage the client to express herself/himself, giving time to do so.

**For HIV negative clients**

- Discuss meaning of the result with the client – including repeating the test if client has possibly been exposed to HIV in the 3 months before testing (in the window period).
- Discuss personal risk reduction plan (discussed in the pre-test session) and information to prevent future infections. This should include a discussion about condoms, the client's skills in using condoms and in negotiating condom use.
- Discuss partner's HIV status.

- Discuss benefits of sharing test results with partner and encouraging partner to test.
- Check for referral needs, options and resources for support.
- Discuss follow up plans and referrals.
- Provide condoms.

**For HIV positive clients**

- Discuss meaning of the result with the client.
- Deal with immediate emotional reactions.
- If the client does not have AIDS, remind them of the difference between HIV and AIDS and that people with HIV can remain healthy for a long period of time.
- Discuss personal, family and social implications, and help the client identify the main concerns at this stage (e.g. anxiety, depression, disclosure of test result to partner and/or family and implications of this disclosure such as discrimination, potential violence or rejection from partner or family, etc.).
- Explore how the client can address these concerns.
- Explore how the client dealt with other difficult situations in the past.
- Help the client identify sources of support – family members, friends, partner, faith groups, etc. and inform the client of other sources of support locally.
- Review immediate plans, intentions and actions.
- Review what they will do when they leave the session.
- Check availability of immediate support.
- Discuss plans to share the result with the partner and what support they will need to do that.
- Discuss the risk of transmitting HIV to others, the risk of re-infection with HIV or other sexually transmitted diseases.

*Source: IPPF and UNFPA (2004)*

## APPENDIX IV

### Focus Group Discussion (FGD) Guide

Introduction

Greetings to you all. I am Abiose Haruna, a Master of Public Health student of the University of Ibadan. My colleagues/research assistants are ———————— and ————————. We are conducting a study relating to HIV and AIDS with particular reference to HIV Counselling and Testing (also known as HCT). We have invited you to come and share your views, opinions or perceptions with us because you are mature students.

- We would like to inform you that in this discussion we are not concerned with what is right or wrong. So feel free to say whatever is on your mind relating to the issues we will raise for discussion.
- You are free to agree or disagree with what someone else has said.
- We assure you that whatever we learn from you in this discussion will not be disclosed to any other person (not even the school authority). All what you tell us will be kept confidential.
- We seek your permission to use a tape recorder so that we will not forget the important things you will share with us. Please your names are not required in this discussion therefore do not disclose your names or other peoples' names, matriculation number or any form of identification while the discussion is on so that the tape recorder will not pick them up.
- Whatever you share with us will be useful for designing programmes aimed at preventing AIDS among polytechnic students in Nigeria.
- Lastly, we would like to inform you that participation in this discussion is voluntary and anyone is free to withdraw without any penalty whatsoever. Thank you most sincerely for sparing your time to come and participate in this discussion.
- Any questions? If there is none can we start now?

## APPENDIX IV

### Focus Group Discussion (FGD) Guide

Introduction

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- Any questions? If there is none can we start now?

| Main Question | Follow-up question |
|---|---|
| 1. What are the major problems which students face on this campus? | Probe into<br>• Academic problems<br>• Feeding problems<br>• Health problems – that can be transferred from one person to another |
| 2. AIDS is the talk of the town nowadays. What, in your own opinion, is the disease is all about? | Probe into<br>• Reality of the disease<br>• What causes it?<br>• How the infection is spread from person to person<br>• Ways of treating it<br>• The cure for the disease<br>• Whether it is a problem on campus |
| 3. How serious do you think AIDS is? | Probe into<br>• Effect on the individual having the disease<br>• Effect on the family<br>• Effect on the society<br>• Effect on education |
| 4. How exposed are students in this polytechnic to HIV and AIDS? | Probe into<br>• Practices that can make students get the infection (e.g. multiple sex partners, not using condom during sexual encounters, sex for money, sharing skin piercing equipment etc.)<br>• Whether there are some students who have the disease or the germ that causes the disease |
| 5. How readily do you think students in this school will get the germ that causes AIDS? | Probe into<br>• Whether chances of getting it is:<br>- high (probe into why)<br>- low (probe into why)<br>- no chance of getting it at all (probe into why) |
| 6. How desirable is it for someone to willingly go to a health facility to test whether he/she has the germ/virus that causes AIDS even if he/she is healthy? | Probe into<br>• How common is it for students of this polytechnic to go on their own to a health establishment or medical laboratory or centre to test their blood for the germ that causes AIDS? |

| | |
|---|---|
| 7. What is HIV Counselling and Testing (popularly called HCT)? | Probe into<br>• Ever heard of HCT<br>• Source of information<br>• Benefits of HCT<br>• People who should go for a HCT service |
| 8. Where are HCT services rendered? | Probe into<br>• Centres within Lokoja<br>• Centres in other parts of Kogi<br>• Centres elsewhere<br>• What is done in a HCT centre<br>• How common the use of HCT service is among polytechnic students |
| 9. What are the problems associated with the use of HCT centres? | Probe into<br>• Distance<br>• Location<br>• Attitude of staff<br>• Perceived fear of stigma and discrimination<br>• Affordability of charges<br>• Other problems |
| 10. What is your opinion about setting up a centre for testing for HIV/AIDS in this polytechnic for students' use? | Probe into<br>• Will students use it?<br>• If no, why do you say so?<br>• Should the test be made compulsory for students (why?)<br>• How should the testing be arranged to suit the needs of students? |
| 11. In your own opinion what should be the good qualities of an HIV Counselling and Testing (HCT) centre? | Probe into<br>• Nature of service (within a hospital setting or on its own, time of operation etc.)<br>• Staff-patient relationship<br>• Location<br>• Distance<br>• Confidentiality issues<br>• Charges/fees |

Thanks a lot for your active participation.

## APPENDIX V

### Questionnaire

## KNOWLEDGE, RISK BEHAVIOURS AND USE OF HIV COUNSELLING AND TESTING SERVICES AMONG KOGI STATE POLYTECHNIC STUDENTS, LOKOJA, NIGERIA

Greetings, my name is Abiose Haruna, from the Department of Health Promotion and Education, College of Medicine, University of Ibadan. I thank you for agreeing to participate in this important study.

I want to ask you some questions relating to HIV/AIDS and Voluntary Counselling & Testing (VCT). Whatever you tell me will not be disclosed to anyone but will be used for research and planning of programs for promoting the health of young people like you. Whatever you tell me will be kept secret. This implies that no one else will be told about what you have said or what you have written down. Your identity will not be disclosed to anyone. In addition, your name will not be written on this form or any other form for this study. So no one can link your responses or answers to you.

Some of the questions touch on very personal issues. Please bear with me and provide honest answers to them. Thanks for your cooperation.

| For office use only (Do not write anything in this box) |
|---|

**Section A: Socio-demographic information**

*Instruction:* In this section, you are expected to tick (√) the response that applies to you. Some questions require writing down your responses in the spaces provided. We have no doubts that all your responses will be honestly made.

1. Sex: 1. Male☐ 2. Female ☐
2. How old are you in years? ..... years.
3. Marital Status: 1. Single ..... 2. Co-habiting (i.e. living with person of opposite sex like husband or wife but not formally married)
   3. Married ..... 4. Separated ..... 5. Divorced .....
   6. Widowed .....
4. Religion: 1. Islam ..... 2. Christianity ..... 3. Traditional .....
5. Ethnic group: 1. Ebira ..... 2. Igala ..... 3. Okun .....
   4. Other (specify) .....
6. Level of study 1. OND ..... 2. HND .....
7. What course are you studying? .....

**Section B: Knowledge about HIV/AIDS**

*Instruction:* In this section, you are required to tick (√) the response that applies to you. Some questions require writing down your responses in the spaces provided.

8. (a) Have you ever heard about AIDS? 1. Yes ☐ 2. No ☐
   (b) Have you ever heard about HIV? 1. Yes ☐ 2. No ☐
9. Who or what are your current sources of information about AIDS? Tick (√) ALL that apply to you from the following:
   1. Family member ☐ 2. Health Worker (specify) ☐ 3. Friends ☐
   4. Television ☐ 5. Radio ☐ 6. School ☐ 7. Newspapers ☐
   8. Magazines ☐ 9. Other (specify) ☐
10. Which of the following symptoms may be used for recognizing someone with AIDS? Tick (√) ALL that you consider to be correct
    1. Frequent Fevers .....
    2. Periods of continued, deep, dry coughing .....

3. Long-lasting episodes of Diarrhea .....
4. Rapid loss of 10 pounds of weight not due to dieting .....
5. Recurring or unusual skin rashes .....
6. Cancer of the skin .....

11. The table below contains statements relating to HIV and AIDS. For each of the statements, please tick (√) whether it is True, False, or Don't Know

| S/N | Statement | Tick (√) 1. True | 2. False | 3. Don't Know |
|---|---|---|---|---|
| a. | HIV is NOT different from AIDS. | | | |
| b. | AIDS can be cured nowadays. | | | |
| c. | One can get HIV by touching an infected person. | | | |
| d. | One cannot get HIV by having sex with someone who has HIV but who is very healthy. | | | |
| e. | One can get HIV by eating from the same dish/plate with someone who is infected with HIV. | | | |
| f. | A person can become infected with HIV if he/she is bitten by an insect such as mosquito. | | | |
| g. | One may get HIV by sharing unsterilised skin piercing instruments or materials | | | |
| h. | HIV can be passed from a mother to her unborn child during delivery. | | | |
| i. | A person who has a sexually transmitted infection is more likely to get HIV. | | | |
| j. | An HIV infected mother can transmit the infection to her baby through breastfeeding. | | | |
| k. | HIV can be prevented by using condom always and properly. | | | |

**Section C: HIV-related Risk Practices**

The questions in this section are sensitive and can make some people uncomfortable. We appeal to you however to be honest in your answers. Remember that there is no way of knowing who you are because your names are not required on this questionnaire.

**(Please tick (√) or complete the spaces provided)**

12. Do you have a boyfriend/girlfriend? 1. Yes ☐ 2. No ☐
3. Not applicable ☐

3. Long-lasting episodes of Diarrhea .....
4. Rapid loss of 10 pounds of weight not due to dieting .....
5. Recurring or unusual skin rashes .....
6. Cancer of the skin .....

11. The table below contains statements relating to HIV and AIDS. For each of the statements, please tick (√) whether it is True, False, or Don't Know

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| e. | One can get HIV by eating from the same dish/plate with someone who is infected with HIV. | | | |
| f. | A person can become infected with HIV if he/she is bitten by an insect such as mosquito. | | | |
| g. | One may get HIV by sharing unsterilised skin piercing instruments or materials. | | | |
| h. | HIV can be passed from a mother to her unborn child during delivery. | | | |
| i. | A person who has a sexually transmitted infection is more likely to get HIV. | | | |
| j. | An HIV infected mother can transmit the infection to her baby through breastfeeding. | | | |
| k. | HIV can be prevented by using condom always and properly. | | | |

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The questions in this section are sensitive and can make some people uncomfortable. We appeal to you however to be honest in your answers. Remember that there is no way of knowing who you are because your names are not required on this questionnaire.

(Please tick (√) or complete the spaces provided)

12. Do you have a boy/girl friend? 1. Yes ☐ 2. No ☐
3. Not applicable ☐

13. How many boy/girl friends do you have now? .....

14. Be honest; have you ever had sex? 1. Yes ☐ 2. No ☐

15. If yes to question (14) above, have you had sex with your boy/girl friend (s) in the last three months? (Provide honest responses, please)

1. Yes ☐ 2. No ☐ 3. Not applicable ☐

16. If you had sexual intercourse within the last three months did you use condom the last time you had sex?

1. Yes ☐ 2. No ☐

17. If No to question (16) above, why did you not use a condom?

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18. Have you ever given/received money and/or gifts in exchange for sex?
1. Yes ☐ 2. No ☐ 3. Not applicable ☐

19. Have you ever used needles to inject yourself with drugs? 1. Yes ☐ 2. No ☐

20. If yes to question (19) above, do you or have you ever shared needles with someone else?
1. Yes ☐ 2. No ☐

## Section D: Knowledge about HIV Counselling and Testing (HCT)

21. Have you ever heard of HIV Counselling and Testing (HCT)?
1. Yes ☐ 2. No ☐

**Very important!!!**

If your answer to question (21) above is No. you can STOP the interview here. *Do not answer questions 22 – 65. Thank you for participating.* But if your answer is Yes. please answer the remaining questions i.e. answer questions 22 – 65.

*If Yes to question 21:*

22. What are your sources of information about HIV Counselling and Testing (HCT)? Tick (√) as many that apply to you.

1. Family member ☐ 2. Health Worker (specify) ..... ☐

3. Friends ☐ 4. Television ☐ 5. Radio ☐ 6. School ☐ 7. Newspapers ☐ 8. Magazines ☐

9. Other (specify) .....

23. Where did you first hear about HIV Counselling and Testing (HCT)? 1. In this polytechnic ☐ 2. While in the secondary school ☐

3. In the church ☐ 4. In the mosque ☐

5. Other (specify)

.....

**The table below contains statements about HIV Counselling and Testing (HCT). For each of the statements, please tick (√) whether Yes, No or Don't Know**

| S/N | Statement | Tick (√) | | |
|---|---|---|---|---|
| | | 1. Yes | 2. No | 3. Don't Know |
| 24. | Which of the following, numbered a – f, is part of HIV Counselling and Testing (HCT)? | | | |
| | a. pre-test Counselling | | | |
| | b. testing for HIV | | | |
| | c. post-test Counselling | | | |
| | d. follow-up Counselling for HIV positive individuals | | | |
| | e. regular meetings with people living with HIV/AIDS. | | | |
| | f. testing for gonorrhea | | | |
| 25. | One can decide not to test for HIV after Counselling. | | | |
| 26. | Once a person is in an HIV Counselling and Testing (HCT) centre, it is compulsory for him/her to allow his/her blood to be drawn for testing. | | | |
| 27. | Testing for HIV is compulsory in Nigeria. | | | |
| 28. | HIV Counselling and Testing (HCT) offers one the opportunity to learn about opportunistic infections associated with HIV/AIDS. | | | |
| 29. | Privacy and secrecy are compulsory in HIV Counselling and Testing (HCT). | | | |
| 30. | Testing for HIV is voluntary in Nigeria. | | | |
| 31. | In HIV Counselling and Testing (HCT), test | | | |

| | | | | |
|---|---|---|---|---|
| | results are disclosed only to clients. | | | |
| 32. | HIV Counselling and Testing (HCT) enables one to know about family planning methods. | | | |
| 33. | Through HIV Counselling and Testing (HCT) persons with HIV are informed about where to get drugs for treating AIDS. | | | |
| 34. | HIV Counselling and Testing (HCT) involves performing surgical operations on people to remove the part of the body which has HIV. | | | |

35. Do you know of any place where HIV Voluntary Counselling & Testing (HCT) services are provided in Kogi State? 1. Yes ☐ 2. No ☐ (If No go to question 37)

36. If yes to question (35) above, where are they located? (Name the health facility and the community using the table below)

| S/No | Community | Health facility where it can be done |
|---|---|---|
| 1. | | |
| 2. | | |
| 3. | | |
| 4. | | |
| 5. | | |

37. Do you think you have sufficient knowledge about HIV Voluntary Counselling

38. If no, what do you want to know more about HIV Counselling and Testing (HCT)?

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**Section E: Perceptions of HIV Counselling and Testing (HCT)**

**Please tick (√) the option that best describes your opinion in the following questions:**

39 (i). Which of the following factors or reasons in the table below do you think are responsible for why many people do not want to test for HIV?

| | | Tick (√) | | |
|---|---|---|---|---|
| S/N | Reasons/Factors | 1. Yes | 2. No | 3. Not Sure /Don't Know |
| a. | Long line of waiting for results. | | | |
| b. | Unfriendly attitude of HIV Counselling and Testing (HCT) providers. | | | |
| c. | Fear of stigmatization of HIV positive individuals. | | | |
| d. | Lack of treatment for HIV positive individuals. | | | |
| e. | Fear that other people will get to know about one's HIV status. | | | |
| f. | Painful effects of needles. | | | |
| g. | HIV Counselling and Testing (HCT) centre too far away from one's neighbourhood. | | | |
| h. | Locating HIV Counselling and Testing (HCT) centre in a hospital. | | | |
| i. | Cost of HIV Counselling and Testing (HCT). | | | |
| j. | Locating HIV Counselling and Testing (HCT) centre close to one's neighbourhood. | | | |
| k. | People do not where to go for the test. | | | |
| l. | Fear of knowing that one is having the virus. | | | |
| m. | One can be detained if one is found to be having HIV. | | | |

39 (ii). What are the other reasons why some people do not visit Voluntary Counselling and Testing (VCT) centres for HIV testing?

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40. In your opinion, what would other people listed below likely think about you if you decide to go for HIV testing?

| | | Possible Reactions (Tick √) | | | |
|---|---|---|---|---|---|
| S/N | Categories of people | 1. Support it | 2. Condemn it | 3. Skeptical/ Suspicious | 4. Don't Know |
| a. | Boy/Girl friend | | | | |
| b. | Your other friends | | | | |
| c. | Fiancée | | | | |
| d. | Your mother | | | | |
| e. | Your father | | | | |
| f. | Your relations | | | | |
| g. | Your Pastor/Imam | | | | |
| h. | Your peers/school mates | | | | |
| i. | Your neighbour | | | | |

41. Anyone who is suspected to be having HIV but refuses to go for HIV Counselling and Testing (HCT) should be forced to do so. Tick (√) the option that is in line with your view.

1. Strongly Agree ☐ 2. Agree ☐ 3. Undecided ☐ 4. Disagree ☐
5. Strongly disagree ☐

42. Every student should be tested for HIV before admission in to this polytechnic.

Tick (√) the option that best reflects your view.

1. Strongly Agree ☐ 2. Agree ☐ 3. Undecided ☐ 4. Disagree ☐
5. Strongly disagree ☐

43. When should a person go for HIV Voluntary Counselling & Testing (HCT)? Tick (√) the option that best reflects your view.

1. Anytime so as to know ones HIV status ☐
2. When one falls sick every now and then ☐ 3. Before marriage ☐
4. When he/she wants to travel abroad ☐

44a. Do you think HIV is a problem on this campus?

1. Yes ☐ 2. No ☐ (If no go to question 45)

44b. If it is a problem on this campus, what makes you think this way?

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| | | Possible Reactions (Tick √) | | | |
|---|---|---|---|---|---|
| S/N | Categories of people | 1. Support it | 2. Condemn it | 3. Skeptical/ Suspicious | 4. Don't Know |
| a. | Boy/Girl friend | | | | |
| b. | Your other friends | | | | |
| c. | Fiancée | | | | |
| d. | Your mother | | | | |
| e. | Your father | | | | |
| f. | Your relations | | | | |
| g. | Your Pastor/Imam | | | | |
| h. | Your peers/school mates | | | | |
| I. | Your neighbour | | | | |

41. Anyone who is suspected to be having HIV but refuses to go for HIV Counselling and Testing (HCT) should be forced to do so. Tick (√) the option that is in line with your view.

1. Strongly Agree ☐ 2. Agree ☐ 3. Undecided ☐ 4. Disagree ☐

5. Strongly disagree ☐

42. Every student should be tested for HIV before admission in to this polytechnic.

Tick (√) the option that best reflects your view.

1. Strongly Agree ☐ 2. Agree ☐ 3. Undecided ☐ 4. Disagree ☐

5. Strongly disagree ☐

43. When should a person go for HIV Voluntary Counselling & Testing (HCT)? Tick (√) the option that best reflects your view.

1. Anytime so as to know ones HIV status ☐

2. When one falls sick every now and then ☐ 3. Before marriage ☐

4. When he/she wants to travel abroad ☐

44a. Do you think HIV is a problem on this campus?

1. Yes ☐ 2. No ☐ (If no go to question 45)

44b. If it is a problem on this campus, what makes you think this way?

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45. What is your chance of being infected by the germ/virus that causes AIDS?

(Choose only One option from the table below and please provide a reason for your chosen option)

| Chance of being Infected by HIV | Reason for your answer |
|---|---|
| I can never get the germ/virus that causes AIDS. | |
| There is some chance that I can be infected with the germ/virus that causes AIDS. | |
| There is a high chance of me getting infected with the germ/virus that causes AIDS. | |
| I do not know my chances of getting infected with the germ/virus that causes AIDS. | |

**Section F: Attitude to HIV Counselling and Testing (HCT)**

**Please tick (√) the options numbered 1 – 5 in the table below that best describes your attitude to HIV testing**

| S/N | Statement | Tick (√) 1. Strongly Agree | 2. Agree | 3. Undecided | 4. Disagree | 5. Strongly Disagree |
|---|---|---|---|---|---|---|
| 46. | HIV Counselling and Testing (HCT) is for sexually active individuals alone. | | | | | |
| 47. | Those who visit HIV Counselling and Testing (HCT) centres are HIV positive persons. | | | | | |
| 48. | HIV Counselling and Testing (HCT) is not necessary because it causes unnecessary anxiety or fear. | | | | | |
| 49. | HIV Counselling and Testing (HCT) centres are not necessary in our school because people will think we have AIDS on campus. | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 50. | It is advisable for all students to go for HIV Counselling and Testing (HCT). | | | | | |
| 51. | Only people who suspect that they are HIV positive should go for HIV Counselling and Testing (HCT). | | | | | |
| 52. | It is good for everyone to go for HIV Counselling and Testing (HCT) occasionally. | | | | | |
| 53. | HIV Counselling and Testing (HCT) is not necessary because the stress that follows the test is worse than the HIV/AIDS itself. | | | | | |
| 54. | Only people who have been living waywont lives should go for HIV Voluntary Counselling & Testing (HCT). | | | | | |
| 55. | Going for HIV Voluntary Counselling & Testing (HCT) is a good practice for everyone. | | | | | |
| 56. | I will use a HIV Voluntary Counselling & Testing (HCT) service whether it is free or not. | | | | | |
| 57. | I cannot go for HIV Voluntary Counselling & Testing (HCT) because people will think I am infected by HIV. | | | | | |
| 58. | I am willing to ask my sexual partner to go for HIV Voluntary Counselling & Testing (HCT). | | | | | |

**Section C: Pattern of Utilisation of and Willingness to use HIV Voluntary Counselling & Testing (HCT) services**

59. Do you know of any student that has gone for HIV Voluntary Counselling & Testing (HCT) in this school? 1. Yes ☐ 2. No ☐

60. Have you ever gone for HIV Voluntary Counselling & Testing (HCT) yourself? 1. Yes ☐ 2. No ☐ (If Yes answer Question 61 and stop)

61. If Yes to question (60) above, give reasons why you went for HIV Voluntary Counselling & Testing (HCT).

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*If NO to question (60) above please answer questions 62 – 65.*

62. Give reasons why you have not gone for HIV Voluntary Counselling & Testing (HCT).

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63. Would you be willing to go for HIV Voluntary Counselling & Testing (HCT) if there is the opportunity? 1. Yes ☐ 2. No ☐ 3. Not sure ☐

64. If Yes to question (63) above, why would you be willing to go for testing?

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65. If No to question (63) above, why would you not want to go?

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**Thank you for being a part of this study.**

## APPENDIX VI

### Pre-test Report

Report of Pre-test of Research Instrument for the study on *Knowledge, Perceptions, Risk Behaviours and Pattern of Utilisation of HIV Voluntary Counselling & Testing (HCT) among Kogi State Polytechnic Students, Lokoja, Nigeria*

The research instrument was pre-tested in-house (among experts and colleagues in the field of public health). This was done to get inputs and check errors in the questionnaire. Below are the suggestions from the in-house pre-test:

1. Create more spaces for "Survey No.", "Campus" and "Date".
2. Researcher's name should be removed from the introduction since research assistants will be used; change the word "school" to "campus"; remove the sentence that starts with "The information you give .....; add the word "please" to the sentence "I implore you to .....
3. Item 3 should be arranged in the following order
   (i). Single (ii). Married (iii). Separated (iv). Divorced (v). Widowed (vi). Co-habiting
4. Item 5 should be just the three major tribes in Kogi state; all others should come under "others and to specify".
5. Level of study (item 6) should be collapsed to
   (i). Pre-ND (ii). OND (iii). HND
6. Create more space for item 7.
7. Start Section B with "What is HIV/AIDS?".
8. After item 8, add "If yes ....."
9. For item 9, merge newspapers & magazines; posters & leaflets
10. Items 10 – 19 seem to be a combinntion of modes of transmission and means of prevention; separate them. Add a column for "Don't know".
11. Change item 14 to "An individual can get HIV through injection with used needles".
12. Change "through" in item 17 to "during".
13. Change item 18 to "There is now a cure for HIV" or "There is cure for the disease caused by HIV"

14. Items 20 – 22 are too brain tasking; provide options for them
15. Move item 22 to after item 8.
16. Items 23 – 25 are too sharp. Change to
    (i). Do you have a boy/girl friend? Yes □ No □
    (ii). At what age did you have first boy/girl friend? .....
    (iii). How many boy/girl friend (s) do you have?
    (iv). Have you ever had sex with your boy/girl friend (s)?
17. Provide both right and wrong options for item 26.
18. The words "every time" and "frequently" are the same in item 28; change options to "All the time", "sometimes" and "once in a while".
19. Change 29 to "Have you ever experienced itching or burning sensation whenever you want to urinate?"; Add as item 30 "Did you go to a health centre/hospital to treat this burning sensation?"; add as item 31 "what did the hospital staff say was wrong with you?"
20. Change "sex partner" in item 33 to "boy/girl friend".
21. Change "encounter" to "intercourse" in item 35.
22. The respondents cannot be expected to tick for items 29 – 35.
23. Items 38 and 39 are similar; strike out 38 and leave 39.
24. Change the word "my" in the list perceived risk level of item 39 to "me".
25. Reword item 39 and include "I am not sure of my likelihood of being infected by HIV.
26. Transfer item 40 to section B 9Knowledge of HIV/AIDS.
27. If answer to item 41 is "No" respondent should stop interview because other questions will no longer be relevant to him/her.
28. Collapse items 42 and 43 into one.
29. Add the word "please" before "go" in the instruction of items 44 – 52; make a separate column for the numbers.
30. For item 45 change "to test or not to test" to "to test or reject the test".
31. In skipping instruction under item 53, change "question" to "item".
32. Leave item 54 as open ended.
33. Transfer item 55 to after item 41.
34. Leave item 58 as open ended.

35. Add instruction "if No go to item 72" under item 70

36. Remove item 77. Free services will be preferred.

**General Comments**

- The questions are too many considering the study population.
- Some of the questions are too brain tasking, respondents might not be willing to undergo such exertion on the spot.
- For each section write VCT in full.

*Report of pre-test carried out in Federal College of Education, Okene*

Forty (40) questionnaires were distributed to the students of Federal College of Education Okene but five (5) were returned and marked not completed (NC) or no response (NR).

**Section A – Socio-demographic information**

The table below shows a summary of the Socio-demographic information of the respondents

| S/No. | Item | Frequency |
|---|---|---|
| 1. | Sex | |
| | Male | 23 |
| | Female | 12 |
| 2. | Age | |
| | 14 – 19 | 1 |
| | 20 – 25 | 30 |
| | 26 – 31 | 4 |
| 3. | Marital status | |
| | Single | 34 |
| | Married | 1 |
| | Seperated | - |
| | Divorced | - |
| | Widowed | - |
| | Co-habiting | - |
| | Other | - |
| 4. | Religion | |
| | Islam | 7 |
| | Christianity | 28 |
| | Traditional | - |
| | Other | - |
| 5. | Ethnic group | |
| | Igala | 16 |
| | Ebira | 3 |

| | | |
|---|---|---|
| | Okun | 10 |
| | Owoo | - |
| | Nupe | - |
| | Basso | - |
| | Hausa | - |
| | Igbo | 1 |
| | Yoruba | 5 |
| 6. | **Level of study** | |
| | Pre-NCE | |
| | NCE 1 | 10 |
| | NCE 2 | 11 |
| | NCE 3 | 14 |
| | NCE 4 | |
| 7. | **Course of study** | |
| | Agriculture | 1 |
| | English/SOS | 1 |
| | PHE | 16 |
| | Computer Science | 1 |
| | Business Studies | 2 |
| | CRS/SOS | 1 |
| | Statistics | 1 |
| | Business Education | 3 |
| | Business Education & Accounting | 5 |
| | Accounting | 1 |
| | ISC/Biology | 2 |
| | Islamic studies | 1 |

**Section B – Knowledge of HIV/AIDS**

Most of the students were quite knowledgeable about HIV/AIDS. Only two (2) of the respondents could differentiate between HIV and AIDS. One of the respondents still believes that sharing a cup or other eating utensils with an HIV infected person is a mode of transmission of the virus.

**Section C – HIV Risk Behaviour**

The responses of the students to the questions in this section revealed that most of them do not engage in any form of HIV risk behaviour. For respondents that have one or more than one sex partner, use of condom was the major precaution taken to prevent the transmission of the disease. However one of the respondents who has a regular sex partner does not believe in the use of condom. As he said in his response "*It can burst any time*".

**Section D – Risk Perception of HIV**

All of the respondents could not comprehend question 39 even after explanations by the researcher. As a result many could not articulate their risk perception of HIV. All respondents indicated that HIV/AIDS was a problem on their campus.

**Section E – Knowledge of Voluntary Counselling & Testing**

Apart from three (3) respondents who responded that the best way of knowing ones HIV status is by going to the hospital, all the others stated physical signs such as coughing, malaria and loss of weight as a way of knowing ones HIV status.

The respondents could not state why VCT is necessary and believe that once you are in a VCT centre, blood must be drawn for testing. This implies that the test is no longer voluntary. 95% of the respondents did not know where VCT centres are located in Kogi state. This is suprising considering that the MTN Foundation VCT centre is located in Obangede about 5km from the campus.

**Section F – Attitude towards Voluntary Counselling & Testing**

The response of most of the respondents showed that they were accepting of VCT. However one (1) of the respondents does not believe it is necessary to go to a VCT because he does not believe in it while one (1) respondent showed indifference.

**Section G – Pattern of Utilisation of VCT services and willingness to use VCT**

The respondents indicated a willingness to use VCT services if location is known and if the service is made free. Many of the respondents appreciated that their knowledge of VCT was low and would like to know all about it.

The average time used to fill the questionnaire was 40 minutes. The students were initially reluctant to respond because they felt it was a waste of their time. Many of the question items were not immediately understood by the respondents and they required assistance in understanding them.

The validity and reliability of the instrument will be confirmed by test – retest analysis using the split half and alpha analysis (Cronbach's alpha coefficient) of the SPSS. Result showing correlation of 0.05> is said to be reliable. The result of the analysis will be submitted when the statistical analysis is completed.

## APPENDIX VII

## Ethical Approval

MINISTRY OF HEALTH

Ref No: AD13/262/107

Date 5th June, 2007

## APPENDIX VIII

### Informed Consent Form

My name is Abiose Haruna. I am a Master of Public Health student of the Department of Health Promotion & Education, College of Medicine, University of Ibadan. I am seeking information relating to Knowledge, Risk Behaviours and use of HIV Counselling and Testing (HCT) services. I will need to ask questions that you might otherwise see as too personal but please note that your answers will be kept very confidential. Your name will not be written on this form so that no one can link the information you give to you. The information you and other people provide will be useful in future for designing educational programmes for helping young people like you. You are free to refuse to take part in this study. You have a right to withdraw at any given time if you choose to. However I will greatly appreciate your participation in this study because it will be an opportunity for you to help future generations of young people. Your written consent to participate in this study will be desirable. You can still participate if you do not want to sign your signature to indicate your consent.

Consent: Now that the study has been explained to me and I fully understand the essence of the study and the study process, I am willing to take part in it so:

a. I am willing to sign and participate _____ _____
Tick (√)

Signature

b. I am willing to participate but do not want to sign _____
Tick (√)

c. If you do not want to sign to indicate your consent to participate in the study what are your reasons?

_____

_____

Thanks for agreeing to participate in the study whether you sign or not.