An Investigation on the Knowledge level of Children Aged 10-14 about HIV/AIDS Prevention in Mukono Municipality Primary schools, Uganda

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This thesis titled
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ABSTRACT

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An Investigation on the Knowledge Level of Children Aged 10-14 about HIV/AIDS Prevention in Mukono Municipality, Uganda

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HIV/AIDS knowledge is an important aspect of HIV/AIDS reduction. Although there has been research on the level of knowledge of HIV/AIDS among older youth in Uganda, there has been no study assessing HIV/AIDS related knowledge for adolescents aged 10-14. This study investigates HIV/AIDS prevention knowledge among a representative sample of forty pupils living in Mukono municipality, Uganda. Participants for this study come from two primary schools in Mukono Municipality, and include male and female participants aged 10-14. The study used a qualitative method to interview participants. Participants were asked questions focused on their HIV awareness, information seeking, attitude and knowledge and risk reduction. Results showed that a good number of participants (42.5%) were aware that AIDS is the most serious disease, but only 20% knew a lot about the disease. Nearly all participants (95%) had positive attitudes towards people living with AIDS. Schools/teachers (45%) were identified as the main source of information followed by parents (17.5), hospital (15%), radio (7.5), and books (5%). The results also show that a loss of weight, red lips, diarrhea, herpes zoster and body weakness were identified as the main symptoms of an HIV infected person. Most of the participants had a good knowledge on transmission modes and prevention. Sexual intercourse, sharing sharp objects, blood to blood contact and mother to child transmission were the transmission modes commonly identified. Abstinence, being
faithful and condom usage were identified as preventative measures. Although most of the pupils were knowledgeable about transmission and prevention, study identified some misconceptions. Thirty two percent (32%) of the pupils believed that having sex while standing could prevent getting AIDS, while 25% believed that having sex once with a virgin cannot transmit the virus. Others (15%) believed that sexual activity allows men to grow muscles and heal back pain. The results from the study show that improved knowledge about HIV/AIDS is still needed among primary schools in Uganda to ensure positive living. As a result, it is recommended that parent-child communication should be emphasized.

Approved: _____________________________________________________________

Tania Basta

Professor Human and Health Sciences
With much nostalgia and gratitude, I dedicate this work to my late sister Nakirembe Christine Mirembe, who guided, supported, challenged and encouraged me up the education ladder unselfishly. May her soul rest in eternal peace.
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CHAPTER 1: INTRODUCTION

Human Immunodeficiency virus (HIV), the precursor of the deadly Acquired Immune Syndrome (AIDS) is a global infection that to date has no cure. HIV/AIDS is one of the most threatening diseases in the world and has lead to the deaths of both young and old (UNAIDS, 2009; WHO, 2008; Centers for disease control, 1995; and Stine, 1998). As of 2008, there was a total of 33.4 million people living with HIV worldwide, of which 31 million were adults and 2.1 million were children under the age of 15 (UNAIDS, 2009; WHO, 2008). In the same year, 2.7 million people were newly infected, of which 2.3 million were adults and 430,000 were children under 15. Furthermore, the death rate in 2008 was 2 million people, of which 280,000 were children under the age of 15.

Currently, HIV/AIDS has lead to an increased number of orphans in many African countries creating a burden of caring for them. It has also left the elderly without caretakers as it has continued to take lives of many young and energetic individuals on the African continent where there are no nursing homes for the elderly. Although the spread of the epidemic varies from one continent to another, over the past two decades, Sub-Saharan Africa, which contributes 10% of the world’s population, has continued to be a home to more than 60% of all people living with HIV/AIDS (UNAIDS 2005, UNAIDS, 2009). In 2008, Africa accounted for 72 percent of HIV infections worldwide, of these, 1.7 million were adults and 280,000 were children under the age 15 (UNAIDS/WHO, 2009). HIV/AIDS is a serious concern because the African continent is
experiencing many problems that include wars, corruption, famine, drought and limited medical and food resources for its increasing population (WHO, 1996).

Due to their engagement in high-risk behaviors, young adults under age twenty-five account for more than half of the new infections of HIV in Africa (WHO, 1993). Although there has been some progress in increasing the knowledge of how to prevent HIV/AIDS transmission among young people, there is a great concern that young adults are not using this knowledge (UNICEF, 2007). Studies have revealed that heterosexual intercourse is the primary cause of HIV/AIDS transmission as youth are going through their adolescent experiences and are exposed to sexual activities (UNAIDS, 2006).

Two major elements of improving the level of HIV/AIDS knowledge among the young adolescents of Africa are educational efforts and media strategies. In many countries, as young adults are very important to any community, there have educational programs aimed at increasing awareness of the epidemic among youth. For example, the Abstinence, Be faithful and Condom use (ABC) campaign has been introduced to many youths in fighting the epidemic. Despite the fact that there have been various strategies, including the ABC strategy, studies have found that knowledge among youths, and their ability to make use of the knowledge to reduce HIV/AIDS, is still low (Eaton, 2000; Tillotson, 2001). Even in countries such as Uganda which is viewed as a success story in the fight against the disease, there are still high incidences among its population.

Information in the form of mass media campaigns has been a common response towards the problem of HIV/AIDS. Radio and television are the most widely used media in disseminating knowledge on the condition of HIV/AIDS (Myhre and Flora, 2000). The provision of information is commonly used and thought of as a powerful strategy in the
fight against the epidemic. Information alone, however, has been insufficient in increasing knowledge of HIV/AIDS among young adults.

Since young adults are the most at risk group, their understanding of HIV/AIDS prevention knowledge could have important and far-reaching implication on the epidemic that is a leading cause of much death among their peers. This study aims at investigating the level of HIV/AIDS knowledge among children aged 10-14 in Uganda.

Problem Statement

The nature of HIV/AIDS has always been viewed in different perspectives around the world, including Uganda. Although Uganda, in Sub-Saharan Africa, has been viewed as a success story in the reduction the rates of HIV infection through community mobilization, its prevalence within the population has continued to infect and affect a large percentage of the population including children less than fifteen years old (UNICEF, 2006). The prevalence of the disease in Uganda is higher in the urban population than in rural population. According to a Uganda Health Survey (2009), there has been an improvement in knowledge levels about prevention measures among the young adults between 15 years and 24 years old.

Despite the fact that there has been an improvement in the knowledge of prevention and transmission, knowledge has remained low among 10-14 year olds. Children in this age group have not been targeted like youths 15-24 years have been. Young adults aged 10-14 are in great need of HIV prevention knowledge. The knowledge and use of antiretroviral (ARV) and post exposure prophylaxis (PEP) treatment has targeted adults without considering 10-14 year olds. Since these children have lived most of their lives with ARVS, and taking the responsibility of caring for the affected in their
families, they may not perceive HIV as a disease as their parents might. As a result, children’s chances of escaping the epidemic seem to be limited by lack of HIV knowledge.

Different studies have examined the knowledge level of HIV/AIDS in Uganda. The demographic health survey (2006) examined HIV-related knowledge and behavior among young adults age 15-24. Asiimwe, Kibombo and Neema (2003), examined the social and cultural factors that have impacted HIV/AIDS in Uganda and found that cultural factors are influencing the spread of HIV/AIDS in Uganda. All studies that have been conducted show that there are still gaps among young adults 15-24 on transmission, prevention and sources of knowledge. Despite the increased knowledge among young adults, misconceptions still exist about HIV/AIDS (Asera, Barakurukayo, Shuey, and Barton, 1997). However, there is an obvious lack of research assessing the level of knowledge among 10-14 year-old children in primary schools. In response to calls for more global studies in HIV, and recognizing the importance of knowledge for children in Uganda, the purpose of this study was to examine knowledge levels and meanings of HIV among 10-14 young adolescents living in Mukono district of Uganda. The study sought to answer the following question:

RQ1 what is the children’s perception of the severity of HIV/AIDS in Uganda?

RQ2 what correct and incorrect information do children report about HIV/AIDS in Uganda?

This research was conducted to gain a better understanding of how this age group perceives HIV/AIDS prevention. Secondly, this research will provide information for the
Ugandan government about how to address this age group. Third, these study findings will increase public awareness on HIV/AIDS among children in Uganda.

**Definition Terms**

**Acquired Immunodeficiency Syndrome (AIDS).** The disease which is caused by a retrovirus called the **Human Immunodeficiency Virus (HIV)**. This virus attacks and weakness the body’s immunological system. The majority of HIV infected persons who are not treated develop signs of AIDS (Stine, 1995).

**Adolescents.** The definition of Adolescents may vary by program, region, source and need. For this study, adolescents will be defined as individuals aged 10-24, which is consistent with the CDC definition.

**Antiretroviral.** Drugs that are used to combat HIV/AIDS.

**CD4 count.** A type of T cell involved in protecting against viral, fungal, and protozoa infections. These cells normally orchestrate the immune response, signaling other cells in the immune system to perform their special functions. Also known as “T” helper cells. HIV's preferred targets. Destruction of CD4+ cells is the major cause of the immunodeficiency observed in AIDS.

**HIV (Human Immunodeficiency Virus).** This is a retrovirus, which infects and weakens the body’s immune system. This virus can be transmitted through blood, sharing sharp objects, mother-child and through unprotected sex (stine,1995).

**Sexually transmitted disease.** These are diseases that are transmitted from one person to another through sexual intercourse. These may include; HIV/AIDS, herpes, gonorrhea, syphilis, and genital warts.
CHAPTER 2: REVIEW OF LITERATURE

HIV/AIDS

Acquired Immune Deficiency syndrome (AIDS) is caused by the Human Immunodeficiency Virus (HIV). An individual is diagnosed with AIDS when the body’s CD4 count is below 200 per cubic mm of blood and by the presence of specific infections (HIV/AIDS statistics, 2010). HIV/AIDS can be transmitted through 1) sexual behavior, 2) maternal to child transmission, 3) blood transfusion, and 4) by sharing sharp objects with an infected person (CDC, 1995, 2010). Since there is no cure for AIDS, global public health efforts are trying to minimize the transmission of HIV through educational measures.

HIV/AIDS in Africa

Over the past two decades, Sub Saharan Africa has remained the global epicenter of the HIV/AIDS epidemic (UNAIDS, 2009). The overwhelming burden of HIV/AIDS epidemic is concentrated in a region that accounts for 10% of the world’s Population. Currently, 22.4 million individuals living with HIV live in Sub-Saharan Africa (UNAIDS, 2009) and about 68% of new HIV infections are in adults and 91% of new HIV infections are among children (WHO, 2009).

In 2008, Africa accounted for 72% of the world’s AIDS-related deaths, of which 1.7 million were adults and 280,000 children under the age of 15 (UNAIDS/WHO AIDS Epidemic Update, 2009). In the same year, 2.3 million adults were newly infected and 430,000 children 15 years were newly infected. The infection rates are higher in the southern region in countries such as Botswana, South Africa, Swaziland, Lesotho and
Zimbabwe. These southern region countries have an infection rate ranging from 16 to 25%, which is higher than anywhere else in the world (UNAIDS, 2009).

**HIV/AIDS in Uganda**

Uganda, one of the most highly populated East African countries with a population of about 33.3 million people (Population Reference Bureau, 2009), was hit hard by the epidemic in the early 1980’s. The first case of AIDS in Uganda was reported in 1982 on the shores of Lake Victoria in Rakai district. By 2006, one million Ugandans were reported to have died as a result of AIDS and another one million were living with the disease (Ministry of Health March, 2006). Since 2000, the prevalence rate in Uganda has stabilized more than any other country in Africa (Wabwire, Magen et al., 2009). Although Uganda has reported a significant reduction in the rates of HIV infections through its national AIDS policy, the country is still experiencing infection rates that lead to death. The 2010 UNAIDS report on the global AIDS epidemic showed that at the end of 2009, there were 1.2 million people living with HIV in Uganda (UNAIDS, 2010).

The 2009, United Nations General Assembly Special Session (UNGASS) progress report showed that there has been a shift in the epidemic from people in single casual relationships to those in long-term relationships and from older to younger individuals who acquire it mostly through sexual behavior. The disease is then transmitted to children whose mothers are infected. Furthermore, behavioral inhibition due to Antiretroviral Therapy (ART) program, which provides comprehensive HIV/AIDS care and support, is documented as a vehicle for the spread of the epidemic in Uganda (Uganda AIDS Commission, 2009).
The Ugandan government has responded to the epidemic since 1992, using a Multi-sectoral approach to the Control of AIDS, including the implementation of educational prevention programs to reduce the spread of the disease (UNAIDS, 2009). Sex education has been introduced in school curriculum starting with primary schools and there are educational programs on radio, newspaper and televisions. The commonly used method of prevention is the ABC campaign. This method has been seen as a success story in the reduction of the transmission of HIV cases in Uganda.

Knowledge

Statistics have shown that most of the African population has some sufficient level of HIV/AIDS knowledge, but research also shows that despite high level of awareness of the disease, risky or unsafe behavior continues to prevail among the young, old, educated and uneducated (Adamako and Ampofo, 1993; Bertrand and Baktuwidi, 1991; Edwards, 1994a, 1994b,). Scholars in the field of HIV/AIDS perceive HIV-related knowledge as an important requirement for behavioral change (Di Clemente, et al., 1998). For HIV/AIDS preventions programs to be successful, knowledge level needs to be assessed and education needs to be tailored to address the gaps in knowledge. At a minimum, individuals should be taught how to prevent HIV transmission. Other areas that are also often addressed are related to modes of HIV transmission and HIV testing practices (UNAIDS, 2002).

Knowledge is disseminated through educational programs in schools and media such as television, radio and newspapers. For people to take the right precautions to prevent becoming positive, they must be properly informed about HIV prevention as well as choose to use the information in an appropriate manner (Edgar, Fitzpatrick, &
Freimuth, 1992). Abdulai and Zongkui (2011) stated that the role of community leaders’ involvement in disseminating HIV/AIDS information is very important. These leaders include; local and national level leaders; health professionals such as doctors and researchers, and people who are living with HIV/AIDS. Effective communication has been considered as the most effective channel for HIV prevention, the reduction of HIV-related stigma, and increased knowledge about available services and treatment (Goldstein, Usdine, Scheepers & Japhet, 2005).

**HIV/AIDS Related Knowledge among Young Adults in Africa**

*Awareness of HIV/AIDS.*

Despite the high level of HIV-related knowledge among young African adults, studies have found that they were not concerned about being at risk of contracting the virus, and do not seem to recognize how much they are at risk. (Richter, Harris, Coker, and Fraser, 2001; Semands and Simon, 1997; Timaeus, 1998). This lack of awareness can expose them to risky sexual behavior which can increase their vulnerability (Ferrer, Cianelli, Guzman, Cabieses, Irarrazabal, Barnales and Araya, 2007). Many youth are still engaging in sexual behaviors that can expose them to HIV/AIDS. In some African countries, such risks could be attributed to irrational beliefs of youth such as believing that AIDS is a curse from those who do not live right before God (Alao, Odirile, and Murangi, 1995).

Many young African adults do not perceive themselves at risk for contracting HIV. Research suggests they know the consequences of their risky behaviors but still choose to perform the risky behaviors. For example Odebeyi (1992) studied college students’ attitudes towards HIV/AIDS in a Nigerian university and found that 89% of the
students reported using a condom every time they had sexual intercourse; yet, 54% of the same population admitted they had never used a condom for HIV prevention. Such findings demonstrated that youth have not yet personalized the risk of HIV/AIDS. In another study, among young college students in Zambia, Mkumba & Edwards (1993) found that 75% of the students were living with HIV/AIDS due to their denial of the possibility of contracting HIV/AIDS.

Gender differences are also present in the awareness of HIV/AIDS among young adults in Africa. The differences in awareness of HIV/AIDS among youth need to be considered (Central Statistical Agency, 2006). In a study conducted in Eastern and South Africa, the risk of becoming infected with HIV was disproportionally higher among young women aged 15-24 as compared to young men (UNICEF, 2009). In Swaziland, for example, in 2009, 15.6% of young women aged 15-24 were HIV-positive, compared to 6.5% of young men of the same age. This lack of awareness may be attributed to education in the region where young girls are not given enough educational skills due to pressure for early sex.

Basic Knowledge about HIV/AIDS.

Although some promising developments have been made in the fight against HIV/AIDS epidemic among the young adults in Africa, comprehensive knowledge is quite low among young adults aged 15-25 (UNAIDS, 2006; Burgoyne and Peter, 2008). For instance, in assessing the HIV related knowledge, attitudes, and behaviors among young adults aged 20-34 in Sierra Leoneans, about 88% of the youths reported that they have never known of anyone who died of AIDS (Richter et.al 2001). A UNICEF (2005) study in Somalia, among young adults, found that 5% of the young adults were unaware
that a healthy person could both be infected by HIV/AIDS and transmit the virus. In contrast, according to another study in Ethiopia, rural high school adolescents were aware a healthy person could be infected (Alene, Wheeler, & Grosskurth, 2004).

Young people who know someone living with HIV/AIDS may have more knowledge than others (UNICEF, 2004). Adolescents who are in school may be less at risk for HIV/AIDS than those who are not in school because education is one way through which youth receive knowledge concerning HIV/AIDS prevention in Africa. Studies have found that there is a positive association between education and HIV/AIDS knowledge in some African countries (Barden, Graft-Johnson, Bisika, Sulzbach, Benson and Tsui, 2004; Eaton, and Flisher, 2000).

In Africa, there are differentials to the level of knowledge between men and women. UNICEF (2004) carried out a survey on the knowledge that both young men and young women in Somalia aged 15-24 have about HIV/AIDS. Results from this survey showed that 67% of young men had heard about HIV/AIDS as compared to 57% of women. Further, the results showed that knowledge about HIV/AIDS in this age group increased with the level of education, which means that the males had higher levels of knowledge than females. Gender imbalances generally hinder females from negotiating the use of condoms for safe sex due to lack of sufficient knowledge. Philemon and Kessy (2008) assessed the gender power relations in negotiating safe sex in HIV/AIDS prevention among 250 young adults in Tanzania aged 15-22. In terms of knowledge concerning sexually transmitted diseases (STDs), Philemon and Kessy (2008) found that 88.4% knew what STDS were, while 10% did not. Regarding HIV/AIDS, respondents seemed to inadequately know about HIV/AIDS and suggested that parents should be
providing reproductive knowledge and life skills to their children before they become sexually active. Other studies have observed this gap in knowledge among young females. The UNICEF (2004) survey among 27 African countries on HIV/AIDS knowledge found that only half of the young women aged 15-24 surveyed in 26 of 27 countries could identify the Abstinence, Be faithful and Condom use (ABC) campaign correctly and consistently.

There is no relationship between age and the ability to contract HIV/AIDS, however misconceptions abound across all age groups (Eton et al., 2000). For example Shisana and Simbayi (2002) carried out a household survey on HIV/AIDS knowledge in South Africa among young adults and adults 50 and older. Results from their survey showed that the youngest group (11-12) and oldest age group (50 and above) had the least knowledge about HIV/AIDS as compared to young adults aged 15-30. Ten percent of the older age group reported that having sex with a virgin could cure HIV/AIDS. Other studies showed that young adolescents have low knowledge of HIV/AIDS as compared to those that are older. For example, studies among 10-19 year adolescents found that there is need for intervention programs among this age group due to lack of sufficient knowledge (Duong, Debpuur and Kahn, 2008; Ndeki, Klepp, Seha and Leshabari,1994). Shisana and Simbayi (2002) argued that steps should be taken to address areas of poor and incorrect knowledge about HIV/AIDS.

Most adolescents in Africa receive HIV/AIDS information through the mass media such as radio and television (Shisana and Simbayi, 2002; Otte, Van, and Boer, 2008). Other channels of information dissemination include news papers, seminars, films, magazines, brochures, plays, friends, parents, hospitals, and religious bodies. Shisana and
Simbayi, (2002) conducted a survey among households in South Africa that involved young adolescents and adults. Radio as a source of information was rated consistently higher than other sources of information about HIV/AIDS. Low involvement channels consisted of newspapers, magazines and television, which are not accessible to some people, especially those in the rural areas.

There is an association between rural and urban youth’s access to information on HIV/AIDS. Urban youth are more exposed to the various channels that widen their knowledge (Shisana and Simbayi, 2002). Despite the fact that youth in the urban areas are more exposed to information than the rural youth, there is still low knowledge on HIV/AIDS transmission among youth in both areas.

There are some cultural factors in African countries that have not enabled youth to access information on HIV/AIDS. Scholars have assessed cultures that have been labeled as road blocks for the dissemination of information among young adults and youths. One such cultural factor is the idea that parents cannot communicate with their youth about sexuality (McNeil, 2002). Such factors can facilitate the risk of contracting HIV/AIDS.

Knowledge about HIV/AIDS Transmission.

Among many African countries, youth are aware that HIV/AIDS can be transmitted through having unprotected sex with an infected person, but gaps in the modes of transmission still exist. Unprotected sex, inconsistent condom use, mother to child transmission, blood transfusion, and sharing sharp objects are the most commonly known modes of transmission although unprotected sex is the most commonly mentioned than the other modes (Yerdaw, Enquoselassie, and Nedi, 2002; Oyo-Ita, Ikpeme,
Etokidem, Offor, Okkon, and Etuk, 2005). However, studies have shown that there is still insufficient knowledge on transmission among youths. For example Anarfi (1997) studied 1147 street children aged 8-19 in Accra, Ghana with 75% aged 15-19 and 2% under age 10. He discovered that the boys (56%) knew that HIV/AIDS could be transmitted through unprotected sex, yet only 10 percent of the girls knew that HIV was transmitted this way. This lack of sufficient knowledge continues to put young girls at risk of contracting HIV (Rassoja, Mirembe, and Darij, 2006).

Knowledge on other modes of transmission has also not been sufficient enough among the youth. Studies show that knowledge of mother to child transmission is still low among young adults (Andargie, Kassu, Moges, Kebede, Gedefaw, Wale, Alem, Andualem and Adungna 2007). Andargie et.al. (2007) found that two thirds of the secondary school students in Ethiopia were not aware of mother to child transmission. Another study in Nigeria revealed that 30% of the first year university students and 20% of secondary school youth had low knowledge on mother to child transmission (Ibe, 2005). These finding showed that there is need to strengthen knowledge related to modes of transmission among youth because they are the most at risk.

**Misconceptions about HIV/AIDS**

Despite the fact that some youth are aware of the modes of transmission of HIV/AIDS, there are still many misconceptions about the disease. Common misconceptions are that HIV can be transmitted through mosquitoes, sharing food with other persons who are infected, and the fact that those infected may appear healthy. Gesheker, 2007; Puttillo, et. al 1994). Different studies on HIV/AIDS in Africa have revealed high misconceptions among different groups that have continued to put them at
risk of the disease. Three studies conducted in Ethiopia, among high school youth, revealed that youth had different misconceptions about transmission that included mosquito bite, sharing clothing and food, shaking hands, and sharing toilets with infected persons (Alene et al. 2004). Their studies further revealed that youth in rural areas reported more misconception about the disease than those in urban areas. Similarly, Tebourski and Alaya (2004) conducted a study on knowledge and attitudes of high school students aged 16-19 regarding HIV/AIDS in Tunisia revealed that although youth had knowledge on modes of infections, they as well had misconceptions on the transmission mode of HIV/AIDS.

The above studies show that there many misconceptions among youth that may lead to transmission of HIV and discrimination toward individuals living with HIV/AIDS. Although programs have been extended to the youth through education, there is still a gap in knowledge level between youths in school and out of school, rural and urban who are above the age of 15.

**HIV/AIDS Related Knowledge among Young Adults in Uganda**

In Uganda, there has not been as much HIV knowledge research conducted among adolescents aged 10-14 compared to individuals aged 15 and above. However, the existing research has shown that most Ugandan youth aged 15 and above are relatively informed about the prevention, transmission and progression on HIV/AIDS. Specifically, Rassoja, Mirembe and Darij (2006) argued that special attention should be focused on young adults aged 15 and older because they account for half of all new HIV infections in the world.
Studies have shown that young Ugandan adults are informed about transmission and prevention of HIV/AIDS. Unprotected sex is the most ranked mode of transmission while abstinence, condom use and being faithful (ABC) are known preventative measures by Ugandan youth. In relation to other studies in Africa, radio is cited as the main source of information for many youth (Ministry of Health, 2006). Regardless of the knowledge provided about HIV/AIDS, sexual behavior among youth can predispose them to HIV/AIDS (Lwanga, 1992). Overall, although Uganda has been viewed as a success story in the awareness of HIV/AIDS in its population, there are misconceptions that need attention among young adults (UBOS, 2007).

Misconceptions about HIV transmission exist among Uganda youth. For example, youth believe that sharing food with an infected person and AIDS being a curse from God are sources of HIV transmission, while having sex with a virgin is considered as a cure. Asera et al. (1997) found that though there have been numerous programs conducted to create universal awareness on HIV/AIDS in Uganda, young adults still showed some misconceptions similar to those in other African countries.

While studies in Uganda have focused on young adults aged 15 and above, they have not assessed knowledge in children under the age of 15. It is important that the HIV-related knowledge of individuals under the age of 15 be examined because it is essential to educate children before they become sexually active (UNAIDS, 2002). All of the reported literature has focused on adolescents between the ages 15 and 25, who are in high school and university while only a few studies (Shisana and Simbayi, 2002; Anarfi, 1997) have focused on assessing the knowledge level of adolescents below 15 years of age.
age. Therefore, the purpose of this study was to investigate the knowledge of children aged 10-14 about HIV/AIDS prevention in Uganda.
CHAPTER 3: METHODOLOGY

Introduction

The purpose of this study was to investigate the knowledge of children aged 10-14 about HIV/AIDS prevention in Uganda. For organizational purposes, this chapter is presented under the following headings: 1) research questions, 2) research design, 3) sample, 4) data collection management, 5) study interview guide, 6) data analysis.

Research Questions

This study was designed to answer the following research questions:

1) What is the children’s perception of the severity of HIV/AIDS in Uganda?
2) What correct and incorrect information do children report about HIV/AIDS transmission and prevention in Uganda?

Research Design

This study employed a qualitative research design in order to investigate the knowledge and attitudes of children aged 10-14 regarding HIV/AIDS prevention in Uganda. This study was approved by the Institutional Review Board at Ohio University in May 2010.

The Study Location

The study was carried out in Mukono Municipality which is in Mukono district, central Uganda. The study included two primary schools within the Municipality which include; Kiyunga Muslim Primary school, a government funded pre-rural school found in Mukono municipality in Kyampisi sub-county with school identification number 9237, and Global Junior School, a privately funded urban school located in Mukono town council in Ntawo parish with school identification number 300319.
Global Junior school is located 3.8 kilometers north of Mukono town while Kiyunga Muslim Primary is located approximately 16 kilometers north of Mukono Town. Mukono Town is boarded by Kalagi Town in the north, Kira town to the west, Lake Victoria to the south and Lugazi town to the east. The town lies 27 kilometers east of Kampala, Uganda’s capital. The newly formed Municipality occupies 31.4 square kilometers with an estimated population of 57,400 people (UBOS, 2010). Keeping the communities physically healthy, encouraging resource sharing, building microeconomic opportunities and poverty are critical development issues in the study location. These development issues differ between rural and urban. With HIV robbing Ugandan population, rural communities suffer without solution due to limited access to social services such as health centers and markets.
Figure 1: Map of Uganda showing the location of Mukono district (the study site).

Site Selection

The sites mentioned above were chosen by the District Educational Officer (DEO). Initially, the researcher presented a copy of the IRB approval letter to the CAO Mukono district to request permission to access schools in the district for study purposes. The researcher explained the purpose of the study to the CAO. The researcher received
an approval letter from the CAO which was copied to the District Educational Officer (DEO) in charge of primary schools in the district. The DEO selected two schools for this study randomly, one rural government school (Kiyunga Muslim Primary School) and one private urban school (Global Junior School).

The researcher proceeded to the selected schools to recruit participants for the study. The letter of approval from the CAO was presented to the head teachers at each school, in order to obtain permission to talk the participants.

**Participants**

Participants for this study were selected from two primary schools in the Mukono District of central Uganda, which is Kiyunga Muslim primary school and Global junior school. The participants were chosen from the P5, P6 and P7 grade levels. In the British school system, a pupil at the P5 level is 10 years of age with two more years to successfully complete formal primary schooling. A pupil at the P7 is 12-15 years and in his or her final year of primary schooling. The rationale for selecting these participants from these grade levels was based on two issues. First, P5, P6, and P7 pupils are older and are best prepared to communicate their perceptions of HIV/AIDS. Secondly, these grade levels were selected so that we could intervene before they become sexually active. Therefore, children in these grade levels were selected because they have the lowest HIV prevalence and incidence rates in the population.

**Participant Recruitment**

To recruit participants for this study, the researcher attended one meeting with P5, P6, and P7 level pupils at each school to explain the purpose of the study and to build trust with the participants. At the end of the meeting, those participants whom voluntarily
wanted to participate were asked to stay in the classroom. Those who wanted to participate were divided according to their class level in order to select twenty from each school. These pupils were selected based on their, gender, grade level and ability to communicate in English in order to ensure quality interviews. Participants selected for this study were each given a consent form that needed a signature of a parent or guardian before they could participate in the study.

The twenty participants who were selected at each school included the school’s Headboy and Headgirl. These student leaders were selected because they were at the top of all classes, as determined by school administrators, and they had specific responsibilities among the pupils and with the teachers and administration. The Headboy and Headgirl provided not only access to where the students were at a given time, but the teachers and pupils were more responsive to letting the pupils go from class when the Headboy and Headgirl helped. For this study, the Headboy and Headgirl facilitated the flow of pupils from classroom and informal settings to and from the interview site. All interviews were scheduled at school during the most convenient times such as; morning breaks between 10-11am, lunch breaks between 1-2 pm and after classes between 4-5 pm.

A total of forty pupils participated in the study. Ten male P5, P6, and P7 pupils and ten female P5, P6 and P7 pupils were interviewed at each school. Twenty interviews at each school appeared large to handle for in-depth interviews but the researcher was given enough time by the school administration each day to interview participants. At each school, each participant was interviewed for a minimum of 45 minutes. Participants
were interviewed using a structured interview guide, according to the guidelines for qualitative interviews in health care research (Britten, 2000).

**Data Collection and Management**

Data collection took place over a six week period from July to August 2010. All data were collected onsite at the selected primary schools in the Mukono District of Uganda.

The selected 20 participants at each school were each given parent/guardian consent form. Consent was obtained by a parent/guardian signing the form. All signed consent forms were returned to the schools Headboy and Headgirl who then passed them to the researcher. The researcher went through all the returned consent forms to make sure that parents signed them. Two forms that were returned unsigned were given back to those pupils to have their parents sign the consent.

**Interview Procedures**

Structured interviews were conducted with both boys and girls aged 10-14 (See Appendix 5). All interviews for study were conducted in English because it is the language of instruction at all schools in Uganda. The researcher spent two weeks at each school interviewing two participants each day from Monday to Saturday. First, interviews were conducted at Kiyunga Muslim primary school because it was further than the Global Junior School. The researcher lived within Kiyunga community for two weeks to build a good relationship with the participants and to minimize the transport costs to and from the field each day.

Prior to interviewing, the researcher first sought the consent of the participant by explaining the purpose of the study and the interview, and that his/her participation is
Each participant was given a number for identification instead of name. During the interviews, the investigator audio recorded the interviews. Each recorded interview was listened to at least twice in order to understand the responses given by participants as suggested by (Kruger, 1979). This helped in drawing comparison between responses that were given by different participants. Participants at each school were asked the same questions from the interview guide.

**Observation**

The other method used was field observation. The purpose of this method was to observe how pupils interacted and talked about HIV/AIDS at each participating school. The researcher spent time observing children while at school. During observational learning, the researcher took notes as suggested by Glesne and Peshkin (1992). The written notes were compared and linked to the interviews in order to identify themes. Observation added very important aspects to the study that were not explored in the interview process.

**Study Interview Guide**

The interview questions for this study were developed from a variety of sources, including Goswami (1996). Goswami examined cognitive involvement, behavioral involvement, social economic status, attitudes and knowledge about HIV/AIDS among college students in India. In addition, this study adopted HIV/AIDS questions from Carey and Schroder’s (2002) HIV knowledge questionnaire, and a survey on attitudes towards individuals living with HIV/AIDS. Questions adapted from the different sources were designed to fit the target population.
The interview questions for this study were designed to examine attitudes, knowledge, perceived risks of contracting HIV/AIDS, perceived vulnerability for contracting HIV/AIDS, and risk reduction methods for preventing HIV/AIDS. The following interview questions met several of the criteria discussed by Carey and Schroder (2002).

Cognitive/awareness questions were asked related to HIV/AIDS awareness in Uganda:

- Uganda is facing many serious diseases, what are the most serious ones?
- Do you think AIDS is an issue in Uganda? Why or why not?
- How serious do you think AIDS is in Uganda?
- How much do you think you know about AIDS?

Behavioral questions. Questions were asked about how students seek information concerning HIV/AIDS in Uganda that included:

- Where do you get information about HIV/AIDS?
- Do you talk about AIDS with your parent? If yes how often?
- Do you ever talk with others about AIDS? When and where?

Attitude question. Questions were asked to examine feelings towards HIV/AIDS and individuals living with the disease. The following question was asked:

- If a family member got HIV/AIDS, how would you feel?

HIV/AIDS knowledge questions. Questions were asked to measure HIV/AIDS related knowledge (transmission and prevention).

- How different is AIDS from other disease?
- Can a person have HIV/AIDS and not have symptoms? Why or why not?
- How is AIDS spread or transmitted?
- What kind of symptoms would someone with AIDS have?
- What things should a person do to reduce/prevent getting AIDS?
- Do your parents expect you to have knowledge about AIDS prevention? Explain why or why not?
Risk reduction questions: Questions were asked to determine if the target population was confident in their ability to prevent getting HIV/AIDS.

- Do you feel confident that you can prevent yourself from getting HIV/AIDS? If so, how confident? If not, why?
- Is there anything that might make it hard for you to prevent getting HIV/AIDS? What might those be?

Data Analysis

This study used a mixed qualitative data analysis (QDA) to analyze the data collected. Qualitative data analysis involves working with data, organizing it, grouping it, synthesizing it, searching for patterns, finding what is important, and what has been seen and learned from the data, and deciding what to share with others (Bogdan and Biklen, 1982). It also involves coding information and themes from interview transcripts and observation notes (Denzin, 1988; Tesch, 1990).

For effective data collection for this study, the researcher used audio recording to capture information from the participants. The researcher also took field notes while conducting interviews, noting down any other remarks. Audio recording interviews enabled the researcher to store valid information for the study. Each evening, the researcher listened to the recorded interviews and transcribed each interview verbatim as well as read through the notes taken during the day. This was done so that respondents who were not well-understood could be re-interviewed for clarity. The researcher read the transcribed notes from audio recording and field notes several times to put together themes, and allocated colors to similar and different themes from the interview questions. This was mainly done at the researcher’s residence to avoid interruptions. This organization helped the researcher locate similar and different responses from the two participating schools and, identify themes.
For effective data analysis, the researcher coded common themes from the field notes and transcription from audio recording together in order to make connections. According to Glesne & Peshkin (1992) coding involves sorting and defining data. Through coding, the researcher managed to put together the recurring themes which helped with further data analysis. To report the information from the interviews, the researcher used tables, percentages and frequencies, which helped to identify the different patterns.
CHAPTER 4: RESULTS AND DATA ANALYSIS

This chapter presents findings of the study based on the data collected using the interview protocol. The background information of the participants interviewed for this study is presented in the first section. The second section presents the findings which were collected from the interviews and organized into themes.

Participant Demographics

Gender Distribution of Participants

A total of 40 participants were interviewed for the study. The sex of the participants was almost equally distributed between the males and females at the two participating schools. The table below shows that there were more female participants at Kiyunga Primary school than male, 60% compared to 40%, while there were more male (65%) than female (35%) that participated in the study at Global Junior School. In total, 21 male and 19 female pupils participated in the study. This is not a true reflection of the gender disparity among schools where more females attend than males.

Table 1:

<table>
<thead>
<tr>
<th>Gender</th>
<th>Kiyunga Primary</th>
<th>Global Junior</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percent</td>
<td>Frequency</td>
</tr>
<tr>
<td>Female</td>
<td>12</td>
<td>60</td>
<td>7</td>
</tr>
<tr>
<td>Male</td>
<td>8</td>
<td>40</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>100.0</td>
<td>20</td>
</tr>
</tbody>
</table>
Age

The age of respondents ranged from 10-14 years old as shown in Table 2 below. Thirty three (82.5%) of the respondents were between ages 11-14 while seven (17.5 %) of the sample was between 10-11 years. The varied age distribution of pupils in schools ensures that they will become sexually active amongst themselves. Therefore, it is essential to target this age group during their transition from childhood to adulthood.

Table 2

<table>
<thead>
<tr>
<th>Age</th>
<th>Kiyunga Primary</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Global Junior School</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>1</td>
<td>5</td>
<td></td>
<td>1</td>
<td>5</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>11</td>
<td>2</td>
<td>10</td>
<td></td>
<td>3</td>
<td>15</td>
<td></td>
<td>12.5</td>
</tr>
<tr>
<td>12</td>
<td>4</td>
<td>20</td>
<td></td>
<td>5</td>
<td>25</td>
<td></td>
<td>22.5</td>
</tr>
<tr>
<td>13</td>
<td>5</td>
<td>25</td>
<td></td>
<td>6</td>
<td>30</td>
<td></td>
<td>27.5</td>
</tr>
<tr>
<td>14</td>
<td>8</td>
<td>40</td>
<td></td>
<td>5</td>
<td>25</td>
<td></td>
<td>32.5</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>100.0</td>
<td></td>
<td>20</td>
<td>40</td>
<td></td>
<td>100.0</td>
</tr>
</tbody>
</table>

Level of Education

As indicated in Table 3 below, a high number of pupils (52.5%) who participated in the study were in Primary seven, the last year of primary education, 30% of the participants were in Primary six, and 17.5% were in Primary five. Therefore, this is the right time to target this population before they become sexually active and engage in behaviors that may put them at risk of contracting HIV/AIDS.
Table 3

Participants Education Level

<table>
<thead>
<tr>
<th>Kiyunga Primary</th>
<th>Global Junior school Level</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Education</td>
<td>Frequency</td>
</tr>
<tr>
<td>Primary 5</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Primary 6</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Primary 7</td>
<td></td>
<td>14</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>20</td>
</tr>
</tbody>
</table>

Findings and Analysis

The next part of the Chapter presents the findings and analysis of the responses obtained from participants to the interview questions. The responses received from the respondents to cognitive awareness, behavioral, attitude, knowledge and risk questions were used to answer the research questions below.

RQ1: What are the children’s perceptions of the severity of HIV/AIDS in Uganda?

RQ2: What correct and incorrect information do children report about HIV/AIDS?

Awareness of HIV/AIDS

Table 4 illustrates some of the responses from the participants in regard to their awareness of the most serious disease in Uganda. The participants’ responses showed that they were aware that HIV/AIDS was the most serious disease in Uganda (42.5%). Twenty five percent (25%) of the participants ranked malaria as the number one serious disease followed by gonorrhea (12.5%) and syphilis (7.5%). Tuberculosis and Ebola were reported by 5% of the participants as the
most serious diseases known to them. The results from the study also found that there was one respondent that was not sure of the most serious disease in Uganda.
Table 4

The Most Serious Diseases in Uganda

<table>
<thead>
<tr>
<th>Disease</th>
<th>Kiyunga Primary School</th>
<th>Global Junior School</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percent</td>
<td>Frequency</td>
</tr>
<tr>
<td>AIDS</td>
<td>8</td>
<td>40.0</td>
<td>9</td>
</tr>
<tr>
<td>Malaria</td>
<td>4</td>
<td>20.0</td>
<td>6</td>
</tr>
<tr>
<td>Gonorrhea</td>
<td>3</td>
<td>15.0</td>
<td>2</td>
</tr>
<tr>
<td>Syphilis</td>
<td>2</td>
<td>10.0</td>
<td>1</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>1</td>
<td>5.0</td>
<td>1</td>
</tr>
<tr>
<td>Ebola</td>
<td>1</td>
<td>5.0</td>
<td>1</td>
</tr>
<tr>
<td>Cancer</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
</tr>
<tr>
<td>Don’t know</td>
<td>1</td>
<td>5.0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20</strong></td>
<td><strong>100.0</strong></td>
<td><strong>20</strong></td>
</tr>
</tbody>
</table>
The majority of the participants reported HIV/AIDS as the most serious disease because it kills many people, and it has no cure. To elaborate on this issue, one participant responded:

Yes, because AIDS had killed most of the people in Uganda. It kills the young and old, it kills the agriculture and the strong people that bring the income into Uganda, they die out and all the agriculture suffers. Uganda needs labor in order to develop so if labor dies, who will develop? Nobody. That is why AIDS is an issue in Uganda.

In relation to the above response, another participant said:

Yes, most people in Uganda fear death, and there are many people in Uganda at a high risk of getting AIDS. In Uganda, if you get AIDS most Ugandans get depressed; you find situations where they stop eating. They say life is over.

In contrast to the above two quotes a third participant noted:

AIDS is not a serious problem in Uganda. It kills those who do not listen, those who go to disco and drink alcohol. But me, I don’t do those things, so AIDS is not a serious issue in Uganda but poverty is because it is the one that forces people to do things where they can get AIDS.

Although the participants expressed awareness that AIDS is among the most serious disease in Uganda, the findings of the study also revealed that many of the participants did not know a lot about the disease. Only 17% of the participants reported knowing a lot about AIDS. These participants reported knowing a lot about the disease because of caring and living with affected persons in their homes. For example, one of the respondents reported:

Me, I know a lot about AIDS because father died of it when I was young. Therefore, my mother tells me that it kills bad and that I should not get it. I asked my mother to tell me how it started, and she told me, so I know a lot about it.

Another participant added:
I know a lot about HIV/AIDS. AIDS is caused by a virus called Human Immune Virus (HIV) AIDS. When it gets in our body, it does not go out. I know it has killed many people in my village. My mother told me that it is the commonest cause of suffering in Uganda because it has killed the fathers of some children. And I know that it kills children in school even faster.

Most respondents (50%) reported knowing something about the disease from listening to radios, going to church and reading newspapers. Twenty seven percent (27%) of the participants reported knowing very little about the disease, and a minority (6%) of the participants knew nothing about the disease. In regard to this finding, one participant reported that:

I know the word AIDS but I don’t know much about it because my parent didn’t tell me like my other friends. And my mother says that I am not mature to talk about AIDS. I want to learn much about it at school when I get in p6.

Figure 2 shows the responses that were given by the participants on how much they knew about AIDS. The participants were asked directly to assess their level of HIV knowledge from none at all to a lot.

*Figure 2: Perceptions of HIV/AIDS Knowledge among Participants.*
In order to measure awareness, participants were asked how different AIDS was from other diseases. Results from the study revealed that the majority of participants knew that AIDS was different from other diseases like malaria. Overwhelmingly, respondents (67.5%) indicated that AIDS has no cure while other diseases are curable. However, fewer (22.5%) indicated that AIDS is transmitted through sexual intercourse while other diseases are not. Not surprisingly, there were also participants (7.5%) who reported that AIDS would kill in one day while other diseases could not. Of the participants, 2.5% reported that they did not see the difference between AIDS and the other diseases.

Table 5

Responses on How AIDS is Different from Other Disease

<table>
<thead>
<tr>
<th>Responses</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIDS has no cure while other diseases are curable</td>
<td>27</td>
<td>67.5</td>
</tr>
<tr>
<td>AIDS is sexually transmitted</td>
<td>9</td>
<td>22.5</td>
</tr>
<tr>
<td>AIDS can kill in one day</td>
<td>3</td>
<td>7.5</td>
</tr>
<tr>
<td>There is no difference</td>
<td>1</td>
<td>2.5</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>100.0</td>
</tr>
</tbody>
</table>
When asked in the interview how different AIDS was from other diseases, one female participant said:

If somebody gets AIDS and somebody gets malaria, the person who gets malaria can easily get cured but the one who gets AIDS can’t be cured. There is no cure for AIDS, so I think it’s very deadly. Its signs. If you are sick of malaria or if you are sick of any disease, you can try to eat and you will gain weight, but with AIDS if you don’t get the ARVS you cannot gain weight; even if you eat a lot of food nothing will happen.

In addition to the above response, another male participant said:

When you have AIDS, the white blood cells become weak whereas the other diseases like malaria can attack your body and are more free. They just enter and create a bond with AIDS and sooner or later you are in the casket that is down in the ground. AIDS is a disease. When it attacks you, it has no cure, and most times, you don’t get the feeling I’m going to die. I am just a walking dead person. They do not feel well, and some commit suicide.

In contrast to the above respondent, one respondent reported:

I don’t agree that AIDS is different from the old diseases like malaria. They can also kill like AIDS if they are not treated well.

Behavioral involvement/Source of Information on HIV/AIDS

Table 6 shows that there were seven responses about the sources of HIV information that the participants cited: School/teachers, parents, hospital, radio, books, billboards, and don’t know. The majority of participants (45%) reported school/teacher as their source of information about HIV/AIDS. This was followed by parents (17.5%), then hospital (15%), radio (7.5%), and books (5%). The study found that there was a difference between school and parents as sources of information for the participants. The least cited source of information was billboards (2.5%) while 7.5% of the participants never identified a single source of information. Broken down by school, the greatest
number of pupils from Kiyunga Primary school (50%) and Global Junior School (40%) identified school as their greatest source of information for HIV/AIDS. Furthermore, there were a similar number of pupils at both schools who identified the hospital as their source of information as shown in table 6.

Table 6

*Sources of Information on HIV/AIDS*

<table>
<thead>
<tr>
<th>Main source of information</th>
<th>Kiyunga Primary</th>
<th>Global Junior school</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>%</td>
<td>F</td>
</tr>
<tr>
<td>School/teachers</td>
<td>10</td>
<td>50</td>
<td>8</td>
</tr>
<tr>
<td>Parents</td>
<td>3</td>
<td>15</td>
<td>4</td>
</tr>
<tr>
<td>Hospital</td>
<td>3</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>Radio</td>
<td>1</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Books</td>
<td>1</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Billboard</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Don’t Know</td>
<td>2</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>100.0</td>
<td>20</td>
</tr>
</tbody>
</table>

The interviewed pupils reported that it’s hard for them to ask their parents about AIDS. One male participant from Kiyunga Primary school said:

Let me tell you sir, my parents don’t want to talk about this disease with us at home that we are young to know yet at school we talk about it. One day when I asked mother to tell me how people get AIDS, she just told me that I should go and ask my teacher and did not tell the truth. These parents don’t want to talk to us young children about AIDS yet we need to know this killer disease, but our teachers tell us in the science class.

Another participant from Global Primary school also said:

My parents cannot sit down with me to talk about AIDS because when I ask them they will think that I have sex, so I don’t ask them because they will shout at me. They think that we don’t know anything yet the school and radio talk about AIDS killing people. I think they fear talking about it with me.
In contrast a student from the Global Junior School reported:

I learn a lot from my parents on holiday. They talk to us every night that we need to be good because AIDS will kill us if we misbehave. My parents tell me that I should not share things like needs when at school. So when I go to school I also tell my friends what my mother tells me because some of my friends say that their parents don’t want to talk about AIDS in their home even if we learn about it here at school.

The pupils reported that schools and other sources have been helpful for them to learn more about HIV/AIDS because it’s designed in their syllabus. One participant from Kiyunga Primary school admitted:

The only way I learn about AIDS is from school from my science teacher. For the teacher tells us the truth about it in class even if my parents don’t want to tell me how it is gotten. I have learned a lot from my science teacher about it and I do not fear to ask them like my mother. At school even we have the talking compound which has words that “AIDS kills”, “No sex before marriage” and many others. At school we learn a lot even when people from other countries come and teach us about AIDS.

Another respondent reported:

My parents don’t want to talk about AIDS at all yet they know the truth about it, but me, I don’t want to die with this disease. What I do is to listen for it on the radio when they are not home because when they are home they do not want me to listen to something where they talk about sex. I like the program on the radio on AIDS.

The study revealed that since parents do not talk to their children about AIDS, as children grow up they tend to identify their own sources for information on HIV/AIDS. Most of the respondents reported that they depend more on their teachers to learn about AIDS than their parents do.

*Attitude about HIV/AIDS*

The participants for this study were also asked questions that are related to their attitude about HIV/AIDS. Participants were asked how they would feel if a
family member got AIDS. The responses to this question were interesting because the greatest number of participants (95%) reported that they would feel bad if their family member got AIDS. However, two participants did not give any response regarding their attitude towards persons with HIV/AIDS. The responses from the participants indicated that they were aware of the AIDS epidemic. The study revealed that most participants had positive attitudes towards individuals with AIDS. For example, a female participant from Global Junior School said:

I would feel bad, I would encourage them. If you were my relative with HIV, I would tell you that you do not have to isolate yourself; you have to take care of yourself. If he does not get the encouragement, he might spread the disease and think if I have to die, we will die together. You have to be with them and encourage them, do not be alone and tell them they can live a normal life.

Another pupil at Kiyunga Primary School also added:

I feel bad because if they get HIV, then I will not be able to complete my studies because a lot of money will be spent on medicine because the medicine expensive. But I will be there and care for them so that they know that I love and that they can also live when they take their ARV. I will encourage them to take medicine to live for a long time.

The above responses from the participants revealed that as awareness increases among the young adults, so do positive feelings and views towards people living with AIDS. In regard to this, one participant from Global Junior said:

AIDS is a bad disease but it doesn’t mean that someone is going to die soon. All children need to know that there is medicine that will help those people live like us who do not have it now. I know that because I have my relative who has it but is living long yet other people are dying also. I feel not nice at all but there would be nothing at all only to pray and make sure the person gets treatment.

Another male participant at the same school added:
The disease came like any other disease and it cannot make us avoid our friends because we are all children from God. So I think we need to care for the sick even if we don’t know them because you never know; tomorrow it can be the person you know. At school, we learn that you cannot get AIDS by living close to people who have AIDS because you cannot catch it by just living with them.

**HIV/AIDS Knowledge**

The participants were also asked questions related to HIV/AIDS to answer the research questions. First, the participants were asked about their knowledge on HIV/AIDS symptoms. Second, the study asked about their knowledge of how AIDS is transmitted. Third, the participants are asked about preventative measures.

**Symptoms**

First, the study found that participants have knowledge on the symptoms of an infected person. Figure 3 below shows that twenty one (52.5%) of the respondents reported that a person can have HIV and not show symptoms. While fourteen (35%) of the same population believed that an infected person can show symptoms. Twelve and half percent of the respondents did not know anything.

For example, one pupil from Global Junior School said:

No, somebody with must have symptoms if you have just got it but if it has developed for a long time and you know you have it you can treat those symptoms and they don’t show because in Uganda we have many people who have AIDS that ought to just tell us. You just be careful you may see someone healthy because of the ARV and a balanced diet they don’t show symptoms. It’s easy to know someone with AIDS by just looking at his lips that become red or the rashes on their body.

Another pupil said:

Yes, because there some times when AIDS can attack someone and they do not have symptoms; because of ARVS that hides it. But if you don’t
take the ARVS, symptoms such as skin rash and red mouth will show on your body.

Several times the participants who reported that because of ARVS and having a balanced diet, symptoms may take a long time to show on someone who is infected. However, the significant differences in the responses reveal that there are some misconceptions that a person with red lips or a skinny body is HIV negative.

Figure 3: Can a Person have HIV and not have Symptoms.

The study asked about about participants’ knowledge on the kind of symptoms someone who is infected with AIDS may show. Table 7 below presents the symptoms that the participants know about for someone who is infected with AIDS. The results showed that the majority of pupils (22.5%) reported loss of weight as their known symptom of AIDS, 17.5% reported red lips and 20% reported skin rash. There were four
pupils (10%) reporting body weakness, diarrhea was reported at 7.5% and Herpes zoster was reported by three people (7.5%). One (2.5%) participant identified syphilis as a symptom while five (12.5%) did not report any symptom. The results show that there is a difference in the level of knowledge among pupils from the two participating schools. Among all the interviewed participants at Kiyunga Primary School, none of them knew that body weakness is one of the symptoms of HIV/AIDS. On the other side, none of the pupils knew Herpes zoster was a symptom of AIDS at Global Junior School. In general, the results indicated that although there is some knowledge on symptoms, there are some misconceptions about the symptoms despite the availability of ARVS. For example, one pupil said:

I was told that a person with AIDS is small in weight, and has red lips and shabby hair. So I tell my friends not to engage in bad behaviors that will cause them to get AIDS because, it makes the sick people loose their weight and then kills them. When they die, they leave their children with no one to taking care of them.

Another student said:

I know that syphilis is a symptom of AIDS that is affecting many People and most especially us girls when the old men rape us. So someone With this symptom is an HIV sick person who can transmit the disease to the others.

In addition to the above responses, another female participant from Kiyunga primary school reported:

I can tell that someone has got AIDS by looking at their face and most especially the lips. That person who is affected by AIDS in most cases will have red lips, and kisipi (herpes zoster) around their waists. At times also they loose their natural hair.
Table 7

Symptoms of AIDS Identified by Participants

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Kiyunga Primary</th>
<th></th>
<th>Global Junior</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>%</td>
<td>F</td>
<td>%</td>
<td>F</td>
<td>%</td>
</tr>
<tr>
<td>Weight loss</td>
<td>5</td>
<td>25</td>
<td>4</td>
<td>20</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>22.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Red lips</td>
<td>5</td>
<td>25</td>
<td>2</td>
<td>10</td>
<td>7</td>
<td>17.5</td>
</tr>
<tr>
<td>Skin rush</td>
<td>3</td>
<td>15</td>
<td>5</td>
<td>25</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>Body weakness</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>20</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>10</td>
<td>3</td>
<td>7.5</td>
</tr>
<tr>
<td>Herpes zoster (Kisipi)</td>
<td>3</td>
<td>15</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>7.5</td>
</tr>
<tr>
<td>Syphilis</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2.5</td>
</tr>
<tr>
<td>Don’t know</td>
<td>2</td>
<td>10</td>
<td>3</td>
<td>15</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>100.0</td>
<td>20</td>
<td>100.0</td>
<td>40</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Knowledge on HIV/AIDS Transmission

The participants were asked how AIDS is transmitted in order to better assess their understanding. Figure 3 lists the modes of transmission of AIDS that were named by the participants. The modes of transmission mentioned included: sexual intercourse with an infected person, sharing sharp objects, blood to blood contact and mother to child transmission. Figure 3 below shows that the greatest number of participants (87.5%) indicated that AIDS is transmitted sexually, followed by sharing sharp objects with an infected person (72.5%) while twenty seven and half (27.5%) of the respondents reported blood to blood contact. Mother to child transmission (15%) was the least identified mode of transmission. Each of the participants mentioned more that one of the modes shown in figure 3. For example one participant said:

AIDS can be transmitted through sexual intercourse with an infected person, sharing sharp piercing objects, and spread spread at birth while cutting the umbilical cords. These are the most ways in which this disease is passed from one person to another.
While another female pupil at Global Junior school on the same issue said:

AIDS can be caused through having sexual contact with an infected person. When someone has HIV and uses the safety pin on his or her body, and she throws it away in the compound and someone else picks it up, it can cut that person which increases his or her chances of getting AIDS. Also if you have a wound and your friend who is infected has blood contact with you, it may also cause AIDS to you. So I think we need to be careful with our bodies when we are playing with others. You never know who has AIDS and who does not have because today even the young children are born with it.

![Figure 4: AIDS Transmission Modes.]

As indicated in the figure above, of the 40 interviewed pupils, more than half of the participants believe that AIDS can be transmitted through unhealthy sexual behaviors due to that fact that it’s the most commonly known mode of transmission than any other mode listed in Chart 3. There were no misconceptions reported by the respondents when
asked this question. The results showed that the pupils have sufficient knowledge about transmission.

Knowledge on how to Reduce/ Prevent Getting HIV/AIDS?

In addition to the transmission modes, the participants were also asked to identify ways in which AIDS can be reduced. The interviewed pupils identified abstinence, being faithful and condom use (ABC); avoiding using sharp objects, educating the people, taking ARVS and getting married as ways to prevent getting AIDS. Figure 5 below shows that 27.5% of those pupils interviewed indicated that abstinence from having sexual intercourse is the best way AIDS can be prevented. About 25% of the same population indicated being faithful in marriage, while 20% identified condom use as a way of prevention. For example one pupil said:

I want to say that us the young people should wait to have sex to until we finish our education, then get married and start to have sex. But if we don’t listen to our teachers and play sex while at school, we can get pregnant or get the disease and not finish our dreams. For the married people and especially the men I can advise them to be faithful to their wivies, and not to have sex with us the young girls. So married people need to be faithful.

Another participant added that:

To avoid AIDS, people have to use condoms. If you want to have sex with someone without a condom, you have to go to a health center and check first if that person or yourself have HIV. This disease came like a water hytheine and it has no medicine. Therefore all people need to talk to those people who are affected through hospitals and radios, to encourage them to get ARVS so that they don’t die very fast.

The study also revealed that 17.5% indicated not using sharp objects such as razor blades and needles as a way to prevent getting AIDS. Further, the participants reported
that educating the people about AIDS may be another way to reduce the disease (5%).

One participant said:

People should be educated on HIV/AIDS. they should sit in focal groups that educate them. This will help those who go to bad palces like bars where there many dangerous people that can lead them to getting AIDS.

It is worth noting that this study also found that some pupil have misconceptions about AIDS prevention. Five percent reported that getting married and taking ARVS are ways in which people can prevent getting HIV/AIDS.

![Graph showing the knowledge of ways to prevent AIDS.](image)

Figure 5: Knowledge of the Ways to Prevent AIDS.
What May Put the Youth at Risk

The participants were also asked about feelings of risk for HIV/AIDS transmission. Overall, as shown in Table 8, a large majority of participants (50%) reported that not abstaining from sex might put them at risk of HIV/AIDS, followed by sharp objects (20%) that are shared at times. Not surprisingly, 15% of the participants identified misconceptions among young people as obstacles to preventing AIDS. For example, one participant said:

Yes because most teenagers get false information from their friends, and films they think that if they have sex they will grow Muscles, their back aches will stop, they will feel better. Others think that young people don’t catch AIDS. Most times, you can get attracted to a girl and after sometime your friends start telling you that if you have sex with her you will grow muscles. These are bad friends that need to get counseled at the hospital because they can put their friends in danger. Others say that your penis will grow big when you have sex.

While on the same note, another participant added:

Yes, for example when you are in love with someone, people can tell you that if you have sex with that person one time, you cannot get it (AIDS). There those who say that AIDS cannot catch you when you have sex while standing. This may force you to follow others false advise and in the end you get the disease.

The study also revealed that (5%) of the respondents identified getting married at an early age as another obstacle for not preventing HIV/AIDS infections. One female participant said:

There some parents in Uganda forcing young girls to get married to “Sugar Daddies” (old men) when they are still young so that they get things such as cattle and money. When these girls are taken, they can easily get AIDS from these old men who have more than one wife. I think the government should arrest such parents who marry their children when they are still young.
However, as shown in Table 8, 10% of the respondents did not report anything on the listed items in the table below. The findings of the study also revealed that the majority of the participants (100%) were confident that they could prevent themselves from getting HIV/AIDS. For example, one said:

I am 100% confident that I can avoid getting AIDS. I am with my parents every time at home, I do not go to karaoke or disco and I do not drink. My parents are there to protect me. I have my guardians they are there to advise me about how I can avoid catching AIDS. My brothers too also talk to me on the same thing. Since I respect them, I do listen. They tell me that “Eriso lyomukulu ewadugala wewalaba” (where the old person’s eye sees better than the young ones), always talk to me about it, so am ever confident for it.

Another added that:

Yes I feel confident that I can prevent myself from getting AIDS. First, all my teachers educate me about the dangers of AIDS, how to prevent them. Therefore, I think I can feel confident about myself preventing AIDS.

Table 8

<table>
<thead>
<tr>
<th>Knowledge on What Might Make it Hard to Prevent Getting HIV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responses</td>
</tr>
<tr>
<td>Not abstaining</td>
</tr>
<tr>
<td>Early marriage</td>
</tr>
<tr>
<td>Misconceptions</td>
</tr>
<tr>
<td>Sharp objects</td>
</tr>
<tr>
<td>Don’t know</td>
</tr>
</tbody>
</table>

Total | 40 | 100.0

Misconceptions About HIV/AIDS

Although the participants displayed some knowledge about HIV/AIDS prevention, they also indicated some misconceptions as well. The majority of the participants (32.5%) believed that having sex while standing may not cause AIDS. Twenty five percent (25%) thought that AIDS could not be transmitted by having sex one
time while 15% believed that having sex can heal back pains. Fifteen percent (15%) thought that having sex can help you to grow muscles, 12.5% did not report any misconceptions during the interviews. One female participant said,

There are many beliefs that young people have about HIV because our parents don’t want to tell us about the truth. For example my friends tell me that if I have sex while standing I cannot get pregnant or AIDS. I don’t know if this is true, what can I do now because I fear to ask my mother or aunt. If I ask them, they will think that am already having sex yet I just want to learn the truth about what I have been told.

Another male participant in his interview said,

I hear many of my friends saying that you cannot get AIDS when you have sex with a girl for the first time when they are still virgin. I have many of my friends who have tested the fruit (vagina) thinking that they cannot get AIDS or pregnant for the first time. This is not true to me and I think that if they are not careful, they will die of this AIDS when they are still young. They think that it only kills the old person which is not the case. Many young children are now born with this disease too.

Table 9

<table>
<thead>
<tr>
<th>Misconception</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Having sex standing</td>
<td>13</td>
<td>32.5</td>
</tr>
<tr>
<td>Having sex one time</td>
<td>10</td>
<td>25</td>
</tr>
<tr>
<td>Growing muscles</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>Sex healing back pains</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>Don’t</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>40</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

**Summary of Main Findings**

**Demographic Background**

In terms of the background information of the respondents, 40 pupils were interviewed. Forty-seven and half (47.5%) consisted of females and 52.5% males
between ages 10-14. The participants were from primary five (30%), six, (35%) and seven (35%) respectively.

*Awareness of HIV/AIDS*

Respondents reported their awareness of HIV/AIDS by answering some questions from the interview protocol. Their awareness that AIDS was the most serious disease in Uganda was good. Less than half of the respondents (42.5%) were aware that AIDS is the most serious disease in Uganda, while more than half of the participants (52%) mentioned other diseases. Less than 20% of the participants knew ‘a lot’ about the HIV/AIDS issues while 50% of the participants knew ‘some’ about HIV/AIDS. Twenty seven percent (27%) reported knowing very little about HIV/AIDS while six percent (6%) did not report any disease.

More than half (67%) of the participants reported that AIDS was different from other diseases because it is not curable, while 22.5% differentiated AIDS from other disease through sexual transmission. Seven and one-half percent felt that AIDS can kill in one day and 2.5% of the participants did not see any difference of AIDS from other disease. A majority of participants (45%) responded that school/teachers were their main source of information about HIV/AIDS followed by parents (17.5%). Other sources of information reported by the participants included; hospitals (15%), radio (7.5), and books (5%). Billboards were the least mentioned source of information for the participants and 7.5% of the participants never identified a single source of information.

*Attitudes About HIV/AIDS*

The participants were also asked questions on their attitude about HIV/AIDS. Almost all participants (95%) had positive attitudes towards people with AIDS. There
were only two participants who did not report their feelings about people living with AIDS.

**HIV/AIDS Knowledge**

The study also asked questions to seek participants’ knowledge on HIV/AIDS symptoms, transmission methods, and preventative measures. A majority of the participants (52.5%) knew that an infected person may not show symptoms while 35% responded that an infected person has symptoms and 12.5% did not report anything. Loss of weight (22.5%), red lips (17.5); diarrhea (7.5%), Herpes Zoster (7.5%), and body weakness were reported as symptoms of an infected person by the respondents. Sexual intercourse (87.5), sharing sharp objects (72.5), blood to blood contact (27.5), and mother to child (15%) were the main modes of transmission of HIV/AIDS identified by participants. Ten percent of the participants did not mention any mode of transmission. Regarding the prevention methods, the participants identified abstinence, condom use, avoiding sharp objects, education and early marriages as ways the epidemic can be prevented.

**Risk Reduction**

Regarding what pupils know about what cannot prevent AIDS, not abstaining, using sharp objects, having misconceptions about transmission and prevention and early marriages were reported by the participants in the study. 10 percent of the participants did not report anything about risk reduction.

**Misconceptions**

The study revealed some misconceptions that young children have about prevention and transmission. Having sex while standing was the most reported
misconception (32.5%). Some participants believed that one cannot get sick by having sex once (25%), fifteen percent (15%) of the participant believed that having sex can make men grow muscles and reliving back pains. Less than fifteen percent of the participants did not make any responses about misconceptions.
CHAPTER 5: DISCUSSION AND INTERPRETATION OF MAIN FINDINGS

Cognitive /Awareness of HIV/AIDS

This study investigated the level of HIV/AIDS knowledge among children aged 10-14 in Mukono municipality, Uganda. A total of forty children participated in this study. The participants in this study showed at least some awareness of HIV/AIDS as the most serious disease in Uganda. This finding is similar to other studies among young adults fifteen and above in other parts of Africa (Eriksson, Sonesson, and Isacsson, (1997); Richter, Harris, Coker, and Fraser, (2001). However this awareness revealed that children identified AIDS and other diseases such as malaria are still known to them, because it is a commonly know disease that has caused a high child infant mortality rate in the past decades in Uganda like anywhere in Africa.

The findings of the study also demonstrated that despite the increased awareness of HIV/AIDS in Uganda, children aged 10-14 still don’t know a lot about the disease. There were less than 20% of the participants who knew a lot about HIV/AIDS. This could be attributed to the fact that many children have grown up in families where they don’t talk about AIDS with their parents. Those participants who reported knowing a lot are those that are free with their parents at home. Such a finding is different from other studies where the youths fifteen and above know a lot about AIDS but they don’t accept that they are at risk. Therefore there is a concern that as children grow up they may begin to deny their vulnerability of contracting HIV like the older younger adults aged fifteen and above (Ferrer, Cianelli, Guzman, Cabieses, Irarrazabal, Barnales and Araya, 2007). However, most of the pupils felt they knew some about HIV which means that they know they need to learn more about the disease.
Source of Information on HIV/AIDS

Overall, the study found that the majority of children had limited source of information on HIV/AIDS while they were not at school. Forty five percent (45%) of the participants indicated teachers as their main source of information. Seventeen and half percent depended on their parents and 15% depended on hospitals. In contrast to other research, media inform of radio, newspapers, and billboard have been identified as the main source of information on HIV/AIDS to the people (Shisana and Simbayi, 2002).

The high dependence to their teachers as the main source of information may be attributed to the fact that the teachers are open to communicate about HIV/AIDS in class and out of class to the children while the parents are silent to talk about AIDS. Another reason why schools are the main source of information could be attributed to the availability of books, pamphlets and brochures about HIV/AIDS. The findings of this study also revealed that those children who reported parents as their source of knowledge about HIV/AIDS did not learn a lot from them. The participants for this study indicated their fear of asking hard questions sexually related questions to their parents.

This finding implies that in order to increase awareness of the disease among this age group, parents need to break the silence and discuss sensitive issues with their children. The results from this study showed there is inadequate awareness of HIV/AIDS and children are getting information from school more than anywhere else. Therefore, there is a need for the policy makers and school officials to actively involve parents and other sources of information in education the young generation about HIV/AIDS in and out of school. If parents are not involved, their children will continue to be misinformed or less informed about HIV prevention.
Further, the findings imply that general information about HIV/AIDS is essential for children to know ways in which they can protect themselves from getting infected with the disease. Other communication channels such as religious bodies, hospitals, public libraries and entertainment also need to be involved as sources of information for the children so as to increase their awareness of HIV/AIDS.

**Attitudes on HIV/AIDS**

The majority of participants (95%) indicated positive attitudes towards people living with AIDS. The interviewed respondents at both participating schools indicated that they were supportive to those who are living with the disease. They also reported that they know that anybody who is affected is not dying soon and that they should not isolate them. They further shared that they don’t fear those who are infected. This result from the study could be attributed to the care and support that some of the children have given to their family members who are living with HIV/AIDS. The study is quite similar to that carried out by Herek, Capitanio, and Widaman (2002). They found out also that negative attitudes towards people living with AIDS were reduced among different groups of people. The results from this study are also similar to that done among college students in India which revealed positive attitudes towards those living with AIDS (Goswami, 1996). In addition, his study did not support shamefulness which is associated with living with AIDS.

The results of this study are different from other studies that report negative attitudes towards people living with AIDS. For example, Odirile’s (2000) study among Botswana college students found that college students had negative attitudes towards the disease, those infected and fear of stigmatization. The problem with such feelings
towards people living with the disease may lead to stigmatization of the sick people. However, this study showed that an increase in awareness can impact positive attitudes towards people living with HIV/AIDS. There is a great need to help the young learn about the disease at an early stage so that they have positive feelings towards people living with AIDS.

**Knowledge of HIV/AIDS**

The findings indicated that the participants had high knowledge on how AIDS is transmitted. They identified having unprotected sex with an infected person as the most transmission mode of HIV/AIDS. They also indicated that they knew AIDS could be transmitted through blood to blood contact, sharing sharp objects and mother to child transmission. This finding is similar to other studies in Africa. These studies have shown that the most commonly known transmission mode of AIDS is unprotected sex (Anarfi, 1997). The high knowledge on transmission modes could be attributed to the awareness of the school was teachers are charged with the responsibility to teach about AIDS in class and other channels such as friends.

However, the above finding did not reveal any misconceptions about transmission modes. This is different from other studies that have found that despite the increased level of knowledge among the young adults about transmission modes, young adults still have misconceptions such as sharing food, kissing, and sharing clothes (Alene et al. 2004).

This finding implies that increasing awareness on the various transmission modes through different dissemination methods could be an important aspect in reducing the
AIDS risk behaviors among the adolescents in Uganda and in other parts of Africa where AIDS has remained the most health issue.

In addition, most of the participants knew the most common HIV/AIDS prevention methods. They indicated that the Abstinence, Be faithful and Condom use (ABC) is the most common method of HIV/AIDS prevention although abstinence and being faithful are rarely followed.

Findings from this research revealed that the young children have some knowledge on how HIV/AIDS can be transmitted and prevented. This finding is similar to others studies in the literature (Ministry of Health, 2006). They reported that educating people about the disease could be an important avenue in reducing the epidemic of HIV/AIDS. This finding is also similar to some studies that have found that there is relationship between HIV/AIDS and education. Barden, Graft et al. (2004); and Eaton, and Flisher, (2000) found that adolescents in school may be at a lower risk of contracting AIDS than those who are out of school. Studies have shown that consistent provision of HIV/AIDS education has the impact needed to address issues such as HIV/AIDS (Unks, 1996). Therefore, there is a need to design educational interventions among the school-going children and out of school youth on various issues before they get exposed to false or untrue information about HIV/AIDS.

The implication of this finding is that the children are aware that despite the increased awareness of the disease, people are still indulging in unhealthy behaviors that put them at risk. In the interviews they identified, poverty, drinking alcohol and going to discos as drivers to the transmission of AIDS that need to be addressed in Uganda.
Misconceptions

Despite the fact that the majority of the respondents have indicated high knowledge on HIV/AIDS transmission and prevention, it’s worth noting that they also had misconceptions. The majority believed that they cannot get AIDS from having sex while standing and prevention through having sex with a virgin one time. Others believed that having AIDS would help them grow muscles, while there those that believed that back pains can be relieved by having sex. The study is not different from other studies that have revealed misconceptions such as having sex with a virgin, sharing food, kissing, and condoms getting in the way of sex (Simbayi, et al. 2005; Alene et al. 2004). This finding implies that children are receiving false information about prevention and transmission about AIDS from either their peers or others sources such as media. This puts them at risk of trying to explore sex with such beliefs that they cannot contract AIDS.

Therefore this finding calls for traditional cultural implications where the aunts and uncles had the responsibility to talk to the children about sexual behavior so they grow up with factual information about sexual behavior and HIV prevention. The national AIDS campaign in Uganda that started when the new government in 1986 implemented promotive and preventative interventions with the aim of preventing transmission of HIV, mitigating the personal and community impact of AIDS, and developing institutional capacity to respond to the HIV/AIDS situation. The key interventions include community mobilization, voluntary counseling and testing (VCT), prevention of mother to child transmission, and blood safety. Such a campaign has influenced this study by providing knowledge and awareness of HIV/AIDS among the
young generation in Uganda. Many of the young adults are aware of its seriousness and its negative impact towards the economic development of the country.

**Limitations of Data Collection Methods**

One of the limitations of data collection for this study was the noise from pupils during the interview sessions. Because of the loud noise during morning and afternoon breaks, the researcher had to reschedule the interviews at the end of the day when most pupils had gone home. This challenge only happened at Kiyunga Muslim primary school where the researcher at times had to relocate to quite places around the school. The second limitation of data collection was that of schools sports activities. Because data was collected during school sports competitions, the researcher found it difficult to recruit some participants.

Another limitation was that some pupils were shy to answer some questions due to cultural beliefs that don’t allow young people to know when they are still young due to lack of parent-child communication among family on sensitive issues such as HIV/AIDS.

**Conclusions**

From the above findings, several conclusions were arrived at in this study. First, the study revealed that children interviewed at the two participating schools were aware that HIV/AIDS was among the most serious disease as compared to other disease such as malaria and tuberculosis. Awareness that involves the parents is imperative to these children because, as they grow up they need a lot of knowledge about this incurable disease (HIV/AIDS).
Secondly, the study established that although the participants did not know a lot about AIDS, they had positive attitudes towards people living with the disease. This means stigmatizing the sick was not a problem; instead, they were supportive of them.

Thirdly, the study found that the children’s’ source of information about HIV/AIDS was school/teachers because, they are free to talk AIDS with the children at school. Media, which is the commonly used source by many programs, was inadequate. The majority of participants also indicated that their parents were silent about talking to them about sensitive issues such as AIDS at home. Those who get their information from their parents also cited that they feel their parents never tell them all the truth. This calls for parent-child communication and restoration of a home where Aunts were charged with talking to the young children, and involving religious bodies.

Fourth, the findings of the study suggest that the majority of the interviewed children have knowledge on transmission and prevention of HIV/AIDS. Unprotected sex, sharing sharp objects, blood transfusion and mother-to-children were the main modes of transmission reported by the participants. On the other hand, abstinence, be faithful, condom use, education and avoiding using sharp objects were reported as the main preventative measures. This calls for campaigns that require a more deliberate participation of parents at all levels.

Lastly, despite the fact that children have knowledge on HIV/AIDS modes of transmission and prevention, the interviewed children reported some misconception about the transmission and prevention of HIV/AIDS. Misconceptions reported included having sex while standing, and having sex with a virgin once as ways in which AIDS can prevented. Other misconceptions included how having sex can help heal back pains and
help boys to grow muscles. The children indicated that their parents breaking the silence could be a solution to such misconceptions.

From these findings, it’s evident that although Uganda has been identified as a success story in the reduction of HIV/AIDS, like the young adults aged fifteen and above, primary school children aged 10-14 do not have sufficient knowledge about HIV/AIDS.

**Recommendations**

From the findings described in the previous chapter, it is hoped that the results will be helpful the policy makers in the field of health in forming appropriate intervention programs in and out of school that involve children below fifteen years before they become sexually active. Therefore, the following recommendations were made:

The study has revealed that although the children aged 10-14 are aware of the seriousness of HIV/AIDS, they don’t know a lot about the disease. Therefore it’s recommended that the Presidential Initiative on AIDS Strategy to the Youth (PIASY) awareness program in schools should involve the assertiveness of policy makers. This is because the teachers have abandoned the program that was initiated to increase awareness of HIV/AIDS to the youth before they become sexually active. The government should make sure that the program is monitored well.

The study has revealed that the parents are afraid to talk about HIV/AIDS issues with their children. Therefore, parent-child communication should be promoted in an out of school through various ways. Among these is promoting community based parent-child meetings where parent and children interact outside the home to talk about AIDS. Secondly, HIV/AIDS homework should be designed to be completed by the parents with their children at home.
Parents and adolescents should be provided with information and skills to enable them overcome the communication barriers related to talking about AIDS issues at home. This can be done through involving parents in ‘straight talk’ programmers’ seminars, provision of IEC materials with basic information on AIDS and adolescent reproductive health. This can designed in a language that can easily be understood by both the parents and their adolescents.

The government, through the Ministry of Health (MHO), should involve institutional structures such as Parent-Teachers Associations (PTAs), Village Health Committees, Mothers union clubs and Community-based Organizations (CBOs) to reach the parents who are shy to talk to their children about HIV/AIDS at home. These institutions are important because, in the past they have been effective in mobilizing parents for other health issues such as immunizations.

The MOH together with the other stake holders should use other sources of information on HIV/AIDS in addition to schools and parents. Mass media in a language that is easy to understand should continue to be used to increase awareness of AIDS to the general population. Also religious bodies and hospitals should be used as centers to provide information to both the parents and their adolescents. This is based on the premise that, in this study school has been identified as the main source of information to the children.

Data from this study revealed that even though the adolescents have some HIV/AIDS related knowledge they still have misconceptions about its transmission and prevention. Therefore policy makers should consider those misconceptions and provide
clear information to these children before they start to indulge in sexual behaviors that may put them at risk of HIV/AIDS.

The MHO should put up in each district an HIV/AIDS resource center with a pool of information regarding HIV/AIDS for consultation when required by parents, children and teachers. This would help on motivating the parents in getting involved in sharing with their children about AIDS.

Recommendations for Future Research

1. There is a need to investigate the HIV/AIDS knowledge that pupils in other schools have. This would be helpful in showing the validity of this study.

2. There is a need to carry out a similar study on the out-of-school children. This would enable the identification of the most suitable intervention program for both in and out of school children aged 10-14.

3. Future research is needed on the cultural beliefs that prevent parent-child communication about HIV/AIDS at home. This may be helpful in breaking the silence of the parents in talking to their children.

4. More evaluation research is needed on the PIASY program in schools with the view to identify areas that need review for the successive implementation of the program.

5. A similar study can be carried out among street children in city centers for purposes of comparison.
REFERENCES


Central Statistical Agency (2006) Ethiopia Demographic and Health Survey. Addis Ababa, Ethiopia and Calverton, Maryland, USA:


Populations Reference Bureau (2009).


APPENDIX 1: OHIO UNIVERSITY IRB APPROVAL

The following research study has been approved by the Institutional Review Board at Ohio University for the period listed below. This review was conducted through an expedited review procedure as defined in the federal regulations as Category(ies):

Project Title: A Qualitative Investigation of the Knowledge Level of Primary School Children about HIV/AIDS Prevention in Uganda

Primary Investigator: Ivan Bakubi
Co-Investigator(s): Tania Basta

Faculty Advisor: Tania Basta

Department: International Studies

Rebecca Cale, AAB, CIP
Office of Research Compliance

05/24/10 Approval Date
05/23/11 Expiration Date

This approval is valid until expiration date listed above. If you wish to continue beyond expiration date, you must submit a periodic review application and obtain approval prior to continuation.

Adverse events must be reported to the IRB promptly, within 5 working days of the occurrence.

The approval remains in effect provided the study is conducted exactly as described in your application for review. Any additions or modifications to the project must be approved by the IRB (as an amendment) prior to implementation.
APPENDIX 2: CHILDREN’S ASSENT FORM

Children’s Assent Form

Title of Research: A Qualitative Investigation of the Knowledge Level of Primary School Children about HIV/AIDS Prevention in Uganda.

Researcher: Ivan Bakubi

For you to be able to participate in this research, it’s important to understand what it is about. This form is called the assent form, it describes the purpose of the research to you before you accept to participate and if you have questions please feel free to ask, and if you feel like not participating you are free to withdraw at anytime.

Explanation of Study

The main purpose of this study is to learn about 10-14 year children’s knowledge about HIV/AIDS prevention. This study will therefore go through various questions that are HIV/AIDS related to help understand what knowledge you have about AIDS prevention.

However, it’s very important to mention that your participation in this survey is voluntary. If you agree to participate, I will ask you to answer a few questions about HIV/AIDS. If you start to participate and you stop for any reason, there will be no punishment for stopping your participation.

It should take 45 minutes to answer the survey questions if you decide to participate.

Risks and Discomforts

You may feel uncomfortable talking about HIV/AIDS. If you do feel uncomfortable remember that you can stop at any time.

Benefits:

The study does not have direct benefits to you as a participant, but Learning more about what knowledge you (children) have can help the Ugandan government better understand children’s understanding of the disease and to come up with cost effect policies.

Confidentiality and Records

If you do answer the survey questions, your responses will be PRIVATE and CONFIDENTIAL. This means that no one will be able to know your answers. Please do not provide your name anywhere during the interview. This will help to keep any information you give confidential.
APPENDIX 3: CHIEF ADMINISTRATIVE OFFICER LETTER

To Whom It May Concern

RE: INTRODUCTION OF MR. IVAN BAKUBI.

This letter serves to introduce to you the above captioned.

He is carrying out a research study titled A Qualitative Investigation of the Knowledge level of Primary School Children about HIV/AIDS Prevention in Mukono district.

Any assistance rendered to him in this matter will be highly appreciated.

Thank you.

Lukyamuzi Agapitus
For. CHIEF ADMINISTRATIVE OFFICER
MUKONO DISTRICT
To
Mr. Ivan Bakubi

RE: RESEARCH

Following our discussion, I write to permit you to carry out your research study in our school.

We hope you can give us a copy of your study especially the recommendations.

We wish you the very best.

Yours faithfully

[Signature]

[Stamp: 09 Aug 2010]

"Working for greater heights"
APPENDIX 5: INTERVIEW QUESTIONS

1. Uganda is facing many serious diseases, what are the most serious ones?

2. Do you think AIDS is an issue in Uganda? Why or why not?

3. How serious do you think Aids is?
   a) Very serious    b) Slightly serious    c) Not serious

4. How much do you think you know about AIDS?
   a) A lot    b) Some    c) Very little

5. How different is AIDS from other disease?

6. How is AIDS spread/transmitted?

7. Can a person have HIV and not have symptoms? Why or why not?

8. If a family member got HIV, how would you feel?

9. What kind of symptoms would someone with AIDS have?

10. What things should a person do to reduce/prevent getting AIDS?

11. Is there anything that might make it hard for you to prevent getting HIV? What might those be?

12. Do you feel confident that you can prevent yourself from get HIV/AIDS? If so, how confident? If not, why not?

13. Where do you get information about HIV/ AIDS?

14. Do you ever talk about AIDS with your parents? If yes how often?

15. Do your parents expect you to have knowledge about AIDS prevention? Explain why or why not?

16. Do you talk with others about Aids? When and where?