

Running head: LIVING WITH HIV/AIDS IN KENYA

Women Living with HIV/AIDS in Kenya, Africa:

A Quantitative Study

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This thesis for honors recognition has been approved for the Department of Nursing.

  
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## Table of Contents

|   |           |
|---|-----------|
| <b>Acknowledgments.....</b>   | <b>5</b>  |
| <b>Abstract .....</b>   | <b>6</b>  |
| <b>Chapter I .....</b>  | <b>7</b>  |
| Women Living with HIV/AIDS in Kenya, Africa .....                         | 7         |
| <i>Pathology &amp; Transmission of HIV/AIDS.....</i>                      | 8         |
| <i>Treatment.....</i>   | 10        |
| <i>Nucleoside Analog Reverse Transcriptase Inhibitors (NRTIs).....</i>    | 10        |
| <i>Nonnucleoside Reverse Transcriptase Inhibitors (NNRTIs) .....</i>      | 11        |
| <i>Protease Inhibitors (PIs) .....</i>                                    | 11        |
| <i>Fusion Inhibitors.....</i>   | 12        |
| <i>Antiretroviral Therapy to Prevent Maternal-Child Transmission.....</i> | 12        |
| <i>Diagnosis .....</i>  | 13        |
| <i>Risk Factors .....</i>   | 13        |
| <i>Demographics .....</i>   | 13        |
| <i>Gender .....</i>   | 14        |
| <i>Social Implications .....</i>  | 14        |
| <i>Impact on HIV/AIDS patient and his or her family .....</i>             | 14        |
| <i>Ethical Implications .....</i>   | 14        |
| <i>Financial Implications.....</i>  | 15        |
| <i>Nursing Theory.....</i>  | 15        |
| <b>Chapter II.....</b>  | <b>17</b> |
| Review of Literature .....  | 17        |
| <i>Prevention.....</i>  | 17        |
| <i>Education .....</i>  | 18        |
| <i>Treatment .....</i>  | 20        |
| <i>Nursing Focus.....</i>   | 21        |
| <i>Risk for infection .....</i>   | 22        |
| <i>Risk for infection transmission .....</i>                              | 23        |
| <i>Accredited patient websites .....</i>                                  | 25        |
| <b>Chapter III.....</b>   | <b>26</b> |
| Methodology.....  | 26        |
| <i>Descriptive Research .....</i>   | 26        |
| <i>Considerations by the Researcher .....</i>                             | 26        |
| <i>The researcher's bias.....</i>   | 26        |
| <i>Procedure .....</i>  | 27        |
| <i>Participant criteria .....</i>   | 27        |
| <i>Ethical considerations .....</i>                                       | 28        |
| <i>Limitations .....</i>  | 28        |
| <b>Chapter IV .....</b>   | <b>29</b> |
| Results .....   | 29        |
| <i>Worrying about Family ,Community, and Employment .....</i>             | 29        |
| <i>Coping with Living Environment, Sanitation, and Water .....</i>        | 30        |
| <i>Responding to Health Questions .....</i>                               | 30        |

|  |           |
|--|-----------|
| <b>Chapter V</b> .....   | <b>33</b> |
| Discussion.....  | 33        |
| <i>Worrying about Family, Community, and Employment</i> .....      | 33        |
| <i>Coping with Living Environment, Sanitation, and Water</i> ..... | 35        |
| <i>Responding to Health Questions</i> .....                        | 36        |
| <i>Future Research</i> .....                                       | 37        |
| <b>Conclusion</b> .....  | <b>39</b> |
| <b>Appendix A</b> .....  | <b>40</b> |
| <b>References</b> .....  | <b>47</b> |

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I dedicate this research to my family, without whom, I would never have the courage (or the finances) to follow my dreams, and to the Kenyan women who allowed me into their lives. Without whose perseverance and strength I would not have been given the greatest gift of all: knowledge.

## Abstract

More than thirty-eight million people were estimated to be living in the world with HIV/AIDS, in 2005. The purpose of this study was to explore the risk for infection of HIV/AIDS in Kenya, Africa. This is a descriptive study using a health education survey with quantitative questions, qualitative questions, and inferential statistics. The number of participants totaled 19, English speaking, Kenyan women between the ages of 22 and 63, and the approximate duration with each contact was one interview of 30 minutes to one hour. The themes of this study are Worrying about Family, Community, and Employment, Coping with Living Environment, Sanitation, and Water, and Responding to Health Questions. This information pertains to nurses because as knowledge continues to grow about the global epidemic of HIV/AIDS it is important for the healthcare community to have greater insight into the facts and opinions of the illness. These results, while reflective of global phenomena, do not directly apply to every population and are strictly applicable to this study.

## Chapter 1

## Women Living with HIV/AIDS in Kenya, Africa

More than thirty-eight million people were estimated to be living in the world with human immunodeficiency virus (HIV)/acquired immunodeficiency syndrome (AIDS), in 2005 (World Health Organization [WHO], 2006). In that year alone, 2.8 million people died from the disease adding to a death toll already well above 20 million (World Health Organization [WHO], 2006). In the 1980s, the first cases of a baffling new disease began being recorded. Marked by such rare illnesses as Kaposi's sarcoma, *Pneumocystis carinii* pneumonia (PCP), and Toxoplasmosis, among others, this disease had never before been seen.

Now more than 25 years later, this disease, AIDS and its precursor HIV, has reached pandemic status stretching to the farthest corners of the world. While HIV/AIDS is prevalent throughout the world, 95% of cases are found in developing countries; two-thirds of these are found in any country south of the Sahara Desert termed sub-Saharan Africa (Phaladze, Human, Dlamini et al. 2005); Kulela, Hadebe, Sukati et al. 2005). In the most affected of these countries, one can find infection rates of over 30% paired with a consistently disproportionate transmission ratio of three women to one man (Phaladze, Human, Dlamini et al. 2005; Kulela, Hadebe, Sukati et al. 2005).

With the number of infected sub-Saharan Africans augmenting at a greater rate than the world's capability to react, the severity of this pandemic calls for much attention from the healthcare market (WHO, 2006). It is the responsibility of healthcare providers to make education available about this disease, most specifically in its modes of transmission, means of prevention, and obtainable treatment. The purpose of this study is

to explore how the risk for infection of HIV/AIDS in Kenya, Africa is rendering the current healthcare programs, living conditions, and education regarding the infection, prevention, and treatment of this disease inadequate, and the need for the improvement of each of these areas.

#### *Pathology & Transmission of HIV/AIDS*

The most common way that HIV/AIDS is passed is through sexual contact (Mattson Porth, 2007). HIV, however, has several modes of transmission. It can be passed from contact between seropositive blood and nonseropositive blood, through sexual contact and its bodily fluids, such as semen and vaginal fluids, and in utero, during labor, or through breast-milk from an infected mother to her child. Anytime that these contaminated fluids have access to the bloodstream there is a risk of transmission. It is possible for the virus to be spread from person to person even though there may be no signs or symptoms and the infected person has tested negative in an HIV antibody test. The human immunodeficiency virus (HIV) is the cause of the deadly acquired immunodeficiency syndrome (AIDS). Opportunistic infections, central nervous system deterioration, wasting, and malignancies are all correlated to the AIDS virus and its severe immunosuppressive actions (Mattson Porth, 2007). The term seroconversion is used to define the average 1 to 3 months that it takes to change one from testing negative for HIV antibodies to testing positive (Mattson Porth, 2007).

Considering the population of nearly 30 million men, women, and children infected with HIV/AIDS in Sub-Saharan Africa, the number one concern for this populace is the risk for infection. The risk for infection is a "state in which a person is at risk to be invaded by an opportunistic or pathogenic agent (virus, fungus, bacteria,

protozoa, or other parasite) from endogenous or exogenous sources” (Carpenito-Moyet, 2006).

The pathophysiology related to this nursing diagnosis is secondary to conditions such as cancer, respiratory disorders, AIDS specifically, and immunosuppression, among others (Carpenito-Moyet, 2006). The most common type of cancer associated with HIV/AIDS is Kaposi’s sarcoma. Due to the pandemic status of HIV/AIDS, this cancer has become much more widely studied, and it is now understood to be caused by a combination of cytokine-induced growth, immunosuppression, and a virus, KS-associated Herpesvirus (KSHV) or Human Herpesvirus 8 (HHV-8) (Sissolak, & Mayaud, 2005).

Pneumocystis carinii pneumonia (PCP), classified as a fungus, is the most generally seen respiratory disorder linked to HIV/AIDS. Generally presenting with symptoms of dry cough, breathlessness for a period of around one to three weeks, fever, tachypnea, and/or tachycardia, this infection preys on those who are immunosuppressed, such as those affected with HIV/AIDS (Mitchell, 2007). PCP is unusual because there has been no evidence of person to person transmission; instead, it is often found in the lungs of healthy individuals, and it is estimated that most people are exposed, and develop antibodies, to this illness by the age of four (Mitchell, 2007). It is not until antiretroviral therapy is started, or one’s CD4 count is less than 200 cells per mm, that PCP presents as an infection (Mitchell, 2007). A CD4 count is defined as “a measure of ‘helper’ T cells that are responsible to help B cells produce certain antibodies” (Mosby, 1998, p. 287). Therefore, a decrease in CD4 counts indicates an increase in the progress of the presenting infection.

Also, the risk for infection is situational; taking into consideration this general population's history of infection, stress, and malnutrition, the risk of infection greatly increases (Carpenito-Moyet, 2006). In Kenya, if a person is infected with HIV/AIDS he or she is discriminated against by community, friends, and family. The stigma of being infected with this virus causes great economic hardship. It is very difficult for one with HIV/AIDS to work, whether it is related to the advanced stage of the disease, there is no work available, or because the stigma associated with this disease is causing he or she to be passed over by employers. Also, it is not uncommon for the family members of an infected person to also face discrimination. The stress of this casting off is in no way beneficial to the prevention of infection. The inability to earn an income adds to the stress of acquiring sufficient nourishment.

#### *Treatment*

There are five separate categories of medications associated with HIV drug therapy. These categories include Nucleoside Analog Reverse Transcriptase Inhibitors (NRTIs), Nonnucleoside Reverse Transcriptase Inhibitors (NNRTIs), Protease Inhibitors (PIs), Fusion Inhibitors, and Antiretroviral Therapy to Prevent Maternal-Child Transmission (MICROMEDEX®, 2008).

*Nucleoside Analog Reverse Transcriptase Inhibitors (NRTIs).* Nucleoside Analog Reverse Transcriptase Inhibitors are often used in a combination of three other anti-HIV drugs. These NRTIs may be referred to as "Nucleoside Analogues" or, for short, "nukes" (AIDSmeds.com ¶ 3). This combination is used as a means to block the infection of healthy T-cells in a person's blood with HIV (MICROMEDEX®, 2008). This replication is prevented when the faulty nucleotides contained in NRTIs are drawn upon by reverse

transcriptase to convert ribonucleic acid (RNA) to deoxyribo nucleic acid (DNA). The usage of these defective nucleotides causes the DNA to be incorrectly built, and therefore the genetic material of HIV is unable to integrate itself into the genetic material of the healthy cell. This causes an inability of the cell to replicate, and, as a result, prevents the cell from producing HIV viruses. There are currently 10 NRTIs that are approved by the Food and Drug Administration (FDA); these drugs include Atripla, Combivir, Emtriva, Efavirenz, Epzicom, Retrovir, Trizivir, Truvada, Videx and Videx EC, and Viread (AIDSmeds.com, 2008).

*Nonnucleoside Reverse Transcriptase Inhibitors (NNRTIs).* Nonnucleoside Reverse Transcriptase Inhibitors (NNRTIs), referred to as “Non-Nucleoside Analogues,” or “non-nukes,” are another category of anti-HIV drug most commonly used in a combination of three drugs (AIDSmeds.com, 2008). NNRTI’s function is to attach to the reverse transcriptase of ribonucleic acid (RNA), the genetic material of HIV. In doing so, RNA is unable to convert to DNA and consequently the new virus is unable to form. Atripla, Intelence, and Rescriptor are the only three medications presently approved by the FDA (AIDSmeds.com, 2008).

*Protease Inhibitors (PIs).* Protease Inhibitors (PIs) are another group of medications included in a combination of three drugs to prevent the replication of HIV in one’s blood (AIDSmeds.com, 2008). They act by preventing the HIV infected T-cells, otherwise known as CD4 cells, from duplicating new copies of the virus. When HIV positive RNA is inside a T-cell’s DNA, a polyprotein is formed. This protein strand must be disassembled and reassembled via protease, an enzyme, into functional protein units such as capsid proteins, envelope proteins, reverse transcriptase, etc. When correctly

cleaved, the resultant proteins form new copies of the HIV virus; PIs work to block protease from performing its job, and hence halt the formation of a new virus. Agenerase, Aptivus, Crixivan, Invirase, Kaletra, Lexiva, Norvir, Prezista, Reyataz, and Viracept are all PIs that have been approved by the FDA (AIDSmeds.com 2008).

*Fusion Inhibitors.* Fusion Inhibitors, or entry inhibitors, are designed to arrest HIV from entering healthy CD4 cells. This makes it different from the NRTIs, NNRTIs, and PIs previously discussed because Fusion Inhibitors attempt to work against HIV before it has already infected a CD4 cell.

Entry inhibitors work by attaching themselves to proteins on the surface of CD4 cells or proteins on the surface of HIV. In order for HIV to bind to CD4 cells, the proteins on HIV's outer coat must bind to the proteins on the surface of CD4 cells. Entry inhibitors prevent this from happening. Some entry inhibitors target the gp120 or gp41 proteins on HIV's surface. Some entry inhibitors target the CD4 protein or the CCR5 or CXCR4 receptors on a CD4 cell's surface. If entry inhibitors are successful in blocking these proteins, HIV is unable to bind to the surface of CD4 cells and gain entry into the cells. (AIDSmeds.com, 2008 ¶ 3)

Enfuvirtide, which targets the gp41 HIV surface protein, was approved by the FDA in March 2003, and Maraviroc, which targets the CCR5 HIV protein, was approved in August 2007; so far, these are the only two Fusion Inhibitors with U.S. Food and Drug Administration approval (AIDSmeds.com, 2008).

*Antiretroviral Therapy to Prevent Maternal-Child Transmission.* Zidovudine, otherwise known as AZT or Retrovir, is a member of the NRTI family and is most commonly used to prevent HIV transmission from a mother to her child. There is a 30% chance that a woman who is HIV positive will pass the virus on to her unborn child if she has not taken anti-HIV medications throughout her pregnancy. However, it has been demonstrated that following an AZT treatment plan during pregnancy can reduce the risk of passing the disease in utero from 30% by more than two-thirds, leaving the unborn

child with a less than 10% chance of contracting the disease. This AZT treatment plan includes “taking Retrovir by mouth during pregnancy, and receiving Retrovir through an IV line at the time of delivery. After delivery, the baby will take Retrovir syrup, by mouth, four times a day for six weeks” (AIDSmeds.com, 2008).

### *Diagnosis*

Tests used to confirm an HIV/AIDS diagnosis are the ELISA and the Western blot, or IFA, tests. The ELISA test detects antibodies specifically associated with HIV; a positive result from this test calls for a confirmation via the Western blot test. If the results affirm that there is, indeed, HIV virus present, it is considered to be more than 99% conclusive (MICROMEDEX®, 2008). There are also methods of testing both oral secretions and urine; while the oral secretions prove to be dependable, the urine analyses demonstrate less than consistent results. With HIV testing there is also the possibility of performing a home fingerstick. This home performed test, if used properly, can afford results equivalent to those found with standard modes of testing in a hospital or clinical setting (MICROMEDEX®, 2008). There is also the possibility of completing a rapid HIV test with same-day results. These genres of tests have verified their reliability for HIV screening in emergent situations (MICROMEDEX®, 2008).

### *Risk Factors*

*Demographics.* The World Health Organization states that around 95% of the world’s HIV/AIDS victims live in countries that are considered “developing,” and that nearly two-thirds of this 95% are located in sub-Saharan Africa (WHO, 2006, p. 4). This epidemic is quickly becoming the number one concern; with its massive social and political implications, the effects of this disease are everywhere. Botswana with a 38.8%

infection rate, Lesotho at 31%, Swaziland with 33.4%, and Zimbabwe with 33.7%, are all examples of countries with an HIV/AIDS prevalence rate of over 30% (Phaladze, Human, Dlamini et al. 2005; Kulela, Hadebe, Sukati et al. 2005). These countries, however, only represent a fraction of the number of countries with infection rates exceeding what before was thought impossible (Phaladze, Human, Dlamini et al. 2005; Kulela, Hadebe, Sukati et al. 2005).

*Gender.* In sub-Saharan Africa, HIV/AIDS disproportionately affects young women. According to the World Health Association, in the category of 15-24 year olds, the ratio of infected women as compared to infected men is 3 to 1 (WHO, 2006, p. 4).

#### *Social Implications*

*Impact on HIV/AIDS patient and his or her family.* Discrimination and stigmas are two major problems facing the HIV/AIDS positive in sub-Saharan African. These prejudices have an effect on not only the infected individual, but the entire family, the community, and even the country of the one infected. It is said that the HIV/AIDS epidemic consists of three parts: the first being the initial infection with HIV, followed by the disease's transformation to AIDS, and, finally, the certain discrimination that is to follow the news of infection (Skinner & Mfecane, 2004).

*Ethical implications.* The availability of medication and treatment in sub-Saharan Africa affects the ethics surrounding HIV/AIDS. In resource-rich countries, antiretroviral treatment (ART) is becoming standard protocol for anyone infected with HIV/AIDS; in resource-poor countries it is only the most well off of individuals that are fortunate enough to receive such care. There are, nevertheless, programs in place to deliver this ART to those in need both in the United States, a resource-rich country, and in sub-

Saharan Africa, an area consisting of resource-poor countries. The difference is that countries like the United States of America have an established infrastructure; this infrastructure is able to handle the demands of distributing these drugs and managing their treatment in a way that will render them effective. Countries like Kenya, South Africa, and Swaziland, all located in sub-Saharan Africa, do not have the luxury of a functioning pre-established system where these types of requirements can be met (Muko, Ngwa, Chigang et al. 2004; Ngwa, Meiburg, Shu et al. 2004).

*Financial implications.* There are an estimated 4,100,000 people who need ART in sub-Saharan Africa while there are only 50,000 individuals who are receiving it. This means that there is roughly a 1% coverage rate (WHO, 2002, p. 1). Programs such as the Annual Fund grants in Malawi, for example, are instituting an additional \$40 million dollars per year in the healthcare sector. While seemingly a large number, this \$40 million averages out to add less than \$4 dollars per capita to health care spending leaving those in need \$10 dollars short of the \$30 dollars that it costs to pay for a package of essential health care services; this basic package does not even include ones' ART (McCoy, Chopra, Loewenson et al. 2005; Aitken, Ngulube, Muula et al. 2005).

### *Nursing Theory*

The theory behind transcultural nursing stresses equality in care for all, regardless of their location. This theory has strong psychological, spiritual, social, cultural, and physiological dimensions because nursing encompasses all of these aspects. The transcultural nursing theory, or transcultural nursing (TCN), developed by Madeleine Leininger said "that the culture care needs of people in the world will be met by nurses prepared in transcultural nursing" (*Transcultural Nursing Society*, 2008 ¶1). The

Transcultural Nursing Society's (TCNS) mission "is to enhance the quality of culturally congruent, competent, and equitable care that results in improved health and well being for people worldwide" (*Transcultural Nursing Society*, 2008 ¶2). The vision of the TCNS is "to provide nurses and other healthcare professionals with the knowledge base necessary to ensure cultural competence in practice, education, research, and administration" (*Transcultural Nursing Society*, 2008 ¶3). The philosophy and values of the transcultural nursing theory encompass the idea that it "is a theory based humanistic discipline, designed to serve individuals, organizations, communities, and societies" (*Transcultural Nursing Society*, 2008 ¶4). It also states that "human care/caring is defined within the context of culture," and that "culturally competent care can only occur when culture care values are known and serve as the foundation for meaningful care" (*Transcultural Nursing Society*, 2008 ¶4). According to the society, "the foundation of the discipline of TCN" is scholarship, and "advanced educational preparation in TCN enhances the practice of culturally competent care" (*Transcultural Nursing Society*, 2008 ¶4). The TCNS states that "certification documents evidence of the ability to provide culturally competent care" (*Transcultural Nursing Society*, 2008 ¶4). A nurse using the transcultural theory would view an HIV/AIDS client from sub-Saharan Africa the same way that he or she would view an HIV/AIDS client from the United States. Risk for infection is a major nursing diagnosis in America; applying the transcultural nursing theory implies that this same nursing diagnosis would also be extremely relevant in sub-Saharan Africa.

## Chapter II

### Review of Literature

The topic of HIV/AIDS is a difficult one to research. Due to the relative infancy of this illness, it is not always easy to find a study that has already been conducted that specifically applies to one's subject. Many quantitative studies have been completed regarding HIV/AIDS and sub-Saharan Africa; however, the research specifically associated with the exact lived experiences of those affected by the disease is not so easily come by. There are literally thousands of articles that focus on the subject of the disease, and even on the specific location of Kenya; the particulars, however, are more complicated to find. This review of literature focused on research surrounding the topics of prevention, education, and treatment.

#### *Prevention*

In the 1980s it became standard practice in the United States for blood banks to screen all blood for the possible infection of HIV/AIDS. This screening process became a mode of prevention of contraction with HIV/AIDS for those in need of blood transfusions. In the study of HIV/AIDS, it is important to have a strong grasp of all the modes of transmissions, their origins, and their prevalence in certain races, genders, cultures, etc. The research article "Blood Transfusions in the Early Years of AIDS in Sub-Saharan Africa" was important because it gave readers insight into the usage of blood transfusions in sub-Saharan Africa from 1940 to 1990. The transmission of HIV/AIDS via blood transfusions in the United States was a largely debated issue and it, rightfully so, is also a major issue in sub-Saharan Africa as well (Schneider, & Drucker,

2006). Implementing the same standard of practice in Kenya, Africa as in the United States will help to prevent the spread of HIV/AIDS.

In addition to preventing HIV/AIDS infection during blood transfusions through tainted blood, there is also the ability of treating HIV positive breastfeeding women to prevent the spread of the disease through their breastmilk to their child. While there is no vaccine to guarantee that the transmission of HIV/AIDS will not occur, there are some vaccines that offer a decreased possibility, from certain modes of transmission, of contracting the disease. "Vaccines to Prevent Transmission of HIV-1 Via Breastmilk: Scientific and Logistical Priorities," was an informative article because it addressed the "major mode of pediatric infection" (Luzuriaga, Newell, Dabis et al (2006) and Excler, & Sullivan et al. (2006)). The transmission of HIV to nursing children is of great concern in the healthcare community, and this article was extremely pertinent in its review of the data. This article used green boxes to highlight some major points and concerns regarding mother-to-child transmission (MTCT). While slightly more qualitative, it also had many key statistics located throughout the article (Luzuriaga, Newell, Dabis, et al (2006) and Excler, & Sullivan, et al. (2006)). It is very important to recognize the ability of treating HIV positive women who are breastfeeding in order to prevent the transmission of their child through breastmilk.

### *Education*

In order to determine the most effective means of educating Kenyans, it is important to establish exactly what it is that interests one's target demographic. The article entitled "Community Attitudes towards Sexual Activity and Childbearing by HIV-Positive People in South Africa" was a useful study. It provided a qualitative view of the

opinions and personal views of 843 South African women. The study showed that reproductive health was important to this group of South African women, and suggested that discussing reproductive health may be an important means to stimulate interest in HIV/AIDS prevention, education, and treatment (Myer, Morroni, & Cooper, 2006). Concluding that educating about reproductive health is an effective mode of drawing the attention of HIV positive people is crucial in further implementing the education of HIV/AIDS.

The study regarding family planning in the Nakuru District of Kenya gave valuable information because it specifically deals with the opinions of Kenyans regarding sexually transmitted diseases (STDs). The study showed that the feelings surrounding the prevalence and danger of STDs were mixed, and that there were some groups who viewed them as a huge threat, and others who did not perceive them to be relevant whatsoever. It is important to understand the perceptions of different groups of people while researching in order to allow for a large enough sample size to take these sorts of discrepancies into account. A sample size that is too small may only capture the opinion of one group of people who do not find HIV/AIDS or any other STD to be a problem in their community (Bauni, & Jarabi, 2000).

It is important in Kenya to realize the dynamic surrounding extra-marital partners. In the study entitled "Clients of Female Sex Workers in Nyanza Province, Kenya: A Core Group in STD/HIV Transmission," one learns that the most common extra-marital relationship is involves "multiple steady relationships" versus "rapidly changing one-time contacts" (Voeten, Egesah, Ondiege et al. 2002; Varkevisser, Habbema et al. 2002). Understanding these extra-marital relationships is crucial in examining how HIV/AIDS is

passed from a male to his monogamous wife. It is also vital in deciding the means of addressing the issue of extra-marital relationships (Voeten, Egesah, Ondiege et al. 2002; Varkevisser, Habbema et al. 2002).

In an article based on the evaluation of campaign materials from public health organizations in Kenya, it was found that members of focus groups were interested in the printed literature that was available along the highway. They wanted more information about “the proper way to use condoms, ideas for how to negotiate condom use with reluctant partners, and accurate information on symptoms of AIDS and what to do once one contracted HIV” (Witte, Cameron, Lapinski et al. 1998; Nzyuko et al. 1998). The enthusiasm of these focus groups for learning more about this roadside paraphernalia is encouraging because it means that there are people who are willing to learn more about HIV/AIDS. This is applicable to this research because it proves that there is interest in the education of Kenyans about HIV/AIDS (Witte, Cameron, Lapinski et al. 1998; Nzyuko et al. 1998).

### *Treatment*

Economics, while extremely important surrounding HIV/AIDS is not necessarily pertinent to this research thesis. Issues regarding the economy have a profound effect on how programs are started, implemented, and maintained, and while that does have a place in this paper, it is not the main point. Therefore, “The World Bank and sub-Saharan Africa's HIV/AIDS crisis” was not the best choice for a research article. This article was extremely easy to navigate, and it had some very crucial facts about the World Bank, it would not be used as a main source for this paper (Simms, 2007).

The tool used in the quantitative study measuring the quality of life in HIV/AIDS patients was the McGill quality of life questionnaire (MQOL). It stated, “the validity of MQOL was tested by having HIV-seropositive outpatients complete the 16-item MQOL, a single-item scale (SIS) measuring overall quality of life (QOL), and a physical symptom questionnaire” (Cohen, Hassan, Lapointe et al. 1996; Mount et al. 1996). This tool proved effective because its acceptability, validity, and internal consistency reliability were all tested. The outcome of these tests found that the “MQOL is an acceptable and valid measure of QOL for people living with HIV/AIDS, with meaningful and reliable subscales as well as a summary score” (Cohen, Hassan, Lapointe et al. 1996; Mount et al. 1996). The researcher found this scale to be a useful tool for 2008 even though the study was published in 1996 (Cohen, Hassan, Lapointe et al. 1996; Mount et al. 1996).

#### *Nursing Focus*

In general, nursing interventions for HIV/AIDS surround identifying clients at high risk for infection, reducing the entry of organisms into clients, reducing clients susceptibility to infection, and to initiate health teaching and referrals (Carpenito-Moyet, 2006). There are also interventions that deal with an HIV/AIDS positive client’s risk for infection transmission. These interventions are identifying susceptible hosts, counseling susceptible individuals to be tested for HIV/AIDS, discussing the mode of transmission of the virus, preventing the transfer of virus and infection, teaching clients how to disinfect equipment at home, providing facts to dispel myths regarding HIV transmission, and initiating health teaching and referrals (Carpenito-Moyet, 2006).

*Risk for infection.* The first nursing intervention, while dealing with a client who is at risk for HIV/AIDS infection, is to reduce the entry of the virus into the client. Anytime that fluids contaminated with HIV/AIDS have access to the circulatory system, there is a risk of transmission. Not sharing needles, using protection when coming into contact with others' blood, using condoms, and not breastfeeding, if possible, is recommended to prevent infection of the virus. Also, clients with HIV/AIDS have an extremely compromised immune system, and those with the virus are unable to fight off even the most common of illnesses. Nursing interventions to reduce a client's susceptibility to infection would include encouraging and maintaining caloric and protein intake in diet, observing for clinical manifestations of infection, and assessing the client for adequate immunizations against childhood diseases, bacterial infections, and other viral infections (Carpenito-Moyet, 2006). In the case of HIV/AIDS, however, it would not be advised to use any form of vaccine containing a live virus considering the client's immunocompromised condition. In order to initiate health teaching and referrals to those infected with HIV/AIDS, it is important for healthcare professionals to instruct the client, as well as his or her family, regarding the causes, risks, and communicability of the infection. In Kenya a lack of knowledge surrounding this disease and its process helps to augment one's chances of becoming HIV/AIDS positive. According to the National Guideline Clearinghouse, a governmental website designed to provide evidence based practice (EBP), after one tests positive for the virus "adequate time must be allocated," and the patient should be "given contact details of how to obtain more information or moral support" (Wiley & Sons, 2008, ¶ 1). It is also advised to give patients who test negative advice "regarding high-risk behavior and the possible need of a repeat test"

(Wiley & Sons, 2008, ¶2). Another important aspect of initiating health teaching and giving referrals is to encourage those who test positive for HIV/AIDS to identify and notify past contacts; these contacts “should be encouraged to agree to be tested” (Wiley & Sons, 2008, ¶2).

*Risk for infection transmission.* In the case of those already infected with HIV/AIDS, it is important to consider one’s risk for transmitting the infection to others. One way to identify a possible host individual is to look into his or her lifestyle. The National Guideline Clearinghouse defines those who have a history of high risk behavior, such as “unprotected sex with occasional partners or with prostitutes, or with use of intravenous drugs” (Wiley & Sons, 2008, ¶3). Also taken into account are those with sexually transmitted diseases (STDs), blood transfusions before 1985, and anyone showing signs of HIV infection. These symptoms include fever, diarrhea, weight loss, dementia of unknown origins, unexplained thrombocytopenia, tuberculosis (TB) in a young or middle-aged person, pneumonia, oral candidiasis, or Kaposi’s sarcoma (Wiley & Sons, 2008). In order to provide proper counseling for those at risk for infection, it is also recommended that any unit carrying out testing should provide their patients with information regarding transmission, the course of the disease, and available treatment choices (Wiley & Sons, 2008). Not all those infected with HIV/AIDS may be properly educated concerning the mode of transmission of the virus; it is important to explain that vaginal, anal, or oral sex with infected hosts, unprotected sex with an infected person, sharing intravenous needles and syringes, contacting infected fluids with broken skin or mucous membrane, breastfeeding, or perinatal transmission are all possible means of spreading this disease (Carpenito-Moyet, 2006). In order to prevent the transfer of the

virus from person to person, it is important to teach the client to abstain from sexual activity, to only engage in sexual activities with one, mutually faithful, uninfected partner, or to avoid IV drug use (Carpenito-Moyet, 2006). Webscape Nurses, an online source for scholarly journal articles, states that the sexual or drug related partners of those who are HIV positive play a functionally important role in the transmission of the disease (Bell, Atkinson, Mosier et al. 2008; Riley, Brown. et al. 2008). This finding is important because it points out that a crucial role in preventing the transfer of the HIV/AIDS virus lies in education for both the infected person as well as those with whom they are in contact on both sexual and drug related grounds. Another vital aspect of the nursing process in reducing the risk for infection transmission lies in teaching clients how to disinfect equipment at home using such products as running water and household bleach (Carpenito-Moyet, 2006). There are many myths surrounding HIV transmission; these falsehoods include “that HIV is a particular punishment for some particular lifestyle; that HIV can be transmitted by casual contact; that some of those with HIV infection are ‘innocent’ victims; that the HIV epidemic was a deliberate plot to annihilate one or another group” (Gebbie, 2008, ¶1). Dismissing these myths can help to demystify and destigmatize the HIV/AIDS pandemic as well as its routes of transmission. Initiating health teaching and referrals is another major way to aid in decreasing the risk for infection transmission. One place where HIV/AIDS patients may be referred is the Center for Disease Control (CDC).

CDC-funded human immunodeficiency virus (HIV) counseling, testing, and referral sites are an integral part of national HIV prevention efforts<sup>[1]</sup>. Voluntary counseling, testing, and referral opportunities are offered to persons at risk for HIV infection at approximately 11,000 sites, including dedicated HIV counseling and testing sites, sexually transmitted disease (STD) clinics, drug-treatment centers, hospitals, and prisons. Services also are offered to women in family

planning and prenatal/obstetric clinics to increase HIV prevention efforts among women and decrease the risk for perinatal HIV transmission. (CDC, 2008, ¶ 1)

### *Accredited Patient Websites*

There are several accredited websites available on the internet for healthcare providers to recommend to those with questions regarding HIV/AIDS. These websites can be useful in employing patient participation. The ability of a client, or his or her family, to research information regarding HIV/AIDS is crucial to giving those affected by the disease a sense of control. Examples of some possible choices for direction of a client are listed below:

<http://aids.about.com/od/newlydiagnosed/a/hivsymptom.htm>

<http://www.medicinenet.com/hiv/focus.htm>

<http://kidshealth.org/parent/infections/std/hiv.html>

<http://www.webmd.com/hiv-aids/default.htm>

[http://www.emedicinehealth.com/hivaids/page3\\_em.htm](http://www.emedicinehealth.com/hivaids/page3_em.htm)

<http://www.nlm.nih.gov/medlineplus/ency/article/000602.htm>

<http://www.aidsinfo.nih.gov/>

<http://www.myhivstory.blogspot.com/>

[http://www.ucsfhealth.org/adult/medical\\_services/infect/hiv/conditions/hiv/signs.html](http://www.ucsfhealth.org/adult/medical_services/infect/hiv/conditions/hiv/signs.html)

<http://www.aidsmeds.com/>

## Chapter III

## Methodology

*Descriptive Research*

In attempting to comprehend and consolidate the vast amount of information to be gained from living with HIV/AIDS in Kenya, the researcher needed to apply a specific form of methodology to both the interview and the written process (Fain, 2004).

Quantitative data collection methods are the most appropriate methods to answer this question. Descriptive research methods allow one to explore living with HIV/AIDS in a quantitative manner, as opposed to a qualitative approach. Descriptive designs gather information about conditions, attitudes, or characteristics of individuals or groups of individuals. The purpose of descriptive research is to describe “the meaning of existing phenomena at a specific time and to explore relationships among phenomena” (Fain, 2004, p. 208). Theory is generated from data obtained through the research. Inferential statistics are used to analyze data. Inferential statistics make generalizations about populations, based on data collected from samples (Fain, 2004, p. 166). Through the application of questionnaires using both open-ended and closed-ended questions, this study explores how current healthcare programs, living conditions, and education in Kenya are impacted by the risk of HIV/AIDS infection and the needs for improvement in these areas. The analysis of this data is via inferential statistics, “statistics that generalize findings from a sample to a population” (Fain, 2004, p. 165).

*Considerations by the Researcher*

*The researcher's bias.* The researcher's interest in living with HIV/AIDS in Kenya stems from her observations, during a visit to Kenya, of the detrimental effects

that HIV/AIDS is having upon, not only this portion of Africa, but the entire world. The researcher observed the core-shaking abilities of this disease on the victim, the victim's family, the community, as well as the sheer catastrophic global implications that this disease carries. The researcher does not have any direct personal experience with the disease, but the researcher recognizes that she had already perceived the situation regarding the effects of, as well as living with, HIV/AIDS in Kenya to be extremely grave. The researcher, personally, finds the simple risk for infection, as well as the actual infection itself, of HIV/AIDS to be devastating on the individual as well as his or her family members and community. The diagnosis of HIV/AIDS is considered by the researcher to be a catalyst that initiates a cascade of painful experiences eventually leading to death, leaving a profound effect upon the victim's family and community.

#### *Procedure*

*Participant criteria.* In order to participate in this study, the necessary criteria included those completing the questionnaires to be Kenyan women. Also, criteria included the ability for participants to communicate consistently in English, and to be knowledgeable and dependable resources concerning living with HIV/AIDS in Kenya. The average age of the 19 women surveyed was 36.74 years; she had 3.84 children with the first pregnancy at age 21.58 years and, on average, time between births was 4.05 years. The approximate duration with each contact was one interview of 30 minutes to 1 hour. This study used nonprobability sampling and convenience sampling, a collection of data from subjects of objects readily available or easily accessible to the researcher; the researcher collected data from whoever is available and meets the study criteria (Fain, 2004).

*Ethical considerations.* Confidentiality was of the utmost importance in regards to this research and was maintained by the researcher; names or identifiable data were only collected in the form of a signature on the consent, the data was be tabulated as a unit, and data was be kept in a locked file. The HIV/AIDS status of these women was brought to the researcher by word-of-mouth. Participants were reminded that they may refuse to answer any questions and stop the interview, at any time. They were also informed that they may withdraw from the study at any time. It was also expressed that confidentiality will be maintained throughout the study, and at no time will their name or any identifying characteristics be used. The tool used in this study was a questionnaire. A consent form was signed (See Appendix A) that stated the purpose and procedure of the questionnaire, confidentiality, and contact information for any future questions or concerns. The questionnaire asked basic questions regarding the living environment, sanitation, and water, health questions, prenatal care questions, and HIV/AIDS questions. There was no monetary compensation for participants in this questionnaire.

#### *Limitations*

Regardless of the researcher's attempts to keep the study bias free, there were aspects that have contributed to limiting the research. The study sample was mainly confined to small communities around Nairobi, Kenya with a few exceptions. All participants were African women and from an extremely low socioeconomic group. The small sample size in itself serves to limit the study's findings and affects the outcome of the research(er).

## Chapter IV

### Results

This research was designed in order to develop a more thorough understanding of women living with HIV/AIDS in Kenya, Africa. The purpose of this study was to explore the risk for infection of HIV/AIDS in Kenya, Africa. See Appendix A for questionnaire. The themes of this study are Worrying about Family, Community, and Employment; Coping with Living Environment, Sanitation, and Water; and Responding to Health Questions. Results showed that the women surveyed were overwhelmingly concerned about clean water, health, employment, and feeding their children. Most participants could identify factors in their environment that could potentially cause illness but had no means to remedy these situations. Finally, while many programs were available to participants for the treatment and support of HIV/AIDS, the diagnosis of the illness posed the greatest problem due to stigma, fear, and distance from testing sites.

#### *Worrying about Family, Community, and Employment*

The women in this survey were asked questions about their daily lives in regards to their families, communities, and employment. On average, women surveyed ate 2.37 meals per day, and 63.16% reported not having a sufficient amount of food to eat. When asked, 84.21% had concerns with health; 73.68% of mothers marked that they were concerned about clean water. 68.42% of women were concerned about feeding their children; 63.16% were worried about employment. 52.63% stated fear about housing, and, finally, 52.63% were concerned about feeding themselves.

*Coping with Living Environment, Sanitation, and Water*

In questioning these women's environment, sanitation, and water, it was not the lack of knowledge surrounding living environments, sanitation, and water that was rendering these Kenyan women ill; it was the lack of accessibility to these things. The majority (42.11%) of water came from a public water tap. This means that these women were forced to pay for water, were unable to control its quality, and were left with nothing if the supply was closed or dried up. The next most popular means (26.32%) was to collect rain water, which cannot be thoroughly relied upon. Of the 19 women surveyed, 78.95% said they had to travel for water, with 57.89% going at least once per day, and after that exertion 47.37% of that water still remained untreated. The amount of energy that it takes for ones' body to tolerate an ARV is immense. Taking one of these highly reactive drugs with dirty water after expending what little energy remains in order to retrieve the water in the first place is almost unimaginable. Add this stress to the already difficult life of Kenyan women, and it is no wonder that even though they know so much about sanitation, they are unable to keep themselves healthy.

*Responding to Health Questions*

Of the women surveyed, 26.32% reported that they were, indeed, HIV/AIDS positive; 31.58% did not know, and 42.11% knew that they were not HIV/AIDS positive. When asked if their children were HIV/AIDS positive, 5.26% yes, 42.11% did not know, and 52.63% said that they were not. 89.47% of these children were in school, and 100% of their mothers stated that their children were learning about HIV/AIDS in school.

Research showed that, when sick, mothers were more willing to treat their children before themselves; 31.58% said they would go to the hospital first, while

63.16% would take their child first. 31.58% would go to the pharmacy to treat themselves first, and only 21.05% attempt this for their child. No one surveyed marked that they would choose a traditional healer for themselves or their child. Finally, 36.84% of the women would wait to see if they got better for themselves and only 15.79% would wait to take their child.

Women were asked where they would go to get tested for HIV/AIDS, and 94.74% answered that they would go to the hospital. 31.58% would go to a clinic; 10.53% would go to a traditional healer. One of the most promoted options in the area was the usage of the federally funded Voluntary Counseling and Testing (VCT) clinics. However, only 15.79% of those polled noted that they would go to one of these sites.

Questions were asked to ascertain the women's knowledge on environmental health. When asked several questions regarding "what can make you sick," 78.95% believed that trash lying around can make one sick. 100% said improper disposal of grey water (ex. dirty dish water, sewage, etc.); 100% answered improper hand washing can make one sick. 100% said unclean water can cause illness, and 100% also responded that cooking their food improperly can cause illness.

HIV/AIDS and breastfeeding is a controversial topic. Women were asked "do you believe that child can become sick from breastfeeding?" From this questions 57.89% said yes, and 78.95% said that they would take medicine if it meant that they could breastfeed their child. 63.16% of those surveyed would not be able to afford to buy milk, and 63.16% also said that, even if they could afford it, they would have to travel to buy it.

The stigma surrounding the testing, diagnosis, and illness of HIV/AIDS is overwhelming. Women were asked if they knew of any current programs designed to

help people living in Kenya get tested for HIV/AIDS; 73.68% said yes, and 68.42% stated having used one of these programs. It was also asked "if your HIV/AIDS status was public would you be passed over for a job;" 50% of women said yes. 84.21% added that they would be ignored by their friends, and 42.11% said they would be ignored by their family. In addition to this stigma, 26.32% of women stated that they would not be allowed to keep their current property. Even with the risks of losing friends, family, and property, 100% of the women surveyed still reported that they would be willing to discuss HIV/AIDS in public.

## Chapter V

## Discussion

The purpose of this study was to explore the risk for infection of HIV/AIDS in Kenya, Africa. After reviewing the results it was clear that whether it was worrying about family, community, and employment; coping with living environment, sanitation, and water; or responding to health questions, the problem did not lie in a knowledge deficit amongst the women surveyed. The deficit, in reality, lied in the procurement of resources. While Kenyan women surveyed had a comprehensive understanding of the modes of health promotion these women did not have access to the means. This discussion seeks to compare the Kenyan woman's reality in living with HIV/AIDS to the average American woman.

*Worrying about Family, Community, and Employment*

The average American mother has basic wants and needs for her children. She wants them to have enough to eat and clean water to drink, and she wants them to grow up healthy and to get good jobs; these are the same hopes of the Kenyan mothers surveyed. These goals, however, are oftentimes more difficult to achieve given the few resources available. In the United States, the Bureau of Labor Statistics reported a 5.4 percent unemployment rate among women, in 2008, some of whom have made this choice because it is economically practical that do so (Labor Force Statistics, 2009). Comparatively, there were 15.1% of families with related children under 18 years of age in the United States between 2005-2007 (Poverty Status, 2007). In Kenya, the women surveyed were not choosing not to work; these mothers were unable to work. Whether it was related to discrimination, the lack of jobs, or that there was no one to watch their

children while the parents were away, these women had no other option but to join co-operations of other women in the same situation where one would construct crafts to be sold along the roads, in the markets, or through organizations in the United States; none of these options offered a very steady form of income.

The majority (68.42%) of women who showed concern about feeding their children in Kenya would be in the minority here in America. In the United States, it is more common to find a mother fretting about feeding her child organic fruits and vegetables; in Kenya, it is more common to find a mother worried about feeding her children enough to keep them alive. In a country with obesity numbers rising rampantly, it is shocking to find a parent more concerned with putting food on the table and less concerned about the amount of chips and soda their child is consuming.

Given the state of the current U.S. economy and housing market, the concern from Kenyan mothers, 63.16% who were worried about employment, and 52.63% who were worried about housing, can be easily related to. However, with the rate of unemployment and foreclosures steadily growing in the United States, it is easy to forget that our economy has a direct impact on the Kenyan economy as well. One must compare the Gross nation income per capital (PPP international \$) of the two nations, the United States falls at \$44,070 while Kenya has a mere \$1,470, and this does not take into consideration the separation of the very rich and the very poor (*World Health Organization Countries*, 2009). So, while jobs are becoming increasingly scarce in America, the already-tight Kenyan economy is feeling the recession even more than U.S. citizens. For a family who was already living in poverty, the worsening economy does

nothing but augment their other concerns for health, clean water, food, employment, and housing.

*Coping with Living Environment, Sanitation, and Water*

Only in rare circumstances is one worried about the quality of their drinking water in the United States. It is far from common to hear that someone became ill from the conditions of their water. The Center for Disease Control (CDC) published an article in the *Journal of Water and Health* in 2006 stating, "We enjoy a quality of life in which waterborne disease is no longer a threat" (Calderon, Craun, Levy, 2006). In Kenya, however, water sanitation is cause for major concern. 73.68% of the women asked had marked concern over the quality of their water. While there are communities in the U.S. whose main concerns surround mandatory underground sprinkler systems, these communities' main concern is simply safe drinking water, water that will not make them or their children sick after consumption.

Much like the *family, community, and employment* section, it was not a knowledge deficit that served as a barrier for these Kenyan women; it was the almost impossible procurement of resources. The access to clean water, proper sanitation, and a safe living environment should not be a luxury, but a given. In the United States, according to the Organisation for Economic Co-Operation and Development, 476,800 million people have access to clean water (Country Statistical Data, 2008). The World Health Organization conducted a study in order to establish a water and sanitation target for this decade. In their publication "Meeting the MDG Drinking Water and Sanitation Target the Urban and Rural Challenge of the Decade" a 99% coverage of proper

sanitation in the United States in 2004 was reported (Meeting the MDG Drinking Water and Sanitation Target, 2004).

### *Responding to Health Questions*

It is easy to imagine American women stating worry over the health of their children, but their fears are not parallel to those of the Kenyan mothers. In the case of the Kenyan women, there is fear that their children may die of illnesses that will have to remain untreated, undertreated, or inappropriately treated. These women are afraid that their kids will die from complications from the common cold, diarrhea, or influenza. They also face such diseases as HIV/AIDS, typhoid, and malaria in both themselves and their children, and when the mothers are sick, there is no one to care for their children. Women are terrified of becoming ill because they do not want to leave their children as orphans. It is no wonder that 84.21% of the women surveyed replied that they had concerns with health.

Data proved that these women fully understood the means of remaining healthy; data also proved, however, that these Kenyan women were unable to attain that which had been taught. In America, trash is put on the corner and is taken away; in Kenya, trash is put on the corner and goes nowhere. In America, food is screened even before it is put on the shelves of grocery stores; its treatment is as easy as proper storage and preparation. In Kenya, there are no rigorous testing processes to assure food is safe to be sold. Refrigerators, cupboards with doors, or Tupperware is not found in your average home, and food is cooked over a fire, not in an oven, so the chances of a meal being cooked over adequate and even heat is very unlikely.

Finally, the stigma surrounding HIV/AIDS is so immense, it is virtually paralyzing the efforts to move forward and overcome this disease. Until it becomes acceptable to talk about it, HIV/AIDS will remain a problem. Women stated willingness, at a rate of 100%, to discuss this topic in public, but, when asked what would happen to them, the chance of being ignored by family, friends, employers, and even the possibility of losing their own property was reported. Until these consequences are no longer associated with openness about the illness the effects will remain the same, and women will remain scared and silent.

#### *Future Research*

Several ideas for future research came to the mind of the researcher while conducting this study. The topic of HIV/AIDS is vast, discriminates against no one, and is all encompassing. With this in mind, it would be pertinent to study specific tribes and their reaction to the HIV/AIDS pandemic. The researcher would identify members of these populations and compare their knowledge bases and reactions to the disease as a means to compare and contrast the ways HIV/AIDS affects specific tribes in Kenya.

Another avenue to pursue would surround the separate classes among Kenyan society. With an enormous gap between the rich and poor in Kenya, it would be important to study the prevalence of HIV/AIDS in the upper classes, their modes of education, and their means of prevention. The ability to quantitatively identify how one group of Kenyans avoids this illness would give great insight into the capacity of the poorer classes.

Finally, the researcher would suggest an exploratory study on the effectiveness and availability of VCTs and alternatives to them. It was apparent that the stigma

surrounding these clinics greatly outweighed their helpful nature. Women responded negatively to the idea of going to one of these sites because of the potential problems that could arise if one was seen. Research would focus on providing alternatives to these clinics versus the attempt to eradicate stigma initially, and, later on, providing education would be evaluated to determine if the change in the VCTs was effective.

### Conclusion

The purpose of this study was to explore the risk for infection of HIV/AIDS in Kenya, Africa. This descriptive study, of English speaking Kenyan women, sought to explore three themes. The themes of this study were Worrying about Family, Community, and Employment; Coping with Living Environment, Sanitation, and Water; and Responding to Health Questions. This information endeavored to appeal to nurses as a form of knowledge base concerning the global epidemic of HIV/AIDS . Nurses will gain from this thesis an understanding of issues surrounding the HIV/AIDS crisis. Healthcare professionals will learn that it is not a knowledge deficit that faces these clients; nurses will learn that stigma and lack of resources are the true perpetrators of this disease.

Appendix A

**Consent to Participate in HIV/AIDS Study**

**Title:** Women Living with HIV/AIDS in Kenya, Africa

I have been invited by Bray Johnson, a Carroll College nursing student to participant in a voluntary research study. The purpose of this study is to gain understanding about living with HIV/AIDS in Kenya.

If I choose to participate in this study, my participation will consist of a questionnaire and interview with Bray Johnson lasting about 60 minutes. During this period, I will be asked to discuss my experiences, feelings, and education surrounding HIV/AIDS in Kenya. There is a chance that this interview will make me feel uncomfortable related to the traumatic experience of living with HIV/AIDS and its experiences in Kenya. I may refuse to answer any questions and stop the interview, at any time, if I become uncomfortable. I realize that I may withdraw from this study at any time. Confidentiality will be maintained throughout the study, and at no time will my name or identifying characteristics be used. My name or initials will be located nowhere on my questionnaire. I am aware that this research will be used to advance the understanding about living with HIV/AIDS in Kenya. There may be presentations and publications associated with this study. There are no costs involved with participation in this study. I am aware that if I have any questions I can call Bray Johnson at 701-320-0487 or Dr. Joni Walton at 406-447-5490 or email at [jwalton@carroll.edu](mailto:jwalton@carroll.edu).

I agree to participate in this study:

\_\_\_\_\_  
Name

\_\_\_\_\_  
Date

\_\_\_\_\_  
Researcher

\_\_\_\_\_  
Date

Appendix A Continued

**Living with HIV/AIDS in Kenya  
Student Health Education Outreach Trip – Summer 2008**

**\*To the surveyor: Check all answers that apply in multi-answer questions  
Family/Community/Employment**

*Date of Birth:* Day\_\_\_\_ Month\_\_\_\_ Year\_\_\_\_\_

*What are your concerns about the community in which you live and/or in your own life?  
(Please explain any answers)*

Safety\_\_\_\_ Clean water\_\_\_\_ Food\_\_\_\_ Health\_\_\_\_  
Employment\_\_\_\_ Housing\_\_\_\_ Sanitation\_\_\_\_  
Feeding yourself \_\_\_\_\_ Feeding your children\_\_\_\_\_  
Other(s)

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*Elaboration on above answers:*

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*What are the biggest concerns you have for your children or the children in your  
community? (check as many as apply)*

Safety\_\_\_\_ Clean water\_\_\_\_ Food\_\_\_\_ Health\_\_\_\_  
Employment\_\_\_\_ Housing\_\_\_\_ Sanitation\_\_\_\_  
Feeding yourself \_\_\_\_\_ Feeding your children\_\_\_\_\_  
Other(s)

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**Living Environment/Sanitation/Water**

*Trash lying around can make me sick? (circle) Yes No*

*Using the latrine, or toileting away from the house, clean water, clean food, etc will help  
me stay healthy? (circle) Yes No*

*Washing my hands often will help me stay healthy? (circle) Yes No*

*How many meals a day do people in your home eat?*

*Cooking my food will help me stay healthy? (circle) Yes No*

What do you think are things that keep you healthy? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Where do you get drinking water from?

Well \_\_\_\_\_ Spring \_\_\_\_\_ Ditch \_\_\_\_\_ Public Water Tap \_\_\_\_\_  
Bottled water \_\_\_\_\_ Rain collection \_\_\_\_\_ Other \_\_\_\_\_

Do you travel to get water? (circle) Yes No

If yes, how often? \_\_\_\_\_

Do you treat the water? (circle) Yes No

### Health Questions

Do you take vitamins? (circle) Yes No

If you are sick, what do you do first? Go to: (circle)

Hospital

Pharmacy

Community Healer

Wait and see if you get better

Other: \_\_\_\_\_

If children: if your children get sick, what do you do first? Go to:

Hospital

Pharmacy

Community Healer

Wait and see if they get better

Other: \_\_\_\_\_

What sorts of things do you do to keep you and your children safe from HIV/AIDS? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

What sorts of things do you do to keep you and your children safe from other illnesses  
(diarrhea, colds, etc.)? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

During your pregnancies did you have prenatal care? (circle) Yes No

Where was your baby born?

*Did you feel you had enough food to eat prenatally and while nursing?* (circle) Yes No  
*How old were you when you first got pregnant?* \_\_\_\_\_

*How many children do you think you will have?* \_\_\_\_\_

*How much time do you think is good to leave in between pregnancies?* \_\_\_\_\_

*During pregnancy were you* (circle) sick healthy

*Have you had any children with a mental retardation, or something not right (ex. club foot)?* (circle) Yes No

*What do you believe is the best way to feed your baby?* (circle)  
Breastfeeding            formula feeding            Animal milk (if yes, what kind) \_\_\_\_\_

*If you have children how do/did you feed them?* (circle)  
Breastfeeding            formula feeding            Animal milk (if yes, what kind) \_\_\_\_\_

*Do you believe that a baby can get sick from breastfeeding?* (circle) Yes No

*If you could not breastfeed your baby how would you feed it?* (circle)  
Solid food (meat, vegetables, etc.)    formula feeding  
Another mother's breastmilk            animal milk (if yes, what kind) \_\_\_\_\_

*If a doctor told you that you SHOULD NOT breastfeed your baby, what would you do?*  
(circle)  
Breastfeed anyway    formula feed            use another mother's breastmilk  
Use animal milk (if yes, what kind) \_\_\_\_\_  
Feed the baby solid food (meat, vegetables, etc.)

*Would you take medicine if it meant you could breastfeed your baby?* (circle) Yes No

*Could you afford to buy milk for your baby?* (circle) Yes No

*Would you need to travel to buy milk for your baby?* (circle) Yes No  
*If yes, how far* (circle)  
1-2km            3-5km            5-10km            10 or more km

*What are the major illnesses in your community?*  
\_\_\_\_\_  
\_\_\_\_\_

HIV/AIDS

*Are there currently any programs available, that you know of, for helping people get tested for HIV/AIDS?* (circle) Yes No

*Have you been tested for HIV?* (circle) Yes No

*If not, why have you not been tested?* (circle as many as reported)

Fear of not receiving medications

Fear of dying

Fear of being made an outcast in the community

I do not want loved ones, such as children, to worry about me

I am afraid I will lose my employment

Other: \_\_\_\_\_

\_\_\_\_\_

*Where would you go to get tested for HIV?* (circle as many as apply)

Hospital

Clinic

Pharmacy

Community Healer

Other: \_\_\_\_\_

*If your HIV/AIDS status was public knowledge do you think that you would be passed over for a job?* (circle) Yes No

*If your HIV/AIDS status was public knowledge do you think that you would you be ignored by your friends?* (circle) Yes No

*If your HIV/AIDS status was public knowledge do you think that you would you be allowed to keep your current property?* (circle) Yes No

*If your HIV/AIDS status was public knowledge do you think that your family would stop associating with you?* (circle) Yes No

*Do you think that it is a good idea for someone's HIV/AIDS status to be public knowledge?* (circle) Yes No

Why or why not \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

*Are you HIV/AIDS positive?* (circle) Yes No Don't know

*If you were/are HIV/AIDS positive would you be willing to take a medication prescribed by a doctor to help your illness? (circle) Yes No*

*Why or why not* \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

*Are there currently any programs available for helping people who are HIV/AIDS positive? (circle) Yes No*

- (circle all that they mention)*
- Programs for children
  - Programs for women
  - Programs for men
  - Programs during school for children
  - Programs run by local people
  - Programs run by the Kenyan government
  - Programs run by a foreign government (for example, the United States)
  - Programs run by a local religious organization
  - Programs run by a foreign religious organization (for example, the United States)
  - Programs only using traditional healing
  - Programs only using Western medicinal practices
  - Programs combining both traditional healing and Western medicinal practices
  - Programs focused on teaching people about medications

*If you have children, do any of your children have HIV?*

Yes No Don't know

*If you have children, do your children go to school? (circle) Yes No*

*Do they learn about HIV/AIDS at school? (circle) Yes No*

*Would you be willing to discuss HIV/AIDS in public? (circle) Yes No*

**Closing Feedback Questions**

*What are some of the things that you think might make better some of the concerns that you have?* \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

*In your opinion, what are the issues that keep these improvements/ changes from occurring?* \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

*What are some things that you think would make your lives better?* \_\_\_\_\_

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