A PRE- AND POST-TEST STUDY ON THE KNOWLEDGE OF GRADE 6 TO 9 LEARNERS ON HIV/AIDS AND SEXUALLY TRANSMITTED INFECTIONS

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Submitted in partial fulfilment of the requirements
for the degree of **MAGISTER ARTIUM (Counselling Psychology)**
in the Faculty of Health Sciences
at the University of Port Elizabeth
(Nelson Mandela Metropolitan University)

January 2005

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ACKNOWLEDGEMENTS

The completion of this study has been due to the support and assistance of many people. In particular, I would like to thank the following:

My supervisor, Dr Elkonin, and co-supervisor, Mr Potgieter, for their assistance and guidance.

Mr Danie Venter for his expertise and assistance with the statistical analysis in this study.

Professor Cheryl Foxcroft for her assistance with the methodology of this study.

The Health and Development Research Institute for their backing and guidance throughout the present study.

For my friends and colleagues for their advice and encouragement.

To Trigger and Winnie for their loyalty and ability to help me cope with stress.

To Roz, for her editing and unfailing assistance.

To Garth, for his patience, support and encouragement.

To the Baldwin Family who provided me with daily support and inspiration.

Finally, to my parents and sister who have always believed in me and supported me throughout my study career. Their love and guidance has provided me with strength, determination and belief in myself.

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Abstract

In 1981, a number of reports of death from immune system failure began to cause alarm in medical circles. The Human Immunodeficiency Virus (HIV) was identified as the cause of a condition known as Acquired Immune Deficiency Syndrome (AIDS). To date, there is no cure for AIDS, and as a result it is perceived as the deadliest medical condition of the century.

While intensive research remains focused on development of a vaccine, there has been a strong move toward a more preventative approach that is holistic in nature, and encompasses behavioural and social components as being of equal importance.

Going hand in hand with HIV/AIDS are Sexually Transmitted Infections (STIs). STIs are increasing around the world and in South Africa at a remarkable rate. Like HIV/AIDS, STIs are also transmitted during sex, more specifically through body contact during sex.

Research has identified adolescents as a group that is particularly vulnerable to HIV and STI infection. Life-skills programmes use experiential learning to engage learners and are particularly popular because they empower individuals to make responsible, well thought out decisions based on well developed values and beliefs.

There are however, various variables and agents that impact upon the success of HIV/AIDS and STI education. It is therefore suitable to adopt a biopsychosocial approach to underlie a HIV/AIDS and STI life-skills programme. Health models, such as the AIDS Risk Reduction Model, based on this approach should take into consideration important psychological variables to cope with changes in behaviour, as well as prepatory behaviours inclined towards preventing risky behaviour.

The Ubuntu Education Fund is a non-government, international organisation that offered a life skills programme in HIV/AIDS, STIs, Rape and Child Abuse to learners in Grades 6 - 9. This study focused on HIV/AIDS and STIs. The sample size was 260 learners from the Nelson Mandela Metropolitan Region. A quasi-experimental one group pre-and post-test design was used to determine if there

was a difference between the knowledge of these learners pre- and post- the life skills programme.

The results of the study indicate that there was a small increase in knowledge after the life-skills programme intervention. In some schools there was even a decrease in knowledge. This study suggests that the life-skills programme was flawed and that it needs to be reviewed. The implications of these findings are discussed with suggestions for future interventions.

Key Words: Human Immune Deficiency Virus (HIV), Acquired Immunodeficiency Syndrome (AIDS), Sexually Transmitted Infections (STIs), Biopsychosocial Model, AIDS Risk Reduction Model (ARRM), Quasi-experimental, pre-test/ post-test.

Chapter 1

1. Introduction

1.1 General Orientation

The Human Immunodeficiency Virus (HIV) and Acquired Immunodeficiency Syndrome (AIDS) were first recognised in the 1970's and have since continued to be a challenge to the world's health professionals, as to date, no cure has been found. Although HIV was first identified in the United States of America, the African continent, the sub-Saharan region in particular, has become the continent with the highest levels of HIV/AIDS infections (UNAIDS, 2002; Van Dyk, 2001; Whiteside & Sunter, 2000). HIV/AIDS is a sexually transmitted disease that introduces another equally important, but often ignored challenge, namely Sexually Transmitted Infections (STIs). This study aims to address HIV/AIDS in the context of being an STI and to not ignore the reality and dangers of STIs in general.

Adolescents have been identified by research as a subgroup within the population that is particularly vulnerable to HIV/AIDS and STIs (Baldo, Metcalfe & Barttes, 1993; Balding & Regis, 1993). Sub-Saharan Africa makes up 70% of the world's HIV infected young people in the world (UNAIDS, 2002).

Since there has been no success in discovering a vaccination or cure, the shift has moved towards prevention. Thus, education has been determined to be a primary method of prevention of HIV/AIDS and STIs (Stears & Clift, 1990). Peter Piot, executive director of UNAIDS, stated that there should be an intense prevention approach particularly with young people (Piot, 2000). Adolescents are considered to be particularly vulnerable and are considered as a 'high-risk' group. As a result of this, and because of the increasing incidence in this group, the focus has shifted towards adolescents with the hope of preventing further infection or at the very least minimising or maintaining infection.

Since almost all young people worldwide attend school, the education environment provides an ideal opportunity to facilitate preventative intervention programmes. For such a programme to be effective, various factors need to be

considered. The South African Minister of Education in 2001, emphasised the importance of education in the acquisition of information; the formation of attitudes, beliefs, values and identity, and relationships and intimacy as being essential components in sex education Furthermore it was mentioned that 'sexuality education' should include sexual development, reproductive health, interpersonal relationships, affection, intimacy, body image and gender roles. This supports the criteria for effective life skills programmes discussed in chapter 5 as research has reported that simply providing knowledge is not enough to encourage behaviour change to prevent certain behaviours from taking place.

A non-government organization, the Ubuntu Education Fund, has identified a need within the community to implement a life skills intervention programme for adolescents, with the aim of preventing high-risk behaviours which will inevitably minimise the spread of HIV/AIDS and STIs. The Health and Development Research Institute (HDRI) of the Nelson Mandela Metropolitan University, has analysed the data to provide feedback to Ubuntu about the effectiveness of their programme.

The findings of this study will be disseminated to the Faculty of Health Science of the Nelson Mandela Metropolitan University (University of Port Elizabeth) as well as to the Ubuntu Education Fund. It is hoped that this study will facilitate the preparation of future HIV/AIDS and STI education programmes which will specifically be suited for the needs of the target group, adolescents. It is hoped that the long-term result of this study as well as similar studies will indicate changes in sexual practices, reduction in risky behaviour, and an increase in health preventative behaviour.

1.2 Aim of the Study

The aim of this study was to determine if there was a change in the pre-test and the post-test information regarding the level of knowledge of the learners about HIV/AIDS and STIs.

1.3 Chapter Overview

Chapter 2 of this treatise will define and describe HIV/AIDS and STIs. It will discuss the history of HIV/AIDS, the epidemiology and life cycle of HIV/AIDS, the transmission of HIV/AIDS and the myths of HIV infection. It will also provide general information about STIs and will discuss the different types of the most common STIs.

Chapter 3 will discuss the incidence and prevalence for HIV/AIDS and STIs. It discusses these statistics from a global scenario, an African scenario, South African scenario and an Eastern Cape scenario. The chapter introduces projected statistics for the future of South Africa and it highlights adolescents as a target group to be focused on for preventative life skills interventions.

Chapter 4 further addresses adolescents, and focuses on their physical and psychological development. Prevention interventions, in the form of life skills programmes, are discussed with regard to adolescents.

Chapter 5 introduces and discusses two psychological theories with the intention of using the theories to conceptualise the study as well as to apply the information to the life skills programme. The Biopsychosocial Approach, discusses HIV/AIDS and STIs from a biological, psychological and social perspective. The Aids Risk Reduction Model is then discussed by highlighting the stages and the effectiveness of the model. The problem formulation of this study, ends this chapter.

Chapter 6 describes the methodology followed by the study. This includes the aim, the research design, a description of the measure and sampling procedure, the ethical considerations, the procedure, fieldwork and data analysis.

Chapter 7 presents the findings of the study, together with a discussion of the findings and recommendation.

Chapter 8 comprises a conclusion and an evaluation of this study, including the limitations of the study.

Chapter 2
2. HIV/AIDS and Sexually Transmitted Infections: An overview

2.1 Introduction

For over two decades HIV/AIDS has had an impact on sufferers and health professionals. Sexually transmitted infections (STIs) have been around even longer, and contribute to much of the associated health problems (Van Dyk, 2001).

Because of the ever-increasing infection rate, it is important that a sound knowledge of the HIV/AIDS disease is developed. Similarly, because STIs form the foundation of the broader problem of HIV/AIDS, the two infections should be addressed with equal importance. This chapter introduces and defines HIV/AIDS and STIs. It discusses various forms of transmission and briefly introduces why this study focuses on the youth.

2.2 Definition of HIV/ AIDS

Acquired Immunodeficiency Syndrome (AIDS) is caused by the Human Immunodeficiency Virus (HIV), a member of a family of viruses known as retroviruses. Retroviruses are characterised by the insidious onset of the diseases they cause. They are fatal in virtually all cases, and have long been known to infect man and animals. This virus attacks white blood cells, also known as T-cells, in the body. The immune system is made up of T-cells and their function is to feed other cells, control cell growth and act as a guard against infection by the production of antibodies (Cox, 1996; Rogers, 1989).

The term ‘acquired’ is used because it is not a disease that is inherited. ‘Immunity’ refers to the body’s natural, inherent ability to defend itself against infection and disease; and ‘deficiency’ refers to the body’s immune system that has been weakened to the point where it can no longer defend itself against passing infections. Lastly, a ‘syndrome’ is a medical term that refers to a collection or set of specific signs and symptoms that occur together and are

characteristic of a particular pathological condition (Van Dyk, 2001). The effects of HIV on the body are devastating as it causes a severe reduction in the immune system, which leaves the body susceptible to various forms of infection and disease and eventually leads to death (Cox, 1996).

2.3 Definition of Sexually Transmitted Infections

Sexually transmitted infections, also sometimes referred to as venereal diseases (VDs), are diseases spread by sexual contact (Papalia & Wedkos Oaks, 1995). STIs are referred to as infections, because with the proper medical intervention, as well as proper sexual behaviour, the infection can be controlled and, depending on the STI, cured.

2.4 The History of HIV/AIDS

To date there have been many theories postulating the origin of HIV, most of which have been clouded by myths and conspiracy theories. These false ideas are easily entertained, as they appeal to people's emotional needs, or to their desire of 'ignorantly' reassuring themselves that they can avoid changing their behaviours. In addition, because the visible symptoms of AIDS only appear many years after first being infected, it is easier for people to deny that HIV will eventually cause AIDS. Due to this belief, people assume that a cure will be found, and that they are consequently relieved of the responsibility to behave responsibly (UNAIDS, 2001).

Various theories about the origin of HIV include the belief that HIV was released as a biochemical weapon from warfare laboratories. AIDS is also assumed to be a by-product of the nuclear age, in that nuclear arms testing resulted in a reduction in the immune system and paved a way for HIV (Crewe, 1992). Others believe that HIV developed through mutation via immunization. By using animals to create vaccinations, viruses from their bodies mutated, introducing what is now known as HIV. The most well known theory is that the virus was spread by the African Green Monkey. It is believed that these monkeys could have transferred the virus through biting humans or through

humans consuming their meat. This virus was initially isolated within that specific area until either people from ‘westernised’ countries travelled to these areas, or the local people moved from rural to urban areas in search for work and food. Thus, it is speculated that, as a result of migration, socio-economic instability and improved global transport, the virus spread across the world. (Van Dyk, 2001).

Much of the origin of HIV/AIDS is therefore speculative and to date, it is not known exactly where and when HIV/AIDS originated. Between late 1979 and early 1981, doctors in the United States of America (USA) observed clusters of diseases that had previously been extremely rare. Included in these clusters was a rare form of pneumonia and skin cancer called Kaposi’s Sarcoma. These diseases were more commonly identified in young, homosexual men with a suppressed immune system. Soon similar clusters of diseases were identified in other parts of the world. At the same time, in Central Africa, a new disease was identified which caused severe weight loss and diarrhoea. This was known as the ‘slimming disease’ (Evian, 1995). There was, however, no connection made between HIV and the disease clusters during this time period. By 1980, this infection had spread to at least five continents (North America, South America, Europe, Africa and Australia). During this time, the spread of HIV was relatively unmonitored and approximately 100 000 to 300 000 individuals may have been infected (UNAIDS, 2001).

In 1983, a French scientist, Luc Montaigner, identified a virus that caused the abovementioned disease clusters. This discovery was confirmed by an American scientist, Robert Gallo (Van Dyk, 2001; Whiteside & Sunter, 2000).

Because of the high incidence of infection with the disease amongst the homosexual population, scientists focused their studies on this correlation. The disease was consequently named Gay-Related Immune Deficiency (GRID). However, due to the nature of HIV, there was soon evidence that other population groups were being infected (Umeh, 1997). There were widespread reports of women being infected with HIV through sexual contact (Harpur, 1994). Haemophiliacs and blood transfusion recipients were also infected (Whiteside & Sunter, 2000). This brought about the realisation that no person was safe and

thus the disease was renamed Human Immunodeficiency Virus (HIV). It also brought about the introduction of AIDS awareness and safer sex campaigns, as well as the screening of blood to be used for transfusions (Harpur, 1994).

2.5 Epidemiology

HIV is a retrovirus that is able to reproduce itself within the host body. Presently, there are a number of different variations of HIV that have been identified (Kaplan & Sadock, 1998). Two of these variations have been named the HIV-1 and the HIV-2 strain (Whiteside & Sunter, 2000). HIV-1 has been recognized as being the causative agent for most HIV-related illnesses. This strain is found in Central, East and Southern Africa, North and South America, Europe and the rest of the world. The HIV-2 strain is virtually confined to West African and some Caribbean countries, but is likely to diffuse into other parts of the world (UNAIDS, 2001; Van Dyk, 2001; Whiteside & Sunter, 2000). This strain seems to be causing an increasing frequency of infections in Africa. HIV-1 and HIV-2 are transmitted in the same way, but HIV-2 is more difficult to detect, and may also take longer to affect its carrier (Whiteside & Sunter, 2000). The other HIV strains are further classified into subtypes by means of alphabetic lettering. These subtypes have emerged as the virus has mutated. The subtype most widely affecting South Africa is subtype C. The initial strain to affect South Africa was HIV-1, subtype B virus. This however mutated, and was overtaken by subtype C (Foundation for Professional Development, 2001)

2.6 The Life Cycle of HIV/AIDS

As previously stated, HIV is classified as a retrovirus. A virus is a highly parasitic organism that is dependent on a host for replication and overall viability. HIV is therefore dependant on a living organism to flourish (Cusak & Singh, 1994).

For disease to result from infection, the retrovirus must attach itself to the correct host cells. In the case of HIV, the presence of a protein called CD4 is necessary for the virus to attach itself to the host cell (Cox, 1996; Cusack &

Singh, 1994; Harvey & Reiss, 1991; Umeh, 1997). In the human body, the CD4 cells are found on the surface of white blood cells, known as helper T-cells, or T-lymphocytes (white blood cells) (Kalra, Kohli & Datta, 2000; Umeh, 1997; Van Niekerk, 1991). HIV then attaches itself to the CD4 receptor of the T-helper cells. Once attached, the human immunodeficiency virus replicates itself and destroys the cell.

However, retroviruses are different from other viruses in that a 'reverse' of what usually occurs in infection, takes place. The normal transcription of genetic information in human cells is from DNA to RNA proteins. The genetic information of HIV is contained in RNA rather than DNA, as is the case with other viruses. HIV possesses its own enzymes that transform RNA into DNA in order to produce more viruses. When HIV attacks a cell, its RNA invades the cell. The viral RNA then transforms into DNA which fuses with the cell's own DNA. This provides a huge obstacle to the eradication of the virus from the infected individual. The cell is then caused to produce new viral RNA and not proteins. When the virus multiplies, it breaks away from the infected cells that then eventually die (Van Dyk, 1999). Consequently, other cells are then affected by the HIV. Tissue cells in mucous membranes, such as the mucous membranes found in the genital tract, the anal tract and certain brain cells, are infected (Van Dyk, 2001).

As HIV multiplies throughout the body, several abnormalities in the immune system are produced. The most notable abnormality is the reduction of T-helper cells (Ostrow, 1990). The result is that HIV progressively suppresses, and finally destroys, the immune system. This is problematic because, once an individual becomes immune deficient, his/ her body is unable to defend itself against many consequent infections. This is when the individual develops AIDS (UNAIDS, 2000).

2.7 The Stages of HIV

Research has revealed that there are several stages to the medical disorder known as HIV disease. The first stage is the actual initial infection with the virus,

and the result of the initial HIV infection is called acute seroconversion syndrome. This is characterised by a brief illness. The symptoms of this brief flu-like illness occurs 2 to 6 weeks after the initial exposure to the virus. These symptoms however pass, unnoticed. What occurs unobserved in the infected individual's body is a severely reduced functioning of the immune system, which exposes the body to various forms of infections and diseases (Cox, 1996). There are physical symptoms such as weight loss, loss of appetite, nausea, vomiting, night sweats and exhaustion that are typically associated with HIV/AIDS (Cunningham, Shapiro, & Hays, 1998). The median time from initial infection with the HIV subtype, to the development of what is called full blown AIDS, is approximately 10 years. Once a person becomes AIDS symptomatic, additional symptoms such as swollen lymph glands, fatigue, persistent coughing, persistent diarrhoea, persistent white spots in the mouth and throat, purple and brown spots on the skin, and nervous system impairments are experienced. After becoming AIDS symptomatic, individuals normally die within two years from either one or a combination of the opportunistic infections to which they are predisposed (Cox, 1996).

2.8 HIV/AIDS Transmission

For HIV to be transmitted from one person to another, there must be an exit point for the virus to pass out of the infected person, and an entry point into the uninfected person (Lachman, 1991). Exit and entry points are those areas where the skin is not intact and where body fluids, such as blood and sexual fluids, can enter through the skin, or via the direct introduction of body fluids from one body to the other (Lachman, 1991; Van Dyk, 2001).

2.8.1 Infection Through Sexual Contact

Infection through sexual contact is the most common form of transmission (NIAID, 1998). Research purports that 75% of global infections involve heterosexual intercourse and 25% of the infections involve sexual relations between men (AIDS foundation of South Africa, 2002). Unsafe sexual practices

allow the virus to enter the body, via the body fluids of the infected person, and spread into the bloodstream of the uninfected person. The human immunodeficiency virus must then connect to the CD4 receptors. The cells lining the genital and anal tract are rich in CD4 receptors. These linings are also very delicate and are easily torn as a result of friction during intercourse. This action exposes the person to HIV infection. The presence of other sexually transmitted infections, such as syphilis and gonorrhoea, will greatly increase the chances of infection, as these infections generally create openings that will further allow easier transmission of HIV. An incorrect assumption is that HIV cannot be contracted through oral sex. It is quite possible that HIV can be transmitted through oral sex, especially when the person has lacerations (sores or inflammation) in the mucous membrane in the mouth where CD4 cells are found. HIV is also found in saliva and it can therefore also be transmitted via passionate kissing (open mouth kissing). The risk of infection through kissing is however quite low, as there is a minimal concentration of the virus in saliva (Van Dyk, 2001).

2.8.2 Infection through Contaminated Blood

Another mode of HIV transmission is via infected blood. This has occurred mainly through blood transfusions. Prior to the screening of blood for viruses, the incidence of infection through transfusion was high. However, with new technologies, the chances of being infected this way are minimal (Lachman, 1991; NIAID, 1998; Quinn, 1996; Van Dyk, 2001). Further infection by contaminated blood making bodily contact, is through for example, bleeding wounds, needle stick injuries, used syringe needles, body piercing, tattooing, razor blades and other sharp objects. An important concern for certain cultural groups is the transmission of HIV via instruments used during rituals such as circumcision (Mbuya, 2000). Contact sports such as rugby and martial arts have been progressively mentioned as possible modes of HIV transmission (Whiteside & Sunter, 2000).

2.8.3 Mother-to-Child Transmission

Mother-to-child transmission is when a HIV infected mother passes the virus on to her baby during pregnancy, childbirth or through breastfeeding. Over 60% of mother-to-child transmissions (MTCT) occur during labour. The chances of infection to the foetus are greater if the mother becomes infected just before or during pregnancy, or if she is in her last phase of AIDS infection. Approximately 30% of MTCT occurs through breastfeeding, which raises the debate as to whether or not HIV/AIDS mothers should breastfeed. Chances of transmission to the infant are increased if the mother has a vitamin A deficiency, a breast disease or cracked nipples. If the infant has thrush and/ or gastroenteritis, the chance of transmission is greater. HIV can be spread via breast milk, but the virus will only be able to enter into the infant's bloodstream if the gastro-intestinal lining has been injured or disturbed (Van Dyk, 2001).

2.9 The Myths of HIV Infection

One of the greatest challenges is debunking various beliefs concerned with the infection of HIV. In general, people hold views that are not factual with regard to infection, and once infected, people often believe that there are certain things that can be done to 'cure' infection.

There are beliefs that HIV is a form of bewitching and therefore there are ways to become 'unbewitched'. As a result, various 'muti' remedies may be believed to cure HIV. Some people believe that if they have sex with a fat woman, a child (a girl younger than 12, or a very young boy) or a virgin, they will be cured, or that they will not be infected (Van Dyk, 2001).

There is also confusion around transmission via body fluids such as saliva, urine and sweat. Although HIV can be found in these fluids, the quantities that are found are too small to transmit infection easily and there is no evidence to suggest that HIV can be spread through casual contact between individuals (Whiteside & Sunter, 2000). Furthermore, HIV cannot be transmitted through coughing, sneezing, dry (closed mouth) kissing, sharing of eating utensils, skin

contact such as hugging and shaking hands, toilets or even insect bites (Evian, 1995; Greathead, Devenish & Funnell, 1998; Lachman, 1998).

People who engage in certain high-risk behaviours are more at risk of being infected with HIV and subsequently acquiring AIDS. The behaviours outlined in Table 1 significantly increase the risk of becoming HIV positive.

Table 1

High Risk Behaviours associated with Increased Probability of HIV/AIDS Infection

High Risk Behaviour	***Association***
Having unprotected sexual intercourse.	Unprotected means sexual intercourse without a condom. Promiscuity enhances the probability of contracting HIV. However unsafe, single partner sex can also lead to HIV infection.
Sharing needles	Blood is exchanged through the sharing of 'used' needles during intravenous drug use, tattoos, blood brother rituals, and body piercing.
Receiving contaminated blood	Through contaminated blood products or blood transfusions. However, due to the screening of all blood, this form of transmission is low.

(Harvey & Reiss, 1991; Kellogg, 1990)

Although there is no gender, race or socio-economic class that can escape the impact of HIV, there are certain groups of people who are more 'high-risk' than other groups of people. It is important to know the various modes of HIV and STI transmission, and to understand that certain behaviours can have negative consequences, as discussed above. To further address the HIV and STI problem, it is useful to identify groups that are vulnerable to 'risky behaviours' and consequently, infection. Research has indicated that adolescents are classified as a 'high-risk' group (Huba, et al., 2000; Mati, 1996). For the purpose of this study, focus has been given to adolescents with the intention of prevention. This will be discussed shortly.

2.10 Sexually Transmitted Infections (STIs)

Sexually transmitted infections (STIs) occur in all plants and animals that reproduce sexually, humans being no exception (Baskin, 1999). STIs in humans can be spread by having sexual contact with someone who is infected. The

sexual contact can be through vaginal, oral or anal sex. However, other types of touching could in fact pass on certain STIs, for example, STIs such as Herpes and the Human Papilloma Virus, can be transmitted if an uninfected person touches the infected areas of someone's body and then touches their own genitals (Avert, 2002).

Sexually transmitted infections are among the most common infections that occur in the world today. However, most men and women of reproductive age (18-44) dramatically underestimate the national prevalence of such infections and, as a result, increase their own personal risk of acquiring one (Henry, J Kaiser Family Foundation, 1998a). Because the transmission is sexual, it has become regarded as a moral issue, which consequently creates many social problems, such as discrimination and ostracism. This creates a ripple effect as people are then too afraid to engage in open dialogue with regard to the subject of STIs. This type of behaviour automatically hinders prevention programmes (Henry, J Kaiser Family Foundation, 1997). The result is that many sexually active men and women today, do not even know the names of some of the most common and potentially damaging STIs. They are not aware of the symtomology (and in many cases the infections are asymptomatic), and do not realise the importance of being tested, and if infected, the importance of being treated. Furthermore, individuals, especially adolescents, tend to be very egocentric. They firmly believe that ‘it will not happen to me’, and as a result, many still practice unsafe sex and are flouting the danger in which they place themselves and their partners during sexual activity. Furthermore, because the subject is seen as taboo, people are not informed about the potential, serious, long-term health consequences they may be faced with in the future if medical treatment for sexually transmitted infections is not sought.

Most often, once people are infected, they feel the effects of the social stigma and are therefore secretive about their condition. This has led to what has become termed a ‘hidden epidemic’ (Eng & Butler, 1997). Consequently, many men and women, and adolescents in particular, have STIs. The only hope of curbing the rise in incidence is by encouraging open discussions, based on

accurate information about the scope of the problem, making people more aware of the personal and public health implications of the current STI epidemic. The end goal is an informed and stigma free population, where sexually active individuals will be able to make responsible decisions, about seeking testing and treatment and about partaking in safer sexual practices that can prevent infection. A greater awareness of this epidemic among public health professionals and legislators, can lead to more practical and successful strategies to combat the epidemic. For example, in one study, only one out of 10 women surveyed, reported that during their first visit for routine gynaecological or obstetric care, did their doctor raise the subject of STIs, other than HIV/AIDS (and only 19% reported that the doctor had raised the latter). This fell far short of the 1996 Guidelines for Women's Health Care recommended by the American College of Obstetricians and Gynecologists— that *all* women under the age of 65 should receive evaluation and counselling on STIs as part of routine assessments (Henry, J Kaiser Family Foundation, 1997).

2.11 Various Types of Sexually Transmitted Infections

STIs fall into different categories namely viral (including HIV/AIDS – for which there is no cure), bacterial and parasitic infections. The most predominant STIs are briefly discussed below:

2.11.1 Chlamydia

Chlamydia is responsible for 92 million new infections per year. It is the most common treatable bacterial sexually transmitted infection. It can cause serious health problems, such as ectopic pregnancies, infections and pelvic inflammatory diseases in women and genital tract infections in men. In both sexes it can lead to infertility. Between 70 – 75% of women do not experience any symptoms. In developing countries, diagnostic equipment is expensive and scarce, which makes monitoring and diagnosis of this infection particularly difficult (Cates,1999)

2.11.2 Gonorrhoea

Like Chlamydia, Gonorrhea is also a bacterial infection. There are approximately 62.5 million new cases annually. This infection causes pelvic inflammatory diseases, with a risk of infertility in women. It also causes extensive pelvic pains and an inflammation of the urogenital tract. It affects the cervix, anus and throat. In both men and women, it can result in septicaemia, arthritis and meningitis and can also cause blindness in newborn babies (Boyer, et al., 1997).

2.11.3 Syphilis

Syphilis is known as the most deadly bacterial STI. Each year, approximately 12 million new cases are reported. It causes an ulceration of the urogenital tract and if left untreated, leads to a generalised infection that can be fatal. The screening test is very simple, but not always affordable in developing countries (Sexual Health, 2004).

2.11.4 Trichomoniasis

Trichomoniasis is caused by a parasite. This particular STI results in approximately 174 million infections every year and in 50% of all cases of infected women, symptoms are evident. Trichomoniasis is particularly dangerous as it facilitates the spread of HIV (Sexual Health, 2004).

2.11.5 HIV/AIDS

HIV/AIDS is a viral STI which threatens life expectancy. Due to the impact HIV/AIDS has on the population, this particular STI also has further consequences such as a lack of economic development and stress on family systems as well as the community. This STI is fatal and as yet there is no cure (Quin, 1996).

2.11.6 Herpes

Herpes is a virus and symptoms can occur two to 30 days after sex with an infected partner. Some people do not experience symptoms, but often flu-like feelings are experienced. The most obvious, visual symptoms are small, painful blisters on the sex organs or mouth. There is often an itchiness or burning before the blisters appear. Once the blisters have appeared they do not last very long and will disappear between one and three weeks after first being visible. Herpes can not be cured and will continue to reappear sporadically. It is possible for a mother with herpes to infect her baby during childbirth (Boyer, et al., 1997)

2.11.7 Non-gonococcal or Nonspecific Urethritis

Non-gonococcal or Nonspecific Urethritis affects both men and women. Although symptoms are not usually noticed, this STI becomes active one to three weeks after infection. Once symptoms do appear they can be identified by a yellow or white discharge from the penis and a similar discharge and/ or burning in the vagina. Often there is a lot of pain and discomfort during urination. This STI can lead to more serious infections and can cause damage to the reproductive organs. This often leads to infertility. Mothers with this STI can also pass the infection on to their babies during childbirth (Cates, 1999).

2.11.8 Vaginitis

Vaginitis can be contracted by men and women. Some women do not experience any symptoms, however, usually this STI creates discomfort. There is often itching, burning and/ or pain in the vagina. A discharge is also present which is smelly and dirty looking. This STI can be carried by men without any symptoms ever being evident (Sexual Health, 2004).

Sexually transmitted infections are still a major public health concern around the world and can be linked to acute illness, infertility, long-term disability (all of which can lead to severe medical and psychological consequences for millions of people) and death. The World Health Organisation states that in developing

countries, STIs and their complications are amongst the top five disease categories for which adults seek health care. The presence of an untreated STI can also increase the risk of both the acquisition and transmission of HIV. As is the case with HIV infections, the incidence of infections of STIs in adolescents is growing rapidly and should not be ignored. As with HIV/AIDS, there has been a focus on targeting the youth to curb the ever increasing rate of infection (Henry, J Kaiser Family Foundation, 1998(b)).

2.12 Conclusion

This chapter has introduced and defined HIV/AIDS and STIs. This is important in forming a foundation in which the origins, methods of transmission and possible dangers are understood. This chapter has also introduced the need to focus on adolescents to help curb the rapidly growing pandemic of HIV/AIDS and STIs.

In the next chapter, the incidence and prevalence of HIV/AIDS and STIs is discussed.

Chapter 3

3. Statistics for HIV/AIDS and STIs

3.1 Introduction

There have been speculations that the HIV/AIDS epidemic might "level off" in heavily affected countries due to a decline in the pool of people at risk. This, however, is being disproved, as the epidemic continues to expand even in countries that already have had an extremely high HIV prevalence rate. In fact, a UNAIDS press release in July 2002 warned that the AIDS epidemic is still in an early phase. In the most effected countries, HIV is becoming more prevalent and is continuing to spread. UNAIDS estimates that, in the absence of drastically expanded prevention and treatment efforts, approximately 68 million people in the 45 most affected countries will die of AIDS between 2000 and 2020. This is five times more than the 13 million deaths due to the epidemic in those countries in previous decades. Globally, HIV/AIDS is the fourth biggest killer (UNAIDS, 2002).

3.2 The Global Scenario

Since the epidemic began approximately 20 years ago, more than 60 million people have been infected with HIV. It is estimated by the Joint United Nations Program on HIV/AIDS (UNAIDS, 2001) and the World Health Organisation (WHO) (2002) that approximately 42 million people were living with HIV/AIDS by the end of 2002. This figure is two million in excess of the previous years' total. The trend in many parts of the world is that the majority of infections occur in young adults (aged between 15 and 24), with women being notably more vulnerable. Globally, an estimated 11.8 million youths are infected and an additional 6000 people are infected daily. In 2002, an estimated 3 million people died of AIDS, and it was found that a vast amount of children under the age of 15 had been orphaned by AIDS by the end of July in that year (Dorrington, Bradshaw & Budlender, 2002).

Ninety five percent of infected people live in the developing world. This proportion is estimated to increase in countries that are additionally experiencing poverty, poor health care systems, a lack of education, inequality and limited resources for effective prevention and care (Whiteside & Sunter, 2000). This, however, does not mean that industrialized countries have the epidemic under control. It has been speculated that with the development of life prolonging drugs, a complacency towards the dangers of HIV/AIDS could be adopted, thereby encouraging risky behaviours (Whiteside & Sunter, 2000).

Table 2 provides a summary of the statistics of HIV/ AIDS prevalence in the world up to December 2002.

Table 2

Global HIV/AIDS Statistics in 2002

Region	Adults & Children living with HIV/AIDS	Adults & Children newly infect with HIV	Adult prevalence rate	Percentage of Adults infected who are women
Sub-Saharan Africa	29.4 million	3.5 million	8.8%	58%
North Africa & Middle East	550 000	83 000	0.3%	55%
South & South East Asia	6 million	700 000	0.6%	36%
East Asia & Pacific	1.2 million	270 000	0.1%	24%
Latin America	1.5 million	150 000	0.6%	30%
Caribbean	440 000	60 000	2.4%	50%
Eastern Europe & Central Asia	1.2 million	250 000	0.6%	27%
Western Europe	570 000	30 000	0.3%	25%
North America	980 000	45 000	0.6%	20%
Australia & New Zealand	15 000	500	0.1%	7%
World Total	42 million	5 million	1.2% average	50% average

(UNAIDS, 2002, AIDS epidemic update: December 2002)

It is evident from the table above that the infection rate of HIV/AIDS in the developing regions is considerably higher than that of the industrialized regions. Furthermore, it suggests that HIV/AIDS spreads faster in poverty-stricken and less-resourced communities, such as those in sub-Saharan Africa.

3.3 The African Scenario

The region of the world that is most affected by HIV/AIDS is sub-Saharan Africa. An estimated 29.4 million people are living with HIV/AIDS and approximately 3.2 million new infections occurred in sub-Saharan Africa in 2003. Furthermore, in 2003, the epidemic has claimed the lives of approximately 2.3

million Africans, leaving an estimated eleven million children orphaned. Over 70% of all young people living with HIV/AIDS reside in sub-Saharan Africa, which is also home to approximately 70% of the global total of HIV positive people. Most of these people will die within the next 10 years. An estimated 2.3 million deaths had already occurred by the end of 2001, corroborating the fact that HIV/AIDS is now the leading cause of death in sub-Saharan Africa (UNAIDS, 2001).

3.4 The South African Scenario

HIV/AIDS emerged later in South Africa than in other sub-Saharan African countries (Henry, J Kaiser Family Foundation, 2001). It was first identified in 1982, when two homosexual men were reported to have died of AIDS-related illnesses (Togni, 1997). Since then the epidemic has been growing rapidly. It is estimated that approximately 1 600 individuals are infected daily (Pailman, 2000). Between the periods 1994 and 2001, there has been such an exponential growth of HIV/AIDS, that experts agreed that South Africa would be facing one of the world's most severe HIV/AIDS epidemics (ATICC, 2001a; Center for Disease Control and Prevention (CDC), 2000). Figures released by UNAIDS in 2002 concluded that five million (or one in nine) South Africans were infected with the virus. Surveys conducted by the Department of Health (2002) estimated that between 4.7 and 4.8 million people were infected, where approximately 2.09 million men aged 15-49 and 2.65 million women aged 15-49 had HIV/AIDS. Recent research results from the Medical Research Council (Department of Health, 2002) purported that 25% of all deaths in South Africa were due to HIV/AIDS. Furthermore, it is estimated that at the peak of the epidemic, there will be 17 times as many deaths among people aged 15-34 than there would have been without AIDS.

Focusing on the individual provinces, research indicates that there will be an increase in the prevalence of HIV/AIDS in the nine provinces of South Africa (Department of Health, 2002). Kwa-Zulu Natal has consistently had the highest

level of infection, while the Western Cape has consistently had the lowest level of infection. The Free State appears to have stabilised for two consecutive years, while the Eastern Cape, although one of the provinces with the lowest HIV statistics, shows a consistent increase in the levels of HIV infection among women attending antenatal clinics (Department of Health, 2002; Whiteside & Sunter, 2000).

The HIV prevalence rate for provinces vary significantly in South Africa, as illustrated in Table 3.

Table 3

Provincial Breakdown of HIV Prevalence Rates in Women attending Antenatal Clinics in South Africa (%) 1996-2001

Province	1996	1997	1998	1999	2000	2001
Kwa-Zulu Natal	19.9	26.9	32.5	32.5	36.2	33.5
Free State	17.5	20.0	22.8	27.9	27.9	30.1
Mpumalanga	15.8	22.6	30.0	27.3	29.7	29.2
Gauteng	15.5	17.1	22.5	23.8	29.3	29.8
North-West	25.1	18.1	21.3	23.0	22.9	25.2
Eastern Cape	8.1	12.6	15.6	18.0	20.0	21.7
Limpopo	8.0	8.2	11.5	11.4	13.2	14.5
Northern Cape	6.5	8.6	9.9	10.1	11.1	15.9
Western Cape	3.1	6.3	5.2	7.1	8.7	8.6

(National HIV and Syphilis Sero-prevalence Survey of women attending Public Antenatal Clinics in South Africa, Department of Health, South Africa, 2002)

Although the above table is only applicable to women attending antenatal clinics, it is a good indicator of the HIV growth within the provinces. It is important to keep in mind that many individuals will not voluntarily undergo HIV testing and will therefore only be tested in situations like pregnancy or possible illness. Aduda and Khouri-Dagher (2000) maintain that the majority of new infections occur in people between the ages of 15 and 25 years, most of whom are in schools, colleges and universities. According to Fowler (2001), one in every four undergraduate students and one in eight post-graduate students at

tertiary level education in South Africa are HIV positive. Research in the Western Cape reported that 26% of the women at an unnamed university were infected with HIV and even higher levels were found among students in the Eastern Cape (Uys et al., 2002).

3.5 The Eastern Cape Scenario

According to Dorrington et al. (2002), the total number of HIV infected persons in the Eastern Cape is 805 879. From this total, a substantial percentage made up infections in young adults and adolescents. The Eastern Cape has the second highest prevalence rate among young adults in South Africa. In the western region of the Eastern Cape, HIV/AIDS statistics indicate a total number of 26 806 HIV positive cases between 1989 and 1999 and an increase to 39 508 by September 2001. There were 7 537 new HIV positive cases reported in 2001, and for the period from 1 January 2002 to 30 March 2002 there were 2 176 new cases, compared with 1 789 for the same period in 2001 (ATICC, 2002). For the period of 1989 and 1999, the HIV/AIDS related deaths were 2 518. This figure rose to 4 315 in 2001 (ATTIC, 2002; Pailman, 2000).

Table 4 indicates the HIV/AIDS infections and deaths annually in the western region of the Eastern Cape, including Port Elizabeth.

Table 4

Western Region – Eastern Province HIV/AIDS statistics from 1989 to 2002

Year	HIV Positive	AIDS Deaths
1989	30	5
1990	70	9
1991	190	19
1992	430	57
1993	750	74
1994	1534	140
1995	2621	197
1996	3703	230
1997	5234	414
1998	5800	511
1999	6444	562
2000	6837	1021
2001	7537	1200
2002 (end of June)	3688	450

(ATTIC, 2002)

A cumulative total of 49 156 HIV/AIDS infections with 6 139 deaths have been reported for this region. Table 4 reflects the increase of infection over a spread of 14 years and suggests that HIV is spreading rapidly. The epidemic appears to be worsening and there is concern that the spread of HIV/AIDS has not adequately been addressed (Smart & Whiteside, 2000). Furthermore, the average age of AIDS related deaths is 29 years, although this appears to be decreasing with every passing year (ATTIC, 2002). Therefore, it can consequently be deduced that the average age of the majority of infections occur during the adolescent years.

Table 5 reflects the ages of people affected with HIV/AIDS in the western region of the Eastern Cape for the period of 1 January 2002 to 31 December 2002 (ATTIC, 2002). It is clear that the age categories of 14-21, 25-29 and 30-34 were the most affected by HIV/AIDS.

Table 5

HIV/AIDS Statistics for the different age groups in the Western Region of the Eastern Cape for 2002

Age Groups	HIV/AIDS
0-13 years	457
14-21 years	943
21-24 years	717
25-29 years	1 814
30-34 years	1 143
35-39 years	828
40-44 years	495
45-49 years	288

(ATTIC, 2002)

From the statistics it is clear that the HIV/AIDS pandemic continues to grow at a rapid rate. This is especially true in South Africa. South Africa is said to have more people living with HIV than any other country in the world (UNAIDS, 2002). The Eastern Province shows a consistent increase in HIV infection levels and future projections discussed below are important to place HIV/AIDS in context (UNAIDS, 2002)

3.6 Projection of the epidemic in South Africa

Large variations exist between the provinces with regard to HIV/AIDS infection levels (Henry, J Kaiser Family Foundation, 2001). Antenatal surveys do however show similar epidemic patterns for all provinces except the Western and Northern Cape. These provincial differences can be attributed to time lags rather than a lower risk of infection. In the Western Region of the Eastern Cape, it is estimated that between the first of January 2001 and the thirtieth of June 2001, the total number of new infections of people with HIV/AIDS amounted to 3 929. By the end of the year the figure had accumulated to 7 537. For the same period, the reported number of deaths were 502 with the average age of death reported to be 29 years (ATICC, 2001a). It is therefore implied that the majority of people in this region (including The Nelson Mandela Metropolitan Bay region), were infected with HIV/AIDS during their adolescent years.

Projected demographic statistics of South Africa suggest that the number of HIV infections could reach 6.4 – 12.1 million individuals by 2010. This is between 15% and 25% of the total South African population (Harrison & Steinberg, 2002). Therefore, in light of the above-mentioned statistics, keeping in mind that there is no foreseeable cure for HIV/AIDS, it is reasonable to assume that HIV/AIDS prevention campaigns should be directed towards the adolescent age group

3.7 Statistics for Sexually Transmitted Infections

The World Health Organisation (2002) estimates that 340 million new cases of Sexually Transmitted Infections occurred worldwide in 1999. The majority of new infections occurred in the region of South and Southeast Asia. This was followed by sub-Saharan Africa, Latin America and the Caribbean. The highest rate of new infections occurred in sub-Saharan Africa. Table 6 is a summary of global annual infections of STIs.

Table 6

Estimated Annual Incidence of Curable STIs by Region

	Population aged 15-49 years (million)	**Annual Incidence (million)**
North America	156	14
Western Europe	203	17
North Africa & Middle East	165	10
Eastern Europe & Central Europe	205	22
Sub Saharan Africa	269	69
South & South East Asia	955	151
East Asia & Pacific	815	18
Australia & New Zealand	11	1
Latin America & Caribbean	260	38
Total	**3040**	**340**

(Sexual Health, 2004)

STIs do not discriminate. Men and women of all ages, races and ethnic backgrounds and income levels are affected. However, women, adolescents, the poor and a few minority racial and ethnic groups bear the brunt of STI infection. Approximately one fourth of all new sexually transmitted infections occur among adolescents. This is estimated to be more in developing areas such as sub-Saharan Africa. In North America alone, one in three sexually active people will have contracted an STI by the age of 24 (Cates, 1999; CDC, 2000), and at least one in two people will have contracted an STI during their lives (The Alan Guttmacher Institute (AGI), 1993).

Although research tends to focus more on HIV and accordingly focuses less on STIs, it is important not to separate the two, but to rather look at the problem

as a whole. This study has identified the youth as a target population and is aimed at providing and increasing school children's knowledge so that they can inevitably change their behaviour. This is in line with various findings that the only way to control the pandemic is through prevention. By increasing one's knowledge, there is a greater chance of that occurring.

3.8 Conclusion

This chapter addressed the incidence of HIV/AIDS and STIs. The statistics revealed that there is a specific group that stands out as being more at risk of being infected with HIV and STIs. This group is adolescents.

Chapter 4 discusses adolescents and the role they play in minimising and controlling the spread of HIV/AIDS and STIs.

Chapter 4

4. Adolescents and Prevention

4.1 Introduction

Since the 1960's, the incidence of STIs, predominantly in adolescents, has soared. Similarly, the incidence of HIV/AIDS in adolescents is also increasing at a rapid rate. Statistics indicate that young adults between the ages of 25-35 years constitute the most highly infected group. Research has also indicated that HIV has a dormancy period of approximately ten years, which indicates that adults with HIV/AIDS in the above age category (25-35 years) were most likely infected with HIV during adolescence (D'Augelli & Kennedy, 1989). Furthermore, the Ministry of Education (2001) reported that there is a significant increase of new infections among young adults between the ages of 15 and 25 in South Africa.

It is a common view that the future of the world lies in the hands of the youth. So too is it believed that the world's greatest hope for changing the course of the HIV/AIDS epidemic and controlling sexually transmitted infections, lies in the hands of the world's youth (Avert, 2002). This makes sense from a statistical point of view. However, adolescents face their own difficulties with regard to their specific life stage and their personal mindsets.

4.2 Understanding Adolescents

'Adolescence' is defined by the World Health Organisation (2002) as being the developmental stage between the ages of 10 and 24. It is understood that this is the stage when a person matures physically, psychologically and socially from childhood to adulthood (Kalra, Kohli & Datta, 2000).

The physical change during this period is called puberty, and there are specific changes that occur in boys and girls. Boys experience a change in voice and height. They develop pubic, facial and body hair. During puberty, the penis develops and begins to react to stimulation by becoming erect. Girls also grow in

height and they develop underarm and pubic hair. Their breasts and sexual organs develop, they start menstruating and start producing ova (Kalra, Kohli & Datta, 2000).

Cognitively, Piaget describes ‘adolescence’ as a period of formal operations, where thinking becomes more flexible (Barker, 1990). This implies that adolescents start developing the ability to think in abstract terms and they have the ability to consider hypothetical risks and the possible benefits of different kinds of behaviours. There are four specific features that should unfold. Barker (1990) presents them as follows:

- The adolescent develops the ability to accept assumptions for the sake of argument, and to make a hypothesis and set up propositions to test them.
- The adolescent becomes able to look for general properties and laws. This should be evident through symbols and language. The adolescent also moves towards working with imaginary systems and to consequently conceive things beyond what is tangible, finite and familiar.
- The adolescent becomes aware of his/ her own thinking and becomes able to use thought to justify the judgments made.
- The adolescent becomes able to deal with complex ideas.

Because a life-skills programme aims at empowering learners to act independently and responsibly and to develop self-thought, it makes sense to focus on adolescents, as they are in the life stage where this type of thought process and development becomes possible (Baldo, Metcalfe & Barttes, 1993).

Closely linked to cognitive sophistication and language skills of the adolescent, is an emotional shift that also takes place (Brems, 1993). The adolescent moves towards understanding and recognising novel affects not experienced before, the adolescent also begins to make sense of those feelings, and is furthermore able to connect these feelings to specific events. The emotional changes experienced during this life stage depend largely upon cultural values, attitudes, customs, and accepted societal norms (Brems, 1993).

However, during this time of major physical, personality and social developments, adolescents are often left with unexplainable feelings and emotions, the pressure of which, coupled with personal stress, unhappiness and peer pressure, often leads to the abandonment of rational thought processes (Santrock, 1993). This emotional/ psychological change can further be discussed by referring to Erik Erikson's eight stages of development (Kaplan & Sadock, 1998).

Erik Erikson describes this particular stage in an individual's life as a quest for identity cohesion, where a failure to establish an identity leads to an identity crisis for the adolescent (Schultz & Schultz, 1998). This period of time for adolescents is particularly challenging, and is characterised by an intense desire to 'fit in'. This in turn predisposes them to peer pressure and influences from the media, which then makes them vulnerable to high-risk conforming behaviours. During this life stage, adolescents are also very egocentric. They have an underlying belief that they are invincible, resulting in the perception and ideology that they will never be infected with HIV or a STI or ever die from AIDS (Papalia & Wendkos Oaks, 1995).

It is during this life stage that adolescents start developing their sexual identity and start becoming more aware of their attraction to the opposite sex. Boys begin to show an interest in girls in a sexual way, while girls begin to show an interest in boys in a romantic way (Heaven, 1994). Together with these physical changes are emotional changes, and these events are of major psychological significance for the adolescent, whereby the adolescent is not only engaged in identity formation, but must also come to terms with his/ her own sexuality (Santrock, 2002). Adolescents may then become involved in sexual relationships, and if their sexual behaviours are not responsible, they will be at risk of HIV and STI infection. As mentioned above, this potential danger is exacerbated by their delusion of personal invincibility and immortality, which makes adolescents more willing to engage in unsafe practices (Van Dyk, 2001). Ignorance added to the factors mentioned above, leads to a vulnerability to STIs

and HIV infection, further supporting the need for life-skills intervention programmes.

Adolescents are not only limited to a sexual awakening and development. Other forms of experimentation may also be evident, such as dabbling with various narcotic substances. Intravenous drug use is known to increase the risk of HIV infection. Consequently, once under the influence of substances and/ or intoxicants, inhibitions are lowered and the individual is therefore also at greater risk of engaging in high-risk behaviours.

According to Kalra, Kohli and Datta (2000), young people are vulnerable to STIs and HIV/AIDS because of risky sexual behaviour, substance misuse, lack of access to HIV/AIDS information and preventative services, and a lack of knowledge regarding HIV/AIDS. This is further aggravated by environmental factors such as being unable to talk about topics such as HIV/AIDS and STIs at home or in their communities, or to address the risky behaviours that lead to the transmission of sexually transmitted infections or HIV.

Erikson purports that all the above behaviours are normal behaviours and experiences for adolescents. However, if an adolescent is infected by STIs or HIV in particular, this could lead to role confusion, thus preventing the adolescent to effectively move to the next stage of life, being that of forming intimate relationships. This is often very difficult if infected with HIV and this could leave the individual feeling isolated.

Although young people are the most vulnerable to HIV/AIDS, they also provide the most hope for change and for decreasing the incidence of infection (Casey & Thorn, 1999). A further advantage of targeting this group is that they are easily accessible in the school environment (Kalra, Kohli & Datta, 2000; Quackenbush, Nelson & Clark, 1998). Schools provide the ideal environment for preventative, educational life skills programmes to be implemented. It is also a good opportunity for the community, by way of teachers and community leaders, to become involved with the youth as possible role models and mentors (Kalra, Kohli & Datta, 2000). According to Fransen (in Casey & Thorn, 1999), if school based interventions are effective in altering the behaviours of today's youth, the

impact of HIV/AIDS and STIs could substantially be decreased. These programmes could consequently be responsible for the reduction of infection.

4.3 The Role of Schools and Teachers

There has been a general shift towards prevention rather than cure with regard to HIV/AIDS and STIs. This has introduced the recognition of schools as an important medium through which prevention can be facilitated. As adolescents spend a considerable amount of time at school with their teachers, teachers are the key to meeting educational goals, and implementing, developing and refining the comprehensive health education programmes (Ross, Nelson & Kolbe, 1991).

School intervention programmes have been utilised for some years, both nationally and internationally. Research has revealed a number of important aspects that must be taken into account by those who wish to utilise this form of intervention. These aspects include:

- HIV/AIDS and STI education should not be presented in isolation. This means that there should not be a special HIV/AIDS and STI education period. The intervention programme should form part of a life-skills education programme which includes information on sexuality, sexual abuse, the development of self esteem and the information related to HIV/AIDS and STIs (Baldo, Metcalfe & Barttes, 1993; Kalra, Kohli & Datta, 2000; Van Dyk, 2001). According to Van Dyk (2001), if HIV/AIDS education is presented in isolation, children may develop an irrational fear of the disease.
- Intervention programmes should be implemented from an early age, with the ideal situation being that children are exposed to HIV/AIDS and STI education as early as possible. This is important because children's behaviour patterns have not yet been established and at a very young age, they are still receptive to information regarding healthy sexual behaviours (Balding & Regis, 1993; Perloff, 2001; Van Dyk, 2001).

- HIV/AIDS and STI education should be an ongoing process (Kalra, Kohli & Datta, 2000; Van Dyk, 2001). If life-skills programmes are going to work, continued intervention is required to introduce positive life skills and behaviours so as to prevent infection.
- It is also important to include parents and the community in the education process (Casey & Thorn, 1999; Futrell, 1992; Quackenbush, Nelson & Clark, 1988; Van Dyk, 2001). When this is done, the life-skills intervention programme can accurately represent the cultural, religious and moral values found in the community. This is important and should not be underestimated as children return to their homes, communities and life circumstances.
- Therefore, for education to be successful, all these factors need to be considered and, as far as possible, applied, so that changes can be introduced at school and carried through to the external environment as well.

These factors can be summarized in an adapted version of Norton and Dawson's 'building blocks for successful HIV/AIDS education' diagram (in Van Dyk, 2001) illustrated in figure 1. This diagram is discussed below.

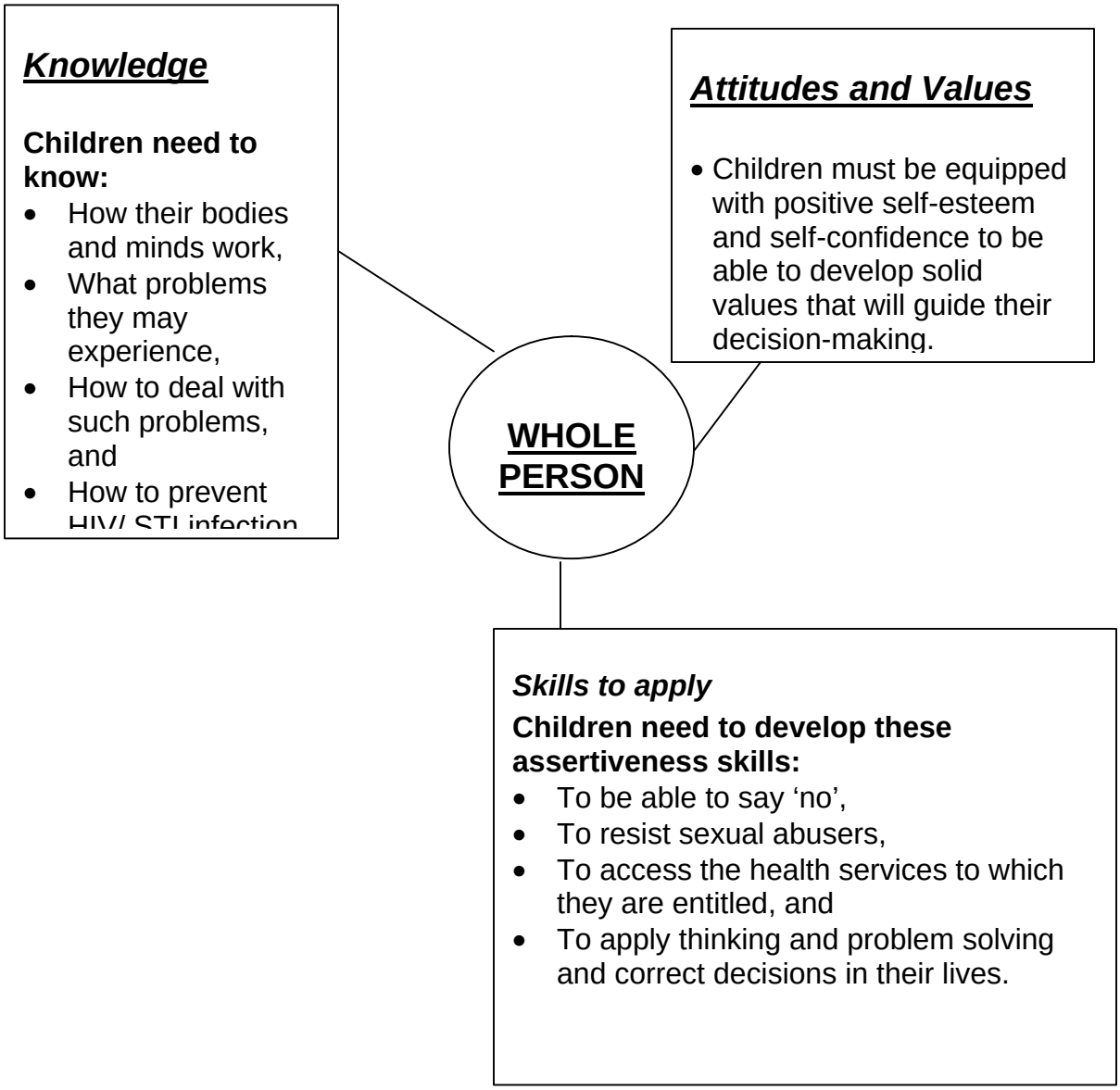

Figure 1

The Building Blocks for Successful

HIV/AIDS and STI Education

(Norton & Dawson, 2000 in Van Dyk, 2001, p. 157)

Life-skills programmes aim to develop a ‘whole person’. A ‘whole person’ is defined by Norton and Dawson as an individual who is in possession of sufficient knowledge, attitudes and values and life skills to equip him/ herself to deal with various aspects of life satisfactorily (Van Dyk, 2001). In this study, the intention is to implement a life-skills programme that will create a whole individual. The life-skills programme implemented by Ubuntu for this study endeavoured to create whole adolescents, empowered to believe in themselves and make responsible life choices.

By providing adolescents with knowledge, they are able to learn about their bodies and their minds enabling them to understand why they experience and do things in certain ways. This will in turn empower them to analyse and solve potential problems. If an adolescent is able to do the above, he/ she will be able to be aware of dangerous/ high-risk practices and will thus be able to make responsible decisions, thereby minimising the spread of HIV and STIs.

However, knowledge is not always sufficient to bring about desirable, positive changes in behaviour. Attitudes and values are vital. Positive self-esteem and self-confidence are necessary to develop attitudes and values that are often encouraged by family and community systems. For an adolescent not to be easily influenced by peers, he/ she must have a strong sense of self and a well formulated set of values to guide the decision making progress.

An important aim of life-skills programmes is to equip learners with life skills. This is the last component to figure 1. These skills can be in the form of assertiveness skills: to be able to say no, resist sexual abusers and to know how to access health services.

4.4 Conclusion

Chapter 4 has elaborated on the chosen target group for this study. It has also introduced the focus and importance on prevention rather than cure.

Chapter 5 discusses the Biopsychosocial and Aids Risk Reduction Model as psychological theories that have been applied to the conceptualisation of this study and intervention programme.

Chapter 5

5. Psychological Theories: Biopsychosocial AIDS Risk Reduction Model

5.1 Introduction

The statistics on HIV/AIDS and STIs paint a negative picture in terms of future demographic projections, with many harmful implications for social-economic development as well as psychological, medical and social well-being. It therefore makes sense to focus on the education of the country's youth to avoid, or at the very least contain, the rapid rise of the projected statistics. Keeping in mind once again that HIV/AIDS and STIs are intertwined, discussion of one cannot be undertaken without the discussion or consideration of the other. According to research, prevention of STIs is a fundamental component of the global strategy for dealing with the HIV epidemic (Avert, 2002).

With this said, the biopsychosocial model has been chosen to help explain the dynamics behind HIV/AIDS and STIs. This will form part of a foundation to explain the problem and to aid in the understanding of HIV/AIDS and STIs, thereby providing a solution. The AIDS Risk Reduction Model (ARRM) will be used as an application of the knowledge to a life skills intervention programme to contain the spread of HIV/AIDS and STIs.

5.2 Biopsychosocial Approach

With the increase in HIV and STI infection there has been a shift from the biomedical domain, where research has focused primarily on finding a vaccination or a cure, towards a more preventive approach that is holistic in nature, encompassing behavioural, psychological and social components of the health crisis. Relevant behaviour includes health-promoting behaviour, health-protecting behaviour, and educational programmes that address the behaviours that lead to the battle against the pandemic of HIV and STIs. It is important to

note that research highlights how social variables such as socio-economic status, gender, ethnicity and age (which is the focus for this study) affect the extent to which people adopt healthy behaviours (Abraham & Sheeran, 1999).

5.2.1 The HIV Life Cycle and its Biological Effect on the Human Body

Research has revealed that there are several stages to the medical disorder known as HIV disease. These stages have already been discussed in chapter 2, as well as biological information related to other sexually transmitted infections. It is important to relate this information to the biopsychsocial approach to conceptualise the study.

5.2.2 Psycho-Social Effects of HIV/AIDS and STIs

Past research has concluded that the physical symptomology of HIV negatively impacts infected individuals' health and related quality of life (Cederfjall, Langius-Ekllof, Lidman & Wredling, 2001). Social rejection and discrimination towards HIV positive individuals is well known (Schonnesson, 2002). This is particularly significant with regard to HIV/AIDS and STIs affecting youth. Because of adolescents' particular life stage, they are already vulnerable and more concerned with social acceptance. If this social abandonment is coupled with the negative stigmatism of HIV and STIs, the effect is exacerbated. From a social perspective, people with HIV experience seclusion and abandonment. Friendships and relationships become incredibly difficult to form and maintain. Job searching is a challenge and once a job is found it is often too demanding to keep. If an adolescent is infected during his/ her adolescent years, by the time they are of the working age they are already moving away from HIV infection and moving towards being AIDS symptomatic. This aggravates the ability to find and maintain a job. Moral issues are always a factor of concern especially with regard to having an intimate relationship or dealing with the desire to have children (Schonnesson, 2002). If a person is infected with HIV in a later life stage, there may still be an opportunity for that person to engage in meaningful relationships or even to have children. However, if infection occurred

during adolescence, these opportunities are not a reality. There are many more challenges with regard to having intimate relationships, as the possibilities are reduced if not eliminated.

No matter where HIV infected people turn they are faced with social isolation – whether it is persecution from society or as a result of personal feelings of worthlessness and immense sadness. Further feelings that may be experienced may be related to dealing with the loss and mourning of the old self, existential concerns as to the meaning of life, death, anxiety and more. These concerns are generally easier to deal with when in a later life stage because it is still possible to look back and take a substantial life inventory. For adolescents however, they are technically only beginning their lives, and are then faced with working through accepting the reality of death. As a result there is a strong possibility that HIV positive persons, especially adolescents, may develop psychological problems (Cederfjall, Langius-Ekllof, Lidman & Wredling, 2001).

Since Freud's coining of the mechanisms of psychic defence, it has become clear that denial is a common reaction to trauma. It is important to remember that people who are trying to cope with an HIV infection have so much more to deal with than only dealing with the physical/ medical aspect of the disease. Because HIV/AIDS is a chronic and life-threatening illness, adjusting to the disease is a life-long process. With this in mind, it is to be anticipated that the majority of infected people develop some form of adjustment disorder (Catalan, Green & Thorley, 2001). After testing seropositive, individuals face many pressing concerns such as how they are to pay their increasing medical expenses. Often adolescents most affected by HIV are from lower socio-economic statuses, they do not have medical aids or other financial resources. Often they have lost parents and other family members to AIDS as well. As a result, they are unable to seek proper medical care and their life positions are further impacted (Santrock, 1993). Furthermore, because of losing one or both parents to AIDS, these adolescents have to assume parental roles, adding to their stress, further depleting any possible resources and intrinsic strength.

Moreover, the discovery of infection precipitates many of the emotional dilemmas described for such illnesses. Shock, anger, denial, guilt and anxiety are just some of the emotions that are experienced. Stigmatisation is a reality, along with social abandonment and the possible loss of work. This is especially true with the stigma attached to HIV/AIDS being a disease specific to the homosexual population (Schonnesson, 2002). During adolescence there is a search for identity as well as sexuality (Schultz & Schultz, 1998). Adolescents are consequently exposed to much stress if confronted with infection, discovering identity and being ridiculed or ostracised for sexual preference or because of misunderstandings surrounding the infection. This is also applicable to having other sexually transmitted infections as there are moral dilemmas surrounding the modes of transmission.

The rates of attempted suicide amongst individuals who first discover their HIV status is high, and when persons are young, undereducated, unemployed, prone to avoidance, making use of denial, perceiving themselves as having a low level of social support, they become particularly vulnerable. This vulnerability will put them at risk of wanting to take their lives. Being psychologically and physically ill they are also then less motivated and, as a result, lack the strength and resources to fight HIV being psychologically and physically ill (Harvey & Reiss, 1991).

The same can be said about sexually transmitted infections in general, as it carries the same burdens. However, most of the time STIs can be hidden and are therefore not as invasive as HIV/AIDS.

Further psychological effects are anxiety disorders, mood disorders, psychotic disorders, HIV Associated Dementia and AIDS Related Dementia (Schonneson,2002).

5.3 Aids Risk Reduction Model (ARRM)

The AIDS Risk Reduction Model (ARRM), introduced in 1990, provides a framework for explaining and predicting the behaviour change efforts of individuals specifically in relationship to the sexual transmission of HIV/AIDS.

Catania, Kegeles, and Coates (1990) combined elements from various behavioural theories to construct the ARRM. This theory includes the Health Belief Model, 'efficacy' theory, emotional influences, and interpersonal processes (Abraham & Sheeran, 1999). This theory proposes that individuals must go through three distinct stages before they are able to change their risky sexual practices. Firstly, individuals must recognise and label their behaviour as high risk. Secondly, they must make a commitment to change risky sexual activity, and increase low-risk activities. In this study however, the emphasis is not to change behaviour, but rather to prevent it. Therefore, the commitment is towards not partaking in high-risk behaviour. Lastly, they must seek and act on solutions directed towards reducing these high-risk behaviours, or rather there must be a search for ways to prevent high-risk behaviours and education about high-risk behaviours so that prevention is possible (Catania, Kegeles, & Coates 1990).

One of the main goals of the ARRM is that of understanding why individuals fail to progress through this change process. This is important to the task of identifying intervention strategies that facilitate movement across the stages, thereby helping to decrease risky sexual practices and the threat of HIV/AIDS and increased infection of STIs (Catania, Kegeles, & Coates 1990).

It is important to keep in mind that although this model is presented as a series of sequential stages, individuals may move through them in any order. Various factors such as personal, interpersonal and social dynamics influence the individuals' progression through these stages. These include successfully meeting goals of prior stages, formal and informal environmental cues that stimulate thinking about one's sexual behaviour and options for change, emotional states, and factors such as drug consumption, that influence emotional states. Because of the critical time period adolescents are faced with in their specific life stage, they are particularly vulnerable to the above challenges. This model would aim toward teaching life skills, values, and morals that are supported by the community so that adolescents are able to make responsible decisions thereby preventing the continued spread of HIV/AIDS and STIs (Harrison & Steinberg, 2002).

Research has indicated that moderate levels of fear may motivate health protective behaviours, excessive fear may immobilise and impair performance, and too low an affective state may produce apathy with respect to health actions (Leventhal, 1973; Strecher, DeVellis, Becker, & Rosenstock, 1986). Catania, Kegeles and Coates (1990) suggest that a moderate level of anxiety may be helpful to engage people in self-protective behaviours, whereas levels that are too high or too low may impede performance of safe sexual behaviours. Creating the correct anxiety is important as adolescents may choose to simply ignore the intervention programme because of their egocentric beliefs. Therefore, it is important to create a sound sense of responsibility within the adolescent so that they become aware of the real dangers associated with HIV/AIDS and STIs (Catania, Kegeles, & Coates 1990).

When practically applying this model, the ARRM emphasises the importance of helping adolescents to accurately perceive their risk and the consequences of contracting HIV and STIs and the consequences of the infection. This helps to build their commitment to safer sex practices, and assists in the removal of barriers that prevent people from developing positive behaviours or making positive behavioural changes. Through efforts such as the provision of educational materials and programmes aimed at specific target groups, consistent messages and support for safe-sex practices can be promoted to facilitate positive change processes or rather prevention of high-risk behaviour.

The stages, as well as the hypothesised factors that influence the successful completion of each stage are as follows (Catania, Kegeles & Coates, 1990);

5.3.1. Stage 1: Recognition and labelling of one's behaviour as high risk

Hypothesized Influences:

- Knowledge of sexual activities associated with HIV transmission and the spread of sexually transmitted infections;

  It is important to have a sound knowledge base about HIV/AIDS and STIs. Without this foundation, it is impossible to identify which behaviours should be avoided.

- Believing that one is personally susceptible to contracting HIV and STIs;
  Adolescents need to realise that they are not invincible and that they are not immune to HIV and STIs.
- Believing that having HIV/AIDS, and various other STIs, is undesirable;
  Because HIV/AIDS and STIs are not easy subjects to talk about, people are often oblivious to the negative impacts. Adolescents in particular need to realise the consequences of HIV/AIDS and STIs.
- Social norms and networking.
  It is important to have resources. This is not only important in the form of support systems and other resources required by the individuals once infected, but also when putting a preventative intervention programme in place. Intervention programmes can only be realised with a good understanding of social norms so that effective work can be done with the adolescents in conjunction with the support of the community to help prevent HIV/AIDS and STIs (Catania, Kegeles, & Coates 1990).

5.3.2 Stage 2: Making a commitment to reduce high-risk sexual contacts and to increase low-risk activities

Hypothesized Influences:

- Cost and benefits;
  The financial costs involved with being HIV positive or having sexually transmitted infections are very high. Focusing on the benefits of healthy living and responsible choices can empower adolescents to choose not to engage in high-risk activities or, at the very least to reduce high-risk activities. Because of the egocentric mindset of adolescents, it is a challenge to encourage an understanding of the importance of responsible behaviour.
- Enjoyment (e.g., will the changes affect my enjoyment of sex?);
  Adolescents need to realise that it is still possible to live meaningful, fun-filled lives, and that responsible behaviour does not imply boredom.

- Response efficacy (e.g., will the changes successfully reduce my risk of HIV and STI infection?);

  Because people are not sure that responsible behaviours will successfully reduce the risk of HIV and STIs, they are less inclined to partake in behaviour modification. Therefore attention needs to be given so that people, and adolescents in particular, can realise that certain practices are effective in risk reduction.

- Self-efficacy; knowledge of the health utility and enjoyment of a sexual practice, as well as social factors (group norms and social support), are believed to influence an individual's cost and benefit, and self-efficacy beliefs.

  When an intervention programme is introduced, one of the objectives is to try and instil life skills based on the community, and in turn, the individual's values, morals and belief system. It is also important to work on the individual's self esteem, so that confidence to make responsible decisions is instilled. This is easier to do if the target group is young, as no rigid belief systems will be in place as yet (Catania, Kegeles, & Coates 1990).

5.3.3 Stage 3: Taking action.

This stage is broken down into three phases:

1) Information seeking; 2) Obtaining remedies; 3) Enacting solutions. Depending on the individual, phases may occur concurrently or phases may be skipped.

Hypothesized Influences:

- Social networks and problem-solving choices (self-help, informal and formal help);

  Introducing Life Skills Intervention Programmes is a way in which today's youth can be empowered to learn problem solving skills. By addressing problems such as HIV/AIDS and STIs head on, adolescents can learn not to be afraid of talking about it and to use each other and teachers as support systems (Abraham & Sheeran, 1999).

- Prior experiences with problems and solutions;

  The intention of a life skills intervention programme is to prevent an undesired behaviour or result from occurring, therefore the adolescent target group would hopefully be influenced before any problems arise. However, it is good to introduce various scenarios in the form of problems and solutions because with the increased incidence of HIV/AIDS and STIs an individual does not necessarily have to be infected to be affected by the repercussions of HIV/AIDS and STIs.

- Level of self-esteem;

  As mentioned previously, one of the life skills intervention programme's aims is to assist adolescents in developing confidence and self-esteem, in so doing they will become empowered.

- Resource requirements of acquiring help;

  The intention of life skills intervention programmes is to prevent undesirable, high-risk behaviour. If the programme is successful, there will be no need to know where to seek help as no one will be infected. However, although this is the ideal, it is not realistic and therefore it is important to inform adolescents where to find assistance if there is a possibility of infection. These information resources will be places where there is counselling and clinics for medical intervention or simply support centres.

- Ability to communicate verbally with one's sexual partner and sexual partner's beliefs and behaviours.

  Hopefully adolescents will be influenced through the life skills programme to abstain from sexual relationships. Due to the anatomical nature of adolescent's life stage, they physically and emotionally develop into sexual beings, and sometimes it may be difficult to abstain from sexual relationships. The life skills programme should aim towards teaching communication skills to this target group so that they feel more comfortable to talk to their sexual partners about various aspects, such as, safe sex practices (Catania, Kegeles, & Coates 1990).

5.3.4 The Effectiveness of the AIDS Risk Reduction Model

Due to the fact that the ARRM is a relatively new theory, literature relating to the effectiveness of this theory is limited. However, there are several studies that support the usefulness of this theory. Boyer, Barrett, Peterman, and Bolan (1997) implemented a program based on the ARRM, and found an increase in condom use amongst men. It was also found that there was a decrease in the mean number of sexual partners without condom use. Furthermore, following a psychoeducational intervention based on the ARRM, Malow, West, Corrigan, Pena, and Cunningham (1994) discovered that the intervention group subjects displayed enhanced self-efficacy, condom use skills, sexual communication, and showed a reduction in sexual risk behaviours.

5.4 Problem Formulation

With the rapid increase of HIV/ AIDS and STIs, not only have adults, middle aged and older individuals been affected but also the youth, from infants to children and adolescents. Adolescents have been identified as the target group for this study because it is believed that by focussing on this particular age group the problem of HIV/AIDS and STIs can be contained, with the intent to decrease the number of infections in the future.

Research has indicated that it is important to help fight against the spread of HIV/ AIDS and STIs by educating the youth, so that they can become aware of the danger, and so that they are able to choose to live differently in order to prevent contracting these sexually transmitted diseases.

The Ubuntu Education Fund (Ubuntu) is a non-government organisation in the Nelson Mandela Metropolitan Region that supports the belief that adolescents should be targeted to work towards controlling the rapid increase of HIV/AIDS and STIs. Ubuntu thus embarked on the Mpilo-Lwazi life skills program with the intention of bringing awareness to South Africa and, more specifically, to the community of previously disadvantaged youth. The project

was designed to broadly address HIV/ AIDS and STIs as well as Rape and Child Abuse. This life skills project was aimed at educating the learners about the above subjects, as well as teaching them steps towards preventing infection. The assumption underlying this approach is that access to information should result in subsequent changes in behaviour (Balding & Regis, 1993). However, research has also shown that providing information is necessary but not sufficient to make rational changes in behaviour. Consequently, the Ubuntu's life skills program would also focus on building skills and value systems that emphasised the individual's ability to identify alternatives and make more responsible decisions. This would make it possible for the learners to make choices about their behaviours and futures (Futrell, 1992). Because the life skills intervention programme is also based on experiential learning, the learners will be provided with the opportunity to identify their own concerns, rather than having an agenda imposed on them (Balding & Regis, 1993).

5.5 Conclusion

Chapter five offered an explanation of two psychological theories that can assist intervention programmes, aimed at adolescents, to instil various life skills and to educate; and in so doing, change or more preferably, prevent high-risk behaviour. A further objective is to create an awareness that will encourage adolescents to take responsibility, learn to make decisions based on logical processing and analysis of risks, and to encourage the development of peer support systems. The Ubuntu Education Fund was introduced in this chapter as a non-government organisation that aimed at implementing a life skills intervention programme for adolescents with the assistance of the HDRI and the Psychology Department of the Nelson Mandela Metropolitan University. The group selected for this study is learners between and including grade 6 to 9 from a previously disadvantaged background. By educating this group on HIV/AIDS and STIs, it was intended that this particular group would avoid or decrease risky behaviour, thereby preventing or reducing the infection of HIV and other STIs.

The study's aim is to determine if there was a change regarding the level of knowledge the learners had about HIV/ AIDS and STIs pre- and post intervention.

Chapter six discusses how the learning programme conducted by Ubuntu was analysed. This methodology chapter further explains the measures chosen for this study and how the data was analysed to assess whether there was an increase in knowledge amongst the grade 6 to 9 learners.

Chapter 6
Methodology

6.1 Introduction

This chapter outlines the methodology followed for the present study. The aims, research design, measure, sampling, ethical considerations and the data analysis of the present study will be outlined to give the reader an understanding of this research study.

6.2 Aim

1) To determine if there was a change in the pre-test and the post-test information regarding the level of knowledge the learners had about HIV/AIDS and STIs.

6.3 Research Design

The study was of an exploratory, descriptive nature. A pre-test, post-test was employed, using ten groups in the study. Learners were asked to complete questionnaires. The information was anonymous, but numbers were allocated to the questionnaires and linked to the class lists to enable an accurate comparison in the post-test.

The study formed part of a multiple one group, pre-test-post-test quasi-experimental study. This form of approach is used when the research is not randomised (Mitchell & Jolley, 1992). The research was not randomised for this study, as the schools had been chosen by means of a convenient sample. The experiment was not a true experiment and the study did not have a control group. No control group had been chosen, as there were ethical ramifications in denying children the right to being educated and exposed to a life skills program. Furthermore, it was impossible to use all the grades in the whole Nelson Mandela Metropole Region to have a true random sampling. This would have been impractical and very costly. Consequently, multiple samples were chosen and multiple pre-tests-post-tests were done to investigate whether or not similar information had been identified. The more this occurred, the more able the

information could be generalised to the rest of the community. Descriptive statistics were used to describe the knowledge of the learners before and after the life skills programme intervention (Cozby, 1993).

The research had been requested by the Ubuntu Education Fund for assessment pre- and post their intervention of teaching HIV/AIDS and STIs, as well as rape and child abuse, in order that they might more successfully asses the outcome of their intervention. The major project, therefore, consisted of assessing the knowledge of the learners prior to Ubuntu's facilitated learning intervention (pre-test) and a follow up assessment of the acquired knowledge (post-test) after Ubuntu's learning intervention programme. Focus group investigations that formed part of the larger study, but were not applicable to this study, were conducted with randomly selected subjects from within the larger sample, in order to qualitatively explore their experiences of the syllabus and the method utilised by the facilitators to impart the knowledge. Both the qualitative and quantitative information were collated and given as feedback to Ubuntu and the facilitators, to assist them to refine and improve the syllabus and teaching methods. This study is confined to the pre-test, post-test quantitative assessment of the knowledge gained by the learners, regarding the aspects of HIV/AIDS and STIs, in five Senior Primary and five Junior Secondary Schools.

6.4 Measure

A questionnaire was developed that covered two broad aspects covered by the life skills programme i.e.

1. HIV/ AIDS, and
2. Rape and Child Abuse

The questionnaire was developed through expert consultation between the Department of Psychology, the Health and Development Research Institute (HDRI) and Ubuntu, in order to obtain content validity. Ubuntu supplied a teaching curriculum that was used in the schools, to ensure that the

questionnaire covered the precise material taught in the life skills program. This syllabus included areas of concern namely:

1. Defining HIV/ AIDS and STIs;
2. Knowing the biological component to HIV/ AIDS;
3. Discussing modes of transmission and ways of preventing HIV/ AIDS;
4. Myths about HIV/ AIDS;
5. Identifying the link between HIV and STIs;
6. Identifying the symptoms of STIs;
7. Knowing how to prevent and when possible cure STIs;
8. Defining Rape and Child Abuse, knowing which steps to take reduce personal risk and to prevent different types of abuse, and afford an introduction to child rights according to the legislation of South Africa (for the purpose of this study however – this area will not be addressed).

Various factors were taken into consideration, such as language and age appropriateness. This implied that Grade 6 to Grade 9 learners would be able to understand the questions and that the questionnaire was not too long. Care was taken to consult with various sources to achieve this goal. Interviews with age appropriate children were conducted to make sure that the questions were understood. Questionnaires that had been constructed in the past were consulted. Similar questionnaires, available from the Internet were also consulted, and the scope of the questions was dictated by the content of the syllabus (Buhr, 2001, Diedericks, 2003, Elkonin, 1993, Goliath, 2001; Mati, 1996; Naidoo, 1994). Additional questions regarding myths about HIV and AIDS and the section on Rape and Child Abuse, were developed in consultation with HDRI and Ubuntu. Thereafter, the questionnaire was piloted on an age and culture equivalent group. Any unclear questions, wording and ambiguous phrases were changed as required to facilitate a sound understanding. The questionnaire was originally developed in English. It was then translated into Xhosa by HDRI in conjunction with the Department of Xhosa and then back translated into English.

The questionnaire consisted of 3 sections:

Section A requested biographical information. This section consisted of 5 questions that gathered information regarding the respondents' names (which was only used for coding and then disregarded), ages, genders, schools and grades.

Section B consisted of 27 questions regarding knowledge and myths about HIV/AIDS. Sections A and B were considered for this study.

Section C explored the respondent's knowledge of Rape and Child Abuse. This section consisted of 18 questions on child abuse, 6 questions on rape and 2 questions on the rights of children. This section was analysed and reported on separately by another researcher.

Questionnaires were chosen for this study as it was cost effective and could be administered in groups. There are, however, disadvantages to using questionnaires. The participants should be motivated and able to read (Cozby, 1993). This may in fact limit the research as participants may experience reading problems and lack motivation. A further limitation of using questionnaires when researching a sensitive topic is that learners may feel uncomfortable to respond honestly. Learners may think that by answering the questions, others may assume them to be HIV positive or infected with a STI. Consequently questions may be found embarrassing and may lead to discomfort and non-response (Goergen, 2001).

Reliability and validity was ensured by addressing the following points:

1. The content of the questionnaire was based on the programme being evaluated as well as other sources.
2. The items in the questionnaire could easily be divided into specific data categories for analysis purposes, namely; items were not included on an "it would be nice to know" basis. Examples of the categories are; general information, contraction of HIV and STIs, and types of child abuse. A factor analysis was done using the categories just mentioned. This would contribute to determining the reliability and validity of the questionnaire.

This in turn will provide depth and understanding to this study as well as future studies.

3. Both the clients and a statistician were consulted in the design process. During this process, measures were scrutinised for any weaknesses.
4. A pilot study was conducted on 20 children with the same socio-economic status, language ability and age range. The statistician recommended that a minimum of 10 questionnaires be used for this purpose.
5. The pilot study's results were analysed.
6. The measure was translated into Xhosa, the home language of the participants and then back translated into English to establish language consistency, namely, that the same question was asked in both English and Xhosa.
7. Participants were individually linked through the pre- and post-test stages by making use of a simple numbering system. Each school was awarded a questionnaire number-range which was used throughout the pre- and post-tests, linking individuals with a specific number which was assigned to them in the pre-test. This was also a way of further maintaining confidentiality as no names were used except when awarding a number.
8. It was taken into account that continuity across the pre- and post-test may be disrupted by the non-response error, "not-at-school". Participants, who had completed the pre-test, might not be present when the post-test was conducted. To minimise the impact of this error, over-sampling was employed, instead of randomly selecting just 20 learners from each grade at each school, extra participants were selected. Should participants be lost over the pre-post-test, the sample size in general should still be sufficient, and there should be continuity across the pre and post-tests.

6.5 Sampling

The sample consisted of 400 learners. A simple random sample of 40 learners per school and 20 learners per grade, per school were selected. Ten schools were identified by Ubuntu as those most fulfilling the criteria needed for

their intervention by using a convenience sampling method. The criterion for the selection was based on geographical location, ethnicity, age and language. These schools are situated in the Kwamagaxaki and Kwazakhele areas of the Nelson Mandela Metrolpolitan Region. All of the schools are Xhosa speaking and are in close proximity to the area served by Ubuntu. Learners from grades six to nine were identified as the grades that would be used for the intervention. Class lists of all the learners from the grades being evaluated, were requested and provided to the HDRI prior to the sampling. From these lists, a random sample was drawn. The advantage of this form of sampling was that the sample would be representative of the learners from the schools where the programme was implemented. Simple random sampling further ensured that the researcher could not subjectively bias the selection process and thereby the results of the study (Huysamen, 1994). Each learner's pre-test questionnaire was linked with his or her post-test questionnaire to enable further analysis of results.

The learners were sampled randomly by means of a non-probability, purposive sampling; and the schools sampled were chosen by means of a non-probability convenience sample. In non-probability sampling, the probability of any particular member of the population being chosen is not known. Non-probability sampling is advantageous because it is cost effective and convenient (Cozby, 1993). A disadvantage of non-probability sampling is that the results of the study cannot be generalised to the broader population (Cozby, 1993). The learners were sampled by means of purposive sampling as the learners needed to be in a specific grade range and ethnic group – Xhosa and from a disadvantaged community. The schools were sampled by means of a convenience sample because of the location of the schools to Ubuntu (and this was conveniently applicable to the purposive sample) and the willingness of the schools to participate.

6.6 Ethical Considerations

A proposal for the total study was developed by the Health and Development Research Institute (HDRI) and submitted to the UPE Human Ethics Committee. Permission was granted for the study to be undertaken. Informed consent, for participation in the research, was obtained from the parents of the identified learners and from the learners themselves, before pre-test information was gathered. The issue of confidentiality was ensured.

6.7 Procedure

Ubuntu obtained permission from the Department of Education to conduct the intervention, and explained the process to the principals of the schools. Ubuntu obtained their consent to undertake the intervention and the research study.

All learners in the sample were required to have a consent form signed by their parents or custodians before being allowed to participate in the survey, and each learner signed a consent form before completing the questionnaire.

Class lists of all the learners from the grades selected were requested and provided to the HDRI prior to the sampling. From these lists, a random sample was drawn. Learners were allocated specific coded and confidential numbers in order for the individual questionnaires to be paired for purposes of data analysis.

6.8 Fieldwork

Xhosa speaking postgraduate students from the Psychology Department at UPE were responsible for conducting the fieldwork. Prior to the fieldwork, students underwent an orientation/ training session with staff from the HDRI to enable them to conduct the fieldwork. Fieldworkers were introduced to the methodology to be followed in conducting the fieldwork, as well as being thoroughly briefed in the questionnaire content.

Fieldworkers, whose objective it was to facilitate accurate responses from the learners and to answer any questions learners or school personal might have had, visited those schools in the sample in pairs, after making the necessary appointments with the headmasters. The questionnaires were completed by the learners in a suitable environment under the supervision of the fieldworkers, who explained what was required of the learners. The presence of an educator at the sessions was arranged.

The pre-test took place in May 2004, and the post-test in September 2004.

6.9 Data Analysis

Data analysis enables the process of organising and bringing meaning to large amounts of data (Aiken, 2000). Quantitative descriptive statistics were utilised to analyse data generated by means of the BMDP statistical computer programme. Means and standard deviations were used to obtain a profile of the sample distribution. In order to examine significant differences between pre and post-test scores, a phi-coefficient test was used. The phi-coefficient was used to explore significant differences between pre- and post-test total scores to determine whether there was an increase or decrease in knowledge (Tabachnick & Fidell, 1989). A hotelling t^2 test and factor analysis was employed to determine differences between the various factors of the questionnaire. This process was completed with the assistance of HDRI and the UPE Mathematical Statistics Department.

6.10 Conclusion

A quantitative approach was chosen for the present study. The aim of this study was to determine whether there had been an increase in knowledge after Ubuntu implemented their life-skills intervention programme by conducting pre- and post-tests. The learners being tested were linked in the pre- and post-tests to get an accurate reflection of whether or not there was any increase in

knowledge. The data was analysed and the findings are presented in the following chapter.

Chapter 7
7. Results and Discussion

7.1 Introduction

The results obtained from the present study are presented and discussed in this chapter. The Ubuntu Education Fund approached the Health and Development Research Institute (HDRI) to conduct a study to determine if there was a change in the pre-test and the post-test information regarding the level of knowledge the learners had about HIV/AIDS and STIs, pre and post implementing a life-skills programme. The aim of this study is therefore to determine if there was a change between the pre-test and the post-test information regarding the level of knowledge the learners had about HIV/AIDS and STIs. These results will be discussed below.

7.2 Biographical Characteristics of the Participants

The biographical detail of this study consists of the participants' age, gender, high school, name and grade. For the purpose of meeting the aim of testing whether there was an increase in knowledge of the grade 6 to 9 learners, it was essential to obtain data on the learners who completed both questionnaires. Many learners who wrote the pre-test, did not write the post-test, and there were even some learners who wrote the post-test, who did not write the pre-test. The questionnaires that could not be paired, namely were written in the pre- but not the post-test and vice versa, were disregarded. This should not have occurred and indicates that there was a lack of organisation and possible confusion experienced by the programme organisers. Many of the organisers had very little experience in the implementing and execution of life-skills programmes, and this could also have contributed to the inconsistent sample size. It is expected that in most research there are often problems with continuity across the pre- and post-tests. This was taken into account by over-sampling learners. Instead of randomly selecting 20 learners per grade, extra participants were selected to

provide a sufficient sample if learners did drop out. Table 7 shows the drop-off rate per grade.

Table 7

Population of Learners Across the Pre- and Post Test

	Wrote both pre- and post-tests		Dropped out		
Grade	**n=**	**%**	**n=**	**%**	**TOTAL**
6	84	77.8%	24	22.2%	**108**
7	79	73.8%	28	26.2%	**107**
8	40	37.7%	66	62.3%	**106**
9	57	55.9%	45	44.1%	**102**
TOTAL	**260**	**61.5%**	**163**	**38.5%**	**423**

There were 423 learners who wrote the pre-test. Two hundred and sixty learners wrote the post-test indicating a drop-out percentage of 38.5%, a total of 163 learners. A possible reason for such a high drop-off rate is that the post-test took place a week after the start of the school term. Many students may still have been on vacation and there may have been some disorganisation in the schools. However, due to over-sampling, the sample size is sufficient to use for analysis. For future studies it is recommended that this be taken into consideration and that planning of the pre- and post-test dates are for the most optimal times (namely not just before or directly after holidays).

7.2.1 Age of Grade 6 – 9 Learners

Table 8 provides a distribution of the participants' ages.

Table 8

Age Distribution of Participants (N=260)

Age	n	%
10-11 years	30	11.5%
12 years	57	21.9%
13 years	50	19.2%
14 years	56	21.5%
15 years	33	12.7%
16-19 years	34	13.1%
TOTAL	260	100.0%

The average age of the participants was 14.5 years, with the oldest person being 19 and the youngest 10 years of age. There was a larger representation of 12 to 14 year olds, as opposed to 10 to 11 year olds and those between the ages of 16 and 19. The distribution, however, was still fairly equal. The median age for learners between grades 6 to grade 9 was 12. The above ages are fairly consistent with the general ages for adolescent learners in the country. The age ranges are presented in the figure below.

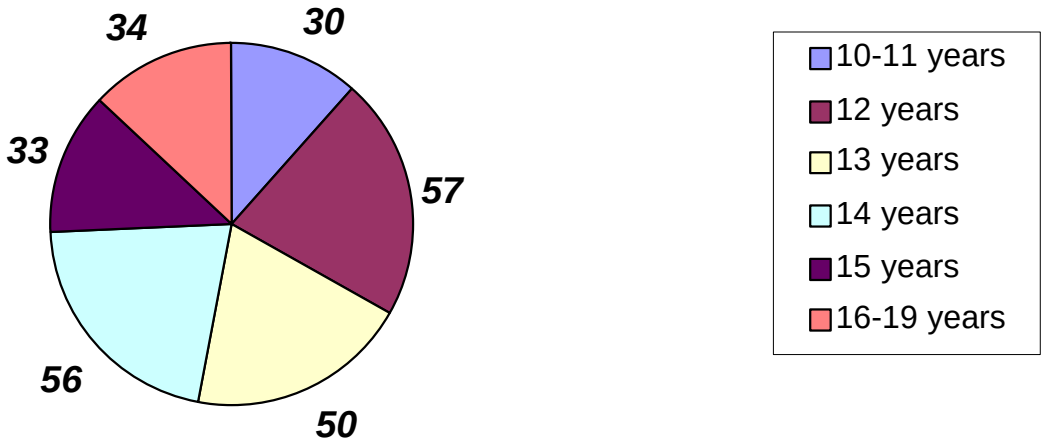

Figure 2

Frequency per Age Group

7.2.2 Gender of Grade 6 – 9 Learners

The gender distribution of the participants is displayed in table 9.

Table 9

Gender Distribution of Participants (N = 260)

Gender	FREQ.	%
Male	115	44.2%
Female	145	55.8%
TOTAL	260	100.0%

Table 9 indicates that whilst there were slightly more females than males, the gender distribution of the study was relatively evenly spread. Even if there were significantly more females than males participating in the study, it would not have been viewed as a problem as this is a general population distribution for the Eastern Cape. Also, since South African statistics indicate that the female population is more vulnerable to HIV/AIDS and the results could therefore be beneficial in planning prevention strategies. Figure 3 below indicates the gender distribution.

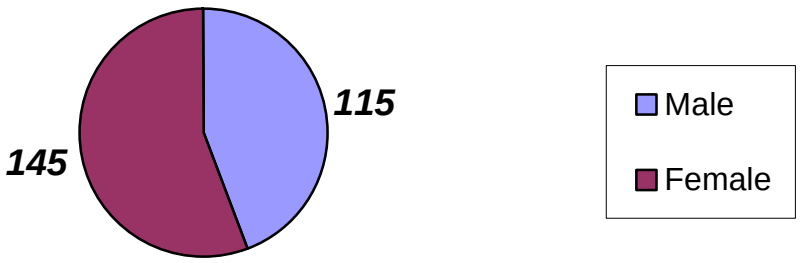

Figure 3

Frequency per Gender Group

7.2.3 Schools Used for the Pre-Post-Test Study

Table 10

Frequency of Students per School for the Pre- and Post-Test

School	n=	%
0	28	10.8%
1	14	5.4%
2	24	9.2%
3	14	5.4%
4	17	6.5%
5	45	17.3%
6	17	6.5%
7	34	13.1%
8	22	8.5%
9	45	17.3%
TOTAL	260	100.0%

Table 10 indicates how many students per school completed both the pre- and post-test. Schools 1, 3, 4 and 6 have lower frequencies, while schools 0, 2, 5, 7, 8 and 9 have higher frequencies. School 5 and 9 had a total of 45 learners each writing the pre- and post-test, which was the highest frequency. Schools 1 and 3 had the lowest frequencies, that is, only 14 learners wrote the pre- and post test.

This is an interesting phenomenon as all schools should have originally had a minimum of 20 learners per grade sampled. With over-sampling, there should have been at least 30 learners per grade per school. The frequencies for this study indicates a very irregular attrition rate that is difficult to explain. It can be hypothesised that, due to lack of organisation by Ubuntu as well as the schools, learners were not easily accessible or available. This matter can be followed up by providing feedback to Ubuntu so that they can investigate possible reasons and solutions. Figure 4 indicates the frequency distribution of the schools for the pre- and post-tests.

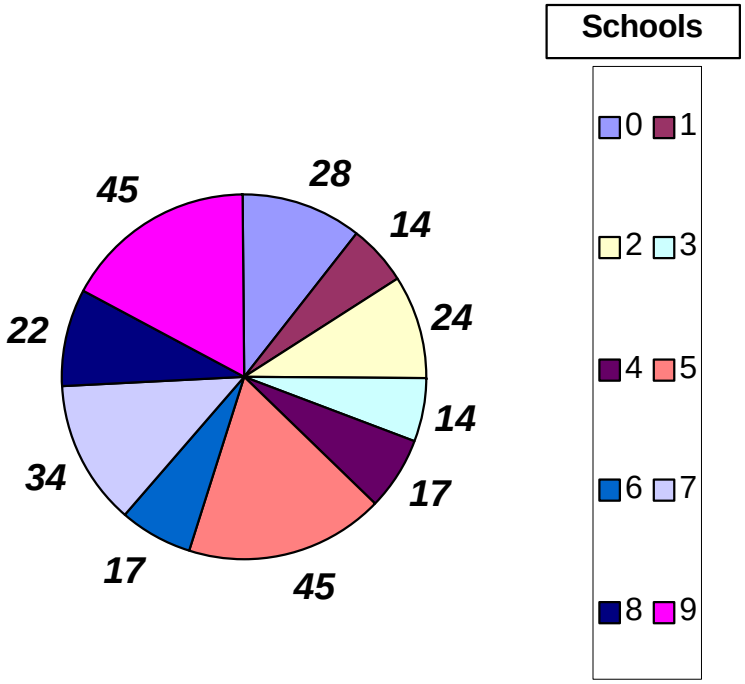

Figure 4

Frequency per School for Pre- and Post-Tests

7.2.4 Grades 6 – 9 Learners

Table 11

Grade Distribution for the Pre- and Post-Tests

Grade	n=	%
6	84	32.3%
7	79	30.4%
8	40	15.4%
9	57	21.9%
TOTAL	260	100.0%

Table 11 summarises the number of learners per grade who wrote the pre- and post-tests. There were 84 learners in grade 6, 79 learners in grade 7, 40 learners in grade 8 and 57 learners in grade 9. Grade 8 had the least amount of

learners who had completed a pre- and a post-test in this study. According to the random sampling of learners there should have been a fairly equal distribution of learners amongst the grades, namely 20 learners per grade. Although not as distinct, the same irregular attrition phenomenon is present in the grades as it was in the schools. Once again, it can be hypothesised that this was due to poor organisation.

Figure 5 illustrates the grade distribution of learners who wrote the pre- and the post-test.

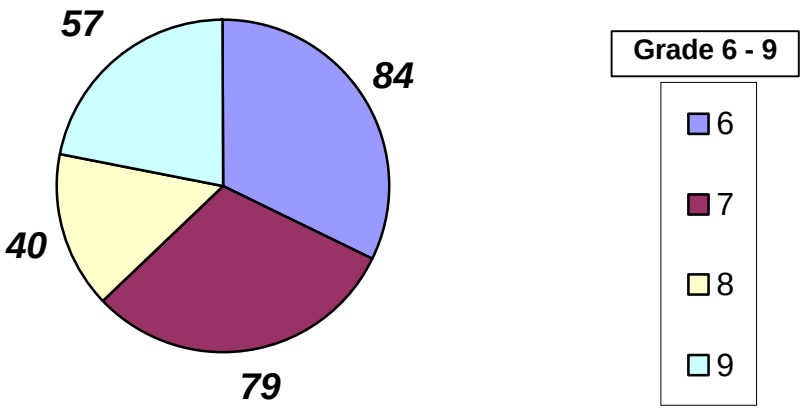

Figure 5

Frequency per Grade

7.3 Summary of Overall Results for the Pre- and Post-Test for Grade 6 – 9 Learners

Table 12 indicates the percentage of learners who scored answers correctly or incorrectly, with the related percentages for the study. Table 13 is also a dissemination of the results that includes whether or not there was a change in knowledge. The worse/ incorrect column indicates that learners have scored poorer in the post-test than in the pre-test. The improved/ correct column indicates that learners have improved their scores from the pre-test to the post-

test. The increase size and decrease size columns indicate whether or not there was a statistical significance with regard to increase or decrease in knowledge. The results of the individual questions are summarised below with reference to both tables.

Table 12

Overall Results of Knowledge of HIV/AIDS and STIs for the Pre- and Post Tests

Table 12

Overall Results

	Pre-Test						Post-Test				
Question #	***Incorrect***	***%***	***Correct***	***%***	***TOTAL***		***Incorrect***	***%***	***Correct***	***%***	***TOTAL***
Section B											
B1	65	25.0%	195	75.0%	260		54	20.8%	206	79.2%	260
B2	121	46.5%	139	53.5%	260		87	33.5%	173	66.5%	260
B3	133	51.2%	127	48.8%	260		124	47.7%	136	52.3%	260
B4	158	60.8%	102	39.2%	260		139	53.5%	121	46.5%	260
B5	69	26.5%	191	73.5%	260		76	29.2%	184	70.8%	260
B6a	112	43.1%	148	56.9%	260		103	39.6%	157	60.4%	260
B6b	49	18.8%	211	81.2%	260		31	11.9%	229	88.1%	260
B6c	205	78.8%	55	21.2%	260		205	78.8%	55	21.2%	260
B6d	76	29.2%	184	70.8%	260		42	16.2%	218	83.8%	260
B6e	143	55.0%	117	45.0%	260		148	56.9%	112	43.1%	260
B6f	52	20.0%	208	80.0%	260		40	15.4%	220	84.6%	260
B6g	63	24.2%	197	75.8%	260		44	16.9%	216	83.1%	260
B6h	125	48.1%	135	51.9%	260		120	46.2%	140	53.8%	260
B6i	128	49.2%	132	50.8%	260		143	55.0%	117	45.0%	260
B6j	223	85.8%	37	14.2%	260		230	88.5%	30	11.5%	260
B6k	83	31.9%	177	68.1%	260		83	31.9%	177	68.1%	260
B6l	44	16.9%	216	83.1%	260		35	13.5%	225	86.5%	260
B6m	66	25.4%	194	74.6%	260		52	20.0%	208	80.0%	260
B6n	38	14.6%	222	85.4%	260		35	13.5%	225	86.5%	260
B7	153	58.8%	107	41.2%	260		160	61.5%	100	38.5%	260
B8	121	46.5%	139	53.5%	260		115	44.2%	145	55.8%	260
B9	110	42.3%	150	57.7%	260		110	42.3%	150	57.7%	260
B10	156	60.0%	104	40.0%	260		169	65.0%	91	35.0%	260
B11	180	69.2%	80	30.8%	260		172	66.2%	88	33.8%	260
B12	88	33.8%	172	66.2%	260		104	40.0%	156	60.0%	260
B13	107	41.2%	153	58.8%	260		94	36.2%	166	63.8%	260
B14	206	79.2%	54	20.8%	260		224	86.2%	36	13.8%	260
B15	141	54.2%	119	45.8%	260		116	44.6%	144	55.4%	260
B16	116	44.6%	144	55.4%	260		104	40.0%	156	60.0%	260
B17	131	50.4%	129	49.6%	260		113	43.5%	147	56.5%	260
B18	122	46.9%	138	53.1%	260		108	41.5%	152	58.5%	260
B19	68	26.2%	192	73.8%	260		75	28.8%	185	71.2%	260
B21	60	23.1%	200	76.9%	260		43	16.5%	217	83.5%	260
B22	65	25.0%	195	75.0%	260		76	29.2%	184	70.8%	260
B23	135	51.9%	125	48.1%	260		175	67.3%	85	32.7%	260
B24	164	63.1%	96	36.9%	260		147	56.5%	113	43.5%	260

Table 13

Overall Comparison Indicating an Increase or Decrease in Knowledge

Question #	Worse/ Incorrect	%	Same	%	Improved/ Correct	%	Phi	Increase size	Decrease size
B1	28	0.108	193	0.742	39	0.15	0.16	Small	
B2	28	0.108	170	0.654	62	0.238	0.38	Moderate	
B3	40	0.154	171	0.658	49	0.188	0.1	Small	
B4	35	0.135	171	0.658	54	0.208	0.21	Small	
B5	40	0.154	187	0.719	33	0.127	0.1		Small
B6a	45	0.173	161	0.619	54	0.208	0.09	-	
B6b	19	0.073	204	0.785	37	0.142	0.32	Moderate	
B6c	36	0.138	188	0.723	36	0.138	0	-	
B6d	19	0.073	188	0.723	53	0.204	0.47	Moderate	
B6e	48	0.185	169	0.65	43	0.165	0.05	-	
B6f	24	0.092	200	0.769	36	0.138	0.2	Small	
B6g	21	0.081	199	0.765	40	0.154	0.31	Moderate	
B6h	38	0.146	179	0.688	43	0.165	0.06	-	
B6i	56	0.215	163	0.627	41	0.158	0.15		Small
B6j	28	0.108	211	0.812	21	0.081	0.14		Small
B6k	41	0.158	178	0.685	41	0.158	0	-	
B6l	23	0.088	205	0.788	32	0.123	0.16	Small	
B6m	27	0.104	192	0.738	41	0.158	0.21	Small	
B6n	19	0.073	219	0.842	22	0.085	0.07	-	
B7	54	0.208	159	0.612	47	0.181	0.07	-	
B8	42	0.162	170	0.654	48	0.185	0.07	-	
B9	51	0.196	158	0.608	51	0.196	0	-	
B10	57	0.219	159	0.612	44	0.169	0.13		Small
B11	32	0.123	188	0.723	40	0.154	0.11	Small	
B12	56	0.215	164	0.631	40	0.154	0.17		Small
B13	38	0.146	171	0.658	51	0.196	0.15	Small	
B14	47	0.181	184	0.708	29	0.112	0.24		Small
B15	37	0.142	161	0.619	62	0.238	0.25	Small	
B16	41	0.158	166	0.638	53	0.204	0.13	Small	
B17	36	0.138	170	0.654	54	0.208	0.2	Small	
B18	43	0.165	160	0.615	57	0.219	0.14	Small	
B19	39	0.15	189	0.727	32	0.123	0.1		Small
B21	23	0.088	197	0.758	40	0.154	0.27	Small	
B22	38	0.146	195	0.75	27	0.104	0.17		Small
B23	67	0.258	166	0.638	27	0.104	0.43		Moderate
B24	34	0.131	175	0.673	51	0.196	0.2	Small	

Each question will be discussed below indicating the differences between the pre- and the post-test. This will indicate whether or not the life skills programme

has increased the level of knowledge of grade 6 – 9 learners concerning HIV/AIDS and STIs (Refer to table 13 for question numbers improved/ correct and worse/ incorrect and to table 12 for percentages; indicating an overall increase or decrease in knowledge).

Question 1

Is AIDS the same as HIV?

In the post-test, 79.2% of the learners answered this question correctly indicating a small increase of 4.2% in knowledge gained (table 12, question B1).

Question 2

Is there a cure for AIDS?

In the post-test, 65.5% of the learners answered this question correctly, indicating a moderate increase of 13% in knowledge gained (table 12, question B2).

Question 3

Is there a cure for HIV?

In the pre-test, 48.8% of the learners answered question B3 correctly, and 52.3% of the learners answered question B3 correctly in the post-test. This suggests a small increase of 3.5% in knowledge gained (table 12, question B3).

Question 4

Do you think that if a person uses a condom during sex, his/her chances of getting HIV will be less?

In the pre-test 39.2% of the learners answered the question correctly and 46.5% of the learners answered the question correctly in the post-test. This indicates a small increase of 7.3% of knowledge gained in question B4 (table 12, question B4).

Question 5

Is it possible to see if someone is HIV positive or HIV negative just by looking at the person?

In the pre-test, 73.5% of the learners answered the question correctly and 70.8% of the learners answered the question correctly in the post-test. This indicates that there was a small overall decrease of 2.7% in knowledge (table 12, question B5).

Question 6

Read the following and show if you think that people can get HIV/AIDS through the following:

a. From a man having unprotected (no condom) sex with a man when one of them is HIV positive.

In the post-test, 60.4% of the learners scored correctly, indicating that there was a small overall increase of 3.5% in knowledge gained (table 12, question B6a).

b. When a man and woman have unprotected (no condom) sex when one of them is HIV positive.

In the post-test there was 88.1% of learners who answered this question correctly. This indicates a moderate increase of 6.9% in knowledge gained (table 12, question B6b).

c. Through unprotected oral sex with an HIV positive person.

There was no increase or decrease in knowledge and 21.2% of the learners answered this question correctly in both the pre- and the post-test (table 12, question B6c).

d. By lightly kissing, with a closed mouth, someone who is HIV positive.

In the post-test, 83.8% of the learners answered correctly, indicating a moderate increase of 13% in knowledge gained (table 12, question B6d).

e. By 'open mouth' kissing someone who is HIV positive (if spit is exchanged).

In the post-test, 43.1% of the learners answered this question correctly. This indicates a minimal decrease of 1.9% in knowledge (table 12, question 6e).

f. From blood transfusions (getting someone else's blood) with an HIV positive person.

In the post-test, 84.6% of the learners answered this question correctly. This indicates a small increase of 4.6% in knowledge gained (table 12, question B6f).

g. By sharing cups and plates with an HIV positive person.

In the post-test, 83.1% of the learners answered this question correctly, indicating a moderate increase of 7.3% in knowledge gained for this question (table 12, question B6g).

h. From being bitten by mosquitoes and bedbugs.

In the post-test, 53.8% of the learners answered this question correctly indicating a small increase of 1.9% in knowledge gained (table 12, question B6h).

i. Through physical contact sports like rugby and soccer when someone was bleeding from being hurt.

In the post-test, 45% of the learners answered this question correctly, indicating a small decrease of 5.8% of knowledge for this question (table 12, question B6i).

j. If an HIV positive mother breast-feeds her baby.

In the post-test, 11.5% of the learners answered this question correctly, indicating a small decrease of 2.7% in knowledge (table 12, question B6j).

k. From toilet seats.

In the post-test, 68.1% of the learners answered this question correctly, indicating no increase or decrease in knowledge gained (table 12, question B6k).

l. Through hugging and being close to someone who is HIV positive.

In the post-test, 86.5% of the learners answered this question correctly indicating a small increase of 3.4% in knowledge gained (table 12, question B6j).

m. By swimming in a pool with an HIV positive person.

In the post-test, 80.0% of the learners scored correctly, indicating a small increase of 5.4% in knowledge gained (table 12, question B6m).

n. From being in the same room as an HIV positive person.

In the post-test 86.5% of the learners scored correctly, indicating a minimal increase of 1.1% of knowledge gained (table 12, question B6n).

Question 7

HIV/AIDS infected people do not die from the virus that causes HIV/AIDS, but instead they die from other diseases such as tuberculosis (T.B.), flu, etc.

In the post-test 38.5% of the learners scored correctly, indicating a decrease of 2.7% in knowledge (table 12, question B6j).

Question 8

It is possible to see when a person has HIV/AIDS.

In the post-test 55.8% of the learners scored correctly, indicating a minor increase of 2.3% in knowledge gained (table 12, question B8).

Question 9

If you go to church every week, you will not get HIV/AIDS.

In the pre- and the post-test, 57.7% of the learners answered this question correctly, indicating no increase or decrease in knowledge gained (table 12, question B9).

Question 10

Do you think that you will only get HIV/AIDS if you are a homosexual?

In the post-test, 35% of the learners answered this question correctly, indicating a decline of 5% in knowledge (table 12, question B10).

Question 11

If you have Tuberculosis you will get HIV/AIDS.

In the post-test, 33.8% of learners answered this question correctly, indicating a 3% increase in knowledge gained (table 12, question B11).

Question 12

Is it possible to cure HIV/AIDS by having sex with somebody who has never had sex before, or with a child?

In the post-test, 60% of the learners answered this question correctly, indicating a 6.2% decrease in knowledge (table 12, question B12).

Question 13

If you are thin, does it mean that you have HIV/AIDS?

In the post-test, 63.8% of the learners answered this question correctly, indicating an increase of 5% in knowledge gained (table 12, question B13).

Question 14

If you already have a sexually transmitted infection, it is easier to get HIV because your body is already weaker.

In the post-test, 13.8% of the learners answered this question correctly, indicating a 7% decline in knowledge (table 12, question B14).

Question 15

When a person has a sexually transmitted infection, they usually feel itchy around their private parts.

In the post-test, 55.4% of the learners answered this question correctly, indicating an increase of 9.6% in knowledge gained (table 12, question B15).

Question 16

Common symptoms of sexually transmitted infections are discharge, sores and a burning feeling when you go to the toilet.

In the post-test, 60.0% of the learners answered this question correctly, indicating a small increase of 4.6% in knowledge gained (table 12, question B16).

Question 17

The only way to prevent getting HIV/AIDS is by not having sex.

In the post-test, 56.5% of the learners answered this question correctly, indicating a small increase of 6.9% in knowledge gained (table 12, question B17).

Question 18

You can't get a sexually transmitted infection if you do not have sex.

In the post-test, 58.5% of the learners answered this question correctly, indicating a small increase of 5.4% in knowledge gained (table 12, question B18).

Question 19

If someone who hates you puts muti on the ground and you walk over that muti, you will get HIV/AIDS.

In the post-test, 71.2% of the learners answered this question correctly, indicating a decrease of 2.6% in knowledge (table 12, question B19).

Question 21

It is good to know that you have HIV/AIDS so that you can look after yourself.

In the post-test, 83.5% of the learners answered this question correctly, indicating an increase of 6.6% in knowledge gained (table 12, question B21).

Question 22

If a person is HIV positive and there is a chance that they will infect someone else, they should then tell the person that they are HIV positive.

In the post-test, 70.8% of the learners answered this question correctly, indicating a decrease of 4.2% in knowledge (table 12, question B22).

Question 23

Is it possible for a mother to give her baby a sexually transmitted infection?

In the post-test, 32.7% of the learners scored correctly, indicating a large decrease of 15.4% in knowledge (table 12, question B23),

Question 24

If a person gets a sexually transmitted infection, it can easily be treated by a doctor or the clinic.

In the post-test, 43.5% of the learners answered this question correctly, indicating a small increase of 6.6% in knowledge gained (table 12, question B24),

7.4 Further Analysis

After having studied the results of the pre- and post- tests, an anomaly was discovered. The results showed that questions 5, 6c, 6e, 6i, 6j, 6k, 7, 9, 10, 12, 14, 19, 22 and 23 had a decrease in knowledge or rather an increase in incorrect knowledge in the post-test. Further inspection of the results showed that these were not the only questions that had an increase in wrong answers. When the overall results were reviewed the contrast was minimal in that there was a slight improvement in about 61.1% of the questions from questions 1–19 and questions 21-24. This appears to be quite promising. However, these results do not accurately depict what the learners actually learned. This will be explained by way of example:

School 0 had 28 learners that took part in this study. The results show that for Question 1**,** 24 learners answered the question in the same way, 2 improved and 2 answered worse than before. The anomaly is that the 2 improvements offset the 2 declined results, thus not showing an accurate representation of the amount of increased or decreased knowledge.

Only once the study is viewed, while being equipped with this knowledge, will a true depiction of what they have learned become apparent, showing the overall results were promising but individual results were erratic. Table 13 shows the

number of changes made by the learners to the previous questionnaire. Thus, it only shows the number of learners that changed their answers and does not reflect the answers that were not changed by the learners.

These results are inconsistent, and while most questions improved by some degree, clearly the trend towards improvement is offset by the number of questions still answered incorrectly after the conclusion of the life-skills program. The most noticeable exceptions are found in school 7 and school 8, represented in table 14. These schools increased the number of incorrect answers. In school 9, the correct answers outranked the incorrect answers by only 6.

Table 14 is a summary of results for the schools and reflects the schools discussed above and below.

Table 14

A Summary of Results for the Schools 0-9

***** Totals of questions answered correctly and incorrectly per school

****** Highlights the difference between correctly and incorrectly answered questions.

Table 14

	S0		S1		S2		S3		S4		S5		S6		S7		S8		S9	
Questions of Section B	**Worse**	**Better**	**Worse**	**Better**	**Worse**	**Better**	**Worse**	**Better**	**Worse**	**Better**	**Worse**	**Better**	**Worse**	**Better**	**Worse**	**Better**	**Worse**	**Better**	**Worse**	**Better**
B1	2	2	0	4	1	0	1	0	2	2	10	8	3	3	4	6	0	3	5	11
B2	1	5	1	3	2	7	1	3	2	4	7	16	1	2	5	7	3	5	5	10
B3	5	4	2	1	2	2	1	4	2	2	8	12	3	5	8	9	3	4	6	6
B4	3	8	1	3	3	5	4	1	1	4	8	4	1	1	5	16	5	3	4	9
B5	3	1	1	4	2	1	0	3	1	2	7	11	6	2	9	3	4	2	7	5
B6a	7	6	1	4	2	6	0	3	4	3	4	14	5	1	7	11	9	2	6	4
B6b	1	1	1	1	1	5	0	0	0	3	2	11	2	0	6	10	3	4	3	2
B6c	3	2	1	4	4	6	1	1	3	2	7	3	2	2	8	1	3	8	4	7
B6d	0	2	1	1	0	4	0	0	1	2	7	11	1	4	8	11	4	5	3	13
B6e	5	5	2	1	2	5	5	0	0	2	8	9	4	3	7	8	4	2	11	8
B6f	0	3	3	0	1	1	0	1	2	1	6	8	1	2	5	8	4	2	2	10
B6g	1	2	0	0	2	2	0	0	0	1	5	11	0	2	4	6	2	7	7	9
B6h	4	8	2	1	2	2	1	3	1	2	3	10	5	2	7	5	3	5	10	5
B6i	7	4	3	1	4	5	2	3	4	3	10	9	2	1	4	4	4	7	16	4
B6j	1	3	1	0	2	4	1	0	2	0	9	3	5	2	4	2	0	1	3	6
B6k	3	5	2	1	2	1	1	1	1	0	10	10	4	2	6	10	6	2	6	9
B6l	0	1	1	2	2	1	0	0	1	0	8	6	2	5	1	8	1	4	7	5
B6m	0	2	1	0	0	2	0	2	2	1	9	7	4	2	2	10	3	7	6	8
B6n	0	3	1	0	0	0	1	0	0	1	6	5	1	2	0	6	4	1	6	4
B7	8	4	2	1	3	7	1	3	2	2	13	5	7	3	4	7	8	3	6	12
B8	2	4	4	1	1	6	0	6	1	3	10	6	3	7	3	5	4	6	14	4
B9	3	3	2	2	3	4	0	2	6	4	11	7	1	4	7	7	6	6	12	12
B10	7	4	4	0	5	9	3	3	2	2	12	7	4	2	9	7	3	2	8	8
B11	2	8	1	0	4	7	3	2	2	2	7	7	0	2	3	3	3	5	7	4
B12	7	1	0	3	7	5	1	1	2	1	17	8	4	3	5	5	6	4	7	9
B13	4	8	0	4	5	5	2	2	0	3	6	11	5	3	2	4	3	3	11	8
B14	7	1	3	2	3	4	3	0	0	4	5	3	2	0	10	4	4	3	10	8
B15	3	5	1	4	2	9	1	2	3	5	5	15	1	1	7	5	6	9	8	7
B16	6	5	1	3	2	8	1	3	2	2	4	14	4	2	8	7	8	1	5	8
B17	0	8	1	4	7	1	2	2	4	2	4	9	2	4	6	8	3	3	7	13
B18	6	7	1	2	5	3	1	0	2	4	8	9	3	2	6	8	2	8	9	14
B19	3	3	2	1	5	4	0	3	0	4	8	4	5	0	4	8	5	2	7	3
B21	0	4	1	0	2	2	0	0	1	4	5	7	1	5	3	8	2	2	8	8
B22	5	2	1	2	2	4	2	1	2	2	10	1	1	4	5	3	5	3	5	5
B23	4	2	4	1	3	6	2	1	4	0	12	7	7	0	10	3	7	2	14	5
B24	3	3	0	4	4	3	2	2	1	2	6	15	4	1	0	11	6	4	8	6
*	116	139	53	65	97	146	43	58	63	81	277	303	106	86	192	244	146	140	263	269
**		23		12		49		15		18		26	20			52	6			6

Although these statistics do not reveal the extent by which the schools increased their knowledge or in some cases decreased their knowledge, it is safe to say that schools 0, 1, 2, 3, 4, 5, 7 and 9 improved their knowledge, while schools 6 and 8 decreased their knowledge. This information would have to once again be discussed with Ubuntu to try and investigate what could have gone wrong. It is possible that different facilitators had different teaching styles which could have influenced the learners. If schools did not share the same syllabus, this could have impacted on the results, causing such a variation. It is also possible that there were factors (such as misinformation) within those two particular schools that inhibited them from learning, causing them to decrease their knowledge. It is then similarly possible that the schools that performed better, had factors that enabled them to perform better and learn more effectively (such as visual aids, sound knowledge transference, good facilitators).

7.5 A Representation of the Questions Answered Correctly and Incorrectly for the Pre- and Post-Test

Table 15 indicates how many questions were answered correctly and incorrectly in both the pre-test and post-test. The pre-test results help determine the base line level of knowledge of the grade 6 – 9 learners at the commencement of the life-skills programme. With this base line percentage, it then becomes possible to compare this result to that which is gleaned from the post-test at the termination of the programme, and thus determine if the programme was successful.

For the pre-test, 111 (rounded off) learners answered the questions incorrectly, which approximated 43.5% (rounded off to the nearest decimal) of the grade 6 – 9 learners (N=260). The number of learners who answered the questions correctly totalled 146 (rounded off). This constitutes 56% of the learners who took part in the pre-test. This suggests that more than half of the learners were able to answer the HIV/AIDS and STI questionnaire correctly.

In the post-test, 151 (rounded off) learners answered the questions correctly and 108 (rounded off) learners answered the questions incorrectly. This

indicates an improvement of 16.8%. The number of learners scoring correctly made up 58.4% (rounded off to the nearest decimal), while learners scoring incorrectly equalled 41.6% (rounded off to the nearest decimal) of the sample population.

Table 15

Distribution of Questions answered Correctly and Incorrectly for the Pre- and Post-Test

PRE-TEST

	Incorrect		Correct		TOTAL	
B1	65	25.0%	195	75.0%	260	100.0%
B2	121	46.5%	139	53.5%	260	100.0%
B3	133	51.2%	127	48.8%	260	100.0%
B4	158	60.8%	102	39.2%	260	100.0%
B5	69	26.5%	191	73.5%	260	100.0%
B6a	112	43.1%	148	56.9%	260	100.0%
B6b	49	18.8%	211	81.2%	260	100.0%
B6c	205	78.8%	55	21.2%	260	100.0%
B6d	76	29.2%	184	70.8%	260	100.0%
B6e	143	55.0%	117	45.0%	260	100.0%
B6f	52	20.0%	208	80.0%	260	100.0%
B6g	63	24.2%	197	75.8%	260	100.0%
B6h	125	48.1%	135	51.9%	260	100.0%
B6i	128	49.2%	132	50.8%	260	100.0%
B6j	223	85.8%	37	14.2%	260	100.0%
B6k	83	31.9%	177	68.1%	260	100.0%
B6l	44	16.9%	216	83.1%	260	100.0%
B6m	66	25.4%	194	74.6%	260	100.0%
B6n	38	14.6%	222	85.4%	260	100.0%
B7	153	58.8%	107	41.2%	260	100.0%
B8	121	46.5%	139	53.5%	260	100.0%
B9	110	42.3%	150	57.7%	260	100.0%
B10	156	60.0%	104	40.0%	260	100.0%
B11	180	69.2%	80	30.8%	260	100.0%
B12	88	33.8%	172	66.2%	260	100.0%
B13	107	41.2%	153	58.8%	260	100.0%
B14	206	79.2%	54	20.8%	260	100.0%
B15	141	54.2%	119	45.8%	260	100.0%
B16	116	44.6%	144	55.4%	260	100.0%
B17	131	50.4%	129	49.6%	260	100.0%
B18	122	46.9%	138	53.1%	260	100.0%
B19	68	26.2%	192	73.8%	260	100.0%
B21	60	23.1%	200	76.9%	260	100.0%
B22	65	25.0%	195	75.0%	260	100.0%
B23	135	51.9%	125	48.1%	260	100.0%
B24	164	63.1%	96	36.9%	260	100.0%

POST-TEST

	Incorrect		Correct		TOTAL	
B1	54	20.8%	206	79.2%	260	100.0%
B2	87	33.5%	173	66.5%	260	100.0%
B3	124	47.7%	136	52.3%	260	100.0%
B4	139	53.5%	121	46.5%	260	100.0%
B5	76	29.2%	184	70.8%	260	100.0%
B6a	103	39.6%	157	60.4%	260	100.0%
B6b	31	11.9%	229	88.1%	260	100.0%
B6c	205	78.8%	55	21.2%	260	100.0%
B6d	42	16.2%	218	83.8%	260	100.0%
B6e	148	56.9%	112	43.1%	260	100.0%
B6f	40	15.4%	220	84.6%	260	100.0%
B6g	44	16.9%	216	83.1%	260	100.0%
B6h	120	46.2%	140	53.8%	260	100.0%
B6i	143	55.0%	117	45.0%	260	100.0%
B6j	230	88.5%	30	11.5%	260	100.0%
B6k	83	31.9%	177	68.1%	260	100.0%
B6l	35	13.5%	225	86.5%	260	100.0%
B6m	52	20.0%	208	80.0%	260	100.0%
B6n	35	13.5%	225	86.5%	260	100.0%
B7	160	61.5%	100	38.5%	260	100.0%
B8	115	44.2%	145	55.8%	260	100.0%
B9	110	42.3%	150	57.7%	260	100.0%
B10	169	65.0%	91	35.0%	260	100.0%
B11	172	66.2%	88	33.8%	260	100.0%
B12	104	40.0%	156	60.0%	260	100.0%
B13	94	36.2%	166	63.8%	260	100.0%
B14	224	86.2%	36	13.8%	260	100.0%
B15	116	44.6%	144	55.4%	260	100.0%
B16	104	40.0%	156	60.0%	260	100.0%
B17	113	43.5%	147	56.5%	260	100.0%
B18	108	41.5%	152	58.5%	260	100.0%
B19	75	28.8%	185	71.2%	260	100.0%
B21	43	16.5%	217	83.5%	260	100.0%
B22	76	29.2%	184	70.8%	260	100.0%
B23	175	67.3%	85	32.7%	260	100.0%
B24	147	56.5%	113	43.5%	260	100.0%

7.6 Questionnaire Categories – Factor Analysis

A factor analysis was done as this would assist in determining the reliability and validity of the questionnaire. It also provides useful information regarding possible areas within the questionnaire. This in turn will provide depth and understanding to this study as well as future studies.

The questionnaire was divided into 3 sections. Section A covered biographical data, whereas questionnaire B and C addressed issues pertaining to HIV/AIDS and STIs as well as Rape and Child Abuse. This study only dealt with Section B, which includes HIV/AIDS and STIs, and therefore Section C, which covered Rape and Child Abuse, was not used for this study, and is being analysed separately as part of another research study. Section B was subdivided into different categories, namely;

a. Face of HIV/AIDS-	Questions 1, 2, 3, 4, 5, 7, 8, 13.
b. Transmission (Including myths)-	Questions 6a – 6n, 10, 19
c. Increased Risk Factors -	Questions 11, 14
d. Prevention -	Questions 9, 17
e. Curing/ Caring for an HIV/ AIDS individual -	Questions 12, 21
f. Moral Issues -	Questions 22
g. Infection	Questions 18, 23
h. Symptoms	Questions 15, 16
i. Treatment	Questions 24
j. Category X -Individual Based Questions -	Questions 20, 25, 26, 27

A factor analysis was executed to determine any differences within the above categories. This then made it possible to determine problem areas. A t-test for two dependent samples was run. The results are represented and discussed below in table 16.

Table 16

Factor Analysis of the Pre- and Post-Test (The differences are represented)

Factor Analysis (N=260)

						t-Test	
Variables	**N**	**Mean**	**S.D.**	**Min.**	**Max.**	**Stat.**	**p-Value**
Curing/ Caring for an HIV/AIDS individual (C)	260	0.00	0.39	-1.00	1.00	0.08	0.937
Treatment (E)	260	0.07	0.57	-1.00	1.00	1.85	0.065
Face of HIV/AIDS (G)	260	0.04	0.21	-0.63	0.50	2.83	**0.005 ***
Infection (I)	260	-0.05	0.40	-1.00	1.00	-1.99	**0.047 ***
Moral Issues (M)	260	-0.04	0.50	-1.00	1.00	-1.37	0.173
Prevention (P)	260	0.03	0.41	-1.00	1.00	1.37	0.170
Increased Risk Factors (R)	260	-0.02	0.39	-1.00	1.00	-0.80	0.424
Symptoms (S)	260	0.07	0.49	-1.00	1.00	2.36	**0.019 ***
Transmission (Including Myths) (T)	260	0.02	0.15	-0.50	0.50	1.94	0.053

***** Statistically Significant at the 5 % level

The mean is a good indicator to estimate whether there has been an increase in knowledge, in that the higher the mean, the greater the possibility of knowledge increase. However, for an accurate reflection, the t-test needs to be used. This provides a p-value, which determines if the results are statistically significant or not. The p-value must be less than 0.05 to be statistically significant.

The factor analysis indicates that there are three factors that stand out as being significant. These factors are (S) Symptoms, (I) Infection and (G) Face of HIV/AIDS.

7.6.1 Factor G – Face of HIV/AIDS

The questions included in this factor are:

Q1. Is AIDS the same as HIV?

Q2. Is there a cure for AIDS?

Q3. Is there a cure for HIV?

Q4. Do you think that if a person uses a condom during sex, his/ her chances of getting HIV will be less?

Q5. Is it possible to see if someone is HIV positive or HIV negative just by looking at the person?

Q7. HIV/AIDS infected people do not die from the virus that causes HIV/AIDS but instead they die from other diseases such as tuberculosis (T.B.), flu, etc.

Q8. It is possible to see when a person has HIV/AIDS.

Q13. If you are thin, does it mean that you have HIV/AIDS?

The p-value (0.005) indicates that it is 99.5% sure that there was a significant increase in knowledge for grade 6 – 9 learners. The standard deviation (0.21) suggests the least variance for all the factors, supporting the p-value finding.

7.6.2 Factor S – Symptoms

The questions included in this factor are:

Q15. When a person has a sexually transmitted infection, they usually feel itchy around their private parts.

Q16. Common symptoms of sexually transmitted infections are discharge, sores and a burning feeling when you go to the toilet.

This factor has a mean of 0.07 suggesting that there was an increase in knowledge, the result is supported by the p-value (0.019) which indicated that it can be 98% sure that there was a significant increase in knowledge for grade 6 – 9 learners.

7.6.3 Factor (I) – Infection

The questions included in this factor are:

Q18. You can't get a sexually transmitted infection if you do not have sex.

Q23. Is it possible for a mother to give her baby a sexually transmitted infection?

The mean for this factor is -0.05 suggesting a decrease in knowledge. The p-value (0.047) supports this and indicates that the researcher can be 95.3% sure that there was a decrease in knowledge from the pre-test to the post-test.

Although factor (E) – Treatment had a high mean indicating an increase in knowledge, the standard deviation was 0.57 indicating a large variance. The p-value must also be below 0.05 to be significant. This factor is therefore not considered as being statistically significant.

Category X, was individual based questions such as, 'do you think you will get HIV?' Results were vague and could not be analysed.

The above information therefore suggests that the two areas most successful for knowledge increase were sections relating to general information on HIV/AIDS (Face of HIV/AIDS) and symptoms. The problem area where knowledge actually decreased was that on Infection.

This is valuable to know. Feedback can be given to Ubuntu concerning this so that the life-skills programme can be reviewed and the relevant changes made. It will also be valuable to review the questionnaire. Although the questionnaire was constructed from various reliable sources (Buhr, 2001, Diedericks, 2003, Elkonin, 1993, Goliath, 2001; Mati, 1996; Naidoo, 1994), it is possible that the learners still experienced difficulties in understanding various concepts and language. The questionnaire was presented in English and Xhosa, but feedback from the fieldworkers was that children struggled with basic understanding. Although, it is expected that learners become familiar with the

various concepts and terminology relating to HIV/AIDS and STIs, it is recommended that the questionnaire be adapted and made more ‘user friendly’.

7.7 Further Discussion

Education has been identified as one of the primary means of halting the HIV/AIDS and STI pandemic (Asmal, 2001; Baldo, Metcalfe & Barttes, 1993; Van Dyk, 2001). This is a fundamental reason why Ubuntu decided to implement a life-skills programme in ten schools in the Nelson Mandela Metropolitan region, the aim being to increase knowledge.

Although the results did indicate a small increase in knowledge, research has indicated that successfully run life-skills programmes should produce more promising results (Buhr, 2001). This leads the researcher to question the life-skills programme that was implemented for this study.

Investigation into the execution of the study revealed certain problem areas. Possibly the biggest problem was as a result of a lack of planning and organisation. The original project co-ordinator was not available and, unfortunately, the substitute co-ordinator was not very experienced. Inadequately set foundations, with unstructured expectations of both facilitators and other programme workers, resulted in a poor start to the programme. Even in the initial organising stages of the intervention programme, no solid goals were formulated.

The results for this study are very varied. A possible explanation is that there was very little consistency. For an effective life-skills programme a structured syllabus should be in place, so that the same information and teaching methods/ mode of facilitating can be implemented in all the schools. This would assist in creating both continuity and a way of providing statistically correct feedback to the programme organisers. Unfortunately this was not the situation for this study. It was discovered, after the administration of the post-tests, that it was left up to the facilitators to provide their own syllabi to the schools. This should not have occurred. The syllabus should have been constructed before the implementation

of the life-skills programme, and all the facilitators should have followed the same syllabus and mode of facilitating to standardise the procedure as best as possible.

The type of teaching mode used by the facilitators could also contribute to the erratic scores. Standardising this would help, as all learners would be educated with the same teaching-aids and in the same way. Although standardising does not ignore that teachers are unique and will consequently bring their own style to the classroom, it intends to eliminate as many interfering factors as possible.

Experiential learning is used for life-skills programmes as it equips learners with many skills to assist them in dealing with challenging life situations. Experiential learning is an active form of learning. This will encourage the learners to process the information and hopefully apply it to their lives. This type of learning should enable the learners to absorb the information more readily, thereby increasing their knowledge. The life-skills programme was not experiential but consisted rather of HIV/AIDS and STI lectures. This could have been a contributing factor to the poor knowledge increase, as many students might not have concentrated and lost interest in what was being said. It is also possible that some students may have decided to not partake in the programme as it was not examinable, and could therefore have lacked motivation by not having the added incentive to pass.

7.8 Recommendations

Experiential learning is recommended for life-skills programmes as it encourages self-thought and empowers learners (Baldo, Metcalfe & Barttes, 1993; Futrell, 1992). As a result, it is highly beneficial to all participants as it allows them to share ideas and opinions. Research has indicated that information provision does not necessarily bring about behaviour or attitude changes. For programmes such as this to be successful, a balance between information, knowledge, behaviour, values and attitudes needs to be made (Baldo, Metcalfe & Barttes, 1993; Balding & Regis, 1993; Casey & Thorn, 1999; Naidoo, 1994; Van Dyk, 2001; Van Niekerk, 1991). Therefore, life-skills

programmes should aim at building skills, value systems, self-confidence and self-worth, which in turn should enable individuals to identify alternative actions and make rational choices (Baldo, et al, 1993, Dick, et al, 1993, Futrell, 1992), leading learners to a point in their development where they can make decisions about their behaviours and future, by encouraging self-thought and initiating empowerment (Futrell, 1992).

The co-operation and dedication of teachers and/ or facilitators are required. This is important, as teachers play a big role in the development and sustainability of HIV/AIDS and STI programmes implemented at schools (Baldo, Metcalfe & Barttes, 1993; Futrell, 1992). As teachers and facilitators' perceptions, attitudes and dedication to the programme definitely influences the learners' perceptions and attitudes, it follows that a programme cannot succeed without it. An unenthused facilitator will lead to an unenthused learner. If, however, the facilitator is motivated and vibrant, the chances are greater that this energy will influence the learners positively. According to Lambert (in progress), the learners of this study experienced the facilitators as very friendly, felt they could trust them and enjoyed their non-judgemental approach. This is a positive contribution to the study and should be drawn upon. It is recommended that Ubuntu and future studies use the strengths of the facilitators to interact with the learners and allow the learners to guide them in what is lacking in the programme.

Not only do these attitudes and perceptions impact on the effectiveness of the programme, they also impact on the community in that the teachers and facilitators, like the learners, take the information home to their families and share it with other community members and in so doing influence other individuals' knowledge, attitudes and behaviour (Avert.org, 2002; Barks-Ruggles, 2001; Casey & Thorn, 1999; Van Dyk, 2001; Williams, et al, 1993). The facilitators should involve the teachers so that when they leave, the teachers will be able to continue applying the life-skills programme on a daily basis.

For future studies, it is recommended that the knowledge of all facilitators and teachers be tested to identify a baseline education for facilitators and educators.

If the results of these tests prove to be poor, then the facilitators and educators should be educated on the subject. Generally, it is recommended that facilitators are trained prior to the commencement of a programme, as a further means of standardisation. Educating the teachers is also important as they are a prominant part of the community and, whereas facilitators eventually leave the learners after implementation is complete, the educators stay with the children. This is therefore a good way to keep correctly and positively influencing the learners, as well as the community and society in general.

The knowledge of the facilitators is a very important factor to consider. It is often assumed that people in positions of power and status are knowledgeable on various subjects. This should never be assumed, especially in research. Although the HIV/AIDS and STI life skills programme is directed at learners, teachers/ facilitators also require knowledge, information and motivation to assist them in changing their behaviours that may place them at risk (Deshpande, 2000; UNAIDS, 2002(b)). Although, the facilitators did undergo training for the life-skills programme prior the intervention, it is recommended that the training programme be reviewed and improvements made if necessary.

Furthermore, as mentioned above, research also highlights the important role teachers' behaviours play in motivating learners. Williams, et al., (1993) emphasise the role teachers play by stating that:

> "The behaviour of young people is influenced not only by what they are taught in class, but what they learn in context of the total school environment. This includes what they learn by observing behaviour among school personnel. Thus, school personnel must be prepared to recognise that their own attitudes and actions may positively or negatively influence the adoptions of healthy behaviours among young people' (p. 27).

In the discussion section it was mentioned that a possible reason for learners performing poorly would be because there was a general lack of motivation. A possible way of overcoming this is to convert life-skills programmes into an

examinable subject, thus placing the importance of it on par with other subjects taught at schools.

Research highlights that utilising various resources, such as workbooks, as being of importance. This can be used as a frame of reference for control throughout the duration of the implementation of the life-skills programme. This would also benefit future programmes as there would be a logbook on the experience (Baldo, et al, 1993).

Utilising programme workers as a valuable resource could also benefit the programme. Facilitators could form groups to discuss the programmes, making use of the experiential learning cycle. This would serve as a gauge by which the facilitators could qualitatively measure their experience of the programme, while investigating possible experiences of the learners as well as the way in which the programme is being presented. If any changes need to be made, it could therefore be done collectively, encouraging continuity and standardisation (Williams, et al., 1993).

Because the programme was started late, which may have been as a result of poor organisation, it is recommended that enough time be set aside for all possible obstacles thereby working time delays into the programme. If, however, time problems are experienced, as was the case with this study, it should then be decided in a structured, unified way as to what information can be left out of the life-skills programme. Failing to do this would further create problems for continuity and standardisation, creating seriously negative implications for learning.

Although the questions to the questionnaire were typed in English as well as Xhosa, learners may still have experienced problems with the content and wording. Although it is important for learners to be familiar with the terms used in the research questionnaire, the questionnaire should be reviewed and possibly made more user-friendly.

7.9 Conclusion

Chapter 7 reported on the results for this study and suggests that there was very little improvement in knowledge of HIV/AIDS and STIs for grade 6-9 learners. The discussion places much emphasis on the actual life-skills programme, as this is where the problem seems to originate. It is important to prevent the same mistakes reoccurring in future studies and therefore researchers are urged to heed the importance of following the stipulations for effective life-skills programmes.

Chapter 8
8. Conclusion

8.1 Introduction

HIV/AIDS and STIs have become a real concern to the world with its devastating effects and its exponential growth of infections and death rates. South Africa faces one of the world's most severe HIV/AIDS epidemics and continues to be a country hard hit by other sexually transmitted infections.

In response to the threat of HIV/AIDS and STIs, the Ubuntu Education Fund approached the University of Port Elizabeth to assist them in implementing a life-skills programme for grade 6 to grade 9 learners, as well as to conduct a pre- and post-test to determine whether there was an increase in knowledge gained, thereby determining whether the intervention programme was successful. This study forms part of a larger study that includes implementing the same life skills programme to cover the subject of Rape and Child Abuse. There is a quantitative and qualitative approach to the larger study. For the purpose of this study however, only the quantitative pre-and post- test study relating to the HIV/AIDS and STI intervention was covered.

8.2 Evaluation of this Study and its Limitations

Four hundred and twenty-three learners participated in the pre-test. Of the 423 learners, only 260 learners also wrote the post-test, and therefore, only these learners' questionnaires were used for analysis. The present study fulfilled its aims in determining whether there was a change in knowledge of grade 6 – 9 learners in ten schools. The results indicated that, although there was a very small increase in knowledge, there was also a decrease in some knowledge aspects, implying that although the programme did produce some favourable results, it was flawed, and consequently not a success. Recommendations for this study, as well as future studies, were discussed in chapter 8.

The findings of this study will be used to assist Ubuntu to improve their life-skills programme, while serving as a reference for further HIV/AIDS and STI studies. The dissemination of the findings of this study will be presented in the

form of a treatise and placed in the Nelson Mandela Metropolitan University (NMMU) Library, Summerstrand Campus, as well as in the NMMU Psychology Department.

Future researchers should take note that the limitations for this study are as follows:

The main obstacle for this study was the life-skills programme. Investigation suggests that the life-skills programme was not defined from the start and not everyone involved in the programme knew what was required of them. It is recommended that this be seriously addressed for future studies.

The questionnaire may have used language that was not appropriate for grade 6 – 9 learners and should be reviewed. Furthermore, the category X in the questionnaire did not provide data that was analysable and should be readjusted so that it can be analysed.

8.3 Conclusion

If the lifespan of AIDS is to be shortened, and if the transmission of other sexually transmitted infections are to be controlled, intervention needs to occur. Research has identified the life stage of adolescence as a group that should be targeted and in light of the latest statistics, the adolescents of the future cannot wait indefinitely to receive comprehensive HIV/AIDS and STI education, as it may already be too late. It therefore becomes imperative that action be taken. Psychological theories have supported the idea that education, by means of life-skills programmes, is the recommended route to follow. It is therefore up to the facilitators and teachers who implement these programmes to do so with purpose and preparation. This can be achieved through the teachers and facilitators also being educated and trained, so that they can actualise their roles as key players in educating the world's youth.

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Appendix A

Questionnaire

Questionnaire				3

IPHEPHA –MIBUZO nge-HIV/ne-AIDS, IZIFO ZOLALWANO NOKUHLUKUNYEZWA NGOKWESINI

HIV/ AIDS, SEXUALLY TRANSMITTED DISEASES AND CHILD ABUSE AND RAPE QUESTIONNAIRE

Siyabulela ngokuzinika ithuba lokuphendula le mibuzo ilandelayo. Iimpendulo zakho zoba yimfihlo kwaye zingayi kubhengezwa nakubani ngaphandle kwabo basebenza ngazo babe nabo bengayikwenza ingxelo etyumba umntu ngamnye.

Thank you for taking the time to fill out this questionnaire. Your response will be kept private and will not be shown to anyone.

Eliphepha-mibuzo linezigaba ezithathu, kumaphepha amahlanu kubandakanya eli lingaphezulu. Nceda xelela utitshala xa kukho iphepha elingekhoyo.
The questionnaire consists of three sections and a total of five pages (including this one). Please tell your teacher if you have any pages missing.

Icandelo A: INGXELO NGAWE

SECTION A: INFORMATION ABOUT YOURSELF
IMIYALELO: ZALISA IZITHUBA NGOKUPHANEDULA LE MIBUZO INGEZANTSI

INSTRUCTIONS: FILL IN THE QUESTIONS

1)	Igama Name				4
2)	Ubudala Age:				6
3)	Isini: Gender:				7
4)	Isikolo: School:				9
5)	Ibanga: Grade:				10

ICANDELO B: LE MIBUZO ILANDELAYO INGE -HIV/AIDS, IZIFO EZOSULELA NGOLALWANO (STI'S).

SECTION B: THE FOLLOWING QUESTIONS ARE ABOUT HIV/ AIDS, SEXUALLY TRANSMITTED IFECTIONS (STI'S).

IMIYALELO: NCEDA NIKA IMPENDULO YAKHO NGOKWENZA UNONGXATHA (X) KWIBLOKO OCINGA UKUBA INIKA IMPENDULO EYIYO.
INSTRUCTIONS: PLEASE SHOW YOUR ANSWER BY MAKING A CROSS IN THE BLOCK YOU THINK IS RIGHT/ CORRECT.

						Coding	
1	**Ngaba i AIDS yinto enye ne HIV?** Is AIDS the same as HIV?		Ewe 1	Hayi 2	Not Sure 3		1
2	Ngaba lifumanekile ichiza lokunyanga I-AIDS? Is there a cure for AIDS?		Ewe	hayi	Not Sure		2
3	Ngaba lifumanekile ichiza lokunyanga I HIV? Is there a cure for HIV?		Ewe	hayi	Not Sure		3
4	Ngaba ucinga ukuba, ukuba umntu usebenzisa I-condom ngethuba lokwabelana ngesondo iyawanciphisa amathuba akhe okwesuleleka yi HIV? Do you think that if a person uses a condom during sex, his/her chances of getting HIV will be less?		Ewe	hayi	Not Sure		4
5	Ngaba kulula na ukumbona umntu o-HIV positive nomntu o-HIV negative? Is it possible to see if someone is HIV positive or HIV negative just by looking at the person?		Ewe	hayi	Not Sure		5
6	**Funda ezizivakalisi zilandelayo ubonise ukuba ucinga ukuba umntu angayifumana na iHIV okanye I-AIDS ngenye yezindlela zilandelayo**: **Read the following and show if you think that people can get HIV/ AIDS through the following**:						
6a	Ngokuthi amadoda alalane kungasetyenziswa condom omnye wabo e-HIV positive From a man having unprotected (no condom) sex with a man when one of them is HIV positive		Ewe 1	Hayi 2	Not sure 3		16
6b	Xa indoda nebhinqa besabelana ngesondo kungasetyenziswa condom omnye wabo e-HIV positive. When a man and woman have unprotected (no condom) sex when one of them is HIV positive.		Ewe	hayi	Not Sure		17
6c	Xa kumunya-munyanwa ngokuphuzana nokuphathaphatha kuthandwana, nomtu o-HIV positive Through unprotected oral sex with an HIV positive person.		Ewe	hayi	Not Sure		18
6d	Ngokuncamisana nomntu ngomlomo uvaliwe nomntu o- HIV positive. Through unprotected oral sex with an HIV positive person.		Ewe	hayi	Not Sure		19
6e	Ngokuncamisana umlomo uvuliwe kufakwana ulwimi nomntu o-HIV positive (ngokwenjenjalo kutshintshiselwane ngamathe) By 'open mouth' kissing someone who is HIV positive (if spit is exchanged).		Ewe	hayi	Not Sure		20
6f	Ngokuthiwa igazi (Igazi lomnye umntu) onentsholongwane kagawulayo okanye nomtu o-HIV positive. From blood transfusions (getting someone else's blood) with an HIV positive person.		Ewe	hayi	Not Sure		21
6g	Ngokwabelana ngeekomityi nezitya o- nomtu o-HIV positive By sharing cups and plates with an HIV positive person.		Ewe	hayi	Not Sure		22
6h	Ngokutyiwa ziingcongconi neentakumba. From being bitten by mosquitoes and bedbugs.		Ewe	hayi	Not Sure		23
6i	Ngkwyamana nabantu nigudlane de nenzakalisane kwezemidlalo, njengakumboxo ne bhola ekhatywayo ngakumbi xa umntu athe		Ewe	hayi	Not Sure		24

	wopha kukwenzakala. Through physical contact sports like rugby and soccer when someone was bleeding from being hurt.						
6j	Xa unina wosana o-HIV Positive encacisa. If an HIV positive mother breast-feeds her baby.		Ewe	hayi	Not Sure		25
6k	Kwisichopho sendlu yangasese. From toilet seats.		Ewe	hayi	Not Sure		26
6l	Ngokwangana nokuthana nca nomntu o-HIV positive. Through hugging and being close to someone who is HIV positive.		Ewe	hayi	Not Sure		27
6 m	Ngokudada kwiqula elinye nomntu o-HIV positive. By swimming in a pool with an HIV positive person.		Ewe	hayi	Not Sure		28
6n	Ngokuba kwigumbi elinye nomntu o-HIV positive. From being in the same room as an HIV positive person.		Ewe	hayi	Not Sure		29
7	Abantu abosuleleke yiI-HIV okanye I AIDS HIV/ AIDS ababulawa zizo, kodwa bafa zizifo ezinje ngeTB, umkhuhlane Njl.Njl. HIV/ AIDS infected people do not die from the virus that causes HIV/ AIDS but instead they die from other diseases such as tuberculosis (T.B.), Flu, etc.		Ewe	hayi	Not Sure		30
8	Uyabonakala umntu o-HIV positive none AIDS It is possible to see when a person has HIV/ AIDS		Ewe	hayi	Not Sure		31
9	Ukuba uhamba rhoqo, veki zonke inkonzo, angekhe wosuleleke yi-HIV okanye I- AIDS. If you go to church every week, you will not get HIV/ AIDS.		Ewe	hayi	Not Sure		32
10	Ngaba ucinga ukuba ungayifumana intsholongwane kagawulayo (HIV) okanye I AIDS xa unlala nabantu besini esinye nawe. Do you think that you will only get HIV/ AIDS if you are a homosexual?		Ewe	hayi	Not Sure		33
11	Xa unesifo sephepha(TB) kiungalula ukusuleleka yintsholongwane kagawulayo. If you have Tuberculosis you will get HIV/ AIDS.		Ewe	hayi	Not Sure		34
12	Ngaba iyanyangeka intsholongwane ka gawulayo okanye ugawulayo ngokwakhe uyanyangeka ngokuthi alale nentombi enyulu (virgin) okanye umntu ongazange abe namntwana? Is it possible to cure HIV/ AIDS by having sex with somebody who has never had sex before, or with a child?		Ewe	hayi	Not Sure		35
13	Ukuba ubhityile, loo nto ayithethi ukuba unentsholongwane kagawulayo okanye ugawulayo uqobo.? If you are thin, does it mean that you have HIV/ AIDS?		Ewe	hayi	Not Sure		36
14	Ukuba unesifo solalano esosulelayo ngaba kulula na ukungenwa yintsholongwane kagawulayo okanye ugawulayo ngokwakhe, loo nto ibangelwa bubuthathaka bomzimba?. If you already have a sexually transmitted infection, it is easier to get HIV because your body is already weaker.		Ewe	hayi	Not Sure		37
15	Xa umntu enesifo esosulelayo solalano, udla ngokuba nomrawuzelane ngaphantsi ngakumbi ummandla ongqonge amalungu obuni. When a person has a sexually transmitted infection, they usually feel itchy around their private parts.		Ewe	hayi	Not Sure		38
16	Iimpawu eziqhelekileyo zezifo zolalano ezosulelayo kukuvuza ngaphantsi, zizilonda kumalungu obuni, imvakalelo etshisayo xa usiya ngasese naxa uchama. Common symptoms of sexually transmitted infections are		Ewe	hayi	Not Sure		39

	discharge, sores and a burning feeling when you go to the toilet.						
17	Eyona ndlela ikuphela kwayo ukunqanda ukwesuleleka kukungabelani ngesondo. The only way to prevent getting HIV/ AIDS is by not having sex.		Ewe	hayi	Not Sure		40
18	Akungekhe ufumane ulwesuleleko kwizifo zolalano xa ungabelani ngesondo namntu. You can't get a sexually transmitted infection if you do not have sex.		Ewe	hayi	Not Sure		41
19	Ukuba umntu okucaphukelayo ukubekele ngeyeza, ze wena ulitsibe unakho na ukufumana ugawulayo. If someone who hates you puts muti on the ground and you walk over that muti, you will get HIV/ AIDS.		Ewe	hayi	Not Sure		42
20	Kulungile ukuba ungavavanyi uvavanyela intsholongwane kagawulayo okianye ugawulayo ngokwakhe. It is better not to be tested for HIV/ AIDS.		Ewe	hayi	Not Sure		43
21	Kulungile ukwazi ukuba unayo na intsholongwane kagawulayo okanye ugawulayo ngokwakhe. It is good to know that you have HIV/ AIDS so that you can look after yourself.		Ewe	hayi	Not Sure		44
22	Ukuba umntu unentsholongwane kagawulayo yaye amathuba okwesulela abanye maninzi kufuneka amxelele loomntu abelana naye ukuba unalentsholongwane. If a person is HIV positive and there is a chance that they will infect someone else, they should then tell the person that they are HIV positive.		Ewe	hayi	Not Sure		45
23	Inakho ukwenzeka into yokuba unozala (Umama) adlulisele isifo esosulelayo solalwano kumntwana? Is it possible for a mother to give her baby a sexually transmitted infection?		Ewe	hayi	Not Sure		46
24	Ukuba umntu usuleleka sisifo solalwanoangakwazi Ukunyangeka kwagqirha okanye ekliniki. If a person gets a sexually transmitted infection, it can easily be treated by a doctor or the clinic.		Ewe	hayi	Not Sure		47
25	Ucinga ukuba wena ungosuleleka yintsholongwane kagawulayo okanye ugawulayo ngokwakhe? Do you think that you may get HIV/ AIDS?		Ewe	hayi	Not Sure		48
26	Ngaba kukho umntu omaziyo onentsholongwane kagawulayo? Do you know anybody who had/ has HIV?		Ewe	hayi	Not Sure		49
27	Ngaba kukho umntu omaziyo onogawulayo? Do you know anybody who had/ has AIDS?		Ewe	hayi	Not Sure		50

ICANDELO C: UDLWENGULO NOHLUKUMEZO LWABANTWANA.

SECTION C: RAPE AND CHILD ABUSE

IMIYALELO: NCEDA BONISA IIMPENDULO NGOKUCHONGA IBHOKISI EYIYO INYANI OKANYE AKUNJALO .

INSTRUCTIONS: PLEASE SHOW YOUR ANSWER BY MARKING TRUE OR FALSE IN THE CORRECT/ RIGHT BLOCK.

1	Uhlukumezo lwabantwana lwenzeka xa umtu omdala esebenzisa amandla akhe obudala ukunukuneza umntwana ngokwesinin okanye ukumvisa ubuhlungu. Child abuse is when adults use their power over children to hurt them.	Inyani 1	Akunjalo 2	Not Sure 3		51
2	Ukuhlukunyezwa kwabantwana kuyingozi ngkuthi kwenzakalise enyameni nasemphefumlweni kwimpilo yomntwana. Child abuse is dangerous to the physical and emotional health of children.	Inyani	Akunjalo	Not Sure		52
3	Umhlukumezi maxa onke usoloko engumntu ongaziwayo ngumntwana. The child abuser is always a stranger to the child	Inyani	Akunjalo	Not Sure		53
4	Umntwana (ixhoba) nguye unobangela wokuhlukunyezwa. The child (victim) is responsible for the abuse	Inyani	Akunjalo	Not Sure		54
5	Ukuba umzali wakho uyakohlwaya ngabana uyakuhlukumeza?. If your parent hits you when you are naughty it is abuse.	Inyani	Akunjalo	Not Sure		55
6	Ukuhlukunyezwa ngokwesini kuxa umntu omdala ezama ukwabelana ngesondo nomtwana. Sexual abuse is when a much older person tries to have sexual relations with a child.	Inyani	Akunjalo	Not Sure		56
7	Uhlukumezo olugqithisileyo lungabangela ukufa. Bad physical abuse can cause a child's death.	Inyani	Akunjalo	Not Sure		57
8	Abantwana kufuneka bawazi amalungelo abo, umzekelo, ilungelo lokufumana isondlo ukufundiswa ukhuseleko kutywala, icuba kunye nezinye iindidi zeziyobisi. Children should know their human rights, example: the right to have food, to go to school, be protected from alcohol, cigarettes and drugs.	Inyani	Akunjalo	Not Sure		58
9	Umntwana ohlukunyeziweyo uyamthiya umhlukumezi. The child who has been abused will always not like the person who has abused them.	Inyani	Akunjalo	Not Sure		59
10	Abona bahlukumezi bavamileyo ngabantu abangamadoda. The people who abuse children are mainly men.	Inyani	Akunjalo			60
11	Ukuhlukunyezwa ngokwasemphefumlweni kuxa abazali bengamnikin umntwana uthando nokhuseleko aludingayo. Emotional abuse is when parents fail to love and protect their children.	Inyani	Akunjalo	Not Sure		61
12	Ukuvalela umntwana kwiindawo ezimxinwa lolunye uhlobo lohlukumezo. Locking up a child in small places is a type of physical abuse.	Inyani	Akunjalo	Not Sure		62
13	Abantwana bakholisa ngokuxoka xa kuthethwa nabo bebuzwa ngokuhlukuyezwa ngokwesondo. Children usually lie about sexual abuse.	Inyani	Akunjalo	Not Sure		63
14	Amakhwenkwe namantombazana ahlukunyezwa ngokwesondo ngokungenamkhethe. Both young girls and young boys get sexually abused.	Inyani	Akunjalo	Not Sure		64
15	Kubalulekile ukuxelela utitshala, ugqirha okanye ipolisa xa uhlukunyezwa naxa udlwengulwe. It is important to tell a teacher, doctor or the police if you are abused or raped.	Inyani	Akunjalo	Not Sure		65

16	Kulungile ukwamnkela izipho kubantu ongabaziyo kuba bafuna nje ukubonisa ububele. It is okay to take gifts from strangers because they just want to be nice.	Inyani	Akunjalo	Not Sure		66
17	Ukuhlukunyezwa kwabantwana kungaba semzimbeni, emphefumlweni okanye ukungxoliswa kanti kungakuko nokwesondo. Child abuse can be physical, emotional, verbal and sexual.	Inyani	Akunjalo	Not Sure		67
18	Oomama bayabahlukumeza abantwana kwanje ngoba ootata besenza ntonje loo nto ayichazwa ngabo yenzeka kubo. Women abuse children as much as what men do, it is just not reported.	Inyani	Akunjalo	Not Sure		68
19	Asingabo bathandana besisini esinye abahlukumeza amakhwenkwe. It is only homosexuals who abuse boys.	Inyani	Akunjalo	Not Sure		69
20	Abantwana banelungelo lokuphathwa ngendlela enye bonke kakuhle , kungenamkhethe ngokwebala, buhlanga isini, lulwimi nankolo yakhe. Children have the right to be treated the same, no matter what their colour, race, gender, language or belief is.	Inyani	Akunjalo	Not Sure		70
21	Ukuhlukunyezwa ngokwesondo kwenzeka kuphela kubantwana abaphuma kwiintsapho ezihlelelekileyo ezihlala ematyotyombeni okanye emaphandleni. Sexual abuse only happens to children who come from poor families and live in squatter camps or in the country.	Inyani	Akunjalo	Not Sure		71
22	Amanyae amantombazana ayazifunela azibizele ukudlwengulwa ngokuya kwiindawo zentselo okanye babephandle ngobusuku. Some girls ask to be raped by going to shebeens or being out at night.	Inyani	Akunjalo	Not Sure		72
23	Intomazana ayinakho ukudlwengulwa yinkwenkwe encuma nayo kuba bayathandana yaye inelungelo. A girl cannot be raped by her boyfriend because she is going out with him and he has the right to have sex with her.	Inyani	Akunjalo	Not Sure		73
24	Kulungile ukwabelana ngwesondo nomnyu xa ekuhlawulela ukutya kwakho, iimpahla kwakunye neencwadi. It is okay to have sex with someone if he pays for your food, clothes and schoolbooks.	Inyani	Akunjalo	Not Sure		74
25	Ngamantombizwa odwa angadlwengulwayo. Only girls can be raped.	Inyani	Akunjalo	Not Sure		75
26	Abantwana banelungelo lokuthi hayi xa becelwa isondo, nokuba loo mntu uyititshala yakho, umthuthuzeli wakho nomsombululi weengxaki (counselor) umzalwana enkonzweni Njl.Njl. Children have the right to say no to sex even if the person is your teacher, counselor, church worker, etc.	Inyani	Akunjalo	Not Sure		76

Appendix B
Parental Consent Form

HEALTH AND DEVELOPMENT RESEARCH INSTITUTE
NAVORSINGSINSTITUUT VIR GESONDHEID EN ONTWIKKELING
IZIKO LOPHANDO NGEZEMPILO NOPHUHLISO

Dear Parents

The Health and Development Research Institute and Psychology Department at the University of Port Elizabeth are currently evaluating the Lifeskills Programme presented by Ubuntu Education to Grade 6, 7, 8, and 9 learners in schools. Your child has been chosen to participate in this study along with other learners at the school. To assist us with our evaluation, we require of learners to complete a questionnaire in the beginning of 2004 and repeat this towards the middle of the year to test their knowledge, attitudes and perceptions on issues such as HIV and AIDS, rape and child abuse. We can give you the assurance that we treat all the information provided to us as highly confidential and your child will therefore not be identified or linked to his or her answers.

The school that your child attends has granted permission for the children to take part in the evaluation programme, provided that you are in agreement. The first questionnaire will be administered in May 2004 during school hours.

If you give permission for your child to participate, please sign the form provided below and return to your child's school as soon as possible. Should you require additional information, please contact Francois Potgieter (504 2344) or Di Elkonin (504 2916) or alternatively your child's school principal.

Thank you
Yours sincerely

FE Potgieter
Acting director

SCHOOL NAME: _____

I hereby grant permission for my child, _____
(name and surname) to be tested by the Psychology students for research purposes.

PARENT'S NAME: _____ Signature: _____

Date: _____ / _____ / 2004

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