PARENTAL KNOWLEDGE ON HIV/AIDS IN GAUTENG REGION 3

by

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DECLARATION

I declare that **PARENTAL KNOWLEDGE ON HIV/AIDS IN GAUTENG REGION 3** is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references and that this work has not been submitted before for any other degree at any other institution.

SIGNATURE **DATE ……**

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PARENTAL KNOWLEDGE ON HIV/AIDS IN GAUTENG REGION 3

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ABSTRACT

Recognizing that a parent is a key role player in fighting HIV/AIDS, the researcher conducted a study to examine and describe the knowledge parents have of this disease and its virus.

The study was conducted among a sample of 100 parents/guardians, using a questionnaire to examine the respondents' conceptual, episodic, descriptive, procedural and declarative knowledge of HIV/AIDS.

The study found that the respondents lacked especially conceptual and declarative knowledge and that the main factor contributing to knowledge is the level of education.

Key words

Conceptual, declarative, descriptive, episodic, HIV/AIDS, knowledge, parent, procedural.

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Dedication

I dedicate this dissertation to my husband, Mvikeli Ngcamu,
and my parents, Bishop Robert Nxumalo and Clara Nxumalo

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List of abbreviations

UNAIDS	The Joint United Nations Programme on HIV/AIDS
UNICEF	The United Nations Children's Fund
WHO	World Health Organization

Chapter 1

Orientation to the study

1.1 INTRODUCTION

Health is one of life's most precious gifts, but Acquired Immunodeficiency Syndrome (AIDS) jeopardizes health and destroys life. As a result of this disease, it has been predicted that the life expectancy of individuals will drop from 64 to 47 years (Alcamo 2003:136). Hence, the challenge facing health care professionals and society to search for a solution to this deadly disease.

Despite various methods to prevent transfer of the Human Immunodeficiency Virus (HIV), the virus continues to spread at an alarming rate. Currently, one of the main focuses is on preventing the transfer of the virus to the younger generation, so as to break the sequence of its spread. This can be achieved by educating children about HIV/AIDS as early as possible and certainly before puberty. Parents are the chief role players in this sphere since they bring up the child from birth to independence.

However, if parents are to fulfil their role in fighting the spread of the virus, they must be knowledgeable on HIV/AIDS. That is why the researcher undertook this study to determine parental knowledge of HIV/AIDS.

1.2 BACKGROUND AND RATIONALE

"The total number of people living with the Human Immunodeficiency Virus (HIV) rose in 2004 to reach its highest level ever" (The Joint United Nations Programme on HIV/AIDS [UNAIDS] 2004b:1).

AIDS is a leading cause of death worldwide (Karim & Karim 2005:31) and is seen as a threat to life in this century. No other virus has had such a vigorous global spread as HIV. Unlike other diseases, the concern is not only about the infected person, but also about the chain of people infected by that individual and those he or she will probably still infect. Alcamo (2003:26) pointed out that the disease started with only

five cases, reported in June 1981, but by June 1982, 365 people were already reported with the virus. Furthermore, by 1985 thousands of cases were reported in Africa and the disease started to be seen as a threat. By 1988, 138 countries reported the disease and, by November 1991, 6-8 million people were already infected (Alcamo 2003:26).

The 1998 global summary of the HIV/AIDS epidemic estimated the deaths from the disease to be 13,9 million since the beginning of the pandemic and, of this figure, 2,5 million people died that year alone. The overall number of people living with the virus was 33,4 million; with 5,8 million people infected that year alone (UNAIDS 1998:1). The report highlighted that about half of the new infections occurred in people aged 15-24 (UNAIDS 1998:9).

The UNAIDS/WHO (World Health Organization) report for 2002 estimated that 42 million people worldwide had the virus, of whom 5 million were newly infected. The total number of people who died of AIDS rose to 3,1 million compared to 2,5 million in 1998 (UNAIDS/WHO 2002:2).

The 2004 AIDS report revealed that 39,4 million people were living with the virus, with 4,9 million having acquired the virus in that year (UNAIDS 2004a:1). Stine (2004:336) pointed out that Africa accounted for 77% of these cases. Furthermore, 3,1 million people had died of AIDS.

From the above, it is clear that the rate of infections continues to rise from year to year. The main concern is that the measures to halt the disease seem to be unsuccessful. In the 1990s, various forums were established to fight the disease and people were seriously warned against it (Egan 2005:5). Nevertheless, the virus spread vigorously.

The Henry J Kaiser Family Foundation (2004:2) cited the WHO's (2004) concern that, in spite of publishing the HIV/AIDS figures, people had not presented themselves for testing. This made them unaware of their status and was a grave cause for concern that there might be more people with the virus than the current figures indicated.

The UNAIDS, WHO and UNICEF (The United Nations Children's Fund) advised that, since there was no cure or vaccine for HIV/AIDS, prevention of new infections must

be the cornerstone for combating HIV/AIDS (UNICEF/UNAIDS/WHO 2002:5). Moreover, preventative measures through educating people were the only "vaccine" available for this disease (UNAIDS 1999:5).

The Joint United Nations Programme emphasised that the only hope left was to focus on young people through educating them about the disease (UNICEF/UNAIDS/WHO 2002:6). This education should be based on sex and sexuality, as the main mode of transfer of HIV is through sexual contact. Young people should be taught sound morals before engaging in sexual practices. With this in mind, UNICEF/UNAIDS/WHO (2002:7) emphasised that "establishing healthy patterns from the start is easier than changing risky behaviours already entrenched".

Sex education should commence at the pre-puberty stage, between 10 and14 years of age, when the young adolescent is more receptive and more likely to adopt what he or she is being taught (UNICEF/UNAIDS/WHO 2002:7). The average sex debut of South African adolescents is 14 years. Taking this and the fact that HIV/AIDS infection rates increase the fastest in the 15–35 age groups into consideration, the case for early sex education appears critical. In fact, in Cameroon, for example, the education of young adolescents before they embark on sexual activities has proved an effective strategy (UNICEF/UNAIDS/WHO 2002:28).

Nefale (2001:13) cited from Battersby (2001) that the former president of South Africa, Nelson Mandela, emphasised that good morals and socially accepted conduct must be moulded within families. Therefore the parents are responsible for doing so. Moen, Elder and Luscher (2002:438) maintained that children subject to an authoritarian parenting style exhibit good social and academic performance. Children from this parenting style are more obedient and conform well to the standards set by their parents. Nefale (2001:12) stressed the importance of involving parents in educating their young adolescents, and stated further that the "family must be at the nucleus of the whole struggle" against HIV/AIDS.

Nevertheless, parents fail to fulfil their role of educating their children on sex, sexuality and the disease itself (African Development Forum 2000:5). The Commonwealth Secretariat (2002:38) argued that young people find it difficult to obtain precise information on the subject from their parents. In view of this,

Wilbraham of the Medical Research Council is of the opinion that the parents seem to be “ignorant or misinformed” of their parenting role (Wilbraham 2002:7). In addition, parents might not even be aware of the risks involved if they do not educate their children on sexual matters.

However, Hope (1999:157) pointed out that the South African population seemed to have “high levels of knowledge” concerning the disease. Garrick and Rhodes (2000:22) raised the following questions: “Is it ‘real knowledge’? By what criteria might it be justified, if at all, *as* knowledge?” The said authors contended that knowledge is only “authentic” when it is demonstrated in the relevant situation (Garrick & Rhodes 2000:17). Furthermore Chinn and Kramer (1995:216) defined knowledge as consciousness of facts “expressed in a form that can be shared.” Consequently, if parents seem not to be educating their children concerning the disease and sexual behaviour, the authenticity of the knowledge they have concerning the disease ought to be examined. Therefore this study aimed to describe the knowledge parents have of HIV/AIDS.

1.3 SIGNIFICANCE OF THE STUDY

“South Africa needs to respond to the increasing incidence of HIV infections amongst youth with urgency” (*Leadership in HIV/AIDS* 2004c:92).

One of the criticisms in South Africa has been the lack of the “sense of urgency” in response to the disease (African Development Forum 2000:2). The country currently has an estimated 5,3 million infected people, which is pronounced the greatest number worldwide (UNAIDS 2004c:5). Regarding the rising statistics of the disease, Campbell (2003:57) emphasised that, if the methods for fighting the disease are insufficient, epidemics crop up.

Currently, the focus is on preventing new infections. These are the so-called “primary measures”. They are also the long-term goals that, if implemented today, will benefit the country tomorrow. As a result, parents are the main agents to bring about change with regard to imparting adequate and accurate knowledge to their children.

In the light of the above, this study intended to determine the facts parents have concerning HIV/AIDS and further whether parents are conscious of the present state

of the disease in the country. In addition, the study aimed to find out whether parents are acquainted with the current approach to fighting the disease, which intends to prevent new infections in the younger generation by educating children at an earlier age.

The results of this study will benefit the health workers who present different campaigns to educate people on the disease. Non-governmental organizations (NGOs) like LoveLife, and other researchers who are involved in the fight against HIV/AIDS, will also benefit from the findings of the study.

1.4 PROBLEM STATEMENT

South Africa has the highest rate of HIV/AIDS and AIDS-related deaths, which places a burden on the country. An estimated 600 people die from AIDS-related causes every day (Walker, Reid & Cornell 2004:15). The government is funding antiretroviral drugs, which are among the most expensive drugs available. Treating persons infected with HIV/AIDS is also costly because of the opportunistic infections they acquire as the disease progresses.

This disease has an economic, social and medical impact on the country. The whole of society faces the danger of being affected by this disease, even if not infected. Family members who nurse their loved ones are affected psychologically and physically due to the burden of nursing. People who are infected suffer psychologically from the day they are diagnosed and physically due to illness.

Therefore, the nation at large is obliged to act on the disease. Nursing is in the frontline because the main purpose of a community and primary health care nurse is the promotion of health. If the statistics continue to rise, as predicted by UNAIDS (2004c:5), nurses ought to re-assess how they promote health in society. At present there are several campaigns in the country aimed at educating the younger generation: in schools, health centres and through the media. Nevertheless all these operations cannot replace the parent's role in a child's life.

Surveys reveal poor parental input on fighting the disease. The majority seem not to be educating their children about sex and sexuality, although the main mode of HIV transmission is sexual (African Development Forum 2000:5; Wilbraham 2002:7). This

raises the distinct possibility of the prediction being fulfilled that by 2010, 50% of the adolescents will be infected with the virus (*Leadership in HIV/AIDS* 2004b:88).

1.5 RESEARCH QUESTION

The problem discussed above, led the researcher to formulate the following research question:

What knowledge do parents have on HIV/AIDS?

1.6 RESEARCH OBJECTIVES

In order to answer the research question, the objectives of the study were to:

- describe the knowledge parents have on HIV/AIDS
- make recommendations for the areas that need to be covered on educating parents concerning HIV/AIDS

1.7 CONCEPTUAL FRAMEWORK

The researcher used Ausubel's theory of knowledge construction and Byner's classification of knowledge as the conceptual framework for the study. The intention was to shed light on a complete picture of the concept of knowledge. Ausubel's (1963) theory of knowledge construction (in Klopper 2001:56-59) was used to shed light on the cognitive processes in the brain leading individuals to be knowledgeable. According to Ausubel's theory, a person can be exposed to information, but the brain judges whether it should accept or reject the information received. Ausubel states that this judgment is based on the previous underlying structures in the brain because previous beliefs or underlying structures are more influential within a person.

Based on Ausubel's theory of knowledge construction, which stresses the effect of previous beliefs, the researcher was of the opinion that a parent could be aware of HIV and AIDS but not make use of the information received due to the brain's underlying structures. For instance, cultural beliefs can form the person's frame of reference in the brain. Therefore, the study also examined the possible factors that

could either promote or hinder parents' use of whatever knowledge they might have concerning the disease.

Furthermore, for knowledge of a phenomenon to be complete, Byners (2001:50-51) classified the knowledge that a person possesses into conceptual, episodic, procedural and declarative knowledge (explained in chapter 3). The researcher applied Byners' classification in the study specifically to parental knowledge of HIV/AIDS.

1.8 DEFINITION OF TERMS

In this study, the following terms were used as defined below.

- ***Acquired Immune Deficiency Syndrome (AIDS)***

A syndrome is a collection of diseases that are contracted because HIV has weakened the immune system. People are said to have AIDS when their CD4 cell count is less than 200 per microlitre of blood (Stine 2004:188).

- ***Child***

According to the Children's Act, No. 33 of 1960, a child is a person who is below the age of 18 (Dalton & Dhansay 2004/5:2-78). For the purpose of this study, the term will refer to a person from the ages of 5 to 17.

- ***Guardian***

A guardian is "one who looks after, protects, or defends; someone legally appointed to manage the affairs of a person incapable of acting for himself, such as a minor" (Collins English Dictionary 1991:688). In most cases, a guardian is the aunt, uncle or grandparent of a child [researcher's addition].

- ***Human Immunodeficiency Virus (HIV)***

This is a micro-organism that is transferred through infected body fluids, like vaginal secretions, semen, blood and breast milk. Once in the blood, it replicates itself and kills white blood cells, T cells and the CD4 cells of the body's immune system,

thereby weakening the immune system. As the virus increases in the body, the CD4 cells decrease and the immune system is further weakened, so that a person is more prone to contract diseases (Soul City: Institute for Health and Development Communication 2005:5).

- ***Knowledge***

Knowledge is "the facts, feelings or experiences known by a person or group of people; awareness, consciousness, or familiarity gained by experience or learning; specific information about a subject" (Collins English Dictionary 1991:860). Knowledge can be gained through experience, the media and interaction with others, like friends, colleagues, health workers and parents. Knowledge can be factual or a myth, depending on the source of the information.

- ***Parent***

A parent is "a father or mother; a person acting as a father or mother; guardian" (*Collins English Dictionary* 1991:1133).

- ***Pre-adolescent stage***

In this study, this is the stage after childhood (from age 5) and before a person reaches puberty, usually at about age 12. Puberty is when sex glands become functional.

- ***Sex***

In this study, sex refers to sexual intercourse.

- ***Sexuality***

Sexuality is "the state or quality of being sexual; the possession of sexual potency" (*Collins English Dictionary* 1991:1418). Sexuality encompasses all that differentiates a person's gender into either male or female, and involves a person's feelings of self-esteem and body image. Sexuality influences a person's behaviour under different circumstances, as well as their ability to relate sexually, especially to people of the

opposite sex. Children customarily obtain education on this subject from their parents.

1.9 RESEARCH DESIGN AND METHODOLOGY

The descriptive survey method was selected for this study because the intention was to describe what parents know about HIV/AIDS, and to present a detailed record of their overall knowledge of it. Neuman (2000:247) advised that a survey is more appropriate in a study that assesses knowledge.

In order to meet the objective of describing the parents' knowledge, the researcher used a questionnaire. Sternberg (2003:20) stated that a questionnaire is suitable for "an individual's own account of cognitive processes." The strength of a questionnaire is that it "can be distributed to a large sample thereby abundant information can be collected within a short space of time with lesser expense" (Brink 2001:153).

The sample selected consisted of parents or guardians of children between the ages of 5 and 17. The starting age was 5 because the Planned Parenthood Association of South Africa ([sa]:9) stated that parents can start selecting suitable topics pertaining to sex, sexuality and AIDS disease as early as the age of 5. The upper limit was 17 because children up to this age are still under parental care and guidance according to South African law (Dalton & Dhansay 2004/5:2-78).

After data collection, the questionnaires were pre-coded by computer and numerical data analysis was done, using the Statistical Package for Social Sciences (SPSS) program.

1.10 OUTLINE OF THE STUDY

Chapter 1 outlines the background to and rationale for the study, the problem statement, research design and methodology, and defined key terms used in the study.

Chapter 2 discusses the literature review undertaken by the researcher.

Chapter 3 discusses the different kinds of knowledge and the process of knowledge assimilation and sharing that form the basis of the study.

Chapter 4 describes the research design and methodology used to study what parents know about HIV/AIDS and how they share their knowledge with their children.

Chapter 5 presents the findings of the descriptive survey used.

Chapter 6 discusses the findings and limitations of the study, and makes recommendations for practice and further research.

1.11 CONCLUSION

Because of the vigorous spread of the HIV/AIDS virus, it is urgently necessary to find an effective solution to the problem and cure for the disease. The causes of the spread are partly a combination of socio-cultural factors therefore a multisectoral approach is currently being implemented.

Parents are the core participants in fighting this disease and ought to be educated about AIDS. Kofi Annan, the UN Secretary-General, pointed out that many individuals still had insufficient knowledge of the disease and appealed to the media to devise strategies for increasing the "knowledge and understanding about HIV/AIDS" in society (*Leadership in HIV/AIDS* 2004a:48). Therefore the researcher was of the opinion that parents' knowledge needed to be assessed in order to fill any gaps.

Chapter 2 deals with the literature review conducted for the study.

Chapter 2

Literature review

2.1 INTRODUCTION

Piot (2004:31), UNAIDS Executive Director, called for the recognition of AIDS as extraordinary compared to other pandemics in history. This challenged the researcher to explore the exceptional features of HIV/AIDS.

An overview of the state of the disease in South Africa was necessary in order to assess the episodic knowledge that parents need. It also forms part of descriptive knowledge as it illustrates the HIV/AIDS situation in the country.

Currently, the disease has been proclaimed out of control in South Africa, although the country has good plans for fighting the disease. But these plans end up being less effective than intended (Deutsch, Michel & Swartz 2003:8). This led the study to assess the planning and implementation of targeting interventions in the country.

Although much research has been conducted on halting the spread of the virus, the disease has reached its peak in South Africa. Most studies on knowledge levels in the community have been conducted on teenagers and adolescents. In general, the South African population has been proclaimed knowledgeable concerning the disease. Yet the statistics reveal that South Africa has the highest rate of HIV/AIDS in the world (UNAIDS 2004c:5).

This motivated the researcher to investigate what knowledge is. The conceptual framework demonstrates the knowledge processes within an individual in order to clarify how individuals become knowledgeable. The types of knowledge are analysed as they apply to the parents as the main providers for their children. Finally, possible hindrances that might interfere with knowledge within a person are discussed.

2.2 NATURE OF THE DISEASE

AIDS has distinctive features. Piot (2004:31) emphasised that the “exceptionalism of AIDS” compared to other diseases in history must be acknowledged.

2.2.1 Rapid spread

No other disease has had the capability to spread so rapidly. In airborne diseases like tuberculosis, the infected person transmits it to people with low resistance. HIV, however, can be transmitted to everyone alike, young or old, poor or rich and in spite of their level of resistance.

Likewise, with an incurable disease like cancer, the concern is about a single dying individual. But if a single person is diagnosed with HIV, the concern is about the chain of people that may already have been infected by that individual, as well as those who will probably still be infected. Therefore parents need to be conscious of the global spread of the disease in order to recognise its seriousness.

2.2.2 Long asymptomatic period

Another distinctive feature of AIDS is a long asymptomatic period between infection and illness. It can take 10 to12 years for an infected person to develop AIDS and, during this period, the person feels healthy (Walker *et al.* 2004:20). One can either have few symptoms or none at all. Walker *et al.* emphasised that this stage is dangerous since an infected individual is more likely to transfer the disease to others. Most of the people dying today were probably infected 10 to 20 years ago.

This lengthy period between the contagion and death is possibly one of the reasons for the government’s slow response to act on the disease (Walker *et al.* 2004:20). The researcher is of the opinion that this might also be the reason why parents discount the disease.

2.2.3 Idiosyncrasies and treatment

AIDS is especially serious because of the capability of the HIV to alter itself, which renders AIDS incurable. Since the AIDS virus can multiply itself within a person in a short space of time, some people die earlier than others (Kee & Hayes 2000:533).

One of the idiosyncratic elements of the AIDS virus is its common tendency to resist antiretroviral treatment. Among people with high levels of the virus in their blood, 65% are likely to be resistant and a further one in five people who acquire the virus from a person on antiretrovirals tend to develop resistance to this treatment (Stine 2004:93).

This feature should be part of declarative knowledge as it covers the overall picture of the disease characteristics. The information mentioned above is vital for parents as it reveals the viciousness of the disease.

2.2.4 Difficulty of discussing HIV/AIDS

It is not easy for people to talk about AIDS compared to other illnesses, for several reasons. Some of the reasons are social stigma and the feelings associated with HIV/AIDS, as discussed below.

2.2.4.1 Social stigma

When discussing the exclusive features of AIDS, Walker *et al.* (2004:20) pointed out that the disease carries a social stigma. This is based on the fact that it is mostly acquired sexually. People are educated to phase out this stigma. The researcher is of the opinion that, if parents see AIDS as embarrassing, they are likely not to talk about it. However, according to the *South African National HIV Prevalence, HIV Incidence Behaviour and Communication Survey*, the stigma attached to this disease seems to be decreasing (Human Sciences Research Council [HSRC] 2005:39).

2.2.4.2 Feelings associated with HIV/AIDS

The problem highlighted by Cullinan (2001:35) from the Health-e News Service when talking of AIDS issues was the “sensationalisation” it carries, which Cullinan explained as an emotional aspect that the disease touches because it deals with death, which every parent does not associate with his or her child.

This supports Freud’s psychoanalytic perspective, which theorizes that, when people encounter threats in their lives, they tend to push them to their subconscious minds and go on with daily activities (Halonen & Santrock 1998:536). Freud went on to explain that the ego conceals the reality in order to keep the self from worry. This he

described as a “defence mechanism” (Halonen & Santrock 537). This implies that a parent can possess facts concerning AIDS but tends not to talk about it due to the threatening emotional aspect it touches.

Based on the above, the researcher felt it imperative to find out whether parents are conscious of the disease’s viciousness.

2.3 HIV/AIDS IN SOUTH AFRICA

2.3.1 Global picture

Sub-Saharan Africa as a whole has been hard hit by the pandemic. Hunter (2003:45) stated that, of 28 million deaths in 2002, about 26 million were from sub-Saharan Africa. Furthermore, Egan (2005:6) asserted that South Africa alone accounts for 65% of the worldwide epidemic.

It should be noted that the statistics on HIV/AIDS are based on estimates; the exact numbers are indefinite (Doniach 2005). For instance, Henderson (2003:1) declared that the HIV prevalence had risen from 5,3 million to 7,0 million by 2003 according to the Actuarial Society of South Africa whereas, according to UNAIDS (2004c:5), 5,3 million people in South Africa were estimated to have HIV/AIDS in 2003. This does however indicate consensus that the country has extremely high levels of people with the virus.

The escalating figures have placed a burden on the government and presented unique challenges to researchers in the field, health workers and other parties responsible for implementing strategies to halt the spread of the disease.

With regard to the severity of the outbreak, Walker *et al.* (2004:20) and Campbell (2003:13) were of the opinion that this might be due to the fact that the government did not pay much attention to the disease in its initial stages. Walker *et al.* (2004:20) believed that the very nature of the disease, which takes 10 to 20 years to kill its sufferers, might have caused the government not to foresee its threat.

Walker *et al.* (2004:21) further suggested that the public health campaigns did not have a visible effect on the attenuation of the disease due to the lack of adequate social research.

The disease only started in 1982 when the first two AIDS cases were confirmed (Shell, Quattek, Schönteich & Mills 2000:10). No one speculated or could have foreseen that, from those two cases, South Africa would by 2003 be home to between 5,3 and 7 million people infected with AIDS virus (Henderson 2003:1; UNAIDS 2004c:5).

No one deduced that:

- South Africa would have the highest prevalence rate in the world (UNAIDS 2004c:5).
- By 1990 the prevalence would spiral from 0,7% to reach 24% by 2003 (Department of Health 2003:6).
- By the end of 1996, 700 people would be infected daily (Shell *et al.* 2000:11).
- By 2004, 1 500 people would be infected daily (Walker *et al*. 2004:15).

Furthermore, the first documented death in 1985 (Shell *et al*. 2000:10) gave not the slightest indication that, by 2004, there would be an estimated 600 deaths every day (Walker *et al*. 2004:15).

Figure 2.1 demonstrates the growth of HIV prevalence.

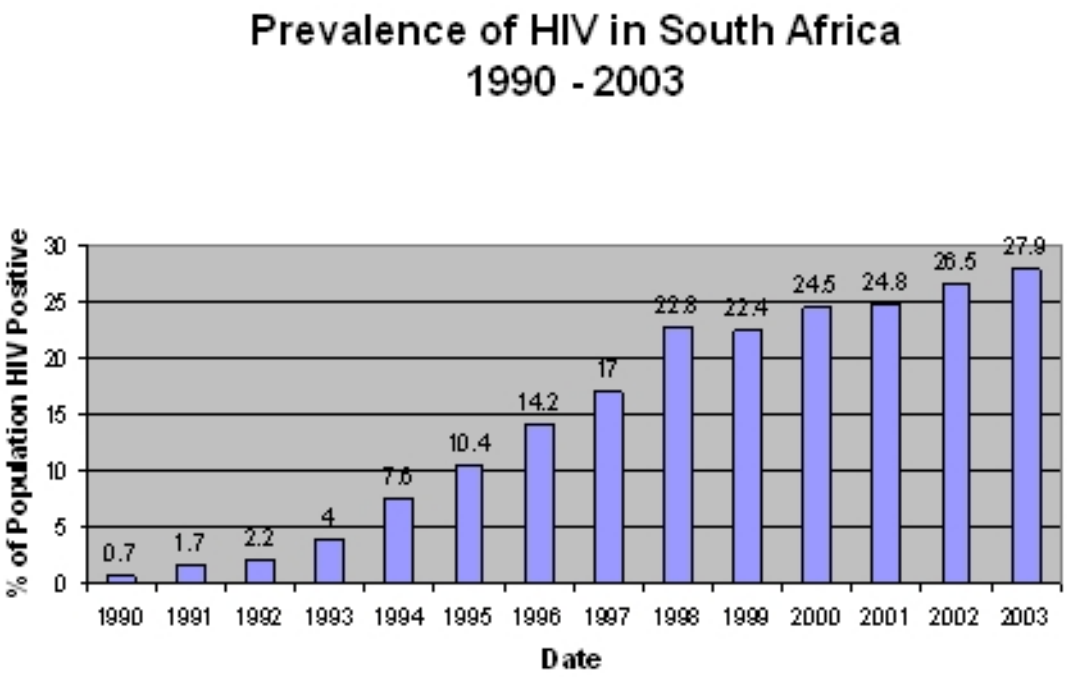

Figure 2.1

Prevalence of HIV in South Africa, 1990-2003

(South Africa, National Department of Health 2003:6)

These national statistics are compiled yearly from the pregnant women on antenatal care visits. Figure 2.1 indicates that the HIV prevalence rose from 0,7% in 1990 to 27,9% in 2003, a dramatic increase of the epidemic in the country. In terms of the Bill of Rights in the Constitution, everyone has the "right of access to any information held by the state" (South Africa 1996:14). Therefore parents as South African citizens and the chief role players in fighting the disease should be aware of these statistics.

2.3.2 Mode of spread

The basic mode of transfer of the virus in South Africa is sexual transmission and the relationships are commonly heterosexual.

2.3.3 Incidence of HIV/AIDS by gender

The females are taking the lead, as more of them are infected than males (Ndaki 2004:52). The detailed findings are based on a study conducted by the Reproductive

Health Research Unit (RHRU) of the University of the Witwatersrand, in conjunction with the Medical Research Council. One in 4 females between the ages of 20 and 24 has the AIDS virus. The ratio for males is 1:14; in other words, 1 in 14 males in the same age group has the virus. Furthermore, females account for 77% of the young people who make up 10,2% of all infected South Africans (Ndaki 2004:52).

This discrepancy has been sustained, according to the *South African National HIV Prevalence, HIV Incidence, Behaviour and Communication Survey* (HSRC 2005:25). Between the ages of 20 and 24, the female prevalence was 23% versus 6,0% of males; between 25 and 29, the prevalence among females was 33% versus 12,1% of males. Nevertheless males had a higher prevalence than females between 35 and 60 years.

Many possible causes are suggested for this imbalance, but that was beyond the scope of this study.

2.3.4 Incidence of HIV/AIDS by age group

The RHRU, in conjunction with a Medical Research Council study of 11 904 youth, revealed that, of the 9,2 million South African youth between 15 and 24, 10,2% had HIV (Ndaki 2004:52). The overall estimation was that 1:10 South African youth had the virus.

In addition, a report on women below 20 years of age who were receiving antenatal care revealed that the incidence of HIV increased from 2% in 1991 to 21% in 1998. From 1998 to 2002, the prevalence rate in this age group declined to 15% while the HIV dominance remained at 24% around the ages 20 to 24 between 1991 and 2002. (UNAIDS/WHO 2004:2).

On average, the disease has been proclaimed to grow more rapidly between the ages of 15 to 35 (Soul City: Institute for Health and Development Communication [sa]:38). Furthermore, a critical analysis based on the frequency according to age groups revealed that, by the age of 23, 1 in 5 South African youth had already contracted HIV (Ndaki 2004:52).

In the 2005 *South African National, HIV Prevalence, HIV Incidence, Behaviour and Communication Survey* among 15-24-year-olds, there was significant difference between males and females: “females in this age group have an eight times higher HIV incidence than males” because the ratio was 6,5% versus 0,8% (HSRC 2005:28).

2.3.4.1 Sexual debut

Walker *et al.* (2004:55) found that in some areas the sexual debut in South African youth is at 11 years old. A study in the Eastern Cape indicated that some participants indulged in sexual activities before the age of 11. However, the *South African National HIV Prevalence, HIV Incidence, Behaviour and Communication Survey* reported very few teenagers who started indulging in sexual activities between 12 and14 years of age, only 1,9% of males and 1,5% of females (HSRC 2005:28).

On average, the sexual debut of South African youth is at 14 (Soul City: Institute for Health and Development Communication [sa]:38). According to the *South African National HIV Prevalence, HIV Incidence, Behaviour and Communication Survey*, the median age for sexual debut among 15-24 year-olds is 17 (HSRC 2005:28).

With regard to sexual indulgence among 13-14 year-olds, the Minister of Health, Manto Tshabalala-Msimang, said that this age group should not be having sexual activities at all, and discouraged health workers from supplying them with condoms. She believed that they should be educated on abstinence only (Jacobs 2003: page unknown). The 2005 Survey emphasised that the foremost objective of the “HIV prevention campaigns” was to encourage delayed sexual activities among the youth.

2.3.4.2 Incidence of HIV/AIDS in the vulnerable group

Currently the vulnerable group has been identified as the 12-21 age group (Wilbraham 2002:6). One of the reasons for this is the increasing rate of sexual abuse in this age group (Walker *et al.* 2004:53). Walker *et al.* (2004:20) pointed out that the high prevalence rate of infected children with the virus is a feature idiosyncratic of South Africa. Based on police crime information, Walker *et al.* (2004:53) emphasised the sexual abuse of children as the cause of high rates of HIV

infection. For example, in 2000 alone, 13 540 children below 17 years were raped and, of these, 7 899 were under 11 (Walker *et al.* 2004:53).

However, according to the Children's Act, 33 of 1960, 12-17 years is still under age therefore this age group is solely dependent on parental care (Dalton & Dhansay 2004/5:2-78). This raises the question of whether parents are conscious of the high incidence of sexual abuse and rape among children and the fact that children as early as the age of 12 have already been identified as being at risk of contracting the virus.

2.3.5 Prevalence of HIV/AIDS per region

The prevalence of the virus in the country is monitored per region. The statistics reveal that KwaZulu-Natal region has the highest dominance of the disease (Karim & Karim 2005:57). Karim and Karim (2005:57) reported that the HIV dominance in KwaZulu-Natal rocketed from 1,6% in 1990 to 37,5% by 2003 whereas, in the Western Cape for the same period, the prevalence went from 0,06% to 13,1%. It should be noted that the later prevalence rate reveals a very low level of infection, and that both provinces are in the same country.

KwaZulu-Natal seems to have a detailed report of prevalence rates compared to other provinces. For example, Stine (2004:184) gave a complete account of studies done in the Hlabisa district in KwaZulu-Natal, which has 250 000 residents. In 1994, 10% of adults were confirmed to have the virus and, in June 2001, of a sample of 500 people tested, 63% were HIV positive (Stine 2004:184). A further study in 2004 revealed that the overall percentage for the whole region of the people living with the virus had risen to 30%, which is comparable to 75 000 people. Stine (2004:184) emphasised that the hospitals around Hlabisa District reported that half of the patients who died of AIDS-related diseases were below 30 years of age. This district reportedly has the highest prevalence rate in the whole of South Africa.

In addition, Stine (2004:336) reported that a study in the University of Durban-Westville in KwaZulu-Natal disclosed that 255 students were confirmed to be living with the virus. Hunter (2003:46) found that one-fifth of the students in all KwaZulu-Natal colleges were infected with the virus.

KwaZulu-Natal remains the province with the highest prevalence rate, but Mpumalanga and the Free State have high prevalence rates as well (HSRC 2005:25).

All these episodes and sequences of the disease form part of the knowledge that parents ought to possess in order to be motivated to fight the further spread of the disease.

2.3.6 HIV/AIDS and treatment

Antiretrovirals are given to people with a CD4 cell count less than 200 (Stine 2004:133), i.e., people who are in need of treatment and those who have AIDS already and are at risk of opportunistic diseases. In Johannesburg, Gauteng, at the Chris Hani Baragwanath Hospital, 1 500 patients are on antiretrovirals and at the Helen Joseph Hospital, 2 000 patients have commenced treatment (Doniach 2005: page unknown).

In April 2005, the Premier of the Northern Cape reported that over the previous eight months, 3 000 people had been assessed by doctors and nurses and confirmed to have the virus; of these 800 had commenced treatment and about 1 500 people actually qualified for antiretroviral treatment. UNAIDS/WHO (2004:9) found that 750 000 people in 2003 were in need of AIDS treatment in South Africa. Benatar (2005) reported in the *Cape Times* that “40 000 people are receiving treatment in the public sector and another 45 000 people are receiving treatment in the private sector.”

AIDS treatment is very expensive and prevention of new infections is better than curing already infected individuals. People who are on treatment for AIDS are on the brink of death since this is an incurable disease. Therefore long-term plans for preventing the transfer of the virus to the younger generations are vital. Parents’ knowledge of the disease should therefore be assessed, as they are major stakeholders in preventing new infections. Of particular concern are predictions of the consequences of the disease, should the measures for halting its spread be inadequate.

2.3.7 Consequences of HIV/AIDS for South Africa

Stine (2000:26) raised the concern that "if the disease is this common it can end up being 'faceless' ... we must not let AIDS detect that 49 is old and 39 is young." In other words, people should never be allowed to accept the results of AIDS as "normal".

The predictions for 2010, however, stress the urgency of the situation (*Leadership in HIV/AIDS* 2004b:88; South African Institute of Race Relations 2002/2003:13). The predictions are as follows:

- 50% of 15-year-olds will be infected with HIV.
- Total HIV infections will be 7 252 801 million.
- Estimated life expectancy will drop to 41 years.
- Out of all South African deaths, AIDS alone will account for 65,7%.

Nevertheless, UNAIDS (2004) (cited in Egan 2005:6) offered encouragement, stating that, if preventative measures could be applied well, more than half of the 2010 projections could be avoided.

The researcher is of the opinion that it is imperative for parents to know the state of the country and the seriousness of the disease. This information could act as an internal motivator to achieve the UNAIDS goal of preventing the projections. To do so will require targeting and implementing effective interventions.

2.4 TARGETING INTERVENTIONS FOR FIGHTING HIV/AIDS

The major predicament identified in South Africa is a lack of coordination in planning and implementing the interventions for fighting the disease (African Development Forum 2000:7; Ernst & Young in *Leadership in HIV/AIDS* 2004b:86). The manner in which programmes are run is reported as one of the reasons for failure.

2.4.1 Manner in which programmes are run

African Development Forum (2000:2) states that "there is a lack of coordination of interventions, with no clear picture of who was doing what, what worked, what did not

work". Furthermore, the failure to implement programmes lies in their construction. The construction of these programmes is autocratic because they are top-down only, with negligible participation of the individuals in the community like the parents (African Development Forum 2000:11).

Deutsch *et al.* (2003:8) maintained that the programmes to fight the disease in South Africa were not successful because they were developed unsystematically and run separately, autonomously and irregularly. This meant that they could not be evaluated therefore they concluded that there was room for further improvement of intervention programmes.

Along with planning of the programmes, De Jong (2003:159) pointed out that the best method for reaching the targeted population should be identified otherwise there was a possibility of not reaching all the targeted population. Hence she insisted that targeting should be done properly.

2.4.2 Lack of solidarity in language

Deutsch *et al.* (2003:8) pointed out that, besides weaknesses in communication skills, the country lacked a common language for any interventions. They stated, for example, that the phrase "peer education" meant diverse points to everyone. This raises the question of what parents understand by "peer education" since consensus in terminology is one of the preconditions for effective communication.

Deutsch *et al.* (2003:8) claimed further that goals were not set in a comprehensible manner, while De Jong (2003:159) maintained that, in order for the interventions to succeed, the goals should be set clearly for everyone. The long-term goal is to prevent the transferring of the virus to the younger generation. However, if the parents are the chief stakeholders in fighting the viral spread, they should be clear on this goal.

As a prerequisite to carrying out a project, Yegidis, Weinbach and Morrison-Rodriguez (1999:9) stressed communication, including explicating the problem presenting at that point in a comprehensible manner to the target population. Yegidis *et al.* referred to the data presented as "descriptive knowledge" and believed that a

society with descriptive knowledge is likely to participate more, resulting in the desired changes.

This implies that the parents should have descriptive knowledge of the long-term plans for them to participate in fighting the disease with good insight and a goal.

2.4.3 Influence of communication

According to Kreitner and Kinicki (1998:293), poor communication leads to role ambiguity, where the sender fails to communicate clearly to the receivers and the receivers or focus persons consequently do not understand what is expected of them.

Based on the above, the researcher is of the opinion that the parents' cooperation is likely to fall short if they are not acquainted with the present situation of the disease in the country, and if the message about interventions does not reach them clearly. Moreover, it seems imperative for the country to assess the methods used in its targeting interventions.

2.5 REVIEW OF SOCIAL RESEARCH

2.5.1 Studies based on individuals

In the initial stages of the disease, studies were conducted on individuals and the main focus was on their sexual behaviour (Walker *et al.* 2004:20). It was assumed that, once people were aware of HIV and the mode of transmission, their behaviour would change. But this was not the case, and Frizell and King (2002:10) asked why the information campaigns had not translated into behavioural change.

Pryor and Reeder (1993:195) pointed out that most information campaigns were based on behaviourist theories, like the theory of reasoned action and of planned behaviour. The premise of these theories is that actions are based on a person's attitudes, intentions and behaviour. Walker *et al.* (2004:20) stated therefore that studies that only focus on the individual and sexual behaviour are rather too narrow and that this weakness permeated the scientific analysis; HIV/AIDS is a communal contagion therefore one cannot tackle it by focusing on an individual and excluding

the social factors. According to Kelly and Parker (2001) (cited in Marcus 2002:26), social studies are only expressive in nature and do not recommend the measures of intervention. Campbell (2003:9) concurred, stating that the weak point in social cognitive theories is that they only reveal the problem but do not recommend the solution.

Walker *et al.* (2004:21) contended that South African studies were generally unsatisfactory because there was no delineation "between research and implementation". This implies that, after every study, there is no follow-up on implementing the recommendations.

2.5.2 Fighting HIV/AIDS

In fighting the disease, it has been realized that AIDS is too complex to be tackled by a single approach because its causes are a combination of factors. Therefore the responsibility has been mobilized to all societal levels in the "multisectoral" approach. This approach is a way of including various segments of society from national to community level, with the aim of allowing and encouraging everyone to contribute to fighting the disease (Commonwealth Secretariat 2002:51).

This led the researcher to search for studies on assessing parental involvement in educating children on the disease. However, the researcher could find no South African study on assessing parental knowledge of HIV/AIDS.

2.5.3 Social research on parental involvement in fighting HIV/AIDS

The researcher wished to establish whether or not parents teach their children about the disease itself and its mode of transfer, which is basically sexual. In 2001 a National survey of South African youth was conducted cross-culturally and on all races among the youth and parents of 12 to 17 year-olds (LoveLife 2001:14-15). The basic theme of this survey was to explore parental involvement in educating their children on sex and sexuality, especially HIV/AIDS.

When the parents were asked to rate the top concern concerning youth these days, only 40% rated HIV/AIDS as the top priority. Concerning communicating with their children on HIV/AIDS, 46% reported that they discussed the disease with their

children; 54% discussed the risks of unprotected sex with their children and of these, some discussed the subject “often” and others “at times”. The parents were asked whether they discussed with their children how to handle circumstances that forced one to have sex. Only 38% spoke to their children on this matter. With regard to discussing relationships between men and women, only 46% did so. The study found that 58% of the parents viewed educating their children on sex and sexuality as having little impact on reducing their chances of contracting HIV/AIDS.

LoveLife ([sa]) found that less than 50% of South African parents talk with their children about sex and sexuality and only 31,4% of young people indicated having discussed HIV/AIDS with their parents. One of the reasons given for parents not to educate their children on sexual matters was the belief that it could lead to promiscuity.

Webb (1997) in Marcus (2002:51) found that parents did not educate their children on sex and sexuality. The reasons given were that sex is a taboo subject therefore discussing it with children is difficult, and that they were busy with daily activities, which left them no time for such discussion.

From the above, the majority of parents seem not to be educating their children on HIV/AIDS or sex and sexuality. Wilbraham (2002:7) insists “talking to children about sex is an imperative, not a choice.” The main concern is the consequences of the disease.

Most studies on knowledge of HIV/AIDS have been conducted on youth, not on parents.

2.5.4 HIV/AIDS and youth

Much research has been conducted on knowledge of the disease among teenagers, adolescents and adults in different categories.

In a study on township high school children in 1990, Mathews *et al.* (in Hope 1999:155) found that students had “**high levels of knowledge** about HIV/AIDS”. The University of Port Elizabeth found that students possessed “**high levels of knowledge** about AIDS” *(*Elkonin 1993 in Hope 1999:156). In a study on street

children, Richter and Swart-Kruger (1995 in Hope 1999:156) found "**good knowledge** about transmission and prevention of HIV".

Nevertheless, in assessing the situation of HIV/AIDS in South Africa, UNAIDS (2004c:5) found that **"South Africa continues to have the highest number of people living with HIV in the world".**

The above statements appear to be contradictory. Hypothetically, it can be assumed that, if knowledge levels are high in the South African population, HIV/AIDS levels are likely to be low. The above statements reveal that people can be "knowledgeable" but the end results seem not to demonstrate it.

This discrepancy challenged the researcher to examine the concept of knowledge (see chapter 3).

2.6 CONCLUSION

This chapter discussed the nature of HIV/AIDS and the rationale for the study, as this disease possesses exceptional features compared to other diseases. The overall picture of HIV/AIDS in South Africa was described, with reference to the literature. This revealed the type of knowledge that parents should have and the seriousness of the disease and the critical state in the country. Targeting interventions and their weaknesses were also outlined. Finally, the researcher examined studies on knowledge of HIV/AIDS and found no specific studies on parental knowledge of HIV/AIDS.

Chapter 3 discusses the conceptual framework for the study.

Chapter 3

Conceptual framework

3.1 INTRODUCTION

This chapter discusses the concept of knowledge, the process of knowledge construction in the brain, and the conceptual framework that forms the basis of the study.

3.2 DEFINITION OF CONCEPTUAL FRAMEWORK

The conceptual framework is the main structure that guides the study. It is comprised of the concepts that form the basis of the study and is the outline developed by the researcher after various concepts from different theories or writers had been identified and applied to the study (Brink 2001:29).

3.3 MENTAL CONCEPTS

3.3.1 Cognitive framework (cognitive schema)

Wade and Tavris (1993:253) defined a cognitive framework as ”an integrated network of knowledge, beliefs, and expectations concerning a particular topic.” This is in every individual’s long-term memory.

3.3.2 Memory

Memory refers to “mental structures” that store information (Wade & Tavris 1983:239). Memory also refers to the matter that is stored, which can be in the form of conceptual, episodic, declarative, and procedural knowledge (Byners 2001:50-51).

3.3.3 Concepts related to processes in the brain

3.3.3.1 Subsumation

Subsumation is a process whereby one integrates the new information received into one's "existing cognitive structure" in the brain (De Wet *et al.* 1981 in Klopper 2001:57).

3.3.3.2 Comprehension

Comprehension is the intellectual capacity of an individual to understand new information received (Klopper 2001:61).

3.3.3.3 Judgement

Judgement is an unconscious process within a person whereby the brain decides either to absorb or to reject the information received (Klopper 2001:58).

3.3.4 Forms of knowledge

3.3.4.1 Conceptual knowledge

According to Kunda (1999:16), conceptual knowledge is used to represent an object or phenomenon. Hence Byners (2001:50) defines conceptual knowledge as "a form of comprehensive understanding of what the phenomenon is about." This implies that individuals possessing this knowledge would be able to rationalise the cause and effect of the processes in that phenomenon.

Conceptual knowledge of HIV/AIDS therefore pertains to the fundamentals of the disease, including the actual process of the virus in the blood as it destroys the white blood cells, thereby weakening the immune system. At this stage, the individual is prone to a variety of opportunistic infections, which is why AIDS is a syndrome since it is comprised of a collection of diseases (see nature of the disease and treatment in chapter 2). Conceptual knowledge includes knowing how the virus alters itself in the blood, thereby becoming incurable. Furthermore, one of the vital aspects that parents need to know is the capability of the virus to resist treatment in some people. This might be due to the viral load of the virus in the blood or because the virus was received from a person on antiretroviral treatment (see chapter 2).

3.3.4.2 Declarative knowledge

This is the overall knowledge people possess based on the facts or data they have acquired on a particular phenomenon (Byners 2001:50). Wade and Tavris (1993:252) further clarify that declarative knowledge encompasses both conceptual and episodic knowledge. This implies that parents with this type of knowledge have the overall facts about HIV/AIDS, such as that a person with an AIDS virus can live up to 10 years without symptoms (see chapter 2).

Byners (2001:50) pointed out, however, that one can possess information that is either a fact or a myth, meaning that it can either be "true" or "false". Declarative knowledge therefore encompasses a person's attitudes and beliefs.

3.3.4.3 Descriptive knowledge

Yegidis *et al.* (1999:9) define descriptive knowledge as the precise account of the problem and the information presented at this level should lead to the understanding of the situation at that point and time. Yegidis *et al.* stress that this knowledge is a prerequisite for any project and further that presenting this expressive data clearly would result in the desired changes.

In this regard, then, parents with descriptive knowledge would know the government's long-term plans to prevent new infections, especially to the younger generation. They would also be aware that they are one of the main role players in accomplishing this task.

3.3.4.4 Episodic knowledge

An episode is "an incident, event, or series of events" (Collins English Dictionary 1991:523). Therefore Byners (2001:51) defines this type of knowledge as referring to occurrences or incidences taking place over a period of time or "knowing when and where…"

A parent with episodic knowledge would be acquainted with the information on the history of HIV/AIDS and when the disease started. Therefore he or she could relate this to the escalating prevalence of the disease in a short space of time. This

knowledge is also associated with awareness of the statistics and numbers of people infected, ages and years.

Episodic knowledge would even make parents aware of the state of the country, as South Africa is one of the most affected countries in the world (UNAIDS 2004c:5). It could act as an internal motivator to a parent in applying measures to fight the disease.

When acquiring episodic knowledge, a parent can be warned of the ages most affected with the disease, namely 15-35 years (Soul City: Institute for Health and Development Communication [sa]:38). The researcher is therefore of the opinion that a parent would see the need to educate a child at an earlier age (see chapter 2). Parents need to be conscious of this knowledge as it reveals the seriousness of the disease. Parents with sound episodic knowledge are likely to be motivated to fight further spread of the virus.

3.3.4.5 Procedural knowledge

A procedure is “a way of acting or progressing in a course of action, especially an established method” (Collins English Dictionary 1991:1238). Byners (2001:50) stated that this knowledge pertains to the capability of executing a task relevant to a phenomenon, hence one possesses the relevant skills needed to perform the procedure; in other words, one “knows how to...”

This implies that a parent with procedural knowledge would be able to educate a child about HIV/AIDS and sexuality matters. Moreover, a parent would know the age at which to start and the relevant information to give to the child at that age. A parent possessing this type of knowledge is not likely to fear discussing sex with his or her child, even though sex is a taboo subject.

It should be noted that, in order to assess parents’ procedural knowledge, studies pertaining to parental involvement in discussing HIV/AIDS, as well as sex and sexuality, with children could be conducted (e.g., chapter 2 discussed studies assessing parental involvement in educating children). The implications are that parents who do not educate children on sexual matters as well as HIV/AIDS might lack procedural knowledge.

3.4 KNOWLEDGE CONSTRUCTION

Knowledge construction is “a process whereby information is turned into knowledge by means of interpretation by actively relating it to existing bodies of knowledge, by generative creation of representation and by process of purposeful elaboration” (Resnick 89 in Klopper 2001:61).

Figure 3.1 shows how knowledge is received, understood and constructed.

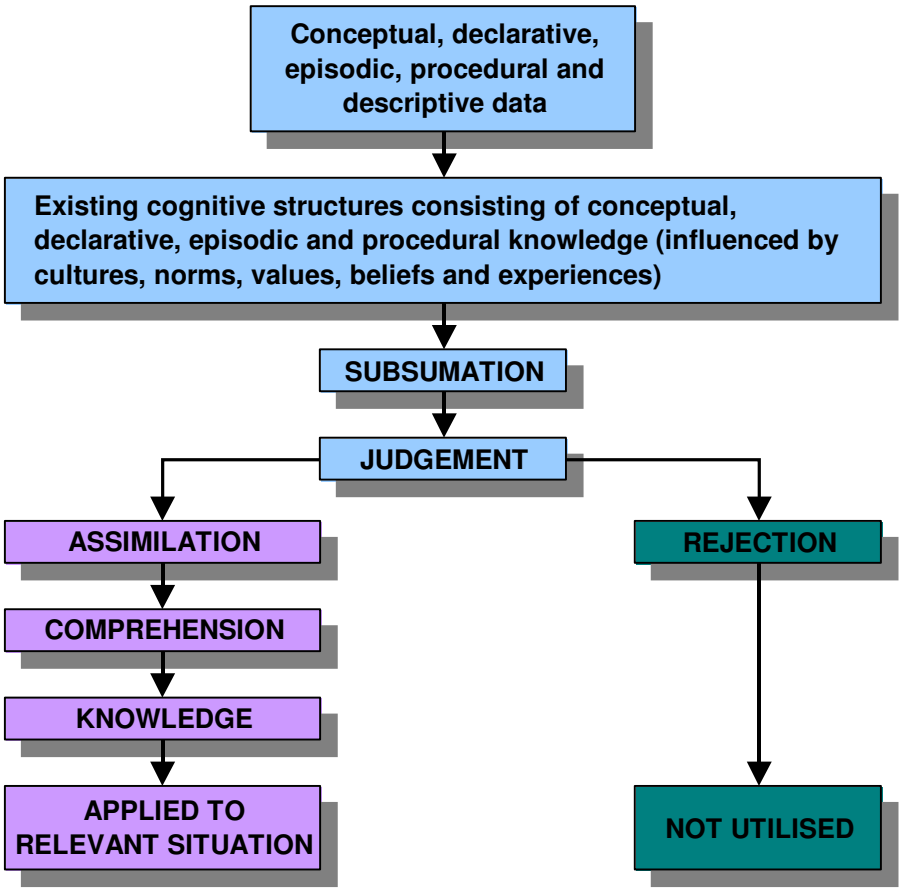

Figure 3.1

Conceptual map

Knowledge construction will be elaborated on in the following subsection and applied to the parents.

3.4.1 Knowledge construction applied to the study

An individual who is a parent receives, in this case, information on HIV/AIDS. The information received can be in the form of conceptual, episodic, procedural, declarative and descriptive knowledge. It will be integrated in that form into the existing cognitive framework in the brain, and the memory will correlate the new information to existing similar information through the process of subsumation. Hence, although AIDS is a new disease, parents can relate it to their existing information based on previous experiences related to the concept of a disease. Ausubel *et al.* (1978) in Klopper (2001:58) points out that "the most important factor influencing learning is what the learner already knows".

At this point, if the individual comprehends the new information, the new facts received will have meaning, and the information will be absorbed positively; in other words, assimilated. If the descriptive knowledge presented is incomplete or unclear, it will not be understood, and the information will be absorbed negatively; in other words, rejected. For instance, if a parent believes that discussing sex with a child is taboo, even if health workers encourage the parents to teach their children on this subject, and tell them how, there could be resistance to change.

Ausubel (1963) (in Klopper 2001:57) deduced that, if one's cognitive structure has previous misconceptions concerning a matter; learning is likely to be impeded. If the existing cognitive structures are precise, however, the new information presented will be an "extension" of the existing knowledge, thereby forming a complete association so that comprehension takes place. It is at this stage that knowledge is formulated and stored as conceptual, episodic, procedural declarative and descriptive knowledge.

3.4.2 Definition of knowledge

Chinn and Kramer (1995:216) defined knowledge as "an awareness or perception of reality acquired through insight, learning or investigation expressed in a form that can be shared."

Based on this definition, for knowledge to be complete there must be three processes: learning, becoming aware of the phenomenon or matter, and expressing what has been learnt.

Garrick and Rhodes (2000:4, 17) highlighted the fact that knowledge is not only about reciting memorised facts concerning a phenomenon but is also only "authentic" if it is demonstrated in a relevant situation. In support of this, Campbell (2003:25) stated that knowledge of HIV/AIDS is about more than just regurgitating facts.

Chapter 1 stated that the majority of parents do not appear to be educating their children on sex and sexuality and HIV/AIDS. The definition of knowledge highlights that, if a person is knowledgeable on a matter, such knowledge will be demonstrated or expressed. Therefore, if a parent seems to be knowledgeable on the disease, but that knowledge is not demonstrated in a relevant situation, one should further explore the type of knowledge the parent possesses. One should also examine the possible factors that might hold a parent back from transferring knowledge to a child.

3.5 FACTORS HINDERING THE TRANSFER OF KNOWLEDGE

3.5.1 Parent and parenting

Parents are the primary educators of the child as they nurture the child from birth to the stage of independence. Nevertheless, parenting is a mammoth task. Omartian (1995:13) views parenting as one of the most complicated of tasks, and this role can be draining and wearing. Furthermore, at times parenting can be accompanied with emotional pain. In this regard, Mpeta (2000: page unknown) declares that "parenting has become a mine field".

In assessing the core of the problem, Taffel (2005:1) discovered that parents do not know how to communicate with their kids. He expressed the opinion that parents and children live in two separate worlds that are "parallel" to each other (2005:3). This can cause the parents to be reticent about the knowledge they have concerning HIV/AIDS and not be able to transfer it to children, which can lead to role ambiguity. Kreitner and Kinicki (1998:293) described this ambiguity (indistinctness) as a state "when one who is expected to perform a task does not know how to do it". Power

(2000:20) asserted that there is a difference between “knowledge and know-how”. Knowledge without the ability to transfer it renders it useless.

One of the problems that Taffel (2005:203) discovered is that children are sometimes abusive to their parents and parents endure the abuse, reasoning that it is childish behaviour. Some parents tolerate it because they do not know how to act upon it. This could indicate that some parents are knowledgeable about HIV and AIDS but are overpowered by their children. Therefore they fail to transfer their knowledge to their offspring.

In terms of parenting itself, Taffel (2005:181) stated that much perplexity has been created around the subject. As a result of this confusion, parents end up being “paralyzed” and fail to act altogether (Taffel 2005:15). Dr Taffel (2005:181) found further that even parental counsellors frequently do not know what to stress when counselling parents on childrearing styles.

It is impossible to talk about HIV/AIDS without mentioning sexual behaviour since the main mode of transfer is sexual. One of the factors that caused HIV/AIDS to spread so rapidly is the early sexual indulgence of children between the ages of 11 and 14. The researcher believes that parents have a responsibility to control their children’s behaviour at this age. This warrants good parenting skills.

The above discussion reveals that a parent may possess knowledge but not demonstrate it in the relevant situation due to some inhibitants, even though Garrick and Rhodes (2000:4) insisted that the authentication of knowledge lies in its application.

In some cases, knowledge can be “expressed in a form that can be shared” (Chinn & Kramer 1995:216). This could be through surveys when parents are questioned on the disease fundamentals, but might not be dispensed at home to the children.

3.6 FACTORS HINDERING THE SHARING OF KNOWLEDGE

3.6.1 Factors within an individual

A human being has a unique personal set of reasoning and behaving which he or she does not share with other human beings (Kreitner & Kinicki 1998:131).

Furthermore Kreitner and Kinicki (1998:131) added that the individual's uniqueness is based on traits, which are partly genetically inherited and partly influenced by the environment. Furthermore, all these qualities give the individual a unique identity, both physically and psychologically. Therefore it is important to note that parents can be educated generally through the media or taught by health workers, but what counts are the factors within the individual. One can either accept and make use of information given or reject and ignore it.

Brewer and Hewstone (2004:54) challenged the view that individuals do not assimilate all the information to which they are exposed but have a cognitive system, which selects information. This, in turn, is based solely on the individual.

Moreover, because of the process of knowledge construction, individuals can possess knowledge with or without comprehension (Klopper 2001:61). Understanding the presented data is a prerequisite for factual knowledge. This intellectual capacity is one of the distinct factors in each parent.

3.6.2 Goals and motivation

A goal is "a specific result the individual wants to achieve" (Hellriegel, Slocum & Woodman 1998:139). The main focus in this millennium is to combat AIDS by breaking the chain of HIV transmission to the younger generation, thus preventing new infections (*Financial Gazette* 2003). The parents are the main means to achieve this goal.

This study aimed to establish whether parents have enough knowledge about the goal of abating transmission of the virus to the younger generation. Without a goal, people are likely not to perform a task. A goal is thus a motivator or an internal stimulator (Hellriegel *et al.* 1998:139).

A motivator persuades a person to take action on data or knowledge he or she has acquired (Glanz, Rimer & Lewis 2002:370). Thus, a parent can have knowledge about HIV/AIDS but still not act upon it, depending on whether he or she has enough motivation. Glanz *et al.* added that there must be strategies of increasing motivation in order for an individual to utilise information received.

Brewer and Hewstone (2004:54) explained further that “individuals are not cognitive misers who use whatever information is on top of their heads.” This implies that parents can be exposed to the information but, if they are not well motivated, might not act on it. Their actions depend on their motivating factors, goals and attitudes (Brewer & Hewstone 2004:54).

3.6.3 Cultural factors

Culture is a learnt pattern of “behaviour and beliefs shared by a group of people” (Bowling 1997:31). Therefore culture includes norms, values and meanings (Brink 2001:120).

Weaver (2005:25) stated that culture is implicitly intertwined within “self” or persona and cannot be separated; and Applewhite (1998) (in Weaver 2005:25) asserted that people’s judgments and behaviours are highly influenced by culture. Therefore culture signifies a way of life. For instance, life decisions are based on their beliefs.

From the above discussion, culture seems to form a framework within a person, forming the basis for personality. A parent can be informed on aspects of HIV/AIDS, but what counts is what the person already knows and believes about a similar phenomenon.

Van Dyk (2002:111) found that Africans share some socio-cultural and religious philosophies though they have different geography and languages. He added that it was therefore possible to talk in terms of an “African perspective or worldview” (Van Dyk 2002:111). Therefore the researcher is of the opinion that, if some cultural practices cover the whole continent of Africa, rooting them out would be a mammoth task. For example, according to the African perspective, sex is a taboo subject. This raises a problem concerning HIV, since this virus is basically sexually transmitted; and it is difficult for parents and children to discuss it, even though health workers tell parents to educate their children about sex and sexuality.

This causes role conflict, which Kreitner and Kinicki (1998:293) described as a state “when internalized values, ethics or personal standards collide with others’ expectations”. According to Kreitner and Kinicki, this is one of the reasons why a focal person does not perform a task expected of him or her. Omery in Brink

(2001:120) warned that people's behaviour must be viewed through the eyes of that cultural context.

Ausubel (in Klopper 2001:56-57) challenged the view that existing underlying structures should be taken into consideration, as learning will be influenced by what the learner has already perceived. Weaver (2005:26) postulated that culture influences a person on the best curative measures to be taken concerning any problem. Van Dyk (2002:126) indicated that Africans traditionally believe in using traditional healers, who work as psychologists, foretellers and doctors to them. As doctors, traditional healers treat diseases; as foretellers, they inform a person about the cause of the illness (Walker *et al.* 2004:92).

Bowling (1997:31) emphasised that people's values and culture have a large psychological influence on illness and on their response to health. Thus Weaver (2005:26) warned that health facilitators must understand people's worldview in order for them to be able to reach their patients' level.

The leader of Youth Organisation, Zulu, maintained that, for one to comprehend how people view HIV/AIDS, one needs to appreciate their world ("Standing in their shoes*…"* 2004:17). If people have had traditional healers as their sources of information over time, their values will not quickly change. For this reason, the government has trained some traditional healers on HIV/AIDS issues in various parts in South Africa (Walker 2004:92). This was done to avoid the myths that traditional healers tend to attribute to the disease.

Furthermore, polygamy has been identified as one of the cultural factors that led to the spread of HIV. This practice originated from patrilineage whereby a male was expected to have multiple partners to prove his manhood (Walker 2004:26). This learnt pattern of behaviour evolved over time so it forms a cognitive framework in the brain. Whatever information comes to a person, judgement whether to accept or reject it will be based on this existing cognitive framework (Klopper 2001:57). Parents can thus have a problem in educating a male child concerning monogamy, if their previous beliefs are based on polygamy.

From the above, it is evident that culture is learnt. It is not inherited but nurtured. People's beliefs and behaviours evolve over time. However, if people's beliefs are

challenged, they can be changed, even though not instantly. Taking into consideration the above argument, it seems that parents' way of thinking needs to be phased out and replaced with recent, acceptable information suitable for the present situation to conquer the pandemic.

One of the factors in the existing framework within a person that can make information unacceptable and so hinders knowledge is attribution.

3.6.4 Attribution

"If a particular effect is perceived as determined by a particular cause, and if this cause is anticipated to remain, then the effect is expected to reoccur. On the other hand, if the cause might change, then the effect is subject to change" (Försterling 2001:112).

This statement reveals that it is important to find out parental views concerning the cause of illnesses. For instance, if a parent believes that AIDS is caused by witchcraft or as God's punishment, this is an external cause that one has no control over so one is likely not take any action to solve the problem but rather to accept it. Thus a wrong belief could fail to prevent another cycle of AIDS.

According to Bowling (1997:22), people from low socioeconomic classes tend to attribute a disease to causes beyond their control. On the other hand, people in higher social groups are more likely to attribute illness individually to a person. This implies that parents from underprivileged classes are likely to attribute illnesses to external causes. This, in turn, is a challenge to spend more time educating parents from such groups.

Walker *et al.* (2004:120) warned that some people believe that AIDS is linked to witchcraft because it presents with the multiple symptoms of *isidliso* that a person has after being poisoned. Sow (1980) (in Van Dyk 2002:112) pointed out that Africans mostly attribute illnesses to external factors or to other people as the cause. They ask, "Who did it and why?" and blame sorcery and witches. Campbell and Kelly (1995) (in Van Dyk 2002:115) added that this belief helps them to avoid feeling stigmatized and guilty, since the cause of illness is beyond their control. In a study among Grade 9 and 10 adolescents, Frizell and King (2002:11) found that parents

concealed AIDS-related deaths and attributed them to witchcraft or any other cultural justification. This reveals that, though AIDS is known as a new disease, parents have their own previously stored information concerning diseases. Even if education on HIV/AIDS is given, previous beliefs count in attributing the illness.

Van Dyk (2002:115) found that many people have the misconception that they have no power over their sickness and cooperate passively, even in prevention programmes. Those who believe that they can improve their health and prevent disease, however, tend to cooperate better.

3.7 CONCLUSION

This chapter discussed the concept of knowledge. Different forms of knowledge were presented and applied to HIV/AIDS. It was noted that the types of knowledge do not compensate for each other so, in order for parents to be knowledgeable about HIV/AIDS, they need to possess all the types of knowledge.

Chapter 4 discusses the research design and methodology.

Chapter 4

Research design and methodology

4.1 INTRODUCTION

This chapter presents the research design and methodology used in the study. According to Babbie and Mouton (2002:75), research methodology focuses on precise tasks and the methods that are carried out during the research process. This includes designing the research, the identification of a population, the sampling criteria that will be used, data-collection methods and data analysis procedures.

4.2 RESEARCH DESIGN

The research design is “a plan that will be followed during the study in order to answer a research question” (Babbie & Mouton 2002:72). The researcher decides on the research strategy that will be followed. According to Babbie and Mouton (2002:72), the researcher must follow two steps in the research design. Firstly the researcher must pinpoint exactly what he or she intends to find out. Secondly, he or she “must determine the best way to do it” (Babbie & Mouton 2002:72).

This study aimed to determine the knowledge that parents have on HIV/AIDS in order to improve their knowledge level, should there be any gaps that needed to be filled.

The researcher selected the descriptive survey as the best method to explore and answer the research question. Therefore this study followed a descriptive design, which is universal and generalizable by nature.

4.2.1 Descriptive

The main purpose of a descriptive research design is to give a complete account of what has been observed from the research participants in response to the research question.

According to Leedy (1997:190), *descriptive* comes from *'de'* and '*scribere'* to write. Therefore in this study a detailed record was written based on what the parents presented in the self-reporting tool (questionnaire) used to collect the data. In other words, an overall and complete picture was written to presenting the parents' knowledge of HIV/AIDS.

De Vause (1998:33) states that, before describing what was observed, researchers need "a frame of reference" against which to make the depiction. The main objective of this study was to describe the knowledge parents had on HIV/AIDS. Therefore the researcher used the conceptual framework presented in the literature review as a frame of reference to describe the parents' knowledge (see chapter 2).

According to De Vause (1998:25), the rationale for descriptive studies in the social sciences is to point out the presence and extent of the problem in the society. Therefore in this study the researcher first described the parents' knowledge then painted the picture to reveal gaps in their knowledge of the disease.

Descriptive studies "stimulate social action" (De Vause 1998:25). Most planning and implementation programmes are based on the research conducted on the specific phenomenon. Wilson and Mehryar (1991) (in Hope 1999:154-155) mention that studies on checking knowledge levels on HIV/AIDS in the community provide a foundation for future planning of strategies that will be used in fighting the disease. Therefore, in this study, the researcher intended to make recommendations to assist health workers and NGOs fighting the AIDS pandemic. This could assist in organizing the structure of programmes on knowledge of HIV/AIDS.

In order to obtain good information during descriptive social research, Babbie and Mouton (2002:80) and Leedy (1997:190) maintain that the survey method works well, adding that descriptive surveys are the commonly used methods in social research.

4.2.2 Survey

A survey is a system of collecting data through the use of self-reporting techniques. Leedy (1997:190) states that *survey* means "to look or to see over or beyond". Therefore descriptive survey means to observe with scrutiny, write down and keep a record of what was observed, including all the steps involved in a survey. Leedy

(1997:190) added that observing in a descriptive survey is not based on the sense of sight but is about what was noted, based on the participants' responses. A questionnaire is one of the means used in a survey for observing the area of interest in research (Leedy 1997:109). Babbie and Mouton (2002:73) states that a survey is more appropriate in individually-based studies. Knowledge is a personal element therefore a survey was a suitable method in this study as it enquired about knowledge.

Neuman (2000:247) points out that surveys are typically used when the objective of the study is to measure knowledge, attitudes, beliefs, opinions and behaviour. One of the characteristics of a survey is that it is based on the 'deductive approach' (Neuman 2000:250). In a typical deductive study, a conceptual framework is described in the initial stages of the study and therefore directs the study. This study followed the conceptual framework that gave a detailed description of the concept of knowledge and its types. This framework was used to formulate the questionnaire. The description of the knowledge parents had was measured against this framework. Therefore this study was deductive in nature.

Burns (2000:568) states that surveys can be used to collect a lot of data from a large number of people in a short space of time thereby saving on costs. In this study, the researcher distributed questionnaires to 100 respondents over a period of two weeks. There were lesser costs involved since the researcher was the main field worker and only one field worker was trained to assist.

The aim of collecting data from a bigger sample is to generalize the results to a bigger population. Mouton (2002:133) points out that a survey is about studying a sample that represents a population with the aim of generalizing the results to a larger population.

4.2.3 Generalization

Generalization is the degree to which the results of the study can be applied from a sample to a larger population (Polit, Beck & Hungler 2001:462).

Generalization is more feasible if the probability sampling method was used since the subjects in the population have an equal chance of being selected to participate in

the study. This method was not used. Burns (2000:85) points out that it is not always easy or possible to use probability sampling due to the time factor and costs involved. Since there was no frame of reference available in the clinics, the researcher had to opt for a non-probability sampling method.

The basic key in generalization is the sample of the study, which should possess all the features of the population under study, so that the results can be generalized to that population (Neuman 2000:195). The researcher used judgmental sampling based on the knowledge of the clinic attendants who had the characteristics of the population thus taking care of representativeness.

In generalizing this study, the researcher kept the point raised by Glanz *et al.* (2002:370) in mind that the knowledge levels in a population are not the same. According to Glanz *et al.* (2002:370), the "knowledge gap" is the "difference in knowledge between groups differing in socioeconomic status". Therefore researchers should be cautious in generalizing results, bearing in mind factors like the educational level. Residential areas are also relevant since knowledge distribution is not equal in rural or urban areas (Glanz *et al.* 2002:370).

The researcher's main aim was to gain insight that could indicate focal areas for further HIV/AIDS education (Polit *et al.* 2001:411). Therefore general regularities in the areas that were lacking could be identified and generalized to a larger population.

4.3 DATA-COLLECTION METHODS

The methods and procedures of the study included ethical rigor, development of the data-collection instrument, the validity of the instrument, the pilot study, population, sampling, data collection and field administration, and control of reliability and validity factors.

4.3.1 Ethical rigor

Ethical rigor is presented in two separate discussions because the ethical considerations were taken care of separately: Firstly, from the point of view of the gatekeeper who granted permission for the study and then from the point of view of

the participants during fieldwork. The ethical considerations pertaining to the participants are discussed under fieldwork.

According to the ethical standards, a researcher is required to request permission before the research is conducted. Therefore a letter was written to the Regional Director of Region 3 Clinics requesting permission to conduct a study at Sundown and Randburg Clinics. The necessary permission was granted by the Regional Director (see annexure A).

4.3.2 Questionnaire

Rossouw (2001:138-139) and Neuman (2000:250-251) describe the designing of a questionnaire as the first phase in conducting a survey.

A questionnaire refers to "a self-report instrument where the respondent writes his or her answers in response to the presented questions on a document" (Brink 2001:154). The basic characteristic of a questionnaire is that all the respondents involved in the study answer the same set of standardized questions (Burns 2000:567). In some cases, researchers use an already existing tool, but in this study the researcher formulated a new tool.

4.3.2.1 Rationale for a new tool

A new tool suitable for this study was developed. The researcher could not find any tool appropriate for this study. Although many studies have been conducted on knowledge of HIV/AIDS, the researcher did not find one appropriate for this specific study.

The researcher discovered that most of the studies on knowledge of HIV/AIDS focused on the transmission of the virus and methods of protection from the virus. Moreover the researcher could not find any specific study based on parental knowledge of HIV/AIDS. Most research on knowledge concerned adolescents.

In designing a new tool, certain principles need to be adhered to in order to ensure reliability and validity.

4.3.2.2 Tool construction

Facilitation of good communication in a questionnaire construction is a prerequisite (Neuman 2000:252). For this reason, the tool constructed was based on three different languages, which the researcher discovered dominate in Gauteng: English, Zulu and Sotho. These languages were chosen out of eleven official languages, which are used in South Africa. This was done to ensure that every participant in the study understood his or her preferred language.

Neuman (2000:252) emphasizes that when developing a tool, abbreviations should be avoided, as not everyone understands what they represent. In the questionnaire for this study, only HIV and AIDS were used in their abbreviated forms. These abbreviations are universally used. Neuman (2000:252) also points out that the language commonly used should be adhered to when formulating a questionnaire.

Moreover, short sentences should be used to avoid confusion. Each sentence should address one point at a time to avoid “double-barrel questions” as they result in two different meanings, which could confuse the reader (Brink 2001:156). The sentences were constructed in a positive or “affirmative” manner rather than negative (Brink 2001:156).

Uys and Basson (2000:67) advise that some questions can be omitted though they might be necessary if the respondents are assumed to have considerable knowledge about them. In this questionnaire, the researcher avoided questions commonly used in other knowledge studies, such as the mode of transfer of the virus, which is through sexual contact, and the method of protection, which is abstinence. These questions are relevant to the knowledge of HIV/AIDS but the researcher assumed that the respondents had adequate knowledge of this aspect.

Finally, Brink (2001:154) advises that the tool must be formulated with the intention of addressing the research objective of the study. In this study, the objective was to find out the knowledge parents had on HIV/AIDS. Therefore the questions in the questionnaire were based on an enquiry into knowledge parents possess on HIV/AIDS.

Therefore the next sub-section will present the contents of the tool.

4.3.2.3 Contents of the tool

The first part consisted of the covering letter, biographic information, and the next sub-sections were presented from sections A-D.

All the elements of the concept of knowledge were spread throughout the different sections of the tool. The questionnaire was divided into the sub-sections to make it well organized.

The first part that encompassed the covering letter followed the guidelines laid down by Salkind (2003:143). First there must be a heading that presents the title of the study and it was written as follows: KNOWLEDGE OF HIV/AIDS. Secondly, the date should be written in order to reveal to the respondents that the study is current. The questionnaire was dated November 2005.

In the introduction of the covering letter, Salkind (2003:143) advises that the intention and significance of the study should be clarified. The covering letter highlighted that the research was part of the researcher's studies and that the findings would benefit the country on fighting the disease.

Salkind (2003:143) suggests that in the introductory section, the informants should be assured of the confidentiality of their responses and this was fulfilled. This was done in order to allay anxiety. Lastly, Salkind (2003:144) suggests that the informants must be appreciated for their cooperation in the study therefore a note of thanks was added. At the bottom of the introductory page, was an example of how to fill in a questionnaire.

Section A consisted of biographic information (personal information) (Welman & Kruger 2001:165). This section required the respondents to indicate their gender, level of education, nationality, age, marital status and ages and number of children they had.

Section B consisted of two sections. The first part comprised closed questions with options to answer true, unsure or false. The researcher ensured that the questions were exhaustive. De Vause (1998:87) states that for a person not sure of the answer, the unsure option should be provided to avoid a person guessing in order to avoid unreliable results.

The closed questions were used because they are coded into the computer system with ease and easily analyzed (Brink 2001:156; Burns 2000:572). On the respondent's side, the strength is that they are easy to fill in a short time with less effort therefore respondents are more willing to complete this portion (Brink 2001:156).

The second part of section B consisted of multiple-choice questions and the respondents were instructed to choose the answer they felt was more correct (Welman & Kruger 2001:165).

Section C was sub-divided into three sub-sections. The first sub-section required the respondents to indicate the extent to which they agreed with the statements, using a 3-point Likert scale.

Section C consisted of two open-ended questions requiring the respondents to write their answers according to their opinions. The intention was to find out their ideas on educating children on sexual matters. Burns (2000:572) advises that open-ended questions promote the respondents' participation and the respondent's opinions are revealed.

Section D was sub-divided into two sub-sections. The first consisted of a Likert scale with ratings of the extent to which the respondents agreed or disagreed with the presented statement. The second part consisted of closed questions with an option to indicate whether they agreed or disagreed with a question. The answers required a "yes" or "no".

In this study all the scaling rates were on a 3-point Likert scale, as suggested by the statistician. The statistician stated that since the study measured conceptual, episodic procedural, declarative and descriptive knowledge, they should all have an equal rating using either a 5-point or a 3-point scale. The researcher chose a 3-point scale.

Once the tool had been formulated the next step was to ensure its validity.

4.3.3 Validity of the instrument

A tool is valid if it measures that which was meant to be measured (Salkind 2003:115). De Vause (1998:55-56) explains that the validity of a tool is feasible if it is used in the relevant situation. This implies that the same tool can be used to test knowledge in two studies and be valid to another study but be invalid to another. Therefore Salkind (2003:115) emphasizes "the validity of an instrument is often defined within the context of how the test is being used". For this reason a new tool was formulated for this study, guided by the conceptual framework presented in chapter 2 (De Vause 1998:56).

4.3.3.1 Face validity

Face validity is the judgment that is based on the face value of an instrument. It serves to assess whether the items or questions presented do appear to measure the main concept of the study (Brink 2001:168).

This validity was based on the intuitive judgment of the subject expert. The tool was sent to different subject experts for face validity confirmation. Brink (2001:168) highlights that this method has a weakness and does not confirm validity well as it is vague so other methods ought to be used together with it. Therefore content validity was used.

4.3.3.2 Content validity

This is concerned with ensuring that the instrument covers all the features of a particular concept of the study (Yegidis *et al.* 1999:204). In other words, the tool should be representative of the whole phenomenon being measured (Burns 2000:352). Furthermore, the instrument should be accurate in measuring what it is expected to measure (Uys & Basson 2000:80). In this study the researcher ensured the validity of the tool by constructing it based on theoretical forms of knowledge. The different themes of knowledge measured were descriptive, conceptual, episodic, procedural, and declarative knowledge. The questions were based on the attributes of each item.

To ensure content validity, the tool was taken to the qualified researcher to critically analyze if the content presented in the conceptual framework was covered in the tool. The tool was further refined according to the research expert's recommendations.

Then the tool was taken to the clinic registered nurse who deals with HIV/AIDS in the community. The tool was assessed to see whether it suited the community level in regard to the questions asked and the language used.

Burns (2000:352) adds that the conclusion on the content validity of a tool is dependent on the opinion of the subject expert. Therefore the tool was sent to the subject expect on HIV/AIDS for further assessment. Some questions were rephrased as advised; some were removed to make the tool shorter.

4.3.3.3 Construct validity

This is a test intended to measure the correlation between the basic concepts that formed the theoretical framework of the study and the measuring instrument (Brink 2001:170). The main aim is to detect if the instrument does measure what it is supposed to measure. Burns (2000:355) states that there are various methods of ensuring construct validity. One is factor analysis, which will be used in this study, which rules out if the test was testing the same concept on each and every question. Again factor analysis detects if every rating used is feasible and accurate for that particular question. This is done during the data analysis.

One of the methods of ensuring the construct validity is to test the current tool against another tool, previously used for the same construct. In this study, no other test was found suitable to measure against it therefore no correlation with other tests was validated.

Once the validity of the tool has been confirmed it needs to be taken for a pre-test to subjects almost similar to the population of study.

4.4 PILOT STUDY

This is a pre-test whereby a few subjects are used to check the feasibility of the questions, which comprise the questionnaire. Neuman (2000:251) classifies a pilot study as a second step in conducting a survey. Though this test may not be

undertaken on the representatives that match the sample accurately, Babbie and Mouton (2002:245) advise that it should be taken to subjects to whom the study is relevant.

Therefore the pre-test study was undertaken with ten parents and guardians who work in diverse vicinities and with different languages, like English, Zulu and Sotho, as the tool comprised all these languages.

The purpose of a pilot study is to ascertain whether the questions are comprehensible. Therefore the people used in the pilot study were requested to scrutinize the questions and the wording. Ambiguous questions were re-written and clarified. For instance, words not commonly used like “taboo” were further explained in brackets as “socially unacceptable”. In this way the reliability of the study was ensured (Rossouw 2001:133).

Babbie and Mouton (2002:244) insist that the pilot study is more critical if various languages are used. The questionnaire was originally formulated in English then taken to professional language translators who translated it to Sotho and Zulu. The main aim was to detect if the Zulu and Sotho still had the same meaning as the English questionnaire. No problems were raised in this area.

Furthermore this test helps to detect if the questionnaire is not too long, which could exhaust respondents (Brink 2001:156). The questionnaire appeared to be suitable as the subjects who filled it in were satisfied.

4.5 POPULATION AND SAMPLING

4.5.1 Population

A population is a group of people who share the common traits or attributes, which are of interest to the researcher, and of the population to whom the findings can be generalized (Burns 2000:83; Salkind 2003:86).

The population of interest to this study were parents or guardians with children between the ages of 5 and 17 (see chapter 1).

One of the crucial points when deciding on the population of the study is to stipulate the boundaries and the limitations pertaining to the population that will be selected (Burns 2000:83). The researcher happened to notice that some parents have children to whom they have no right. For instance, a divorced biological parent who is legally restricted from seeing or communicating with a child and the child belongs only to either the mother or the father. Those parents were excluded from the study since this could be a threat to validity of the data as Babbie and Mouton (2002:121) advises that the respondents should be enquired of the subject matters that are relevant to them.

Furthermore when deciding on the population of the study, one would acknowledge the fact that it is impossible to conduct the study to the entire population, which are the parents in this case. For that reason a sample needs to be drawn from the population to be studied. Therefore at this point the study is moving to the sample and sampling method, which was used.

4.5.2 Sample and sampling technique

A sample is a segment of a population, which consists of the same characteristics as the population on whom the study is conducted (Burns 2000:83).

The sample of the study was drawn from the clinics in Region 3 in Gauteng area. Gauteng is sub-divided into three regions. Region 3 has three clinics, but the study was conducted in Randburg Clinic, which is in the Randburg area north of Johannesburg, and Sandown Clinic, which is in the Sandton area north of Johannesburg. The reason for selecting these clinics was to obtain as ample information as possible from the different districts.

The first step in sampling is to specify accurately and precisely the sampling criteria. In this study, non-probability sampling was used. This method was selected rather than probability sampling because there is no list of all the subjects of the population in the clinics (i.e., “the sampling frame”) as this is a prerequisite for probability sampling (Brink 2001:134; De Vause 1998:77).

Purposive or judgmental sampling was used. This method necessitates the researcher deciding on the sample to select based on the researcher’s own

knowledge of the characteristics of that population which is typical of the population being studied (Brink 2001:141; De Vause 1998:78). Again, this is based on the nature of the research aims. In this case, the population was not selected at random but purposely. The researcher has worked in the clinics as a primary health care nurse and therefore had knowledge of the attributes of the community in the clinics. The characteristics of the clients attending the clinic have the elements of the parents of the entire population of the study.

4.6 DATA COLLECTION AND FIELD ADMINISTRATION

At this stage the research moves towards the fourth step of a survey, pertaining to the actual fieldwork (Neuman 2000:250-251).

Certain ethical issues needed to be taken care regarding the protection of the subjects participating in the research. Permission was requested from the Registered Nurses in charge of both clinics where the research was conducted.

4.6.1 Ethical considerations in the fieldwork

4.6.1.1 Clinic staff

Permission was requested from the Registered Nurses in charge of both clinics. The letter from the Regional Director giving permission to conduct the study was presented. Both clinic sisters gave verbal consent.

The researcher was further introduced to all the clinic staff members and explained the nature and purpose of the study to them as well as that the research would not interfere with the daily routine of the clinic.

Moreover, the three basic principles of “respect for persons, beneficence and justice” were adhered to (Brink 2001:39-41).

4.6.1.2 Principle of respect for persons

- ***Obtaining informed consent***

In fulfilment of this principle, the researcher introduced herself to the clients that attended the clinic. They were told that they were requested to participate in the

research. The purpose of the research was clarified that it was to find out the knowledge parents have on HIV/AIDS.

The participants were told that the findings would benefit the health workers and other parties who are fighting the disease to structure the programmes of planning HIV/AIDS education of parents. It was further clarified that the research was based on parents or guardians of children between the ages of 5 and17 years. This was done in order to obtain informed verbal consent from the respondents.

- ***Voluntary participation***

The subjects were told that they were not forced to participate in the study; participation was optional and voluntary. It was further clarified to the subjects that they could withdraw from the study whenever they wished to.

4.6.1.3 Principle of beneficence

- ***No harm to participants***

This principle pertains to the protection of the physical and psychological aspects of a person. Babbie and Mouton (2002:522) state that the participants can be psychologically threatened during participation in the research. In this study this could be the case if the respondents should feel intimidated by failing to answer the questions presented. Again there was a possibility for them to feel as if they were exposed to “ignorance”.

The researcher addressed this issue in the introduction by telling them that the study would help in planning programmes for further education on HIV/AIDS. Therefore through their responses the area of focus pertaining to education will be addressed. They were told not to worry about the answers, as the names would not appear on the questionnaires.

4.6.1.4 Principle of justice

- ***Anonymity***

The subjects were told not to write their names on the questionnaires to ensure anonymity. In addition, the answers they would provide would be treated confidentially.

After the ethical rigor had been taken care of, the researcher attended to reliability and validity.

4.7 CONTROL OF RELIABILITY AND VALIDITY

4.7.1 Reliability

Babbie and Mouton (2002:119) define reliability as the assurance that, if a specific method used in the study were re-applied to the same respondents, the findings would be similar. This implies that if the researcher is using the same method of data collection and analysis and should the test be repeated with the same respondents, the results of the study would be the same.

In order to ensure reliability of the data during data collection, the researcher addressed the following measures, which can hinder the reliability of data if neglected (Mouton 2002:144):

- ***The researcher characteristics***

The researcher's gender can affect respondents. This barrier was overcome since the majority of the respondents were females and the researcher is a female too. Even with male respondents, this barrier was overcome since the respondents were in a clinic setting and the majority of the nurses who attend them are females.

- ***The participants***

Babbie and Mouton (2002:121) point out that the respondents should be asked about things that are relevant to them. The issue of HIV/AIDS is a problem to everyone in society therefore this is relevant to all parents with children. In this study, divorced

parents who are legally restricted from communicating with their children were excluded since parental role did not apply to them.

- ***Measuring Instrument***

Babbie and Mouton (2002:121) point out that the questions asked should be comprehensible. A pilot study was undertaken as a pre-test to ensure that the questions were clear and comprehensible. Furthermore the tool was translated into Zulu, Sotho and English. This was done to ensure that all the respondents understood the questions in their home or preferred language.

- ***Research context***

This pertains "to the circumstances under which the research is conducted" (Mouton 2002:119).

The respondents were only asked to fill the questionnaires while in the waiting queue before consultation. This was done to ensure that they were relaxed and not delayed before going home therefore the environment was favourable.

Again, the clinic setting was a familiar environment to most of the clients since they are used to attend the clinic, like the family planning clients, and parents who come to collect their usual medication.

Certain factors can affect the validity of the research. Rossouw (2001:190-191) lists threats to internal validity.

4.7.2 Internal validity factors

These are the factors, which pertain to "the standards of truth value as well as neutrality of the research" (Mouton 2002:190). The factors that threaten internal validity are named and discussed.

- ***Questionnaire***

The questionnaire was constructed based on the rules of tool construction discussed in the previous section. If the tool was not well formulated, internal validity could be threatened.

- ***Pilot study***

Rossouw (2001:190) mentions the execution of the pilot study as a prerequisite to prevent the threat to internal validity. This was implemented with ten participants who were not part of the study but had the same characteristics as the population studied.

- ***Ethical considerations***

Rossouw (2001:191) insists that ethical rigor should be adhered to during data collection as this can have a negative impact on internal validity.

- ***Supervision of the data collection***

The respondents were told that they had to fill in a questionnaire by responding to the question asked. They were further reassured that they had to respond faithfully and not be intimidated whether they knew the answer or not.

The researcher was present throughout the filling of the questionnaires. This was done to ensure clarification in case respondents could not understand questions or the instructions for filling in the question. The questionnaires were filled well. Very few spaces were left unfilled.

- ***State of the participant***

This pertains to the "biological, physiological, and emotional processes" of the respondents (Rossouw 2001:191). The researcher noted that some clinic attendants were not in a good physical state, as they looked sickly therefore they were excluded.

All the participants seemed willing to participate in the study. The majority of those who did not participate were in a hurry to leave.

4.8 PROBLEMS ENCOUNTERED

4.8.1 Gender problem

The researcher encountered a problem with gender, which was not representative of the population. Very few males attend the clinic services. Most of the services are female based, like the family planning; even the chronic clinic for illnesses like hypertension and diabetes have more females than males. The immunization section is also full of females who bring their babies for immunization. The same problem was encountered in both clinics. Even the few males who were available refused to participate, commenting that this pertained to females. Therefore the researcher had to pay special attention to the gender problem.

4.8.2 Measures taken with regard to homogeneity

Males from Alexandra Township were purposely selected to compensate for the gender imbalance. The researcher trained a field worker who resides in Alexandra since the researcher is not acquainted with the area. The purpose of the study was explained to him and it was emphasized that males strictly with children between the ages of 5 and 17 were to be included in the study.

The field worker was given 6 questionnaires on alternate days. The importance of faithfulness was emphasized. The fieldworker was paid every time the questionnaires were collected. Eighteen questionnaires were filled over a period of five days. The questionnaires were collected on alternate days in the afternoon.

The researcher used her discretion to confirm that different respondents filled in the questionnaires. This was to confirm the faithfulness of the field worker. The following were noted:

- The questionnaires were filled in with different handwriting and different pens were used.
- Reasons in open-ended questions varied.
- Different languages were used to fill in the questionnaire, which was in English, Zulu, and Sotho.

- The technique for filling a questionnaire varied: some respondents were tidy; others were untidy.

The researcher was satisfied with the overall assessment of the questionnaires under the guidance of the field worker and concluded that they were reliable.

4.9 DATA ANALYSIS

The information gathered from the parents was modified to suit the numerical order for analysis.

Uys and Basson (2000:48) state that “numerical values to non-numerical” factual data should be allocated so that clear meaning of the information from the respondents can be obtained. Therefore the tool was pre-coded on the computer in preparation for the numerical data analysis.

The statistician was used in analysis. The collected data was captured and analyzed using the Statistical Package for Social Sciences (SPSS). The data was compared in the form of frequencies and percentages (Brink 2001:191). The analysis was carried out both on descriptive (central tendencies), Levene’s F-test to compare variances, T-test and One-way Anova to compare the means between the groups.

4.10 CONCLUSION

This chapter discussed the research design and methodology, generalizability, ethical rigor, tool construction, validity of the instrument, the pilot study, population and sampling technique.

With regard to fieldwork, data collection and field administration, ethical considerations pertaining to the subjects of the study, validity and reliability, and problems encountered and measures to compensate them.

Chapter 5 presents the research findings.

Chapter 5

Research findings

5.1 INTRODUCTION

This chapter presents the research findings from the questionnaires. The respondents' responses are tabulated and discussed. Significant or notable responses are discussed in detail. The researcher distributed 100 questionnaires to the respondents but one response was not usable, therefore the data presented is based on 99 questionnaires.

5.2 SAMPLE DESCRIPTION

The sample was classified according to the demographic details, which include gender, level of education, home language, age and marital status. These details were obtained in section A of the questionnaire. This demographic information was also used in the analysis of the central questions.

5.2.1 Demographic information

(a) Gender

There were 76,8% (n=76) females versus 23,2% (n=23) males (see table 5.1). The gender imbalance was discussed in chapter 3.

Table 5.1 Respondents' gender

		Frequency	Percent	Valid percent	Cumulative percent
Valid	Male	23	23,2	23,2	23,2
	Female	76	76,8	76,8	100,0
	Total	**99**	**100,0**	**100,0**	

(b) Education

Of the respondents, 45,8% (n=44) had post-matric education, 43,8% (n=42) had secondary education, 7,3% (n=7) only went to primary school and 3,1% (n=3) had no education at all (see table 5.2).

Table 5.2 Respondents' educational level

		Frequency	Percent	Valid percent	Cumulative percent
Valid	No education	3	3,0	3,1	3,1
	Primary school	7	7,1	7,3	10,4
	Secondary school	42	42,4	43,8	54,2
	Post -matric	44	44,4	45,8	100,0
	Total	**96**	**97,0**	**100,0**	
Missing	System	3	3,0		
Total		**99**	**100,0**		

(c) Respondents' language

The respondents were asked to indicate which of the eleven official South African languages was their home language. This was done to find out whether the sample was representative of the population, but does not imply that the sample percentages were equivalent to the population percentages.

Of the respondents, 21,2% (n=21) were Xhosa-speaking; 18,2% (n=18) were Zulu-speaking;17,2% (n=17) were Setswana-speaking; 13,1 % (n=13) were Sepedi-speaking; 12,1 % (n=12) were Sotho-speaking; 7,1% (n=7) were English-speaking; 3,0% (n=3) spoke Afrikaans, Tsonga and Ndebele respectively, while 1% (n=1) spoke Siswati and Venda. Table 5.3 below presents the respondents' language distribution.

Table 5.3 Respondents' language distribution

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Zulu	18	18,2	18,2	18,2
	Setswana	17	17,2	17,2	35,4
	Xhosa	21	21,2	21,2	56,6
	Sotho	12	12,1	12,1	68,7
	Ndebele	3	3,0	3,0	71,7
	Sepedi	13	13,1	13,1	84,8
	Siswati	1	1,0	1,0	85,9
	Venda	1	1,0	1,0	86,9
	Tsonga	3	3,0	3,0	89,9
	English	7	7,1	7,1	97,0
	Afrikaans	3	3,0	3,0	100,0
	Total	**99**	**100,0**	**100,0**	

(d) Respondents' ages

Of the respondents, 50,0% (n=49) were aged 31-40; 28,6% (n=28) were 21-30; 14,3% (n=14) were 41-50; 6,1% (n=6) were 51-60; 1% (n=1) was 21 and 1% (n=1) was 61 (see table 5.4).

Table 5.4 Respondents' ages

		Frequency	Percent	Valid percent	Cumulative percent
Valid	Younger than 21	1	1,0	1,0	1,0
	21 –30	28	28,3	28,6	28,6
	31-40 years	49	49,5	50,0	78,6
	41-50 years	14	14,1	14,3	92,9
	51-60 years	6	6,1	6,1	99,0
	61 years & older	1	1,0	1,0	100,0
	Total	**99**	**99,5**	**100,0**	
Total		**99**	**100,0**		

(e) Respondents' marital status

More then half 54,1% (n=53) of the respondents were single; 26,5% (n=26) were married; 12,2% (n=12) were unmarried but staying with partners; 5,1% (n=5) were widowed; 1,0% (n=1) were divorced and 1,0% (n=1) estranged (see table 5.5).

Table 5.5 Respondents' marital status

		Frequency	Percent	Valid percent	Cumulative percent
Valid	Single	53	53,5	54,1	54,1
	Married	26	26,3	26,5	80,6
	Staying together	12	12,1	12,2	92,9
	Widowed	5	5,1	5,1	98,0
	Divorced	1	1,0	1,0	99,0
	Estranged	1	1,0	1,0	100,0
	Total	**98**	**99,0**	**100,0**	
Missing	System	1	1,0		
Total		**99**	**100,0**		

5.3 THE WAY FORWARD

It should be noted that, since some groups were underrepresented, they were regrouped. For instance, the groups in the educational level were combined; those with primary and with no education were put together. Regrouping was also done according to marital status; single, estranged, divorced and widowed were grouped together and classified as singles. The different languages were combined into the three cultural groups: Ndebele, Siswati, Xhosa and Zulu were combined into the Nguni group, Setswana, Sepedi and Sotho into Sotho, and English and Afrikaans into Whites.

The distribution of these groups according to their original state is presented in the annexure D of this study, where there are also various tests that were done for further analysis of the questions presented.

Furthermore, the researcher would like draw readers' attention to the fact that, in the tables below, where there was a missing answer to a question, this is reflected by a number less than 99 in the N column, and is not always shown separately.

5.3.1 Factual knowledge of HIV/AIDS

The following subsection was designed to test factual knowledge of HIV/AIDS and it was presented in section B (a): questions 1-29. The questions were divided according to the episodic, conceptual, descriptive, declarative and procedural knowledge they tested.

5.3.1.1 Episodic knowledge

Episodic knowledge is based on the series or incidents of the disease. Therefore it entails information about the years in which the disease was discovered, spread of the disease, awareness of the status of the disease in South Africa. The questions pertaining to this knowledge are presented in table 5.6 with the respondents' responses.

Table 5.6 Episodic knowledge

	SECTION B (a) Episodic knowledge	TRUE	UNSURE	FALSE	N	% TRUE	% UNSURE	% FALSE
1	HIV/AIDS is a disease for South Africa only	8	11	78	97	8,1	11,1	78,8
2	HIV/AIDS was discovered in the early 1970s	21	48	23	92	21,2	48,5	23,2
3	Our young children (8-14yrs) are not prone to HIV/AIDS yet	14	16	61	91	14,1	16,2	61,6
4	South Africa is one of the most HIV/AIDS-affected counties in the world	64	21	12	97	64,6	21,2	12,1

From this table it can be noted that the majority (69,7%) of the respondents revealed a lack of knowledge of when the disease was discovered; 21,2% believed that the

disease was discovered in the 1970's while 48,5% indicated they were unsure. It should be noted that the majority of the respondents (78,8 %) were conscious of the global spread of the disease and quite aware that South Africa was one of the most severely affected countries (64,6%).

5.3.1.2 Conceptual knowledge

Conceptual knowledge refers to understanding of the concept of AIDS. It involves awareness of the immunopathology of the virus in the blood as it destroys the white blood cells and thereby lowers the immune system. Table 5.7 depicts the questions on this type of knowledge and the responses.

Table 5.7 Conceptual knowledge

Conceptual knowledge		TRUE	UNSURE	FALSE	N	% TRUE	% UNSURE	% FALSE
5	HIV stands for Immunodeficiency Virus	68	15	9	92	68,7	15,2	9,1
6	HIV kills red blood cells	43	34	12	89	43,4	34,3	12,1
7	HIV kills white blood cells	39	35	15	89	39,4	35,4	15,2
8	HIV strengthens the human immune system	13	23	55	91	13,1	23,2	55,6
9	HIV increases white blood cells	15	27	47	89	15,2	27,3	47,5
10	A syndrome is a collection of diseases that are acquired because the immune system has been weakened by HIV	48	39	8	95	48,5	39,4	8,1
11	HIV is not the only cause of Aids	37	18	40	95	37,4	18,2	40,4
12	It's easy to recognize someone with HIV	30	12	52	94	30,3	12,1	52,5

Questions 6, 7, 8, and 9 were designed to check knowledge about the immunopathology of HIV in the blood. Half (50,5%) of the respondents revealed that

they lacked knowledge pertaining to the processes of the virus in the white blood cells; of these 35,4% were unsure; 15,2% disagreed with the statement; 39,4% of the respondents were revealed to have knowledge pertaining to this sphere. Furthermore 43,4% of the respondents even thought that HIV kills red blood cells and 34,3% were unsure, which shows that a considerable number (77,7%) of the respondents lacked information in this area.

One of the distinctive features of AIDS is that it is a syndrome. The question on this was presented in an affirmative manner but 48,5% recognised that it was true; 47,5% revealed a lack of knowledge of this, as some indicated they were unsure and others gave an inaccurate answer.

One of the idiosyncratic features of AIDS is that it is not easy to recognise a person with the virus. Of the respondents, 42,4% revealed they lacked knowledge of this facet of AIDS, though 52,5% of the respondents gave the correct answer.

It is notable that 55,6% of the respondents were not sure whether HIV is the only cause of AIDS; some were unsure, implying that they did not know, while others gave an incorrect answer.

5.3.1.3 Descriptive knowledge

This type of knowledge encompasses awareness of the plans for fighting the disease. These plans are based on preventing the spread of the virus to the younger generation by educating them about sex and sexuality, and HIV/AIDS. One of the main goals of these plans is to give the parents the role in the fight against the disease of educating their children concerning it. The statements testing for descriptive knowledge and the participants' responses are presented in Table 5.8 on the following page.

Table 5.8 Descriptive knowledge

		TRUE	UNSURE	FALSE	N	% TRUE	% UNSURE	% FALSE
13	There is nothing one can do to change HIV/AIDS situation in the country	27	19	52	98	27,3	19,2	52,5
14	Young people should be taught good morals before engaging in sexual behaviours	84	3	11	98	84,8	3,0	11,1
15	The only weapon against HIV/AIDS is educating the younger generation before they indulge in sexual activities	78	6	13	97	78,8	6,1	13,1
16	We as a community do not have any control over the spread of HIV/AIDS	26	16	56	98	26,3	16,2	56,6
17	The Government's plan is for the future generation to be HIV free	61	27	10	98	61,6	27,3	10,1

This table demonstrates that a considerable number of the respondents (84,8%) were concerned about teaching young people good morals at an earlier age before they indulge in sexual activities. The majority of the respondents (78,8%) viewed educating young people about sexual activities as the only weapon against AIDS.

Of the respondents, 52,5% believed the HIV/AIDS situation in the country can be changed; 56,6% indicated that, as community members, they do have control over the spread of the disease and its virus. More than half (61,6%) of the respondents were aware of the government's long-term plans to prevent the transfer of the virus to the younger generation.

5.3.1.4 Declarative knowledge

This knowledge entails the compilation of facts that an individual has about the disease and reveals the individual's attitudes towards the disease. It encompasses both conceptual and procedural knowledge and so the statements presented in the table below are based on all this knowledge, with the respondents' responses.

Table 5.9 Declarative knowledge

		TRUE	UNSURE	FALSE	N	% TRUE	% UNSURE	% FALSE
18	HIV/AIDS can be linked to witchcraft	12	9	77	98	12,1	9,1	77,8
19	HIV/AIDS is a disease that can be prevented	75	10	13	98	75,8	10,1	13,1
20	HIV/AIDS is an incurable disease	71	12	13	96	71,7	12,1	13,1
21	People with HIV can live up to ten years	71	12	13	96	71,7	12,1	13,1
22	There is a new treatment that can cure AIDS	15	37	44	96	15,2	37,4	44,4
23	Some traditional healers can cure Aids	15	17	64	96	15,2	17,2	64,6
24	HIV/AIDS is still part of apartheid system	9	18	69	96	9,1	18,2	69,7
25	HIV/AIDS is caused by God's punishment	13	26	60	99	13,1	26,3	60,6
26	Good nutrition is the foundation of combating HIV/AIDS	50	19	24	93	50,5	19,2	24,2
27	The use of vitamins can prevent HIV/AIDS	32	20	46	98	32,3	20,2	46,5

The above table reveals that a significant number of the respondents (77,8%) did not believe that HIV/AIDS is linked to witchcraft.

Furthermore, when the respondents were asked whether HIV/ADS is curable, 71,7 % of the respondents knew that it is not. This is a good sign but it is a matter of concern that some respondents seemed to have doubts about the incurability of HIV/AIDS. More than half (52,6%) of the respondents started to doubt when asked whether there is a new treatment that cures AIDS. Some said there is; some indicated uncertainty. Further lack of knowledge pertaining to the curability of AIDS was revealed when some respondents believed that some traditional healers can cure AIDS (15,2%) and some of them revealed themselves to be unsure (17,2%).

A significant number of the respondents (69,7%) seemed to lack knowledge of nutrition and AIDS. Some believed that good nutrition can combat HIV/AIDS (50,5%) whilst 19,2% of the respondents were not sure. Only 24% of them knew anything about it.

This table shows that 52,5% of the respondents had no knowledge of the relationship of vitamins to HIV/AIDS. 32,3% of the respondents believed that vitamins can prevent HIV/AIDS, whilst 20,2% respondents were not sure.

The next questions were designed to test the procedural knowledge of the parents.

5.3.1.5 Procedural knowledge

This type of knowledge refers to one's skills pertaining to a procedure. Therefore the respondents are questioned about their ability to discuss sexual matters with their children, and their attitudes to such discussion. Results are presented in the table below.

Table 5.10 Procedural knowledge

		TRUE	UNSURE	FALSE	N	% TRUE	% UNSURE	% FALSE
28	It is important for parents to educate their children on sex and sexuality	94	2	3	99	94,9	2,0	3,0
29	I know how to discuss sex with young children	68	20	9	97	68,7	20,2	9,1

When looking at the above table, it is notable that there was a consensus amongst almost all the respondents (94,9%) pertaining to the importance of the parents in educating their children about sex and sexuality. The positive attitude towards this was noted in the discussion of declarative knowledge above. Furthermore when the respondents were asked whether they could discuss sexual matters with their children, 68% said they could.

All of the above questions on factual knowledge of HIV/AIDS were analysed according to the respondents' demographic details, as presented below.

5.3.2 Analyses of factual knowledge by demographic details

All the questions presented above were directed at knowledge of the facts about HIV/AIDS. It was also considered worthwhile to break down responses demographically, i.e., according to gender, educational level, home language, age and marital status. The first subsection analysed below is the gender breakdown.

5.3.2.1 Factual knowledge of AIDS by gender

Female respondents revealed to more knowledge of the facts pertaining to HIV/AIDS than the males. The mean for the males is 50,64 whilst the mean for females is 62,56. It can be concluded that the difference is significant at the 1% level of significance.

This is illustrated in the table below.

Table 5.11 Factual knowledge of AIDS by gender

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Factual knowledge about AIDS (Section B (a))	Male	23	50,64	23,148	4,827
	Female	76	62,56	14,199	1,629

The F-test was done to compare the variances between males and females. The variability in the factual knowledge about AIDS is significantly different between males and females at the 1% level of significance. The t-test was done to compare the means between these two groups as presented in the table below.

Table 5.12 Independent samples test for equality of means for gender groups

		Levene's Test for Equality of Variances		T-test for Equality of Means		
		F	Sig.	T	Df	Sig. (2-tailed)
Factual Knowledge about AIDS (Section B (a))	Equal variances assumed	18,145	0,000***	-3,007	97	0,003***
	Equal variances not assumed			-2,340	27,192	0,027

The variances between males and females are illustrated in the histogram below, which shows that males had greater variances than females.

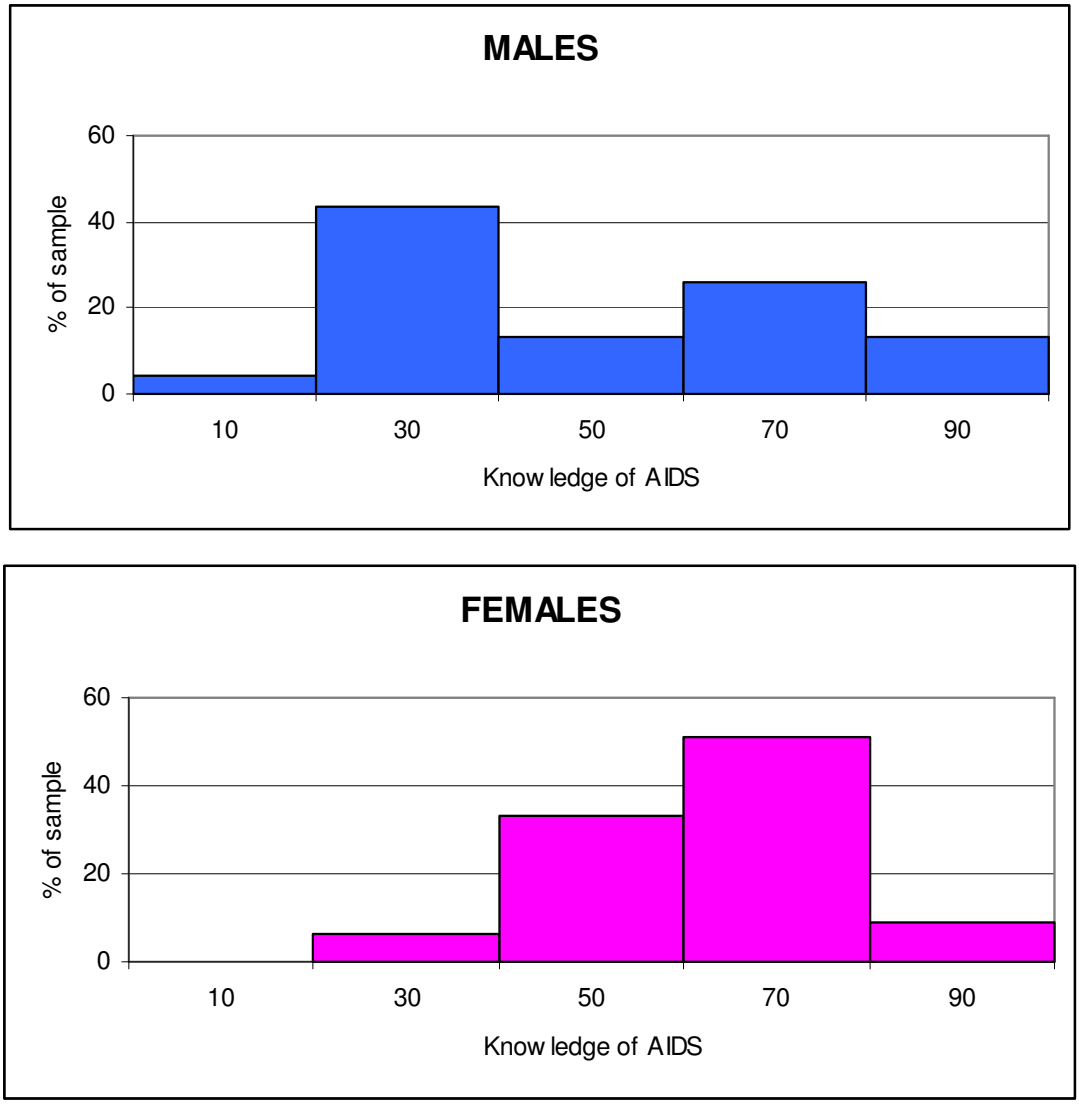

Figure 5.1

Histograms of (knowledge about AIDS as a %) for males and females

The subsequent analyses of factual knowledge about AIDS are based on the respondents' level of education.

5.3.2.2 Factual knowledge of AIDS by education

This analysis has revealed that education does affect the levels of knowledge of AIDS. The more educated the respondents were, the higher their levels of knowledge. In other words, the respondents with post-matric education had the highest levels of knowledge compared to all the other groups. This is presented in Table 5.13 below. It will be noted that respondents with no education and those with

education up to primary level were grouped together to solve statistical problems in analyses.

Table 5.13 Factual knowledge of AIDS by the level of education

Educational Level		Factual Knowledge of AIDS (Section B (a))
No education & Primary School education	Mean	47,96
	N	10
	Std. Deviation	17,126
Secondary School	Mean	58,97
	N	42
	Std. Deviation	15,875
Post-Matric	Mean	64,14
	N	44
	Std. Deviation	17,698
Total	**Mean**	**60,19**
	N	**96**
	Std. Deviation	**17,377**

A one-way analysis of variance (ANOVA) was done to compare the means between these groups. The educational group with no education and those with primary education had a significantly lower mean than the group with secondary school and post-matric qualifications, at a 5% level of significance. This is illustrated in the table below.

Table 5.14 One-way ANOVA for educational level

		Sum of Squares	Df	Mean Square	F	Sig.
Factual knowledge about AIDS (Section B (a))	Between groups	2243,830	2	1121,915	3,946	0,023**
	Within groups	26441,679	93	284,319		
	Total	**28685,510**	**95**			

** Significant at the 5% level of significance

5.3.2.3 Factual knowledge of AIDS by cultural group

As discussed earlier, since the Tsonga and Venda groups were underrepresented in the sample, with only three and one respondents respectively (see Table 5.3), they are not counted below. Instead, it was decided to regroup the languages into three major cultural groups, namely Nguni, Sotho and White. The analyses of these groups are presented in the table below.

Table 5.15 Factual knowledge of AIDS by cultural groups
(Means for three cultural groups)

Cultural Group		Factual Knowledge about AIDS (Section B (a))
Nguni	Mean	59,91
	N	43
	Std. Deviation	16,368
Sotho	Mean	58,26
	N	42
	Std. Deviation	16,918
White	Mean	68,44
	N	10
	Std. Deviation	15,521
Total	**Mean**	**60,08**
	N	**95**
	Std. Deviation	**16,629**

In the table presented above there was no statistical significance in knowledge levels based on the cultural groups. To compare the means, a one-way ANOVA was done.

Table 5.16 One-way ANOVA *for cultural groups*

		Sum of Squares	Df	Mean Square	F	Sig.
Factual Knowledge about AIDS (Section B (a))	Between Groups	838,650	2	419,325	1,534	0,221
	Within Groups	25155,348	92	273,428		
	Total	**25993,998**	**94**			

This table confirms that there are no significant differences in the means for different cultural groups.

5.3.2.4 Factual knowledge of AIDS by age

Statistical analysis revealed that respondents between 51-60 had a lower mean (47,67) knowledge level compared to all other ages. The highest knowledge level was in those aged between 21 and 30, who had a mean of 61,79. Though differences between these age groups were noted, they had no statistical significance. Analysis of the knowledge of the one respondent under 21 was statistically insignificant and so has not been included. This is illustrated in the table below.

Table 5.17 Factual knowledge of AIDS by age

Respondent age group		Factual knowledge of AIDS (Section B (a))
21 –30	Mean	61,79
	N	28
	Std. Deviation	14,917
31-40 years	Mean	61,50
	N	49
	Std. Deviation	17,641
41-50 years	Mean	57,57
	N	14
	Std. Deviation	20,160
51-60 years and 61+	Mean	47,67
	N	7
	Std. Deviation	14,471
Total	**Mean**	**60,03**
	N	**98**
	Std. Deviation	**17,241**

5.3.2.5 Factual knowledge of AIDS by marital status

On analysis it was revealed that there was a 5% level of significance between those staying together with the mean of 47.34 whilst the married group has a mean of 64.33. The single respondents have a mean close to the married ones, which is 60,45. This is illustrated in table 5.18.

Table 5.18 Marital status regrouped

Marital status recoded		Factual knowledge of AIDS (Section B (a))
Single	Mean	60,45
	N	60
	Std. deviation	14,760
Married	Mean	64,33
	N	26
	Std. deviation	20,655
Staying together	Mean	47,34
	N	12
	Std. deviation	17,611
Total	**Mean**	**59,87**
	N	**98**
	Std. deviation	**17,395**

A one-way ANOVA was done to compare the means between and within these groups. It can be concluded that there is a 5% level of significance of knowledge levels based on the marital status, as demonstrated in table 5.19.

Table 5.19 One-way ANOVA *for marital status*

		Sum of Squares	Df	Mean Square	F	Sig.
Factual knowledge of AIDS (Section B a)	Between groups	2420,707	2	1210,353	4,269	0,017**
	Within groups	26931,473	95	283,489		
	Total	**29352,180**	**97**			

5.3.3 Episodic knowledge of ages mostly infected with AIDS: Section B (b)

The questions that follow were designed to test parental episodic knowledge of the ages mostly infected with the disease.

Table 5.20 Groups mostly infected with HIV/AIDS

Choose groups mostly affected by HIV/AIDS	Frequency (N=99)
Ages 1-7	8
Ages 8-14	16
Ages 15-21	73
Ages 22-35	67
Ages 36-45	19
Ages 46-55	4
Ages 56-65	3
Ages 66	1
Don't know	1

Table 5.19 indicates a good response, as the majority (73) of the respondents marked the 15-21 age group as most infected with the disease; 67% marked 22-35 as most infected.

5.3.4 Skills development needed by the respondents: Section C (a)

Respondents were asked, "To what extent do you need assistance in developing your skills in educating younger children?" Their answers are shown in the table below.

Table 5.21 Skills development on educating children needed by the respondents

		Frequency	Percent	Valid percent	Cumulative percent
Valid	A very large extent	65	65,7	67,7	67,7
	A small extent	22	22,2	22,9	90,6
	Not at all	9	9,1	9,4	100,0
	Total	96	97,0	100,0	
Missing	System	3	3,0		
Total		**99**	**100,0**		

Of the respondents, 67,7% felt they badly needed assistance in developing skills for educating younger children; 22,9 % felt they needed some assistance; and 9,4% felt they did not need any assistance.

5.3.4.1 What type of assistance do you need?

This was an open-ended question for the respondents to verbalise the type of assistance they felt they needed. This question was qualitatively analysed. There were two remarkable groups

- The first group referred to teaching aids like pamphlets and to media like television as the type of assistance they felt they needed.
- The second group referred to a need to be taught the skills for educating children on HIV/AIDS as well as sex and sexuality.

The next question was designed to check the actual involvement of the parents in educating their children on HIV/AIDS so the focus was on questions 5 and 6.

5.3.5 How often have you discussed HIV/AIDS during the past six months? Section C (b)

As tabulated below, 16 respondents indicated that they had never discussed sex with children between 8-14 years; 21 said they had never discussed sex with children aged 15 and older.

Table 5.22 Frequency of HIV/AIDS discussion

		At least one a day	At least once a week	At least once a month	Less than once a month	Never
Cb1	The clinic staff	43	13	27	14	12
Cb2	Your co- workers (if working)	26	16	24	21	31
Cb3	Your neighbours	18	24	21	23	32
Cb4	Your spouse	18	24	20	27	15
Cb5	Your young children (8-14yrs)	38	19	15	15	16
Cb6	Other children (15yrs or older)	35	14	18	21	21

The next question gave the parents an opportunity to explain why they had not discussed HIV/AIDS with their children.

5.3.5.1 If you have not discussed HIV/AIDS with your young children, why not?

This question was analysed qualitatively. The respondents had almost similar comments, one of which was that parents did not know how to broach the subject of HIV/AIDS since sex education was involved. Some commented that they viewed their children as still young for such discussions. Some said that their children did not like such discussions.

5.3.6 Attitude towards AIDS education: Section C (c) Questions 1-5

The following questions were designed to discover the declarative and procedural knowledge of the parents. Declarative knowledge would pertain to their attitudes and beliefs towards educating a child on sex and sexuality, while the procedural knowledge would pertain to the actual performance of such a procedure.

According to table 5.23 below, 18,2% of the respondents indicated that they were scared to discuss sex with young children; 10,1% had mixed feelings towards such discussion, and 69,7% indicated that they did not fear having the conversation.

Responses to Question 2 reveal that 66,7% of the respondents disagreed and 14,1% agreed that “discussing sex with young children will lead to promiscuity,” and16,2% were undecided.

In their responses to Question 3, 78% disagreed that discussing sex at home is taboo, 13% agreed with the statement, and 6% were unsure.

Responses to Question 4 show that 81% disagreed, 9% agreed and 9% were unsure that “educating children on sex and sexuality is a waste of time since they do not listen.”

Table 5.23 Fear of discussing sex and sexuality with children

		Disagree	Unsure	Agree	N	Disagree	Unsure	% Agree
1	I am afraid of discussing sex with my young children	69	10	18	97	69,7	10,1	18,2
2	Discussing sex with young children will lead to promiscuity	66	16	14	96	66,7	16,2	14,1
3	Discussing sex at home with young children is a taboo (socially unacceptable)	78	6	13	97	78,8	6,1	13,1
4	Educating children on sex is a waste of time since they do not listen	81	9	9	99	81,8	9,1	9,1
5	Aids is taught at school so that parents need not educate their children at home	79	6	13	98	79,8	6,1	13,1

The researcher selected the above questions as the main theme of the study, as they revealed the parents’ attitudes towards AIDS and sexual education.

The attitudes were analysed according to the respondents’ demographic details, which were gender, educational level, cultural groups, age and marital status.

5.3.6.1 Attitude towards AIDS education based on gender

The results revealed that the means for attitude towards AIDS and sex education are not significantly different for males and females (see table 5.24).

Table 5.24 Gender and attitude towards sex education

Group statistics

	Gender	N	Mean	Std. deviation	Std. error mean
Attitude towards AIDS education	Male	23	8,35	2,124	0,443
Questions 1 to 5)	Female	76	8,91	1,368	0,157

This is illustrated in figure 5.2.

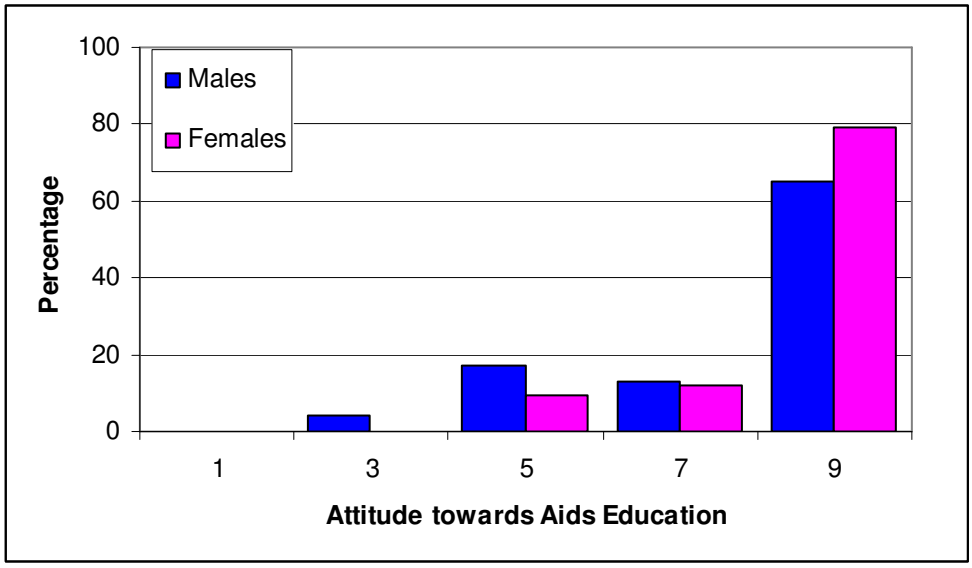

Figure 5.2

Attitude towards AIDS education (questions 1 to 5)

Levene's test was then done to test the differences in the variances between genders. It revealed that the variability in attitude towards AIDS education was significantly different for males and females at the 1% level of significance. This is illustrated in table 5.25.

Table 5.25 Independent samples test for equality of means for gender groups

		Levene's test for equality of variances		T-test for equality of means		
Attitude towards AIDS education	Equal variances assumed	9,741	0,002** *	-1,497	97	0,138
Questions 1 to 5)	Equal variances not assumed			-1,192	27,744	0,243

5.3.6.2 Attitude towards AIDS education based on educational level

No statistical significance was noted in attitude towards sex and AIDS education based on educational level, as shown in table 5.26.

Table 5.26 Attitude towards AIDS and sex education based on educational level

Educational level		Attitude towards AIDS education (Section C, questions 1 to 5)
No education	Mean	8,40
Primary school	N	10
	Std. deviation	2,171
Secondary school	Mean	8,83
	N	42
	Std. deviation	1,430
Post-matric	Mean	8,91
	N	44
	Std. deviation	1,522
Total	**Mean**	**8,82**
	N	**96**
	Std. deviation	**1,549**

5.3.6.3 Attitude towards AIDS education based on cultural group

No significant difference was noted between the cultural groups, as shown in table 5.27.

Table 5.27 ***Means for three cultural groups***

Cultural group		**Attitude towards AIDS education (Section C, questions 1 to 5)**
Nguni	Mean	9,12
	N	43
	Std. deviation	1,331
Sotho	Mean	8,50
	N	42
	Std. deviation	1,714
White	Mean	9,00
	N	10
	Std. deviation	1,414
Total	**Mean**	**8,83**
	N	**95**
	Std. deviation	**1,534**

5.3.6.4 Attitude towards sex and AIDS education based on age group

Analysis of the attitude of the one respondent under 21 was statistically insignificant and so has not been included. The respondents aged 41-50 had a more positive attitude towards sex and AIDS education than all the groups, with a mean of 9,71; the 21-30 group had a mean of 8,93; the 31-40 group had a mean of 8,55, while the 51-60 group had the lowest mean of 8,00. Therefore the difference in attitudes towards sex and AIDS education according to age group was significant at the 5% significance level (see table 5.28).

Table 5.28 Attitude towards sex and AIDS education based on age group

Respondents' age group		Attitude towards AIDS education (Section C, questions 1 to 5)
21-30 years	Mean	8,93
	N	28
	Std. deviation	1,359
31-40 years	Mean	8,55
	N	49
	Std. deviation	1,768
41-50 years	Mean	9,71
	N	14
	Std. deviation	0,469
51-60 years and 61+	Mean	8,00
	N	7
	Std. deviation	1,915
Total	**Mean**	**8,79**
	N	**98**
	Std. deviation	**1,588**

A one-way ANOVA was done to test the means between and within the groups based on the age. Significance was noted at the 5% significance level (see 5.29).

Table 5.29 One-way ANOVA for respondents' age

		Sum of squares	Df	Mean square	F	Sig.
Attitude towards AIDS education (Section C, questions 1 to 5)	Between groups	19,663	3	6,554	2,740	0,048**
	Within groups	224,837	94	2,392		
	Total	**244,500**	**97**			

5.3.7 Involvement with AIDS in general: Section C (c) Questions 6-10

The following questions tested for a combination of episodic knowledge (Q6 and 9); descriptive knowledge (Q 7-8) and declarative knowledge (Q 10). This is illustrated in table 5.30.

Table 5.30 ***Involvement with AIDS in general***

		Disagree	Unsure	Agree	N	% Disagree	% Unsure	% Agree
6	I have seen HIV statistics	27	24	45	96	27,3	24,2	45,5
7	I have been told I have a role in combating HIV/AIDS	36	19	34	89	36,4	19,2	34,3
8	I have attended a presentation or meeting teaching parents to educate children on sex	47	9	39	95	47,5	9,1	39,4
9	I know the status of my country on HIV/AIDS compared to other countries	22	21	53	96	22,2	21,2	53,5
10	I am highly knowledgeable on HIV/AIDS aspects	23	32	41	96	23,2	32,3	41,4

As table 5.30 shows, 45,5% of the respondents agreed that they had seen HIV statistics; 27,3% had never seen any; 24,2% were unsure. The reason for this response is unclear as one cannot be in between. It is possible that the respondents did not understand what statistics are.

In answer to question 7, 34,3% agreed that they had received the message that they had a role in combating the disease, either through the media, a parents' meeting or a summit meeting. A further 36,4% were not aware of their role in fighting the disease

since they disagreed with the statement, and 24% stated that they were not sure. The reason for this last response is unclear.

In answering question 8, 47,5% of the parents revealed that they had not attended a presentation or meeting to teach parents to educate their children on sex; 39,4% said they had, and 9,1% were unsure. The reason for being uncertain about attending a meeting is not clear.

The above questions were analysed according to gender, educational level, language, age and marital status.

Since these questions consisted of a combination of episodic, descriptive and declarative knowledge, they were classified as “involvement with AIDS in general”.

5.3.7.1 Involvement with AIDS in general based on gender

There are no significant differences in the variances of involvement with AIDS in general, for males and females (see table 5.31).

Table 5.31 Group statistics

	Gender	N	Mean	Std. deviation	Std. error mean
Involvement with AIDS in general	Male	23	7,22	1,731	0,361
(questions 6 to 10)	Female	75	6,91	1,847	0,213

Figure 5.3 illustrates this further.

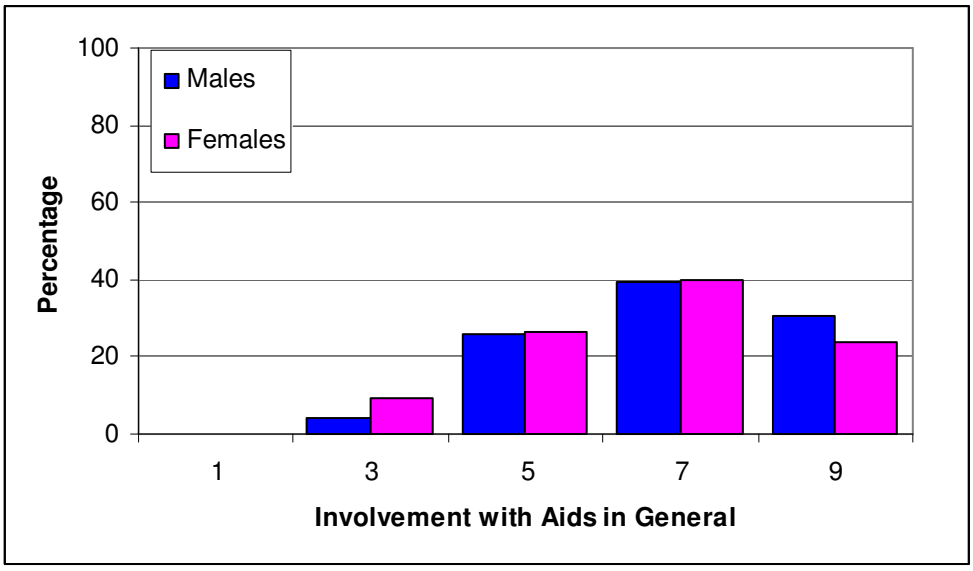

Figure 5.3

Involvement with AIDS in general

5.3.7.2 Involvement with AIDS in general based on educational level

Statistical analysis revealed that the group with primary level or with no education had a significantly lower mean than the group with secondary and post-matric qualifications (see table 5.32).

Table 5.32 Educational level pertaining to AIDS in general involvement

Educational level		Involvement with AIDS in general (Section C, questions 6 to 10)
No education & primary school	Mean	6,67
	N	9
	Std. deviation	1,732
Secondary school	Mean	6,74
	N	42
	Std. deviation	2,013
Post-matric	Mean	7,34
	N	44
	Std. deviation	1,642
Total	**Mean**	**7,01**
	N	**95**
	Std. deviation	**1,831**

The means between and within groups was tested by a one-way ANOVA. The significance is 0,264 between groups as indicated in table 5.33.

Table 5.33 One-way ANOVA for educational level

		Sum of squares	Df	Mean square	F	Sig.
Involvement with AIDS in general (Section C, questions 6 to 10)	Between groups	8,984	2	4,492	1,351	0,264
	Within groups	306,005	92	3,326		
	Total	**314,989**	**94**			

5.3.7.3 Involvement with AIDS in general based on cultural groups

No statistical significance was noted based on cultural group (see table 5.34).

Table 5.34 Involvement with AIDS in general based on cultural group

Cultural group		Involvement with AIDS in general (Section C, questions 6 to 10)
Nguni	Mean	6,81
	N	43
	Std. deviation	1,577
Sotho	Mean	7,02
	N	41
	Std. deviation	1,981
White	Mean	7,70
	N	10
	Std. deviation	2,111
Total	**Mean**	**7,00**
	N	**94**
	Std. deviation	**1,820**

5.3.7.4 Involvement with AIDS in general based on age group

Table 5.35 indicates that, though the mean for the age groups is not equal, the difference is too small for there to be any statistical significance.

Table 5.35 Involvement with AIDS in general based on age group

Respondents' age group		Involvement with AIDS in general (Section C, questions 6 to 10)
21-30 years	Mean	7,21
	N	28
	Std. deviation	1,853
31-40 years	Mean	6,92
	N	48
	Std. deviation	1,796
41-50 years	Mean	7,00
	N	14
	Std. deviation	1,961
51-60 years	Mean	6,43
	N	7
	Std. deviation	1,902
Total	**Mean**	**6,98**
	N	**97**
	Std. deviation	**1,826**

5.3.7.5 Involvement with AIDS in general based on marital status

As illustrated in table 5.36, a difference was noted between married people with a mean of 7,19; single people who had a mean of 7,07; while those who were living together had the lowest mean of 6,25. Although differences were noted, there was no significant statistical difference.

Table 5.36 Involvement with AIDS in general based on marital status

Marital status recoded		Involvement with AIDS in general (Section C, questions 6 to 10)
Single	Mean	7,07
	N	59
	Std. deviation	1,789
Married	Mean	7,19
	N	26
	Std. deviation	1,898
Staying together	Mean	6,25
	N	12
	Std. deviation	1,712
Total		**7,00**

5.3.8 Opinions on HIV-related aspects: Section D (a)

The following question tested for a combination of knowledge types and basically looked at the respondents' beliefs and attitudes (see table 5.37).

Table 5.37 Respondents' attitudes and beliefs

	Not at all	To a small extent	To a very large extent	Not at all (%)	To a small extent (%)	To a very large extent (%)
HIV/AIDS is a killer disease in South Africa	4	11	84	4,0	11,1	84,8
I have a role to play in combating HIV/AIDS	14	25	55	14,1	25,3	55,6
Enough is being done to prevent the spread of the disease in South Africa	13	44	36	13,1	44,4	36,4
Parents should take the responsibility of informing their children on HIV/AIDS	2	1	92	2,0	1,0	92,9
It is possible to prevent new infections	10	18	62	10,1	18,2	62,6
The Government is solely responsible for the HIV/AIDS issue	43	18	32	43,4	18,2	32,3
Talking to a child about sex does not show respect	72	7	15	72,7	7,1	15,2
Do you believe you can assist in any way to prevent further HIV infections?	16	19	56	16,2	19,2	56,6

Of the respondents, 84% agreed that HIV/AIDS is a killer disease in South Africa; 11% viewed it as a problem to a small extent; 4% did not view it as a problem, and 92,9% agreed that parents were responsible for educating their children on HIV/AIDS.

Table 5.38 ***Sources of knowledge***

	I heard about HIV/AIDS from the following sources	Yes	No	%Yes	%No
Db1	The Church	64	27	64,6	27,3
Db2	LoveLife	79	14	79,8	14,1
Db3	Parenthood association	43	44	43,4	44,4
Db4	President Thabo Mbeki	70	22	70,7	22,2
Db5	Mass media (TV)	89	6	89,9	6,1
Db6	Mass media (radio)	89	6	89,9	6,1
Db7	Mass media (magazines)	87	7	87,9	7,1
Db8	Mass media (newspaper)	91	3	91,9	3,0
Db9	My neighbours	77	12	77,8	12,1
Db10	The clinic	91	4	91,9	4,0

According to table 5.38, the respondents' leading sources of information were the clinic and the newspaper (91,9%); TV and radio (89,9%); LoveLife (79,8%); President Mbeki (70,7%); the churches (64,6)%), and lastly, the Parenthood Association (43,4%).

5.4 CONCLUSION

This chapter presented the research findings from the data collected on the parents and guardians of children between 5 and 17 years old. The general findings and indications of the questionnaire indicated good knowledge, as seen in the data presented. Chapter 6 discusses the findings in detail.

Chapter 6

Conclusion, limitations and recommendations

6.1 INTRODUCTION

South Africa has the greatest number of HIV/AIDS infected people in the world and there are no signs yet of any decline in the disease. Over and above the present concern, future predictions are a 50% rate of infection among 15-year-olds by 2010. Nevertheless the WHO holds out the hope that, if preventative measures are effectively applied, the rate of infection might not reach that state.

Currently the focus is on halting the spread of the virus to the younger generation by means of so-called primary preventative measures. Parents are among the key role players in this sphere. However, parents do not seem to be fulfilling their role of educating their children about the disease, as indicated by the rising rate of new infections among adolescents. Wilbraham of the Medical Research Council believed that parents might even be ignorant of their parental role and the current status of the disease. This motivated the researcher to examine parents' knowledge of HIV/AIDS.

The types of knowledge examined were those identified by Byners in 2001, and served as the conceptual framework for the study. These types of knowledge do not stand alone but work hand in hand. Therefore, for parents to be considered knowledgeable about HIV/AIDS, they need an overall knowledge of the disease.

6.2 TYPES OF KNOWLEDGE

The findings of the survey are discussed according to the types of knowledge addressed.

- **Episodic knowledge.** Episodic knowledge refers to the parents' awareness of the incidence of the disease, the state of affairs on HIV/AIDS in the country and the ages mostly infected.

- **Conceptual knowledge.** This covers the immunopathology of the virus in the blood and the effect of its attack on the immune system.
- **Procedural knowledge.** This refers to parental involvement in educating their children on sex and sexuality as well as HIV/AIDS. It explores the parental attitudes to educating children about this subject. Parents were given the chance to express their views on or difficulties with educating their children on this topic through open-ended questions.
- **Declarative knowledge.** This area covers the overall facts that the parents have on HIV/AIDS. It embraces both episodic and conceptual knowledge. It reveals the attitude towards and beliefs a parent might have about HIV/AIDS.
- **Descriptive knowledge.** This was tested for by asking whether parents were aware of the new plans for fighting the spread of the disease to the younger generation. In addition, this section was intended to find out whether parents do attend the HIV/AIDS campaigns to educate them about their role in fighting the disease. The parents were therefore asked how they obtained their knowledge of the disease.

6.3 FINDINGS

The study found that the respondents' levels of knowledge were not equal (see chapter 4). For example, according to responses to Section B of the questionnaire, males had lower factual knowledge of HIV/AIDS than females. The researcher could not find any reason for this knowledge gap. Furthermore, it was noted that the respondents with no education and primary education had lower factual knowledge of HIV/AIDS. This implies the need for more education on the disease in this group of people.

6.3.1 Episodic knowledge

Of the respondents, 64% knew that South Africa is one of the most HIV/AIDS-affected countries in the world; but about 40% did not seem aware of this. This knowledge is vital for parents in order to recognise the seriousness of the situation and be prepared to fight the disease. However, 84% of the respondents were conscious of the fact that AIDS is a killer disease in South Africa.

The majority of the respondents had sufficient knowledge of the ages mostly infected with the disease; 73% were aware of the incidence among 15 to 21-year-olds and conscious of the prevalence rate among the ages 22-35.

With regard to when the disease was discovered, only 21% of the respondents knew, 69% did not know, and the others were unsure. Although this information is not crucial, it does indicate that some parents were following the progress of the disease.

The majority of the respondents had never seen the HIV statistics. The relevant question was intended to find out whether the respondents had seen any statistics anywhere, since parents who have never seen the statistics are likely not to be acquainted with the severity of the disease in the country or conscious of the vigorous spread of the virus every year. They might not even be aware which age group is mostly infected.

The researcher believes that, as residents of South Africa, parents should exercise their right to access to information and education about what is happening in their country.

6.3.2 Conceptual knowledge

6.3.2.1 AIDS as a syndrome

The results of this part of the study indicate that the parents lacked the knowledge that AIDS is a syndrome and presents with a collection of diseases due to a weakened immune system. Of the respondents, 47,5% had no knowledge of this matter. Such a parent is likely to prefer poisoning or witchcraft as a reason for having HIV/AIDS symptoms. Hence parents need to know about AIDS as a syndrome.

6.3.2.2 The immunopathology of HIV

Respondents revealed a lack of knowledge of the processes of the virus in the blood, which is one of the most distinctive features of HIV. For instance, 50% of the respondents did not know that the statement "*HIV kills white blood cells"* was true. They therefore did not know that destroying white blood cells lowers the immune system, thereby making a person prone to opportunistic infections.

6.3.2.3 HIV vs AIDS

The findings indicate that the respondents had no knowledge of the cause of AIDS. In response to whether HIV is the only cause of AIDS, more than 50% did not know. The *South African National HIV Prevalence, HIV Incidence, Behavior and Communication Survey* found a similar lack of knowledge in all age groups from 15 to 50 and older. Therefore it can be concluded that the lack of knowledge in this sphere is a universal problem.

One possible reason for this lack of knowledge is the controversy in South Africa over President Mbeki's opinion that HIV is not the only cause of AIDS (Cullinan 2001:37). Cullinan from Health-e News Service was concerned that this might have a negative impact on the community. As Babbie and Mouton (2002:5) pointed out, a person in authority is an important source of information and his or her word is taken as valid. Of the respondents, 70,7% indicated President Mbeki as their source of information.

Stine (2000:464) emphasised that people nowadays are more dependent on the media as a source of information. In this study, the majority of the respondents indicated the media (i.e., newspapers, television and radio) as their main sources of information.

Another area on which the respondents lacked knowledge was that an HIV-infected person does not present with symptoms in the initial stages, and therefore is not recognizable as HIV-positive. Of the respondents, 42,4% did not know this. This is the crucial stage because, when people do not present with the symptoms of the disease, they are more likely to transfer it to others (Walker *et al.* 2004:200). Therefore a lack of parental knowledge in this sphere is of concern.

6.3.3 Declarative knowledge

It has been said that the African population generally associates HIV/AIDS with witchcraft (Sow 1990 in Van Dyk 2001:114; Frizell & King 2002:11). In this study, however, 77,8% of the respondents denied that HIV/AIDS is linked to witchcraft. This implies the possibility that people have changed in their perceptions of the disease.

Some respondents were found to lack knowledge of the curability of the disease, which is one of the exceptional features of AIDS. Of the respondents, 77% were aware of the fact that AIDS is incurable. Conversely, with regard to a possible new treatment that could cure AIDS, only 44% of the respondents denied this, while 33% who agreed that AIDS is incurable had doubts about the cure. These findings correspond with the results from the South African national prevalence, HIV incidence, behaviour and communication survey that revealed that the respondents were not sure if AIDS is curable or not (HSRC 2005). The researcher is of the opinion that this confusion might be due to a lack of knowledge of the potential of the antiretroviral treatment.

The respondents also lacked information on nutrition and HIV/AIDS. Of the respondents, 69% lacked knowledge in this sphere; 50% believed that good nutrition could combat HIV/AIDS; 19% were not sure, and only 24% denied that good nutrition could combat AIDS.

This problem could be due to the debate in South Africa over nutrition and HIV/AIDS. Johnson (2005a & b) expressed concern over the Minister of Health, Manto Tshabalala-Msimang's statement that "good nutrition was the foundation for combating disease like HIV/AIDS and good eating habits could delay the onset of AIDS 'indefinitely'". Johnson states that balanced nutrition is acknowledged as a booster of the immune system and general health, but the problem is the claim that good nutrition combats the disease or blocks the onset of AIDS. Johnson added that the message passed on to the community concerning the causes of the disease and its prevention was misleading.

The respondents further lacked knowledge of vitamins and AIDS. Regarding whether taking vitamins could prevent HIV/AIDS, 52% of the respondents indicated that they did not know; some agreed with the statement, and some were not sure.

The issue of the debate over the vitamins and AIDS in South Africa might have had an impact on this. Doctor Rath's vitamin products, which are said to be effective in the "Treatment and prevention of HIV/AIDS" and in "reversal of the life threatening disease" (TAC sues to gag Rath Foundation, 2005) has caused a hot debate in South Africa. In response to this, WHO and UNAIDS described these claims as

“wrong“, “misleading”, “dangerous” and “unhelpful”. (Clarke 2005). Furthermore Kohler-Barnerd, the democratic Alliance’s spokesman for health, raised her concern that the Minister of Health appeared to be supporting these products because she publicly endorsed them (Clarke).

The Medical Research Council has picked this up as one of the problems they have asked researchers to study: “to research public understanding…of the roles of nutrition and the immune boosters…’ (Medical Research Council 2005). Therefore there seems to be a gap in knowledge pertaining to this topic.

6.3.4 Procedural knowledge

Based on the results presented in chapter 5, it can be concluded that the majority of the respondents do educate their children about HIV/AIDS. Furthermore the respondents agreed that they know how to discuss this subject with their children.

In order to determine the respondents’ confidence and attitudes towards this procedure, they were asked the level at which they felt they needed assistance in educating their children. Of the respondents, 65,7% revealed that they needed such assistance to a large extent while 22,2% needed help to a small extent, and 9,4% did not need assistance. It should be noted that those who stated that they did not need assistance in developing their skills in educating younger children had the lowest score on factual knowledge of HIV/AIDS. On the other hand, those that indicated that they need assistance in developing their skills on educating children had the highest score in their factual knowledge of HIV/AIDS. This points out the level of ignorance, as those who need assistance do not view themselves as needing such assistance.

The next question asked the respondents to write down the type of assistance they needed. This question was too open and did not clarify or classify the manner of assistance. Some respondents therefore referred to visual aids, pamphlets or the media as the assistance they thought would be best. Others referred to skills for educating children, indicating that they needed to be taught “how to educate children pertaining to sexual matters.” Therefore it is concluded that this is an area of concern that has been identified in which parents need help.

Furthermore the respondents were given an opportunity to express their views or the problems that they encountered in educating their children on HIV/AIDS. This question was directed at the respondents who stated that they had never discussed HIV/AIDS with their children. Some parents pointed out that the subject of HIV/AIDS required one to discuss sex; therefore they did not know how to approach the subject. This indicates that parents need to be taught how to educate their children.

Furthermore some respondents pointed out that they are afraid that, once they start on this subject, their children will start sexual misbehaviour. As revealed in studies such as one conducted by LoveLife [sa], some parents hold such a belief. Some parents pointed out that children are rude; one parent even wrote that children become angry if you discuss with them this subject. This agrees with Power (2005:203), who found that some children are abusive to their parents, and so parents who do not know how to communicate with their children often end up not doing anything (Power 2005:15). All in all, these open-ended questions on parenting difficulties revealed a common problem for parents.

A strength noted in the enquiry of procedural knowledge is the positive attitude of the respondents towards educating their children on HIV/AIDS and sexual matters. Almost all (94%) the respondents agreed on the importance of educating children to such matters. Parents do view this as a weapon for fighting HIV/AIDS. Therefore there is a consensus pertaining to educating children about sexual matters, which was verbalised by the parents and by the organizations that are fighting AIDS, like WHO, UNICEF, and UNAIDS (UNICEF 2002:7). Nefale (2001:13) has pointed out this as a crucial point and cited the former president, Mandela, who insisted on this as a necessity to fight the disease.

6.3.5 Descriptive knowledge

The main goal in this millennium is to prevent the spread of the virus to the younger generations (*Financial Gazette* 2003). This is one of the main goals in the government's plans to fight this disease. Of the respondents, 61% were aware of the governments' plan. Yegidis *et al.* (1999:9) insisted that, for goals to be met, they should be stated clearly to everyone. This is why descriptive knowledge is a prerequisite for any project in society.

One of the areas of lack that was identified is that a larger percentage (55,6%) of the parents seemed not to be aware of their role in fighting the disease. Of these 36,4% plainly admitted that they were not aware of it, whilst 19,2% stated that they were not sure. This implies that the message has not reached them or that they did not get the message clearly. As Kreitner and Kinicki (1998:293) stated, when a role sender fails to communicate in a clear manner to a focus person, it leads to role ambiguity. This means that, if a person who is expected to play a role did not get the message well, that expected role will end up not being performed.

The possible reason for this could be the fact that only 39,4% of the respondents had attended a presentation or meeting addressing parents on their role of educating children about HIV/AIDS and sexual matters (e.g., the Parenthood Association, LoveLife and various health campaigns for fighting the disease). Of the respondents, 47,5% had not attended any presentation to tell parents about their role in educating children about sex. Since, as De Jong (2003:159) pointed out, the population that is expected to perform a task should be "properly targeted," this might imply that these parents were not properly targeted.

These responses indicate a need for more campaigns to target parents and teach them the importance of educating their children on the disease.

6.4 LIMITATIONS

In the sample of the study, some groups were underrepresented and, for this reason, had to be regrouped (see chapter 4).

Factor analysis to check construct validity could not be done as advised by the statistician due to the type of questions in the questionnaire.

6.5 RECOMMENDATIONS

It was noted that the respondents' knowledge of HIV/AIDS had been acquired through the media. This knowledge is often inaccurate or incomplete. Therefore the researcher recommends that parents have formal teaching on this disease, and that they attend short courses lasting for about a week. The University of South Africa and other institutions present formal courses on HIV/AIDS. These courses are

directed at people with post-matric qualifications and they assume that their attendees have a basic knowledge of HIV/AIDS. Since there is a demand for such courses, it is recommended that similar short courses be presented in various venues around the country for literate and illiterate people.

The researcher has noted that the literature studies emphasise preventative measures as the core for fighting the disease. At the same time, recruitment campaigns in South Africa stress secondary measures rather than primary measures. For example, the Medical Research Council advertised a Request for Proposals in the *Sunday Times* of 19 December 2005. This offered funding up to a million Rand for research but, even there, the focus was rather on infected people and antiretrovirals than on primary preventative measures. The researcher therefore recommends spending money on educating parents about the disease and training them to educate their children as part of the preventative measures which will benefit the country tomorrow if applied today.

Parents should be educated on the following.

- Solid facts on what HIV/AIDS is, as well as the processes of the virus in the blood.
- How to educate children about HIV/AIDS as well as sexual matters.

Parents need to be exposed to the current state of the disease every year after every national survey conducted in the country.

6.6 CONCLUSION

The study was undertaken to examine and determine the knowledge parents have of HIV/AIDS. The researcher discovered a gap in the knowledge of HIV/AIDS between educated and less educated parents but all the parents displayed a willingness to fight the disease.

The researcher has noted commonalities between this study and the *South African National Prevalence, Behavior and Communication Survey* conducted in 2005, which gives more weight to this study. For this reason the results can be generalisable.

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Annexure A

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0003

08 November 2005

Ms P Thwala
Regional Director
PO Box 78001
Sandton
2146

Dear Madam

APPLICATION TO CONDUCT A RESEARCH STUDY IN REGION 3 CLINICS

I am currently registered for MA Cur degree at the University of South Africa (Unisa) under the supervision of Professor Mavundla. My area of specialty is Primary Health Care and I am under the Department of Health Studies.

Presently, I am engaged in a research project entitled "Parental knowledge on HIV/AIDS". The main purpose of this study is to explore the level of knowledge parents/ guardians have on the phenomena of HIV/AIDS. The study intends to explore the facts that parents have concerning the phenomena of HIV/AIDS. The enquiry will further find out if the parents are conscious of the present state of the disease in their country. This will be accomplished through the filling out of the questionnaires.

In this letter I am requesting the permission of conducting the study on the parents /guardians with children between 5-17 years old. I am intending to perform the study in all region 3 clinics among 100 informants. Once the data has been collected, it will be analyzed using a statistical package for social sciences (SPSS).

The results of the study will benefit various health workers and non-government organizations that are rendering different campaigns to educate on the disease. The study anticipates determining areas of improvement in involving the parents on fighting the disease.

Thanking you in advance.

Yours sincerely

Gugu Ngcamu
RESEARCHER: RN, M Cur Student

QUESTIONNAIRE: KNOWLEDGE ON HIV/AIDS

November 2005

Dear Mr/Ms…,

In order to manage the spread of Aids/HIV in South Africa we need more information on the underlying dynamics impacting on the prevalence of the disease from a human perspective.

This study forms part of my Master degree at the University of South Africa (UNISA), and should benefit future generations within our country. You have been selected as respondent to participate in this very important survey, by completing the attached questionnaire. Your response to this questionnaire will be considered as **highly confidential**. Your name does not appear on the questionnaire, so you will remain anonymous.

Please answer all the questions as honestly as possible and remember that there are no right or wrong answers. We are only interested in your own opinions. It will take you no longer than twenty minutes to complete the questionnaire.

Please indicate your choice by ticking the appropriate box/es at each question.

The following example serves to illustrate:

Please tick the appropriate box that represents your opinion on the following /statement:

For Official Use Only columns:

	Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Strongly agree	Do not know	6
1	HIV/AIDS is an important aspect	1	2	3	4	5 ×	6	7	

Thank you very much for your co-operation. We do appreciate your willingness to participate in the survey.

Gugu

SECTION A: BASIC BIOGRAPHICAL INFORMATION

For Official Use Only columns:

ID: 3

a. What is your gender?

Male	Female
1	2

4

b. Your highest Educational Qualifications?

No Education	Primary School	Secondary School	Post Matric
1	2	3	4

5

c. Your home Language

ZULU	SETSWANA	XHOSA	SSOTHO	NDEBELE	SEPEDI	SISWALI	VENDA	TSONGA	ENGLISH	AFRIKAANS
1	2	3	4	5	6	7	8	9	10	11

7

d. How old are you?

Younger than 21	21 – 30 years	31 - 40 years	41 – 50years	51 – 60years	61 years or older
1	2	3	4	5	6

8

e. Your Current marital status?

Single	Married	Staying Together	Widowed	Divorced	Estranged

9

f. How many children do you have falling in each of the following categories?

Younger than 5 years	
5 – 17 years	
Older than 17 years	

10

11

12

SECTION B: KNOWLEDGE LEVELS

a Please indicate whether the following statements are true or false. If you are not sure, just indicate that you do not know.

		TRUE	UNSURE	FALSE	
1	HIV/Aids is the disease for South Africa only	1	2	3	
2	HIV/Aids was discovered in the early 1970's	1	2	3	
3	Our young children (8-14 years) are not prone to HIV/Aids yet	1	2	3	
4	South Africa is one of the mostly HIV/Aids affected countries in the world	1	2	3	
5	HIV stands for Human Immunodeficiency Virus				
6	HIV kills red blood cells				
7	HIV kills white blood cells	1	2	3	
8	HIV strengthens the human immune system	1	2	3	
9	HIV increases white blood cells	1	2	3	
10	A Syndrome is a collection of diseases that are acquired because the immune system has been weakened by HIV	1	2	3	
11	HIV is not the only cause of Aids				
12	It's easy to recognise someone with HIV	1	2	3	
					24
13	There is nothing one can do to change HIV/Aids situation in the country	1	2	3	
14	Young people should be taught good morals before engaging in sexual behaviors	1	2	3	
15	The only weapon against HIV/Aids is educating the younger generation before they indulge in sexual activities	1	2	3	
16	We as a community do not have any control over the spread of HIV/Aids	1	2	3	
17	The government's plan is for the future generation to be HIV free	1	2	3	
18	HIV/Aids can be linked to witchcraft	1	2	3	
19	HIV/Aids is a disease that can be prevented	1	2	3	
20	HIV/Aids is an incurable disease	1	2	3	
21	People with HIV can live up to ten years	1	2	3	
22	There is a new treatment that can cure Aids	1	2	3	
23	Some traditional healers can cure Aids	1	2	3	
24	HIV/Aids is still part of the apartheid system	1	2	3	
25	HIV/Aids is caused by Gods punishment	1	2	3	
26	Good nutrition is a foundation of combating HIV/Aids	1	2	3	
27	The usage of Vitamins can prevent HIV/Aids	1	2	3	
28	It is important for parents to educate their children on sex and sexuality	1	2	3	
29	I know how to discuss sex with young children	1	2	3	
					41

b Choose two groups you feel are mostly affected by HIV/AIDS

Ages of 1-7	1	
Ages of 8-14	2	
Ages of 15 – 21	3	
Ages of 22 – 35	4	
Ages of 36 – 45	5	
Ages of 46 – 55	6	
Ages of 56 – 65	7	
Ages of 66	8	
I do not know	9	

50

SECTION C : INVOLVEMENT ON HIV/AIDS ISSUUES

a To what extent do you …

		A very large extend	A small extend	Not at all
1	Need assistance in developing your skills in educating younger children			

51

What type of assistance do you need? _____

_____

b How often have you discussed HIV/Aids during the past six months with?

		At least once a day	At least once a week	At least once a month	Never	
1	The clinic staff	4	3	2	1	
2	Your co-workers (if working)	4	3	2	1	
3	Your neighbors	4	3	2	1	
4	Your spouse	4	3	2	1	
5	Your young children – (8-14 yrs)	4	3	2	1	
6	Other children – (15 yrs or older)	4	3	2	1	

If you have not discussed HIV/Aids with your young children, why not?

c Please indicate the extent to which you agree or disagree on each of the following statements?

		Disagree	Unsure	Agree	
1	I am afraid of discussing sex with my young children				
2	Discussing sex with young children will lead to more promiscuity				
3	Discussing sex at home with young is a taboo (socially unacceptable)				
4	Educating children on sex is a waste of time since they do not listen				
5	Aids is taught at school so that parents cannot educate their children at home				
6	I have seen HIV statistics				
7	I have been told I have a role of combating HIV/AIDS				
8	I have attend a presentation or meeting teaching parents to educate children on sex				
9	I know the status of my country on HIV/AIDS compared to other countries				
10	I am highly knowledge on HIV/AIDS aspects				

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SECTION D : OPINIONS ON HIV/AIDS RELATED ASPECTS

a. Please indicate your opinion on each statement?

		A very large extend	A small extend	Not at all	
1	HIV/Aids is a killer disease in South Africa	3	2	1	
2	I have a role to play in combating HIV/Aids	3	2	1	
3	Enough is been done to prevent the spread of the disease in South Africa	3	2	1	
4	Parents should take the responsibility of informing their children on HIV/Aids	3	2	1	
5	It is possible to prevent new infections.	3	2	1	
6	The Government is solely responsible for the HIV/AIDS issue	3	2	1	
7	Talking to a child about sex, does not show respect	3	2	1	
8	Do you believe you can assist in anyway to prevent further HIV infections?	3	2	1	

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b. I have heard of HIV/AIDS from the following sources

		Yes	**No**	
1	The church	1	2	
2	Love Life	1	2	
3	Parenthood Association	1	2	
4	President Thabo Mbeki	1	2	
5	Mass media (TV)	1	2	
6	Mass media (Radio)	1	2	
7	Mass media (Magazines)	1	2	
8	Mass media (newspapers)	1	2	
9	My neighbours	1	2	
1	The clinic	1	2	

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Annexure D

INFORMATION ON STATISTICAL TESTS, ARRANGED IN TABLES

(i) Factual knowledge about AIDS (Section B (a))

Duncan

Educational level (recoded)	N	Subset for alpha = .05	
		1	2
No education/primary education	10	47.96	
Secondary school	42		58.97
Post-matric	44		64.14
Sig.		1.000	.329

Means for groups in homogeneous subsets are displayed.

a Uses Harmonic Mean Sample Size = 20.473.

b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

(ii) Independent samples test for equality of means for gender groups

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	Df	Sig. (2-tailed)
Involvement with AIDS in general (Section C (c), questions 6 to 10)	Equal variances assumed	.037	.847	.716	96	.476
	Equal variances not assumed			.741	38.639	.463

(iii) Means over levels of education

Educational level		Factual knowledge about AIDS (Section B a)	Attitude towards AIDS education (Section C c, questions 1 to 5)	Involvement with AIDS in general (Section C c, questions 6 to 10)
No education	Mean	44.83	6.67	7.00
	N	3	3	3
	Std. Deviation	27.365	2.082	2.646
Primary school	Mean	49.30	9.14	6.50
	N	7	7	6
	Std. Deviation	13.541	1.864	1.378
Secondary school	Mean	58.97	8.83	6.74
	N	42	42	42
	Std. Deviation	15.875	1.430	2.013
Post-matric	Mean	64.14	8.91	7.34
	N	44	44	44
	Std. Deviation	17.698	1.522	1.642
Total	Mean	60.19	8.82	7.01
	N	96	96	95
	Std. Deviation	17.377	1.549	1.831

(iv) One way Anova for educational level

		Sum of Squares	Df	Mean Square	F	Sig.
Attitude towards AIDS education (Section C (c), questions 1 to 5)	Between Groups	2.120	2	1.060	.436	.648
	Within Groups	225.870	93	2.429		
	Total	227.990	95			
Involvement with AIDS in general (Section C (c), questions 6 to 10)	Between Groups	8.984	2	4.492	1.351	.264
	Within Groups	306.005	92	3.326		
	Total	314.989	94			

There is a significant difference in the means of Factual Knowledge about AIDS for the different levels of education.

The educational group with no and primary education had a significantly lower mean than the group with secondary school and post-matric qualifications.

(v) Comparison of means over different language groups

Language Group		Factual knowledge about AIDS (Section B (a))	Attitude towards AIDS education (Section C (c) questions 1 to 5)	Involvement with AIDS in general (Section C (c), questions 6 to 10)
Zulu	Mean	62.70	9.06	6.89
Nguni	N	18	18	18
	Std. Deviation	17.139	1.552	1.367
Setswana	Mean	62.48	8.65	6.47
Sotho	N	17	17	17
	Std. Deviation	18.686	1.835	2.401
Xhosa	Mean	57.73	9.10	6.90
Nguni	N	21	21	21
	Std. Deviation	15.706	1.261	1.578
Sotho	Mean	54.24	8.17	6.91
Sotho	N	12	12	11
	Std. Deviation	13.472	1.946	1.514
Ndebele	Mean	66.43	9.67	5.67
Nguni	N	3	3	3
	Std. Deviation	13.632	.577	3.055
Sepedi	Mean	56.47	8.62	7.85
Sotho	N	13	13	13
	Std. Deviation	17.355	1.387	1.519
Siswali	Mean	35.70	9.00	7.00
Nguni	N	1	1	1
	Std. Deviation	.	.	.
Venda	Mean	82.10	10.00	9.00
Not classified	N	1	1	1
(Group too small)	Std. Deviation	.	.	.
Tsonga	Mean	43.17	6.67	5.67
Not classified	N	3	3	3
(Group too small)	Std. Deviation	32.323	2.082	1.155
English	Mean	65.11	8.71	7.14
White	N	7	7	7
	Std. Deviation	17.727	1.604	2.268
Afrikaans	Mean	76.20	9.67	9.00
White	N	3	3	3
	Std. Deviation	3.503	.577	1.000
Total	Mean	59.79	8.78	6.98
	N	99	99	98
	Std. Deviation	17.326	1.581	1.816

Since some of the groups were very underrepresented in the sample, it was decided to group the language groups into three major cultural groups, namely Nguni, Sotho and White.

(vi) One-way Anova for cultural group

		Sum of Squares	Df	Mean Square	F	Sig.
Factual knowledge about AIDS (Section B (a))	Between Groups	838.650	2	419.325	1.534	.221
	Within Groups	25155.348	92	273.428		
	Total	25993.998	94			
Attitude towards AIDS education (Section C (c), questions 1 to 5)	Between Groups	8.387	2	4.193	1.812	.169
	Within Groups	212.919	92	2.314		
	Total	221.305	94			
Involvement with AIDS in general (Section C (c), questions 6 to 10)	Between Groups	6.413	2	3.206	.967	.384
	Within Groups	301.587	91	3.314		
	Total	308.000	93			

No significant differences in the means for different cultural groups.

ONE-WAY ANOVA BASED ON THE AGE OF THE RESPONDENTS

(vii) One-way Anova for age of respondent

		Sum of Squares	Df	Mean Square	F	Sig.
Factual Knowledge about AIDS (Section B (a))	Between Groups	1346.546	3	448.849	1.535	.211
	Within Groups	27485.536	94	292.399		
	Total	28832.082	97			
Attitude towards AIDS education (Section C (c), questions 1 to 5)	Between Groups	19.663	3	6.554	2.740	.048**
	Within Groups	224.837	94	2.392		
	Total	244.500	97			
Involvement with AIDS in general (Section C (c), questions 6 to 10)	Between Groups	3.864	3	1.288	.379	.768
	Within Groups	316.095	93	3.399		
	Total	319.959	96			

** Significant at 5% level of significance

(viii) Attitude towards AIDS education (Section C (c), questions 1 to 5)

Duncan

		Subset for alpha = .05	
Respondent age group	N	1	2
51-60 years	7	8.00	
31-40 years	49	8.55	8.55
21 –30	28	8.93	8.93
41-50 years	14		9.71
Sig.		.126	.055

Significant differences between the means of Attitude towards AIDS education for different age groups

(ix) Comparison of means for marital status

Marital dtatus of respondent		Factual knowledge about AIDS (Section B a)	Attitude towards AIDS education (Section C (c), questions 1 to 5)	Involvement with AIDS in general (Section C (c), questions 6 to 10)
Single	Mean	60.59	8.68	7.06
	N	53	53	53
	Std. Deviation	14.564	1.578	1.726
Married	Mean	64.33	9.04	7.19
	N	26	26	26
	Std. Deviation	20.655	1.341	1.898
Staying together	Mean	47.34	8.25	6.25
	N	12	12	12
	Std. Deviation	17.611	2.221	1.712
Widowed	Mean	62.74	9.40	7.20
	N	5	5	5
	Std. Deviation	19.765	1.342	2.775
Divorced	Mean	56.00	9.00	7.00
	N	1	1	1
	Std. Deviation	.	.	.
Estranged	Mean	45.80	10.00	
	N	1	1	
	Std. Deviation	.	.	
Total	Mean	59.87	8.78	7.00
	N	98	98	97
	Std. Deviation	17.395	1.589	1.814

(x) One-way Anova for marital status

		Sum of Squares	df	Mean Square	F	Sig.
Factual knowledge about AIDS (Section B a)	Between Groups	2420.707	2	1210.353	4.269	.017**
	Within Groups	26931.473	95	283.489		
	Total	29352.180	97			
Attitude towards AIDS education (Section C (c), questions 1 to 5)	Between Groups	5.116	2	2.558	1.013	.367
	Within Groups	239.945	95	2.526		
	Total	245.061	97			
Involvement with AIDS in general (Section C (c), questions 6 to 10)	Between Groups	7.983	2	3.991	1.218	.300
	Within Groups	308.017	94	3.277		
	Total	316.000	96			

** Significant at 5% level of significance

The factual knowledge about AIDS is significantly different for the three groups at the 5% level of significance. Those staying together have a significantly lower factual knowledge than those that are single or those that are married.

(xi) Factual knowledge about AIDS (Section B (a)

Duncan

Marital status recoded	N	Subset for alpha = .05	
		1	2
Staying together	12	47.34	
Single	60		60.45
Married	26		64.33
Sig.		1.000	.449

(xii) Means over groups of skills development needed (Section C (a))

To what extend do you need assistance in developing your skills in educating younger children		Factual Knowledge about AIDS (Section B (a))	Attitude towards AIDS education (Section C (c), questions 1 to 5)	Involvement with AIDS in general (Section C (c), questions 6 to 10)
A very large extend	Mean	60.96	8.62	7.02
	N	65	65	64
	Std. Deviation	16.564	1.646	1.618
A small extend	Mean	57.20	8.86	6.82
	N	22	22	22
	Std. Deviation	19.467	1.521	2.281
Not at all	Mean	55.08	9.33	6.89
	N	9	9	9
	Std. Deviation	19.033	1.323	2.028
Total	Mean	59.55	8.74	6.96
	N	96	96	95
	Std. Deviation	17.425	1.591	1.810

(xiii) One-way Anova for skills development needed

		Sum of Squares	df	Mean Square	F	Sig.
Factual knowledge about AIDS (Section B (a))	Between Groups	429.694	2	214.847	.703	.498
	Within Groups	28415.504	93	305.543		
	Total	28845.198	95			
Attitude towards AIDS education (Section C (c), questions 1 to 5)	Between Groups	4.514	2	2.257	.890	.414
	Within Groups	235.976	93	2.537		
	Total	240.490	95			
Involvement with AIDS in general (Section C (c), questions 6 to 10)	Between Groups	.686	2	.343	.103	.903
	Within Groups	307.146	92	3.339		
	Total	307.832	94			

No significant differences

(xiv) Correlations

		Factual Knowledge about AIDS (Section B (a))	Attitude towards AIDS education (Section C (c), questions 1 to 5)	Involvement with AIDS in general (Section C (c), questions 6 to 10)
Factual knowledge about AIDS (Section B a)	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	99		
Attitude towards AIDS education (Section C (c), questions 1 to 5)	Pearson Correlation	.385	1	
	Sig. (2-tailed)	.000***		
	N	99	99	
Involvement with AIDS in general (Section C (c), questions 6 to 10)	Pearson Correlation	.194	.127	1
	Sig. (2-tailed)	.056*	.212	
	N	98	98	98

*** Correlation is significant at the 0.01 level (2-tailed).
** Correlation is significant at the 0.05 level (2-tailed).
* Correlation is significant at the 0.10 level (2-tailed).

The correlation between the factual knowledge about AIDS and the attitude towards AIDS education is very highly significant at the 1% level of significance. It can be interpreted that the higher the Factual Knowledge about AIDS, the more positive the attitude towards AIDS education.

Factual knowledge about AIDS was also positively correlated with Involvement with AIDS, but it is only significant at the 10% level of significance.