The Relationship Between Attitudes and Prevention Knowledge of HIV/AIDS Among Matriculation Students

By

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DECLARATION

I declare that this dissertation is my own work. It is being submitted for the fulfilment of the Degree Master of Arts in Psychology at the University of Kwa Zulu Natal, Westville Campus. It has not been submitted before for any other degree or examination at any other university.

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ABSTRACT

The present study sought to understand the relationship between attitudes and prevention knowledge of HIV/AIDS among matriculation students. HIV infection rates has reached epidemic proportions in South Africa and has serious consequences for individuals, particularly for adolescents as they make up the largest percentage of the vulnerable age group aged between 15 and 29. Given the high risks that adolescents are faced with, many awareness and prevention programmes have been implemented. These programmes have focused particularly on attitudinal and behavioural change towards HIV/AIDS prevention. The reason for this is that all sexual behaviour is mediated, facilitated and or justified by cognitions and beliefs (Vanwesenbeeck, Bekker & Van Lenning 1998). The sample was selected from a boys school, which chose to remain anonymous and a girls high school in Westville, Durban. Questionnaires aimed at assessing knowledge regarding the spread and prevention of HIV/AIDS were administered. Ouestionnaires aimed at assessing their attitudes towards prevention of HIV/AIDS were also administered to learners. Learners had been exposed to awareness and life skills programmes as part of their curriculum. Festinger's (1957) theory of cognitive dissonance was used as a framework to understand the relationship between one's attitudes and behaviour. The findings indicated that most respondents had adequate knowledge regarding HIV/AIDS spread and prevention. The results also indicated that there was a correlation between knowledge and attitudes but it was not a strong relationship suggesting that there may have been external factors that may have impacted on the relationship thus placing adolescents at a relatively high risk to the HIV infection. This according to Festinger's (1957) theory suggests that there is some inconsistency between attitudes and behaviour towards HIV/AIDS prevention amongst learners. The findings of the study also highlight the need for future research in this area, which would

better inform and improve intervention programmes that have been targeted at adolescents in
high schools.

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CHAPTER ONE

Introduction

At the start of the new century, South Africa has been found to have the largest number of HIV-infected people of any country in the world. The first two cases in South Africa were identified in 1982 and at least for the first 8 years, the epidemic was primarily located among white homosexuals (Whiteside & Sunter, 2000). However as the number of cases increased the disease began spreading among other groups. By 1991, the number of heterosexually transmitted cases equalled the number of homosexual cases (Whiteside & Sunter, 2000). The above clearly indicates that the growth of infections in South Africa is exponential in nature and has been accompanied by greater visibility of the epidemic, which is related to the increasing numbers of AIDS cases and deaths. HIV/AIDS seems to have had an even greater impact on adolescents between the ages of 12-17. They have either been infected with the disease or affected by it (Kaiser, 2001).

The HIV epidemic has affected people all over the world but it should be pointed out that 95% of the total global population living with HIV are found in the developing world (Kaiser, 2001). This proportion is set to grow further as infection rates continue to rise in countries where poverty, poor health systems and the limited resources for effective prevention and care, fuel the spread of AIDS. Sub-Saharan Africa is the worst affected region having around 70% of the global total of HIV positive people. Although the general rate of the population could appear to stabilise, the number of AIDS related deaths will begin to offset the number of new infections (Kaiser, 2001).

South African society is both susceptible to the spread of HIV and vulnerable to its impact. Although South Africa as a nation is susceptible to the spread of HIV and

vulnerable to the impact of AIDS, there are certain individuals in society that are more at risk and vulnerable. South Africa has the highest rates of infection as compared to other African countries to the north amongst people aged between 15-44 years old. Since most South Africans are between the ages mentioned above, AIDS has the potential to have a devastating effect on social, economic and human development (Whiteside & Sunter, 2000).

The main mode of transmission of HIV in South Africa is sexual contact. It has been further estimated that there are at least 4.2 million people infected with HIV in South Africa. At least 1800 people get infected with HIV everyday and half of the daily infection is reported to be young people between the ages of 15-25 and large numbers of these are young women (Mjele, 2002). Whiteside and Sunter (2000), have suggested that Kwa Zulu Natal (KZN) has consistently had the highest levels of HIV infection as compared to Mpumalanga which had the second highest prevalence rate of 30% but it dropped in 1999 to 27.3% putting the province in third place behind Free State. However recent data from HSRC has indicated that KZN's infection figure stands at 11.7%, the fourth highest in the country. It has been suggested that this is almost 200% lower than the 2001 antenatal survey figure of 33.5%. It has also been estimated that HIV prevalence in South Africa was 11.4% and that 15.2% of the people in the 15-49 age group were HIV positive (Clarke, 2002).

In the 15-49 age group, survey results have found clear evidence of higher vulnerability to HIV of people living in urban informal settlements. 28.4% of those infected with HIV lived in informal settlements, followed by 15.8% in urban areas. The

least number of infected people were found on farms, 11.3% and only a slightly higher figure of 12.4% in tribal areas (Clarke, 2002).

From the above one can still argue that HIV infections are continuing to increase despite the efforts to increase awareness among people about the effects and consequences of HIV. It is for this reason that this study will attempt to understand why there seems to be an increase in the number of infections especially among adolescents particularly matriculation students in the Durban Metropolitan area. This research would therefore attempt to find out about the attitudes matriculation students have towards prevention methods against HIV/AIDS.

Motivation for study

The devastating impacts of the HIV/AIDS epidemic in Africa has received worldwide attention as policy makers and analysts engage in policy debates to contain the crisis (Umerah-Udezulu & Williams, 2004). It has been estimated that 55% of HIV positive adults in Sub Saharan Africa is women. This constitutes 80% of the world's woman population with HIV. Average infection rates in teenage African girls are 5 times higher than those of teenage boys. The largest percentage of people infected with HIV is in the age group of 15—29 years of age (Department of Health, 2002). Other figures have indicated that in South Africa at least 15.2% of the people between 15-49 years are HIV positive, suggesting a high risk for adolescents as well as an increased vulnerability.

Given the high risk adolescents are faced with, many programs have been implemented and they have largely focused on attitudinal and behavioural change towards HIV/AIDS prevention (Abdool-Karim, 2001). But most programmes have been unsuccessful because there has been a general lack of focus on changing behaviour and attitudes. The problem of the AIDS epidemic in Africa is associated with high levels of poverty, low level education attainment, inadequate or lack of public health services, inadequate personnel in medical or public health fields to apathy, myths and misconceptions about HIV/AIDS. A low self-concept linked with emotion, behaviour and human factors have also fuelled into the HIV/AIDS epidemic (Umerah-Udezulu & Williams, 2004). Mjele (2002) has suggested that young people in South Africa tend to hear about HIV/AIDS through mass media, at school, from their peers and sometimes at church. It is however still taboo to talk about sexual matters and sexuality especially

between youth and their parents. The problem relates to the fact that many parents still find it uncomfortable to discuss sexual matters with children.

Roberts and Miller (2004) have argued that adolescents' exposure to STD's is dependent on the prevalence and patterns of the primary risk behaviours associated with disease transmission including a young age at sexual debut, multiple sexual partners and inconsistent use of condoms. Given the extensive psychosocial ramifications of HIV and its rapid spread, it is then important to have a working knowledge of the psychological components of the illness, in assisting the person with HIV.

In response to the growing number of people infected, there were many interventions that were implemented (Whiteside & Sunter, 2000). These interventions focused on prevention methods but there still seems to be an increase in the number of HIV infections and a lack of behavioural change. In addition to this, although much has been done to educate people about HIV/AIDS there are still a number of myths and beliefs that people believe in. Most of these myths and beliefs revolve around the modes of transmission and its contagion levels (Whiteside & Sunter, 2000). HIV/AIDS is a medical condition, but numerous researchers have emphasised that HIV/AIDS prevention is interrelated with the psychosocial context within the community. Interventions should therefore be conceptualised and implemented in terms of the various levels of the community (Visser, Schoeman & Perold, 2004).

Data on the natural history of the adolescent sexuality is limited and the range and context of sexual experiences of adolescents are poorly understood. Instead adolescents have been classified as sexually active or not sexually active and interventions seem to be tailored to this simple dichotomy (Roberts & Miller, 2004). Therefore, interventions that

are aimed at reducing consequences of risky behaviour need to be reviewed. There is a growing body of literature on psychological issues for the person with the HIV disease but much of it is still anecdoted and of little practical value. However a more scientific body of research would serve to fill a hiatus in the field. It also needs to be mentioned that many areas of psychological studies around HIV/AIDS have become exhausted and sometimes clichéd. Novel research unique to the South African population, culture and different age groups is essential. Also research which addresses the peculiarities of our social, political and economic climate are vital to addressing the pandemic in South Africa.

CHAPTER TWO

Conceptual Framework

2.1. Introduction

HIV/AIDS has raised many concerns across many generations and the number of new infections has increased drastically especially among people aged between 15-25. However it needs to be noted that adolescents aged between 12-18 seem to be more vulnerable in comparison to other groups. Adolescents are particularly vulnerable because it is at this age that they are faced with developmental issues relating to sexuality. Since sexuality is an important part of adolescence and the development process, it is important for one to understand and investigate whether adolescents have adequate prevention knowledge around HIV and their perspectives about these prevention methods. The reason for this is that some adolescents in the age range mentioned above are sexually active and may be thinking of becoming sexually involved with someone.

A conceptual understanding of attitudes and behaviour will now be elaborated on. It is important for one to begin to describe the meaning of attitudes and how it is acquired. This will then be followed by the relationship between attitude and behaviour.

2.1.1. Definition

Attitudes have a central place in psychology and one important reason for this is that attitude influences behaviour. Allport (1935) (as cited in Foster & Louw-Potgieter, 1991) defines attitude as a mental and neural state of readiness, organised through experience, exerting a directive or dynamic influence upon an individual's response to all objects and

situations with which it is related. An attitude is seen as directing or causing subsequent behaviour. According to Baron and Bryne (2003, p.119), attitudes is defined as 'evaluations of various aspects of the social world'. These are often ambivalent, meaning that an individual's evaluation of a particular aspect of the social world can be both positive and negative. Once formed, attitudes are extremely difficult to change. Baron and Bryne (2003) further argue that attitudes strongly influence our social thought, even if they are not always reflected in our overt behaviour. However, attitudes often do affect our behaviour, especially when they are strong and well established. Attitudes operate as mental schemas that help us to interpret and process information. They strongly influence our perceptions and thought as well as allow us to express our personal beliefs.

2.1.2. Acquisition of Attitudes

Attitudes can be acquired from other people in a number of processes such as classical conditioning and observational learning. Classical conditioning occurs when one stimulus, initially neutral, acquires the capacity to evoke reactions through repeated pairing with another stimulus. Observational learning occurs when attitudes are acquired through the observation of others' attitudes. This process is reinforced by social comparison, which is the tendency to compare ourselves with others and determine whether one's view of social reality is correct or not. Therefore if others hold the same attitudes as us then these attitudes are reinforced (Baron & Bryne, 2003).

2.1.3. Attitudes and Behaviour

In light of the above aspects of attitudes, one also needs to understand that attitudes determine behaviour (Allport, 1935, as cited in Foster & Louw-Potgieter, 1991). He further argues that an attitude characteristically provoked behaviour that was favourable or unfavourable, for or against, the object or class of objects. In other words, once an attitude has been acquired then it influences behaviour. Baron and Bryne (2003) argue that the strength of this influence is dependent on a number of factors. It has been further argued that attitudes that are formed on the basis of direct experience often exert stronger effects on behaviour that one has formed. The second influential factor in the relationship between attitudes and behaviour is the strength or the intensity of the attitude. The third factor which Baron and Bryne (2003) propose is the extent to which attitudes are focused on specific objects or situations rather than general ones.

Many studies have illustrated evidence of inconsistency between reported attitudes and more overt behaviour. For instance an individual may know the effects of smoking but still continues to do so. This clearly illustrates the inconsistency between one's attitude and behaviour. This is the thrust of the well-known theory of cognitive dissonance proposed by Festinger (1957). But more recently social psychologists have looked closely at how and when attitudes influence behaviour.

Theoretical Framework

Various theories have been developed in order to explain how attitudes impact on an individual's behaviour. One of the predominant theories is the cognitive dissonance theory, which will be discussed below.

2.2.1. Cognitive Dissonance Theory.

Festinger's (1957) Theory of Cognitive Dissonance has been one of the most influential and widely debated theories in social psychology. It has spurred many studies that aim to better understand what determines an individual's beliefs, how they make decisions based on those beliefs, and what happens when those beliefs are brought into question.

The principle of cognitive consistency underlies much of what we mean when we talk about thinking and behaving as rational human beings. Essentially the idea is that people strive to maintain a consistency between beliefs, attitudes and behaviour. These three concepts are not components of attitudes but are distinct processes or aspects. It has been proposed that attitude refers to any affective process, the value usually seen in terms of a positive to negative range attached to an object. Beliefs make up the cognitive processes, intentions make up the conative processes and the behaviour makes up the outcome, which feeds back into one's beliefs (Foster & Louw-Potgieter, 1991). Thus organising attitudes, beliefs and behaviour into internally consistent structures both underscores and presumes what we mean by human rationality. It follows, then that a person placed in an inconsistent position will be motivated to either reduce or avoid inconsistency (Foster & Louw-Potgieter, 1991). However people often find themselves

holding two attitudes which are inconsistent and not wanting to change either or continue to act in ways that conflict with their attitude (for example, thinking that smoking is bad for you but continue to smoke) (Zimbardo, Ebbessen & Maslach, 1977).

Festinger's (1957) theory of cognitive dissonance is commonly used to understand human cognitive functioning. Dissonance was defined by Festinger (1957) as a negative drive state, which occurs when an individual holds two cognitions (ideas, beliefs, attitudes), which are psychologically inconsistent. He argued that these inconsistencies could cause an uncomfortable tension that people try to reduce or eliminate. These discrepancies exist within the individual's own cognitive system. Although social norms and groups still play a role in creating differences or discrepancies, dissonance could be a non-social phenomenon (Zimbardo et al, 1977). Basically cognitive dissonance is an uncomfortable or a negative state of tension, which a person wishes to change towards feeling comfortable.

According to Festinger's (1957) theory, cognitive elements can be in one of three relationships: dissonant, consonant or irrelevant. The first condition is that of inconsistency. It is argued that a person needs to be aware that an inconsistency between an attitude and behaviour has negative consequences. When the 2 elements are in an inconsistent relationship with each other, this produces an aversive emotional state, dissonance, which acts as a motivation to change some form or another (Foster & Louw-Potgieter, 1991). If people do not see any problems or undesirable consequences arising between attitude and behaviour, dissonance does not occur. In addition, if people could be induced to behave in a certain way, then there would be less dissonance. An example of cognitive dissonance would be the following: an adolescent has unprotected sex, has

the information, seeking support from those who agree with one's belief, and/or trying to persuade others to accept one's belief (Harman-Jones & Mills, 1999).

2.2.4. Effort Justification Paradigm

It has been stated that dissonance occurs when a person engages in an unpleasant activity to gain a desirable result. From the understanding that the activity is unpleasant it follows that one would not begin the activity because the understanding that the activity is unpleasant is dissonant with engaging in the activity. So one may attempt to reduce this form of dissonance by exaggerating the desirability of the outcome, which would be adding consonant cognitions (Harman-Jones & Mills, 1999).

2.2.5. Induced Compliance Paradigm

This is the last of four and here dissonance is aroused when one does or says something that is contrary to an existing belief or attitude. From the cognition of the prior belief, it would make sense that one would not engage in such behavior. However, attractions to engage in such behavior, such as rewards or punishments, provide cognitions that are consonant with the behavior. Such cognitions serve as justifications for the behavior. Altering the belief or attitude to correspond more closely with what was stated can reduce dissonance (Harmon-Jones & Mills, 1999). This is one of the paradigms, which seems to be consistent with the research that is being proposed. Many adolescents may have the knowledge and the belief about the risks of HIV/AIDS as well as the various methods of protection, but may not necessarily engage in safe practices.

With reference to HIV/AIDS, there seems to have been a rise in new infections among adolescents. From the cognitive dissonance perspective, one could argue that there seems to be an inconsistency between attitudes and behaviour that puts adolescents at risk of being infected. The study will attempt to explore the relationship between attitudes and prevention knowledge an adolescent has with regards to HIV/AIDS.

CHAPTER THREE

Literature Review

Epidemiological studies across the developing world show that young people are not equally affected by HIV/AIDS: those who are most socially and economically disadvantaged are at highest risk even though prevention programmes have been designed to target this group. The risk of HIV infection for young people in developing countries is increased by sociocultural, political and economic forces such as poverty, migration, war and civil disturbance. Young people may also face the increased risk of HIV infection by virtue of their social position, unequal life chances, rigid and stereotypical gender roles and poor access to education and health services (Rivers &Aggleton, 2001). Collins and Stadler (2001) indicate that the age of onset of sexual activity is decreasing, with a large portion of the population becoming sexually active at 13 or 14 years of age.

Moore and Rosenthal (1995) have argued that an adolescent's propensity for risk taking behaviour, their experimentation with adult behaviours, their drives towards autonomy and their openness to peer influences has been thought to make them vulnerable to maladaptive sexual behaviours. These include precocious sexual intercourse and sexual contact with a succession of changing partners. These behaviours have commonly been regarded as deviant and problematic. Although, engaging in sexual activity becomes normative with increasing age, for young adolescents it is behaviour that is not condoned by parents. However sexual activity, if ill-timed may be detrimental to the psychological, emotional and social well-being and development of an adolescent (Moore & Rosenthal, 1995). Therefore it is important to focus upon issues around gender

construction as well as sexuality that make young men and women vulnerable to the HIV/AIDS epidemic.

3.1. Attitudes, sexuality and behaviour.

Our understanding of adolescent sexual relationships, partnering practices and specific behaviours related to HIV/AIDS risk remains limited (Harrison, Xaba, Kunene & Ntuli, 2001). However it is important to focus on issues related to sexuality and the existing attitudes regarding masculinity and femininity and how this feeds into the HIV/AIDS epidemic. Within this social context are numerous ideologies, which shape both one's sexual beliefs as well as one's meanings of masculinity and femininity, which operate on an individual and interpersonal level.

Sexuality is at the core of human identity and personhood; a pervasive concept but nevertheless one that remains elusive. Simply it can be defined as the social construction of a biological drive. Sexuality is often reduced to a set of behaviours and accompanying cultural attitudes or it is used to cover a broad range of topics with its meaning taken fore granted (Harrison et al, 2001). These usually have broad implications for sexual behaviour (Moore & Rosenthal, 1995). A social constructionist approach to sexuality has been proposed and it has been suggested that such an approach would examine the range of behaviour, ideology and subjective meanings among groups and would view the body, its sensations and functions as potentials, which are mediated by culture. Sexuality is intimately linked to gender and is often shaped by gender driven expectations and norms, (Harrison et al, 2001).

Gender and differently circumscribed gender roles within society drives the experience of sexuality. Adolescent sexual relationships appear to be constructed around a set of social roles determined by gender (Harrison et al, 2001). In western society as well as in other societies, appropriate sex roles for men have been as worker, primary breadwinner, head of the household and holder of leadership roles in the community. These activities are assumed to be paralleled by typically male personality characteristics such as assertiveness, confidence, bravery and independence with associated interests in sports, active pursuits and competition. The female gender role has revolved around the bearing and nurturing of children as well as taking responsibility for household duties. Assumed female traits are warmth, expressiveness, nurturance, dependence and cooperation with interests focused around interpersonal concerns rather than those in the intellectual or practical domain (Moore & Rosenthal, 1995). This illustrates that girls are socialised differently from boys even in the language they use to discuss sex and they have expectations about romance, love and even marriage (Harrison et al, 2001). Because of this, many girls' expectations of their experiences with male partners are rooted in existing inequalities or in behaviours that may not be beneficial (Harrison et al, 2001). These stereotypical gender roles place young women and to a lesser extent young men at heightened risk of HIV infection. Although there is certainly evidence of different behaviours and to some extent different gender conceptualisations of sexual experiences, our knowledge of social conditioning, sex roles and sexual scripts indicates that these rather than male or female sex drive or libido, may lead at least partially to these differences (Moore & Rosenthal, 1995).

Moore and Rosenthal (1995) also argue that sexually speaking, the traditional sex role stereotype is for a man to be the hunter and initiator of sexual activity, the one with the more powerful and demanding sex drive, the strong one and the powerful one in the relationship. The traditional woman plays her role through being pleasant, co-operative, placating, flirtatious and attending to her appearance and the pleasure of the male while retaining a respectable and ladylike demeanour in public, 'a lady in the kitchen and a whore in the bedroom.' In addition to this there are additional pressures that women are faced with by society. Society has also expected women to remain virgins especially before marriage (Rivers & Aggleton, 2001). This has resulted in parents placing great pressure on parents and the community to ensure that young women are kept ignorant about sexual matters. Female ignorance of sexual matters is often viewed, as a sign of purity and innocence, while having too much knowledge about sexual matters is a sign of 'easy virtue.' Rivers and Aggleton (2001) further argue that this emphasis on so-called innocence prevents women from seeking information about sexual matters or services relating to their sexual health. Thus, young women are unlikely to communicate their need for safer sexual practices with their partners.

While dominant ideologies of femininity promote ignorance, innocence and virginity, dominant versions of masculinity encourage young men to seek sexual experience with a variety of partners. In some cultures, boys are actively encouraged by both their peers and family members to use their adolescent years to experiment sexually.

Collins and Stadler (2001) conducted a study in the Northern Province in South Africa and they identified three prominent ideologies underpinning sexual relations. The first ideology was related to the loss of control during high sexual arousal in males.

The second ideology was that of youth being a life stage characterised by fun and experimentation without responsibilities of adulthood. Participants spoke of recreational sexual intercourse as contrasted to 'romantic' sexual intercourse in 'true love' relationships, which were characterised by higher expectations and responsibility. Moore and Rosenthal (1995) have also found that young men often interpret their sexual experiences as learning and expectation and as contributing to their sense of selfdefinition rather than as a way to become emotionally close to one another. In some cases sexual intercourse may be used as a way to ward off emotional closeness, as expressed by the 'love them and leave them' stereotype associated with some young men's behaviour.

Young women on the other hand usually assume that commitment will accompany physical intimacy, and that sexual intercourse and love will automatically go together. These divergent perceptions are likely to give rise to frustration, confusion and hurt as teenagers explore their sexual feelings. Collins and Stadler (2001) argue that the construction of youth as a 'fun' stage could have implications for interventions focusing on safe sex practices or on changing male and female youth stereotypes. Consistent with this, is that adolescence and early adulthood is characterised by sexual curiosity and exploration (Marcus, 2001). Marcus (2001) further argues that casual intercourse is a common practice among youth and is even considered as being a masculine goal.

Moore and Rosenthal (1995) have cited that peer influence and pressure is one of the most influential factors affecting adolescent decisions as well as sexual behaviour particularly in terms of issues such as safe sex negotiation. However they do suggest that peer influences are not always negative, as friends and adolescent groups may express and model healthy as well as unhealthy sexual attitudes and behaviour. Tilloston and

Maharaj (2001) have suggested that peer group discussions are a feasible and useful method to investigate sexuality among teenage youth. This would assist in the development of future prevention programmes as well as awareness programmes.

The third ideology that emerged from Collins and Stadler's (2001) work was that in addition to a characteristic of 'play', sexual exploration was also characterised by love and intimacy and the experience of powerful emotions. Within this context the negotiation of sexual activity, such as safe sex practices, was seen as disrupting intimacy. These three ideologies attempt to emphasise the complex dynamics in which sexuality is negotiated and need to be understood in conjunction with the prevention programmes that have been implemented to promote safe sexual practices and condom usage.

Young men and women tend to construct their social worlds in different ways possibly because of biological differences and certainly because of socialisation practices and the power differentials between the sexes and probably because of interactions between these sets of influences. Adolescent sexual worlds are not fixed or static (Moore & Rosenthal, 1995).

Feminist research does acknowledge the complex dynamics involved in sexuality in that it has encouraged the understanding of sexuality as socially and historically embedded within a complex matrix of social, economic and cultural factors (Morrell, 1998). Morrell (1998) also suggests that masculinity is a collective gender identity and not a natural attribute. It is socially constructed and fluid and there is not one universal masculinity, but many masculinities. However there are contradictory discourses surrounding masculinity within heterosexual relationships which is further perpetuated by the existence of double standards with men's sexuality seen as positive and active while

women's sexual behaviour as mentioned earlier is constrained within a moralistic discourse of loyalty and faithfulness. This is evident in the labelling of an openly sexual woman rather than a man as being a 'slut' (Shefer & Ruiters, 1998). A study conducted among Zimbabwean youth illustrated that 49% of males agreed that shy and quiet girls were sexually active whereas 47% of females strongly disagreed. It was found that males may consider shyness an indication of submission, while females link shyness to their silent role in the patriarchal society (Schatz & Dzvimbo, 2001). This is an indication of the miscommunication that occurs between men and women. It also illustrates how one's sexuality is portrayed in the light of the existing constructions of masculinity and femininity.

Developing sexuality occurs in a culture full of mixed messages. It has been suggested by Fine (1988) (as cited in Moore & Rosenthal, 1995) that there are four themes that dominate the public and private discourse about sexuality and that these provide conflicting messages about how adolescents conduct their sex lives. The themes revolve around morality and responsibility, desire, danger and victimisation. The discourse of morality, most strongly represented by the parent generation and institutionalised religion usually focuses on issues such as moral reprehensibility of sexual intercourse before marriage. Framing adolescent sexuality as a moral issue can be seen as being counterproductive to encouraging safe and responsible sexual practice because of the underlying message that if intercourse is wrong, then it is wrong to plan it. This stance can limit the effectiveness of sex education. However the morality discourse may also include positive messages to teenagers about the responsibility for one's own and one's partner's emotional and sexual health. The second discourse is that of desire.

This permeates media portrayals of sexuality but is often ignored in parents', schools' or churches' responses to young people's sexuality. It has been suggested that teenagers are discouraged by adults from talking about their longings and feelings of sexual arousal. Most adults feel embarrassed and uncomfortable about adolescent sexual feelings. Media representations of sexual matters are likely to be in extreme opposition to the reality experienced by teenagers in their own homes. The third discourse is that of danger which is communicated more frequently to girls as the possibility of pregnancy, the emotional pain of abandonment and the social disgrace of loss of reputation. There is a sense, in which 'risking all for love' is portrayed as exciting. This could be counterproductive especially with the increase of HIV/AIDS. The last discourse is that one of victimisation. The power balance in sexual encounters is portrayed as residing with men who are ready to exploit women in the service of their sexual urges. Hence, women are potential victims and must be protected by parents and by society. The message by this discourse is that women have limited power in sexual negotiation and the implicit corollary is that they have limited responsibility. Moore and Rosenthal (1995) argue that the conflicts between these four discourses lead to confusion for teenagers about the appropriate way to act.

These various ideologies regarding masculinity and femininity has contributed to differences in the way men and women are socialised and furthermore impacts on the way they interact with each other. It also informs sexual interactions between men and women. These differences in ideology has contributed to the development and reinforcement of myths and stereotypes which in turn plays a part in the spread of HIV/AIDS in the South African community. Clearly these differing beliefs and attitudes seem to have a direct impact on sexual behaviour.

Vanwesenbeeck, Bekker and van Lenning (1998), have argued that all sexual behaviour is mediated, facilitated and or justified by cognitions and beliefs. Burkholder, Harlow and Washkwich (1999) suggested that adolescents are aware of the risks associated with the way they think about the risks in order to continue participating in risky behaviour. Goodenow, Netherland and Szalacha (2002) also found that cognitive or emotional dissonance experienced by males with both genders might heighten the salience of identity issues and lead to a sense of identity crisis.

The HIV/AIDS epidemic has served to entrench some gender inequalities that place women at increased risk of HIV infection (Rivers & Aggleton, 2001). In their study, Tilloston and Maharaj (2001) found that the lack of sexual knowledge was illustrated through numerous misconceptions about sexual intercourse and sex related topics. These misunderstandings or sexual myths play a role in driving adolescent risks. Other research that they conducted demonstrated the presence of similar myths related to pregnancy and HIV/AIDS transmission. Further the prevalence of these myths raise questions about the adequacy of sexuality education programmes. Tradition remains important for many families and communities and continues to influence inter-generational differences and communicating about sexuality, stronger sex education and HIV/AIDS prevention programmes are needed.

3.2. Prevention programmes and behaviour.

The sub-Saharan African region accounts for only 10% of the world's population but 85% of AIDS deaths have occurred in the South African region. Young people have the fastest growing infection rates. In 1998, HIV infection rates among South Africans aged

between 14-19 years and 20-24 years were 21.0% and 26.1% respectively (Eaton, Flisher & Aaro, 2003). These statistics illustrate that young people aged between 14-24 years are vulnerable to HIV/AIDS. It has been found that young people are having sex earlier, unplanned teenage pregnancies and the rates of sexually transmitted diseases are increasing. After 10 years of public knowledge of AIDS, sex education and even 'girl power', unsafe sex is still the norm for young people. Harrison et al (2001) also suggest that young South African women are at particularly higher risk than their male counterparts. Although men are also at risk, women face a dual risk: pregnancy, which is common in South Africa. Goodenow et al (2002), have suggested that behaviours that may lead to HIV infection are usually initiated in adolescence. They found that most American adolescents are sexually active before they graduate from high school. Tilloston and Maharaj (2001) also point out to the fact that in South Africa there has been a lot of research that has been conducted on adolescent males. Identifying possible barriers to changing sexual risk, taking behaviour in the face of the HIV/AIDS in adolescents is urgent, given the catastrophic scale and impact of HIV/AIDS in South Africa, the susceptibility of adolescents to infection and the need to protect the next generation from the epidemic. If one is to understand sexual risk behaviour in Southern Africa, one needs to consider the interactive effects of factors at 3 levels; within the person, within his/her proximal context and within the distal context. The personal factors include cognitions and feelings relating to sexual behaviour and HIV/AIDS as well as thought about oneself. The proximal context comprises of interpersonal relationships and the physical as well as the organisational environment. The distal context includes culture and structural factors (Eaton et al, 2003). Although the previous factors need to be

addressed to understand the impact of HIV/AIDS, this literature review focused on previous research that was conducted among various populations to ascertain why young men and women are so vulnerable to the disease. This section however will particularly focus upon information and awareness programmes and their influences on an individual's behaviour.

The South African government's response to this explosive spread of HIV includes public awareness campaigns, condom promotion, syndromic management of sexually transmitted diseases and life skills programmes targeted at youth in school (Abdool-Karim, 2001). Abdool-Karim (2001) further argues that the extent to which these strategies are used vary within urban and rural communities. Proponents of contraception education and condom availability programmes argue that teenagers are sexually active and must be provided with the means to protect themselves against pregnancy and sexually transmitted diseases (Sellers, McGraw & McKinlay, 1994). There have been numerous studies that have been conducted in Southern Africa, which have examined the relationship between knowledge of HIV, sexual behaviour and HIV infection. Many of these studies have emphasised the lack of correlation between sexual knowledge and sexual behaviour (Wojcicki & Malala, 2001). In a study conducted in Zimbabwe by Schatz and Dzvimbo (2001), it was found that despite a variety of AIDS prevention programmes, today's teenagers continue to practice risky sexual behaviour thereby exposing themselves to infection. However Wojcicki and Malala (2001) have suggested that although most of the studies conducted in Southern Africa have indicated that awareness and knowledge regarding HIV infection and the mechanisms for transmissions are high, in some contexts further education maybe needed. It is for this reason that it is

important to be able to further understand why there is an inconsistency between knowledge and behaviour.

A number of studies have explored knowledge and awareness of HIV/AIDS indicating that while people are very much aware of HIV/AIDS, they have not widely adopted safe sexual behaviours in response. Safe sexual practices and protection are also limited when it comes to contraception and pregnancy (Harrison et al, 2001). One of the prevention efforts which is being implemented by many awareness and prevention programmes is consistent condom usage. This is done in an attempt to prevent sexually transmitted diseases. These prevention efforts are targeted toward young people because of the high infection rates among this population (Katz, Fortenberry, Zimet, Blythe & Orr, 2000). Such programmes especially in developing countries are targeted towards an adult general population and high-risk groups such as commercial sex workers (Sellers et al, 1994). Opponents of condom availability programmes argue that the provision of condoms endorses and thus promotes sexual activity. However Sellers et al (1994) argue that consistent and correct use of condoms reduces the risk of HIV infection and that HIV/AIDS prevention programmes often include the promotion and distribution of condoms. They further argue that the controversy over condom distribution arises primarily when general adolescent populations are targeted. Sellers et al (1994) carried out a study, which attempted to examine the question of whether the promotion and distribution of condoms increase sexual activity in a population based sample of adolescents. It was found that the HIV prevention programme that included the promotion and distribution of condoms provided no evidence to suggest that the availability of condoms increased sexual activity or promoted promiscuity in the target

population of Latino adolescents. Instead it was found that recent programmes that combined reproductive and contraceptive information with a message to delay early sexual involvement and the skills with which to achieve the goal have documented a decrease in sexual involvement and activity (Katz et al, 2000). With regards to condom usage as a prevention method, it was found that condom usage was less frequent in relationships characterised in some fashion that indicates relative relationship exclusivity and durability (Katz et al, 2000). Katz et al (2000) also found that condom use changes as the dynamics of the relationship changes with time. It was also found that within a new relationship, condom use maybe a tacit acknowledgment of lack of familiarity with the new partner. If the sexual relationship endures over a period of a few weeks, then condom usage either decreases or stops. Consistent with the above study is the study done by Abdool-Karim (2001). His paper addresses three types of sexual risk behaviours that have received the most attention in South Africa; being sexually active, having many partners and practising unprotected sex. The study found that the majority of sexually active young people use condoms irregularly, if at all. In mixed gender samples, a minimum of 86% of sexually active respondents report ever having used a condom with the average being much lower. A maximum of 55% and more likely under 20% of young people use condoms at every sexual encounter. An overall estimate of 50-60% of youth in this study report not using condoms at all. With regards to accessibility and use of condoms it was found that no matter how accessible condoms are to a sex worker (and women in general) as long as she still decides to bargain for more money for unsafe sexual practices, public health education that focuses on education and condom access will be unsuccessful (Wojcicki & Malala, 2001). Eaton et al (2003) found that there was

uncertainty about the proper use of condoms. On closed ended questions 70-90% of the respondents usually indicated that condoms could protect against AIDS. In one study, open-ended questions elicited similar levels of knowledge about condoms, but in another 3 studies, only 20-40% of the respondents could spontaneously cite condoms as a mode of protection. Eaton et al (2003) also found that 88% of sexually active respondents agreed that condoms protect against AIDS but none of them actually used them. There were also serious misconceptions held by some of the youth. For instance, that hormonal contraceptives and intrauterine contraceptive devices offer protection against HIV infection or that some condoms may be used more than once. Two studies also revealed that 7-10% of the youth did not know what condoms were. The expectation that one can successfully complete behaviour such as using a condom is theorised to be an important predictor of whether one attempts that behaviour. Two South African studies with young adults suggest that self-efficacy for condom use is indeed linked to higher self-reported condom use, although the direction of causality is not proved by the correlational methods used (Eaton et al, 2003). In their study among American youth, Goodenow et al (2002) found that black youths used condoms at higher rates than white youths and condom use decreased significantly with age. They also found that both school AIDS education and condom instruction were significantly associated with higher condom use rates. But youth who were forced into having sexual intercourse reported to less condom use. Their study illustrated that school AIDS education and condom use instruction appear to exert strong protective effects on the risk behaviour of sexually active adolescents. It was found that AIDS education was associated with lower rates of multiple partners, unprotected sex and intravenous drug use. Goodenow et al (2002),

found that sexually active males who had been taught how to use a condom properly were less likely to have unprotected sex, even after control for AIDS education in general.

Statistics on AIDS incidence in the USA indicates that the number of cases diagnosed as a result of heterosexual transmission is increasing. The continued increase in heterosexual transmission indicates that heterosexuals as a group are not responding to current interventions and education about risk behaviour change (Burkholder et al, 1999). Burkholder et al (1999) found that knowledge about HIV/AIDS has not been shown to result in behaviour change by itself. Proximity to the disease has on the other hand has been shown to be useful in educating others about the disease. It is worth noting that although very few school-based sexuality education programmes of any kind have been shown to modify sexual behaviour, those that have been successful provided information and skills relevant to students who are sexually active and those who are not (Schatz & Dzvimbo, 2001). Relating to the above statement, it was found that adolescents are aware of the risks associated with their behaviour but they modify the way they think about the risks in order to continue participating in risky behaviour (Burkholder et al, 1999). This is consistent with the cognitive dissonance theory proposed by Harman-Jones and Mills, (1999). They propose that dissonance occurs when the person engages in an unpleasant activity to gain a desirable result. One may attempt to reduce this form of dissonance by exaggerating the desirability of the outcome, which would be adding consonant cognitions. Furthermore these cognitions would serve as justification for the behaviour thus encouraging risky sexual behaviour amongst adolescents. Taking this into account than Eaton et al, (2003) found that fewer than half of the South African youth in the 90's

perceived any risk to themselves and fewer than 20% perceived a high risk. Perceptions of risk are unrealistically low in some groups with high rates of sexual activity and low condom usage (Eaton et al, 2003). With reference to knowledge and beliefs, it was found that over 90% of young South Africans in the 90's knew that AIDS is a fatal sexually transmitted disease. However the understanding of the nature of HIV, the mechanisms of transmission and methods of prevention were not as good (Eaton et al, 2003). They found that fewer than 50% of the young people understood how HIV and AIDS are related. In fairly basic pen and pencil tests of knowledge, young South Africans could answer 50-80% of the questions correctly, which illustrates the fact that there are serious gaps in knowledge. In the few studies done, it appeared from respondents' spontaneous answers that their understanding of HIV/AIDS and prevention options were sketchy. However, a study done by Burkholder et al (1999) found that adolescents who have had this classroom education regarding HIV/AIDS and who know people who have AIDS are less apt to stigmatise people with AIDS and gay people. It was also found that individuals who came from families with open communication about AIDS tend to know others with AIDS and to be aware of media input about AIDS and adolescents who know someone who has AIDS also tend to be informed about AIDS information. Goodenow et al (2002) have however suggested that both adolescents in alternative school settings and out of school youths have far higher rates of risk behaviour than do high school youths in the general school population.

Burkholder et al (1999) found that more family communication is associated with higher self-efficacy, indicating communication about sexual issues may be having a positive behavioural impact. Higher exposure to media and knowing someone with

HIV/AIDS was related to higher perceived risk for HIV/AIDS lending support to the hypothesis that media messages may be helping to make people aware of their own levels of risk. Eaton et al (2003) found that South African adolescents report poor communication with parents about sexual matters. Research participants have claimed that their parents refuse to talk to them, give them vague injunctions rather than information and may even punish them for raising the subject. It was also found that when there is poor communication within the family about sexual matters, both supervision and lack of supervision from parents might contribute to unsafe sexual behaviour. It was noted that when parents forbade contraception in an effort to control their children's sexual activity, the fear of discovery and parental anger could have led to lower use of condoms. Condoms were also dispensed with when young people were hurriedly taking the opportunity to have sexual intercourse while their parents were out. Eaton et al (2003) also found the opposite happening, especially in rural areas where some mothers who felt that they could not control their children's sexual behaviour arranged for their daughters to receive contraceptive injections from menarche. The resulting reduction in pregnancy risk accompanied by low parental guidance and supervision have contributed to increased rates of adolescent sexual activity and lower rates of condom use in these communities. Furthermore Eaton et al (2003) also argued that in South Africa the most significant vector for predicting sustained adoption of risk prevention measures is socio-economic background. In South African research, poverty, unemployment, overcrowding and low levels of education certainly appear to be linked to higher levels of adolescent sexual activity and less knowledge about HIV/AIDS. Given

the racialised social stratification that still characterises South Africa's problems associated with poverty mostly affect black youth.

The study conducted by Goodenow et al (2002) revealed that adolescents who had received school AIDS education were half as likely as those who had not to have had 4 or more partners. It was also found that youth who had experienced forced sex were more than twice as likely to report multiple partners. Intercourse with multiple partners, frequency of intercourse and condom use are all behaviours that contribute to the main risk factors for sexually transmitted diseases (Capaldi, Stoolmiller, Clark & Owen, 2002).

4.3. Summary of findings.

In summary it has been found that there has not been enough research that has been done in understanding adolescent sexual relationships. The relationship between attitudes and prevention knowledge among matriculation students has also not been researched adequately as indicated by previous research. From the above research, it has been argued that circumscribed gender roles in society have contributed to the differences in attitudes among adolescents. These different gender roles have been further fuelled by the existence of various ideologies that govern society and as a result people have internalised these ideologies and live by them. Therefore the combination of the factors mentioned above has had an influence on the spread of HIV infection.

Due to the rise in infection, prevention programmes have been developed to increase awareness about the disease. These prevention programmes have been targeted at a specific group of people who fall within a particular age range. In addition to this prevention programmes have been targeted towards economically disadvantaged groups.

However the infection extends beyond a particular group of people. Due to the problems mentioned above, reducing the rate of infection has become a challenging task. Although prevention programmes are designed and developed on a continuous basis, there has not been a decline in the rate of infection. Thus there is a great need to explore the consistencies in people's knowledge base and behaviour as indicated in the literature that has been reviewed in this paper. It is for this reason that this research is being proposed. This could assist in further understanding around prevention knowledge and relevant attitudes.

CHAPTER FOUR

Methodology

4.1. Research Questions

- 1. To investigate the sexual attitudes of matriculation students at school concerning HIV/AIDS prevention?
- 2. To assess their knowledge around HIV/AIDS prevention and whether it is consistent with their attitudes?

4.2. Hypothesis

It is hypothesised that students who hold negative attitudes relating to sexual practices will present high-risk behaviour with regards to HIV/AIDS. It is also hypothesised that having the knowledge regarding prevention of HIV/AIDS will be consistent with their sexual behavioural practices which may be regarded as safe.

4.3. Sample

A simple random sample was utilised. This means that the researcher developed an accurate sampling frame, selected elements from the sampling frame according to a random procedure. This type of sample was likely to yield a sample that represents the general population (Neuman, 1997). Both male and females in Grade 12 aged between 16 and 19 were recruited from a boys school, which chose to remain anonymous and Westville Girls High School. Both schools were approached and a copy of the proposal and a letter seeking permission to conduct research was issued. Once permission was

granted, each participant was issued a letter for his or her parents/guardians to issue consent for participation in the research. Each of the subjects was issued with a questionnaire. These high school students were targeted because of their high-risk status to HIV infection. 100 questionnaires were administered, fifty at the girls school and fifty at the boys school.

4.4. Instrumentation

Three measures were administered. The one was used to measure prevention attitudes and the other two were used to measure HIV prevention knowledge. The section below briefly describes the measures used.

4.4.1. The Alternate Forms of HIV Prevention Attitude Scales for Teenagers (Appendix H)

The scale was developed by Torabi and William (1998). The scale measures attitudes toward HIV prevention of adolescents. The scale consists of Likert type items guided by a table of specifications using a three-component attitude theory and conceptual areas related to HIV and HIV prevention. Respondents will indicate whether they strongly agree, agree, undecided, disagree or strongly disagree to each statement. It takes about 10 minutes to complete the scale.

Alternate reliability across the form was .82. Evidence of content validity was provided using a jury of experts and factor analysis procedures.

4.4.2. HIV Prevention Knowledge Test for Teenagers (Appendix F)

This measure was developed by Yarber and Torabi (1998). The items generated represent both the knowledgeable level (HIV concepts) and the application level (HIV situations) of the cognitive domain. The test was developed according to 4 conceptual areas, each with specific categories, the HIV/AIDS problem: social impact of HIV/AIDS infection and AIDS; HIV transmission: sexual contact, blood transmission, mother to child, fears and fallacies; individual HIV prevention: knowing of infection, sexual, drug use and mother to child; and HIV/AIDS control effects: testing/medical, education/research, individual activism, help sources. The test is multiple choice, respondents select one best answer to each question. The test takes about 15 minutes. The reliability co-efficient was .85 alpha. The use of a jury of experts and a table of specifications was used to provide evidence of content validity.

4.4.3. Adolescent AIDS Knowledge Scale (Appendix H)

This scale was designed by Zimet (1998). In this scale, transmission related items cover true modes of transmission, low or no risk behaviours, behaviours that increase risk of transmission and transmission without clinical AIDS. Two protection items address effective and ineffective protective behaviours. Finally single items cover such topics as the mortality associated with AIDS, whether there is a cure for AIDS, and whether it is possible to determine if someone has AIDS by looking at him or her. Each item takes the form of a question to which respondents are asked to circle yes, no or don't know. Response times vary but typically the scale requires less than 5 minutes to complete. The scale underwent reliability tests and it was found that the scale had a good internal

reliability (Zimet, 1998). The content validity of the scale was established through the use of US government brochure on AIDS to guide the item selection. In addressing major AIDS-related domains the scale was found to demonstrate good face validity. Support for the construct validity of the Adolescent AIDS Knowledge Scale is demonstrated by expected relationships with other variables.

Since the measurement of attitudes is quite limited the above measure will be used. In this study the scale will be used to measure the attitudes towards HIV prevention and infection. Two of the three scales will be used to measure knowledge regarding HIV/AIDS. Furthermore, these scales will be used to measure effective as well as ineffective protective behaviours.

4.5. Procedure

Fifty booklets of the set of scales and tests were administered to groups of both male and female students. The first section of the booklet included ethical information regarding confidentiality and anonymity. This section also included consent forms to participate in the research. Biographical information was also included and subjects were informed that this would be used for statistical purposes only. The second section of the booklet included the set of questionnaires that have been described above.

4.6. Data Analysis

The data analysis was conducted using a PC software package, SPSS, version 11.5. This would elicit quantitative data.

4.7. Statistical Analysis of Data

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All the data were analyzed according to a coding framework (SPSS 11.5).

Descriptive statistics were used to elicit frequencies and percentages. Means and standard deviations were also elicited using descriptive statistics. Inferential statistics such as the independent samples *t*-test analyses were performed in order to assess whether there were significant differences between male and female responses in terms of knowledge and attitudes. Chi-square analyses were also performed to assess the relationship between males and females. Pearson correlations were also done to assess the relationship between knowledge and attitudes of participants. The reliability tests were conducted using Cronbach's alpha method. The measures of reliability suggested that the measures used were reliable. The results of the reliability tests can be obtained in appendices J and

CHAPTER FIVE

Results

The results were computed to test the hypotheses stated in chapter four. The findings of the investigation will be presented below. It will consist of an analysis of the questionnaires as well as the relevant correlations and relationships noticed between the questionnaires. The results will also focus on the relevant relationship between both sexes as well as corresponding ages and race groups.

The total sample comprised of 49.5% female and 50.5% male (Table 1) 3% were 16 years of age, 56% were 17 years old, 32.7% were 18 years old and a small percentage of the sample were aged 19 years. Only 1% of the sample was aged 22 years of age and was male (Table 2). In terms of race, the majority of the subjects were white followed by Indian and then black. The coloured population was the least as indicated in Table 3.

Table 1

Gender Distribution of Sample

GENDER

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	50	49.5	49.5	49.5
	Male	51	50.5	50.5	100.0
	Total	101	100.0	100.0	

Age Distribution of the Sample

AGE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	16	3	3.0	3.0	3.0
	17	57	56.4	56.4	59.4
1	18	33	32.7	32.7	92.1
	19	7	6.9	6.9	99.0
	22	1	1.0	1.0	100.0
	Total	101	100.0	100.0	

Table 3 Race Group Distribution of the Sample

RACE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Black	24	23.8	23.8	23.8
	Coloured	4	4.0	4.0	27.7
	Indian	36	35.6	35.6	63.4
	White	37	36.6	36.6	100.0
	Total	101	100.0	100.0	

The section below will specifically focus on the responses elicited in the Prevention Knowledge Test for Teenagers (Yarber and Torabi, 1998).

Table 4

Percentages of responses to Prevention Knowledge Test for Teenagers

Questionnaire (Yarber and Torabi, 1998)

	Ι Α			3	(;				
	Count	Table %								
A1	97	96.0%	1	1.0%	1	1.0%	2	2.0%	0	.0%
A2	28	27.7%	6	5.9%	27	26.7%	40	39.6%	0	.0%
A3	14	13.9%	15	14.9%	4	4.0%	68	67.3%	0	.0%
A4	22	21.8%	9	8.9%	65	64.4%	5	5.0%	0	.0%
A5	54	53.5%	12	11.9%	32	31.7%	3	3.0%	0	.0%
A6	1	1.0%	82	81.2%	15	14.9%	3	3.0%	0	.0%
A7	10	9.9%	19	18.8%	8	7.9%	64	63.4%	0	.0%
A8	17	16.8%	59	58.4%	10	9.9%	15	14.9%	0	.0%
A9	9	8.9%	67	66.3%	21	20.8%	4	4.0%	0	.0%
A10	7	6.9%	75	74.3%	13	12.9%	6	5.9%	0	.0%
A11	7	6.9%	17	16.8%	6	5.9%	71	70.3%	0	.0%
A12	9	8.9%	19	18.8%	55	54.5%	18	17.8%	0	.0%
A13	17	16.8%	55	54.5%	11	10.9%	18	17.8%	0	.0%
A14	65	64.4%	16	15.8%	11	10.9%	9	8.9%	0	.0%
A15	10	9.9%	12	11.9%	71	70.3%	8	7.9%	0	.0%
A16	57	56.4%	17	16.8%	20	19.8%	7	6.9%	0	.0%
A17	16	15.8%	23	22.8%	43	42.6%	19	18.8%	0	.0%
A18	7	6.9%	79	78.2%	11	10.9%	4	4.0%	0	.0%
A19	16	15.8%	15	14.9%	65	64.4%	5	5.0%	0	.0%
A20	42	41.6%	12	11.9%	35	34.7%	12	11.9%	0	.0%
A21	25	24.8%	26	25.7%	37	36.6%	13	12.9%	0	.0%
A22	38	37.6%	11	10.9%	44	43.6%	8	7.9%	0	.0%
A23	55	54.5%	20	19.8%	14	13.9%	12	11.9%	0	.0%
A24	7	6.9%	11	10.9%	13	12.9%	70	69.3%	0	.0%
A25	9	8.9%	71	70.3%	12	11.9%	9	8.9%	0	.0%
A26	7	6.9%	12	11.9%	75	74.3%	7	6.9%	0	.0%
A27	85	84.2%	5	5.0%	3	3.0%	8	7.9%	0	.0%
A28	82	81.2%	16	15.8%	1	1.0%	2	2.0%	0	.0%
A29	84	83.2%	6	5.9%	3	3.0%	8	7.9%	0	.0%
A30	13	12.9%	6	5.9%	75	74.3%	7	6.9%	0	.0%

The table above assesses responses elicited by the participants. The questions that elicited the above responses can be found in Appendix F. These results are an overall presentation of all respondents. From the table it was found that the majority of the

participants obtained correct answers on the scale. For instance a significant percentage of participants obtained correct scores for question 1 (96.0%) which inquires about HIV transmission. Question 27 pertains to life situations and 84.2% of the respondents answered correctly. Some respondents also performed poorly and this can be illustrated in question 21. Question 21 inquires about the selection of partners and 36.6% of the respondents were not familiar with aspects dealing with selection of new partners. However from the data sheet above it has been indicated that most subjects were generally aware of prevention aspects concerning HIV/AIDS.

Table 5

Gender Differences for responses for HIV Prevention Knowledge Test for Teenagers (Yarber & Torabi, 1998)

						_		GEN	DER							
				Fem	ale							Ma	ale			
		Α		В		С		D_		Α		В		С		D
	Count	%	Count	%												
A1	49	48.5%	0	.0%	0	.0%	1	1.0%	48	47.5%	1	1.0%	1	1.0%	1	1.0
A2	12	11.9%	1	1.0%	17	16.8%	20	19.8%	16	15.8%	5	5.0%	10	9.9%	20	19.
A3	6	5.9%	3	3.0%	3	3.0%	38	37.6%	8	7.9%	12	11.9%	1	1.0%	30	29.
A4	5	5.0%	1	1.0%	42	41.6%	2	2.0%	17	16.8%	8	7.9%	23	22.8%	3	3.0
A5	32	31.7%	2	2.0%	16	15.8%	0	.0%	22	21.8%	10	9.9%	16	15.8%	3	3.0
A6	1	1.0%	43	42.6%	4	4.0%	2	2.0%	0	.0%	39	38.6%	11	10.9%	1	1.0
A7	3	3.0%	3	3.0%	0	.0%	44	43.6%	7	6.9%	16	15.8%	8	7.9%	20	19.
A8	6	5.9%	40	39.6%	1	1.0%	3	3.0%	11	10.9%	19	18.8%	9	8.9%	12	11.9
A9	2	2.0%	41	40.6%	5	5.0%	2	2.0%	7	6.9%	26	25.7%	16	15.8%	2	2.0
A10	3	3.0%	44	43.6%	1	1.0%	2	2.0%	4	4.0%	31	30.7%	12	11.9%	4	4.0
A11	2	2.0%	1	1.0%	1	1.0%	46	45.5%	5	5.0%	16	15.8%	5	5.0%	25	24.
A12	3	3.0%	6	5.9%	34	33.7%	7	6.9%	6	5.9%	13	12.9%	21	20.8%	11	10.9
A13	10	9.9%	29	28.7%	3	3.0%	8	7.9%	7	6.9%	26	25.7%	8	7.9%	10	9.9
A14	35	34.7%	6	5.9%	4	4.0%	5	5.0%	30	29.7%	10	9.9%	7	6.9%	4	4.0
A15	3	3.0%	1	1.0%	44	43.6%	2	2.0%	7	6.9%	11	10.9%	27	26.7%	6	5.
A16	34	33.7%	3	3.0%	9	8.9%	4	4.0%	23	22.8%	14	13.9%	11	10.9%	3	3.0
A17	11	10.9%	11	10.9%	17	16.8%	11	10.9%	5	5.0%	12	11.9%	26	25.7%	8	7.
A18	2	2.0%	44	43.6%	4	4.0%	0	.0%	5	5.0%	35	34.7%	7	6.9%	4	4.
A19	3	3.0%	6	5.9%	38	37.6%	3	3.0%	13	12.9%	9	8.9%	27	26.7%	2	2.
A20	26	25.7%	3	3.0%	17	16.8%	4	4.0%	16	15.8%	9	8.9%	18	17.8%	8	7.
A21	9	8.9%	16	15.8%	22	21.8%	3	3.0%	16	15.8%	10	9.9%	15	14.9%	10	9.
A22	20	19.8%	1	1.0%	25	24.8%	4	4.0%	18	17.8%	10	9.9%	19	18.8%	4	4.
A23	32	31.7%	5	5.0%	7	6.9%	6	5.9%	23	22.8%	15	14.9%	7	6.9%	6	5.
A24	1	1.0%	3	3.0%	4	4.0%	42	41.6%	6	5.9%	8	7.9%	9	8.9%	28	27.
A25	2	2.0%	38	37.6%	8	7.9%	2	2.0%	7	6.9%	33	32.7%	4	4.0%	7	6.9
A26	2	2.0%	2	2.0%	42	41.6%	4	4.0%	5	5.0%	10	9.9%	33	32.7%	3	3.0
A27	48	47.5%	1	1.0%	0	.0%	1	1.0%	37	36.6%	4	4.0%	3	3.0%	7	6.
A28	46	45.5%	2	2.0%	0	.0%	2	2.0%	36	35.6%	14	13.9%	1	1.0%	0).
A29	48	47.5%	0	.0%	1	1.0%	1	1.0%	36	35.6%	6	5.9%	2	2.0%	7	6.9
A30	7	6.9%	0	.0%	41	40.6%	2	2.0%	6	5.9%	6	5.9%	34	33.7%	5	5.

The relative questions that elicited the above responses may be found in Appendix F.

The table specifically focuses on the comparison of male and female responses. It was found that there were significant differences in responses for some questions among

males and females. Pearson Chi-Square tests for each question was done to illustrate the relationship between males and females (see Appendix I). p values < 0.05 were found to be significant. Significant relationships were found in the following questions.

Question 4 inquires about sexual fidelity and there was a significant difference between male and female responses. 41.6% of females answered correctly as compared to 22.8% of males.

Question 5 inquires about the truth behind having an HIV infection and AIDS and it was found that 31.7% of females answered correctly as compared to only 21.8%, which is a significant difference.

Question 7 inquires about HIV transmission and it was found that 43.6% of females answered correctly as compared to 19.8% of males, which warrants a significance level of 0.000, where p < 0.05 is significant.

Question 8 inquires about the HIV antibody test and it was found that a greater percentage of females as compared to males answered correctly, which is a significant relationship.

Question 9 inquires about the relationship between teenagers and AIDS. A significant relationship was found where again majority of females answered correctly as compared to 25.7% of males. The p value for this was 0.008, which is less than 0.05 warranting a significant relationship.

Another significant relationship was found in the responses for question 10, which inquires about AIDS and the HIV infection problem. 43.6% of females had the correct answer as compared to 30.7% of males, again warranting some significance (p value 0.006, which is < 0.05).

Consistent with the above, a significant relationship was found between responses amongst males and females in question number 11, which concerns symptomatology of HIV infection and indicating which statement is false. 45.5% of females and only 24.8% of males knew the correct answer.

Question 15 concerns multiple sex partners and 43.6% of females as compared to 24.8% of males answered correctly. Significance level was 0.001, which is < 0.05 suggesting that the relationship is significant.

A level of significance was also found in question 16 where the Pearson Chi-Square correlation was 0.23, which is less than 0.05. 33.7% of females answered correctly as compared to 22.8% of males who responded correctly.

37.6% of females as compared to the 26.7% of males answered question 19 correctly. The question asked involved aspects of prevention of HIV and other STD's.

The p value for this question was 0.031, which is less than 0.05 therefore it is significant.

Of particular note is that on question 21, 15.8% of males answered correctly as compared to 8.9% of females. The question focused on the selection of new partners. This was the only question whereby males scored higher than females. The level of significance here was 0.038, which is less than 0.05.

Question 22 concerned the use of condoms and it was found that 19.8% of females felt that it is false to believe that intercourse is the only sexual activity for which condoms are needed. 17.8% of males also seemed to agree that the above statement is false about condom use. The relationship between the male and female responses was a significant p value of 0.041.

The statement on question 24 inquired about the national AIDS information line, which does not apply to the South African context, but nevertheless 4.0% of females answered the question correctly. 8.9% of males answered the question correctly. On this question, 41.6% of females chose an incorrect answer (respondents chose d, the correct answer was c). 27.7% of males chose d as the correct answer.

There were significant differences noted on questions 26, 17, 28, 29 and 30. These questions formed part II of the questionnaire and they focused on HIV life situations. Although most of the respondents obtained the correct answers, it was found that more females as compared to males answered correctly. For instance on question 26, it was found that 41.6% of females got the question correct and only 32.7% of males obtained the correct answer. The p value was less than 0.05, (the p value obtained was 0.050). On the subsequent questions it was again found that more females answered the questions correctly. At least 45.5% of females answered the questions correctly. For males at least 35.6% obtained the correct answer. The p values have been illustrated in the table in Appendix I

Table 6 Total responses given in the Adolescent AIDS Knowledge Scale (Zimet, 1998)

	Don't	Know	N	0	Υe	es
	Count	Table %	Count	Table %	Count	Table %
B1	8	7.9%	93	92.1%	0	.0%
B2	2	2.0%	0	.0%	99	98.0%
В3	6	5.9%	61	60.4%	34	33.7%
B4	5	5.0%	89	88.1%	7	6.9%
B5	8	7.9%	89	88.1%	4	4.0%
В6	1	1.0%	6	5.9%	94	93.1%
В7	6	6.0%	5	5.0%	89	89.0%
B8	2	2.0%	3	3.0%	95	95.0%
В9	3	3.0%	95	94.1%	3	3.0%
B10	0	.0%	5	5.0%	95	95.0%
B11	5	5.0%	91	90.1%	5	5.0%
B12	3	3.0%	4	4.0%	94	93.1%
B13	8	7.9%	25	24.8%	68	67.3%
B14	3	3.0%	6	5.9%	92	91.1%
B15	16	15.8%	74	73.3%	11	10.9%
B16	1	1.0%	1	1.0%	99	98.0%
B17	1	1.0%	93	92.1%	7	6.9%
B18	6	5.9%	29	28.7%	66	65.3%
B19	4	4.0%	90	89.1%	7	6.9%
B20	20	19.8%	21	20.8%	60	59.4%
B21	21	20.8%	19	18.8%	61	60.4%
B22	24	23.8%	16	15.8%	61	60.4%

The Adolescent AIDS Knowledge Scale assesses knowledge around the spread and prevention of AIDS. It was found that at least over 59.4% of respondents answered questions correctly indicating that most of them have adequate knowledge with regards to prevention and spread of AIDS. In reviewing the data from this questionnaire, it seems as though there was a central tendency towards answering either yes or no. However of particular significance in terms of responses to questions, it was found that at least 65% of respondents felt that one could get AIDS from a blood transfusion, which is incorrect. Only 24.8% of respondents knew the answer to this question. This is a relatively small

percentage of respondents who obtained a correct answer, suggesting that participants were unsure about the alternative modes of HIV transmission apart from sexual intercourse. A total mean of 1.59 seem to have answered yes for the question. The overall performance on this questionnaire seems to indicate that there was a consistent tendency to elicit correct responses, suggesting that most of the respondents have adequate knowledge about HIV/AIDS.

It is hypothesised that students who hold negative attitudes relating to sexual practices will present high-risk behaviour with regards to HIV/AIDS. It is also hypothesised that having the knowledge regarding prevention of HIV/AIDS will be consistent with their sexual behavioural practices which maybe regarded as safe. The table below will illustrate the correlations obtained from the scale measuring attitudes and the scale measuring knowledge.

Table 7 Responses for Alternate Forms of HIV Prevention Attitude Scale for Teenagers (Torabi & Yarber, 1998)

The tables below illustrate the percentages of how respondents answered the questions. The questionnaire was divided in 2 forms, form A (1-15) and form B (16-30). These were put together and the following values were obtained. Please note that due to the scoring method not all the statements follow a sequential pattern.

Form A

	Strongly disagree		Dis	Disagree		Undecided		gree	Strongly agree	
	Count	Table %	Count	Table %	Count	Table %	Count	Table %	Count	Table %
C7	37	36.6%	37	36.6%	19	18.8%	6	5.9%	2	2.0%
C8	3	3.0%	3	3.0%	7	7.0%	27	27.0%	60	60.0%
C11	2	2.0%	1	1.0%	19	18.8%	46	45.5%	33	32.7%
C13	3	3.0%	1	1.0%	16	15.8%	25	24.8%	56	55.4%
C15	1	1.0%	1	1.0%	5	5.0%	18	17.8%	76	75.2%

		rongly gree	A	gree	Une	decided	Di	sagree	Strongly disagree	
	Count	Table %	Count	Table %	Count	Table %	Count	Table %	Count	Table %
C1	5	5.0%	8	7.9%	31	30.7%	35	34.7%	22	21.8%
C2	3	3.0%	7	6.9%	27	26.7%	32	31.7%	32	31.7%
C3	4	4.0%	2	2.0%	4	4.0%	8	7.9%	83	82.2%
C4	10	9.9%	9	8.9%	11	10.9%	7	6.9%	64	63.4%
C5	6	5.9%	6	5.9%	9	8.9%	26	25.7%	54	53.5%
C6	5	5.0%	11	10.9%	15	14.9%	25	24.8%	45	44.6%
C9	1	1.0%	3	3.0%	5	5.0%	13	12.9%	79	78.2%
C10	6	5.9%	4	4.0%	13	12.9%	27	26.7%	51	50.5%
C12	3	3.0%	1	1.0%	1	1.0%	15	14.9%	81	80.2%
C14	54	53.5%	22	21.8%	15	14.9%	1	1.0%	9	8.9%



Form B

		rongly agree	Dis	sagree	Undecided		Agree		Strongly agree	
	Count	Table %	Count	Table %	Count	Table %	Count	Table %	Count	Table %
C16	5	5.0%	0	.0%	15	14.9%	23	22.8%	58	57.4%
C18	3	3.0%	2	2.0%	13	12.9%	34	33.7%	49	48.5%
C23	13	12.9%	5	5.0%	6	5.9%	28	27.7%	49	48.5%
C24	16	15.8%	15	14.9%	34	33.7%	13	12.9%	23	22.8%
C25	0	.0%	1	1.0%	15	14.9%	37	36.6%	48	47.5%
C26	1	1.0%	2	2.0%	6	5.9%	34	33.7%	58	57.4%
C27	3	3.0%	5	5.0%	5	5.0%	17	16.8%	71	70.3%
C28	0	.0%	2	2.0%	16	15.8%	14	13.9%	69	68.3%
C29	2	2.0%	3	3.0%	2	2.0%	12	11.9%	82	81.2%
C30	5	5.0%	2	2.0%	23	22.8%	34	33.7%	37	36.6%

		ongly gree	Agree		Undecided		Disagree		Strongly disagree	
	Count	Table %	Count	Table %	Count	Table %	Count	Table %	Count	Table %
C17	5	5.0%	6	5.9%	27	26.7%	31	30.7%	32	31.7%
C19	7	6.9%	12	11.9%	8	7.9%	10	9.9%	64	63.4%
C20	10	9.9%	9	8.9%	20	19.8%	25	24.8%	37	36.6%
C21	2	2.0%	7	6.9%	22	21.8%	20	19.8%	50	49.5%
C22	4	4.0%	2	2.0%	4	4.0%	16	15.8%	75	74.3%

For form A, high percentages were obtained for the responses. 36.6% of respondents strongly disagreed as well as disagreed that it is easy to use the prevention methods that reduce one's chance of getting HIV. 60% of respondents strongly agreed that it is important to talk to a sexual partner about HIV prevention before having sexual intercourse. 45.5% also agreed that they would be supportive of a person with HIV. 55.4% of respondents also strongly agreed with the fact that it is important to talk about HIV prevention with a partner if they were to have sexual intercourse. 75.2% also

strongly agreed that they would use a condom when having sexual intercourse with a partner when they are not sure if their partner has HIV.

34.7% of the total respondents strongly disagreed that they would be uncomfortable around someone with HIV. A further 31.7% of respondents also strongly disagreed with the idea that HIV is a punishment for immoral behaviour. A majority of 82,2% strongly disagreed with the fact that they would find it insulting if their partner insisted they use a condom whilst having sexual intercourse. A further 63.4% of respondents strongly disagreed with the statement, 'I dislike the idea of limiting sex to just one partner to avoid HIV infection.' 78.2% of the respondents also strongly disagreed with the belief that sharing IV drug needles has nothing to do with HIV. A significant majority of respondents (80.2%) also strongly disagreed with the statement 'even if a sex partner insisted, I would not use a condom.'

This section will focus on form B, which is 16-30 as listed on the tables. Please note that due to the scoring system elicited, the statements are not in numerical order. With reference to statement 27, which argues that one will avoid sexual intercourse if there was a slight chance that the partner might have HIV, a majority of 70.3% of the respondents strongly agreed. A further 81.2% strongly agreed with the fact that they would not share needles with others, if they were using IV drugs. 33.5% of the respondents were undecided to statement 24, which reads, 'the chance of getting HIV makes using IV drugs stupid.' On aspects of using condoms to avoid HIV being too much trouble, it was found that 74.3% of the respondents strongly disagreed. A small number of respondents (31.7%) seemed to strongly disagree with the fact that people with HIV got what they deserve.

These statements with reference to attitudes seemed to have elicited a variety of results. However most results would oscillate between strongly disagree and disagree, which are appropriate responses for the statements requiring such responses. Other responses also seem to oscillate between strongly agree to agree. Again these responses were warranted for the kinds of questions and statements being posed.

Table 8 Descriptive statistics for items in the questionnaire, Alternate forms of HIV Prevention Attitude Scales for Teenagers (Torabi & Yarber, 1998)

Std. Minimum Mean Deviation Maximum C Form A 100 41.00 68.00 58.9100 5.37314 6.69702 C Form B 44.00 73.00 62.0990 101 Total C 86.00 139.00 120.9900 10.97701 100 Valid N (listwise) 100

Descriptive Statistics

Form A: statements 1-15

Form B: statements 16-30

The mean scores for form A and B indicate a positive attitude based on the possible minimum and maximum scored of 15 and 75 points. The standard deviation indicates that there were differing attitudes. A standard deviation of 0 indicates that all respondents had the same attitude. Minimum scores indicate a less positive attitude and a maximum score indicates a more positive attitude. From the totals it was found that a minimum score of 86 was obtained and a maximum score of 139 was obtained, indicating a range of attitudes. From the table one could argue that most respondents seem to have a more

positive attitude towards HIV prevention. This has been indicated by the mean, which is approximately 121, when rounded off to a whole score.

Table 9 Pearson correlations between Adolescent AIDS Knowledge Scale (Zimet, 1998) and the Alternate forms of HIV Prevention Attitude Scale for Teenagers (Torabi & Yarber, 1998)

Correlations C Form A C Form B Total C .343* .283* Pearson Correlation .341* В .000 .004 .001 100 101 100 Ν 101 .882* .927* Total C Pearson Correlation .341* .000 .000 .001 р 100 100 100 100 Ν .641* Pearson Correlation .343* .882* 1 C Form A .000 .000 .000 р 100 100 100 100 Ν Pearson Correlation .283* .927* .641* 1 C Form B .000 .004 .000 р Ν 101 100 100 101

B: Adolescent AIDS Knowledge Scale (Zimet, 1998)

C: Alternate forms of HIV Prevention Attitude Scale for Teenagers (Torabi & Yarber, 1998)

The above table shows the correlation between B and form A, form B and C. The p value is less than 0.05 indicating that the correlations are significant. Strong Pearson values are those closer to 1. From the table it has been illustrated that there is lowmoderate correlation between B and C of 0.341, which is significant. This could be

^{**.} Correlation is significant at the 0.01 level (2-tailed).

because of external factors that may have influenced one's attitude as well as knowledge. This will be explored in the discussion.

Table 10 Correlations between attitude and knowledge

Correlations

		В	С
В	Pearson Correlation	1	.337**
	Sig. (2-tailed)		.001
	N	101	101
С	Pearson Correlation	.337**	1
	Sig. (2-tailed)	.001	
	N	101	101

^{**.} Correlation is significant at the 0.01 level

B: Adolescent AIDS Knowledge Scale (Zimet, 1998)

C: Alternate Forms of HIV Prevention Attitude Scales for Teenagers (Torabi & Yarber, 1998).

The significant values on the table are ≤ 0.05 indicating that the correlation is significant. This means that the hypothesis that having the knowledge regarding the prevention of HIV/AIDS will be consistent with their sexual behavioural practices, which may be regarded as safe, has been proved. Since the correlation is not a strong one, one could argue that external factors may have influenced the relationship between knowledge and attitudes.

Table 11 T test illustrating the differences in attitudes between males and females

Group Statistics

				Std.
	GENDER	N	Mean	Deviation
Total C	Female	50	125.5000	7.20898
1	Male	50	116.4800	12.24618
C Form A	Female	50	61.1000	3.74302
	Male	50	56.7200	5.87641
C Form B	Female	50	64.4000	4.74234
	Male	51	59.8431	7.56141

Independent Samples Test

		t-test for Equality of Means		
		t	df	р
Total C	Equal variances not assumed	4.488	79.319	.000
C Form A	Equal variances not assumed	4.445	83.140	.000
C Form B	Equal variances not assumed	3.636	84.320	.000

The t tests are conducted to establish whether there are any differences between attitudes among males and females. From the table it has been indicated that the p values are less than 0.05 suggesting that there is a significant difference between male and female attitudes towards the forms of HIV Prevention. A mean of 125.5 among females suggested that they have a more positive attitude towards HIV prevention, whereas a mean of 116.5 amongst males seems to suggest that although they may have a positive attitude towards HIV prevention, it is not as positive as that of females.

Table 12 T test for age groups

Group Statistics

	Age	N	Mean	Std. Deviation
Total C	17 and younger	60	119.6667	11.94999
	18 and older	40	122.9750	9.11603
C Form A	17 and younger	60	58.3333	5.73028
	18 and older	40	59.7750	4.72575
C Form B	17 and younger	60	61.3333	7.33385
	18 and older	41	63.2195	5.53404

Independent Samples Test

		t-test for Equality of Means		
		t	df	р
Total C	Equal variances assumed	-1.485	98	.141
C Form A	Equal variances assumed	-1.319	98	.190
C Form B	Equal variances assumed	-1.397	99	.166

The relationship between various age groups was assessed. The categories were 17 and younger, 18 and older. The p values in the above table are more than 0.05 indicating that there are no significant differences in attitudes in the two age groups.

Table 13 Attitude differences amongst race groups

Descriptives

				Std.
		N	Mean	Deviation
Total C	Black	24	123.5833	9.30599
1	Coloured	4	128.2500	2.50000
	Indian	36	119.0833	11.86200
	White	36	120.3611	11.30904
	Total	100	120.9900	10.97701
C Form A	Black	24	59.8333	5.22258
	Coloured	4	61.5000	1.00000
	Indian	36	58.6111	6.23024
	White	36	58.3056	4.79773
	Total	100	58.9100	5.37314
C Form B	Black	24	63.7500	5.58141
	Coloured	4	66.7500	2.50000
	Indian	36	60.4722	6.63965
	White	37	62.1081	7.37783
_	Total	101	62.0990	6.69702

ANOVA

		F	р
Total C	Between Groups	1.451	.233
C Form A	Between Groups	.729	.537
C Form B	Between Groups	1.886	.137

The tables above illustrate the differences in attitudes among different race groups. It was found that there was no significant difference of attitudes among the various race groups. This is indicated by the p values which are greater than 0.05. To further illustrate that there were no differences in attitudes, one needs to look at the means obtained from the table. It has been found that the means for different race groups fall in the range of 120 to 128. This suggests that there are no significant differences.

CHAPTER SIX

Discussion

The study was conducted at a boys' school, which chose to remain anonymous and Westville Girls High School respectively. The respondents were aged between 16 and 22 years old which literature indicates forms part of the group that has been considered as being vulnerable to HIV/AIDS. Respondents from both schools were exposed to awareness programmes as well as life skills courses concerning HIV/AIDS particularly focusing on its spread and prevention. The courses also focused on various aspects pertaining to sexuality and relationships. The boys' school and Westville Girls High Schools are located in an area that is considered to comprise of people who come from a middle to upper socio-economic status. To illustrate the above point and to highlight the fact that adolescents from various groups are vulnerable to the disease despite their socioeconomic status, Roberts and Miller (2004) conducted research amongst American youth in 10 metropolitan areas in the USA. 50% or more of the diagnosis was found in 8 of the 10 metropolitan areas. It would thus appear that being an adolescent places one at a higher risk irrespective of social position.

From the data collected in the current study, it was found that there were many processes both inside and outside the school setting that may have impacted on their knowledge, attitudes and behaviour. This suggests that there has been a limited change in participants' attitudes as well as behaviour, thus placing them at a very high risk to HIV infection. In the study it was found that the overall majority of respondents had adequate knowledge regarding the spread and prevention of HIV/AIDS. Participants also had a fairly positive attitude towards prevention methods. However the overall correlation

between HIV/AIDS knowledge and attitudes was not significant. Of particular significance was that more females had an adequate knowledge base as compared to their male counterparts. The Pearson correlations also indicated that fewer males had an adequate knowledge as well as a less positive attitude in comparison to females. This translates into differences in high-risk behaviour, which have been influenced by various external factors, as well as differences in the degree of cognitive dissonance amongst individuals.

Roberts and Miller (2004) argue that most men and women find it difficult to change their behaviour because of a broad spectrum of psychological factors that could facilitate or impede an individual's ability to reduce his/her risk of exposure to HIV. They suggest that the list of psychological and personality factors believed to affect prevention related behaviours is long and includes self-efficacy expectations, self-esteem, sensation seeking, sexual compulsivity, locus of control and a variety of internalising and externalising factors. Attitudes and beliefs about sexuality, gender roles, condoms, sexual abuse and drug abuse are also on the list of psychological factors that affect risk reduction behaviours. Some of these factors will be explored below.

6.1. HIV/AIDS Prevention Knowledge

From the outcome of this study, it appears that learners had a fairly good knowledge base regarding HIV/AIDS spread and prevention. However as noted, females had more adequate knowledge than their male counterparts. For instance more females were aware of aspects of transmission, the development of symptoms of HIV infection and spread of infections. They were also knowledgeable about the prevention aspects of the infection.

A significantly large number of male respondents were not aware of these facts. This illustrates that learners may have basic knowledge but the study indicates that having just the knowledge is not enough to ensure safe sexual behaviour. From a theoretical perspective, it would appear that there is cognitive dissonance occurring, whereby, adolescents continue to engage in risky behaviour, despite having the knowledge about HIV. Inconsistencies between cognitions and behaviour seems to be occurring within the current sample of this study. A study conducted by Eaton et al (2003) found that most South Africans knew that AIDS is a fatal sexually transmitted disease, which is consistent with what was found in the current study. This seems to suggest that a lot of focus has been given to the sexual transmission of HIV/AIDS, thus ignoring the other methods of transmission as suggested in the current study, where majority of the learners were not aware of how and whether the HIV infection can be spread via a blood transfusion or via drug use. From the results at least 65% of respondents believed that one could get AIDS from a blood transfusion, which is incorrect, and a small percentage of respondents were aware of contraction of HIV via blood transfusion. This suggests that there are some serious knowledge gaps in current awareness programmes and courses that have been implemented in schools.

In a pilot study conducted by Petersen, Bhagwanjee and Mahintsho (2003) students felt that they had experienced an information overload on HIV/AIDS and thus seemed disinterested in the material covered in the sex and risk programme that was implemented. According to Harman-Jones and Mills (1999), cognitive dissonance could occur in such circumstances, given the fact that the participants in the above study were exposed to new information, which may be inconsistent with their own beliefs about

HIV/AIDS, resulting in the rejection of the new information that they may have obtained from the sex and risk programme. Taking this into account, as well as the high risk to HIV/AIDS, Lampley (2000) argues that the prevention of HIV/AIDS among young South African people should be a priority. Given the lack of a vaccine or an affordable cure, prevention of the spread of the virus is the only way to combat the disease.

From the outcome of this study, it can be concluded that participants have gained knowledge about protective behaviours, but this is not quite consistent with their attitudes towards condom use, feeling of personal control and psychological well-being, creating cognitive dissonance. In the current study, a low to moderate correlation was found suggesting that adolescents still engage in high-risk behaviour despite having knowledge regarding HIV/AIDS prevention. Most intervention programmes are developed at an individual level and have been developed to delay sexual onset, reduce the number of sexual partners and promote condom use. In addition to this, such programmes tend to focus on knowledge, attitudes, beliefs, values and experiences that relate to the sexual risk behaviours that put adolescents at the greatest risk for contracting STD's including HIV. But the programmes do not seem to be working as adolescents continue to engage in high-risk behaviour. Although knowledge is important, the current study seems to suggest that adolescents have knowledge about the risks involved with sexual activity but continue to engage in risky behaviour (Schatz & Dzvimbo, 2001). One needs to begin to reconceptualise adolescent risk behaviour as a large spectrum of contextual factors that interact with one another in provoking or preventing sexual risk behaviour.

6.2. Behaviour and Attitudes

The quantitative data from the current study indicated that there was a poor correlation between knowledge and attitudes amongst respondents. According to Festinger's (1957) theory, it would appear that dissonance between attitudes and behaviour has occurred resulting in negative consequences, which in the current study, would mean the engagement in high risk behaviour. Participants may be experiencing dissonance, which may have been aroused by the information that they have been provided with about HIV/AIDS prevention. This information provided to them may be contrary to their own beliefs or attitudes towards HIV/AIDS prevention. Participants may then be attracted to engage in risk behaviour provided that their cognitions are consonant with their behaviour. Harman-Jones and Mills (1999) suggest that such cognitions serve to justify their behaviour, thus continuing to engage in risky behaviour.

Comparisons of attitudes between male and female learners illustrated that males had a less positive attitude than females with regards to prevention and spread of HIV/AIDS, suggesting that there is more dissonance occurring between attitudes and behaviour amongst male respondents. Therefore one could argue that there has been a limited change in the awareness and prevention programmes in the school system as well as in the behaviour of learners. This is because there are various underlying reasons for highrisk behaviour that will be presented in the next few sections.

6.3. Condom Use

The majority of respondents recognised the use of condoms as a mode of prevention for HIV/AIDS as well as for unwanted pregnancies. In terms of the general attitude towards the use of condoms, it was found that 93% of respondents would use condoms whilst having sexual relations with a partner. 82.2% of respondents disagreed with the fact that they would find it insulting if their partner insisted they use a condom while having sex. 80.2% disagreed with the fact that they would not use a condom if their partner strongly insisted. This is inconsistent with previous studies conducted by Visser et al (2004) who found that learners did not accept condom use as a protective behaviour. Therefore in terms of high-risk behaviour no definitive pattern was identified.

Visser et al (2004) also argue that high risk behaviour is functional in satisfying needs such as getting love and attention, to keep a partner interested to earn respect from friends and to earn more income. Eaton et al (2003) have found that communicating with one's partner about STD risk and condom use has been strongly correlated with the willingness to use condoms, but talking about condoms is not easy. Adolescents in this sample tended to agree with condom use but engaged in risky behaviour because at least 73.3% of the respondents felt that it was not easy to use prevention methods to reduce one's chances of getting HIV, Eaton et al (2003) argue that the fact that condom use may not be easy is related to the fact that people associate condom use with promiscuity, mistrust of a partner and a lack of commitment to a partner. But having open discussions and having a mutual agreement to change behaviour, can strengthen a relationship, increase partner's respect for each other, confirm that they care about each other's well-

being and enhance their sexual intercourse by removing any anxiety about the risk of infection.

6.4. Gender Inequalities and Gender Differences

Adolescents' exposure to STD's and HIV/AIDS is dependent on the prevalence and patterns of the primary risk behaviours associated with disease transmission. Studies done in the USA provide strong evidence that adolescents engage in behaviours that place them at risk for disease transmission (Miller, Boyer & Cotton, 2004). Miller et al (2004) also found that there are gender differences in behaviour, racial and ethnic differences in levels of behaviour. In the current study a significant difference was found between male and female behaviour and attitudes. It was found that males tend to engage in more risky behaviour in comparison to their female counterparts. It was also found that more females had more adequate knowledge about prevention and transmission than males. However no racial differences in terms of knowledge and attitudes was found. This could be due to the numbers in each category of the sample as well as the overall racial composition in both schools.

Gender and differently circumscribed gender roles within society drives the experiences of sexuality. Adolescent sexual relationships appear to be constructed around a set of social roles determined by gender (Harrison et al, 2001). Female learners in the study had equipped themselves with more knowledge than males because they are at a higher risk to contract HIV/AIDS than men. Rivers and Aggleton (2001) argue that the stereotypical gender roles place young women and to a lesser extent young men at heightened risk. Young women tend to have little control over how, when and where sex

takes place. Furthermore, gender norms create power differences where power imbalances results in men who are ready to exploit women in the service of sexual urges. The dominant ideologies of femininity promote ignorance, innocence and virginity, whereas masculinity encourages men to seek sexual experiences with a variety of partners, which places them and their partners at risk of infection (Rivers & Aggleton. 2001). This could well be happening in the current study due to the significant differences in attitudes amongst men and women as well as male and female gender roles, which have been reinforced in and outside of school.

6.5. Meaning Attached to Sexual matters and Relationships

Strebel (1995) argues that heterosexual relationships are characterised by prominent power inequality and that a man's engagement with a woman is a means of expressing power and that the notion of masculinity is strongly rooted in the notions of power and control. Further complicating the issue of female gendered empowerment is that a woman's attempt to take control in a sexual relationship is frequently interpreted by men as a challenge to their masculinity. In the current study, the issue of negotiating safer sexual practices were found to be difficult by the majority of respondents. Although they are aware of safe sexual practices, implementing these are questionable as evidenced in the poor correlation between knowledge and attitudes. However there is also an indication that some form of negotiation that is occurring between males and females. From the study, questions related to HIV life situations were explored and 41.6% of female respondents and 32.7% of males felt that condom use was important if both partners have had sexual relations with other people. The study also indicated that

approximately 10% of males felt that their partners should take birth control pills and the issue of condoms was not seen as being important. One could then argue that prevention of HIV/AIDS did not seem to concern some male respondents, but rather unwanted pregnancies seemed to be a concern to them and that women should take full responsibility to protect themselves. This suggests the role of power imbalances that exist between teenage males and females in the current study. Miller et al (2004) also suggest that relational factors such as sexual initiation with an older partner may contribute to sexual scripts or ideas about sexual interactions that are played out in the future with the same or different sex partners and these relational factors can lead to greater risk scenarios. To conclude, it was found that the participants in the current study may not have had the confidence and skills to change their behaviour, therefore putting themselves at risk to contract the infection.

6.6. Peer Group Norms

At an interpersonal level, processes such as peer group norms, peer group acceptance and peer group pressure play a role in high-risk behaviour. Shared meanings related to relationships, gender differences, sexuality, reproduction and the meaning of life are related to the formation and maintenance of behavioural patterns. The meanings attached to the protective strategies such as abstinence and the use of condoms also have an impact on the community's reaction to the HIV/AIDS epidemic (Eaton et al, 2004)

In a study conducted by Visser et al (2004), having sexual experiences were seen as a status symbol especially among males. Peer group acceptance and status in their study was seen as being more important to adolescents than the protection against HIV. In the

current study, it was found that at least 75% of the respondents reported that they would share HIV information with their peers, whilst 47.7% of learners strongly agreed that people can influence their friends to practice safe behaviour suggesting that peer influence can be positive and this can be used to form group discussions which could be used to investigate sexual relations and further understand the process and dynamics of sexuality. The current study found differences in attitudes towards HIV/AIDS prevention among male and female respondents where male learners had a less positive attitude than females. One could argue that peer influences appear to impact more on men than women, which could be related to gender norms and stereotypes. In addition to this it can also be argued, based on Visser et al's (2004) study that females have a positive peer influence in comparison to male learners and therefore have a more positive attitude towards HIV/AIDS prevention and they are more likely to engage in safe behaviour.

It can thus be concluded that the maintenance of high-risk behaviour in adolescents is largely influenced by their peers. Peer influence can elicit cognitive dissonance as well as consonance. This is largely dependent on an individual's beliefs and cognitions. Dissonance would occur when individuals are exposed to information elicited by their peers, which is inconsistent with their own beliefs. If this dissonance is not reduced by changing one's beliefs, one might seek to alter one's behaviour in order to achieve this state. Rejection of information as well as seeking support from those who agree with one's belief could also occur. Trying to persuade others to accept their own beliefs may also occur (Harman-Jones & Mills, 1999). Consonance can occur when information is obtained from peers and it is seen as being consistent with their own beliefs. Although programmes that have been implemented in the schools have focused on awareness and

information about HIV/AIDS, they have not addressed peer influences, group norms and meanings that maintain high-risk sexual behaviour. Perhaps these programmes need to focus on encouraging youth to have the courage to withstand peer pressure and be guided by their own values.

6.7. Cultural Processes

The cultural meanings attached to sexuality, reproduction and relationships play an important role in the behavioural patterns. There seems to have been a significant deterioration of traditional sexual norms and behaviour patterns in the current society, and this has contributed to the exposure to high risk behaviour. The community's perception of HIV/AIDS is related to many social taboos involving issues such as sex, blood, death, promiscuity, prostitution, homosexuality and drug use. HIV/AIDS reveals and aggravates the social prejudices, economic inequalities and political injustices (Visser et al, 2004).

A lack of knowledge in this study can be illustrated through the numerous misconceptions about sex and related topics. In the current study, it was found that most learners were not familiar with the spread of HIV/AIDS via blood transfusions, resulting in the formation and reinforcement of myths. It has been assumed that learners in the current study were exposed to sexual openness in the media and to a process of acculturation, which implies that the traditional structures and meanings are not appropriate for them in the present context.

In the current study it was found that many learners may have experienced a lack of guidance and support in constructing the meaning of what appropriate sexual behaviour

in their context would be. For some parents who still adhere to some of the traditional values, it may still not be culturally appropriate to discuss sexual matters with their children (Visser et al, 2004). Eaton et al (2003) found that adolescents reported poor communication with their parents about sexual matters. Poor communication within the family about sexual relations and a lack of supervision from parents may contribute to unsafe sexual behaviour. This in addition to easily available information from their peers may exacerbate the problem.

Cultural processes seem to impact on the practice of safe sex and in this study, it was found that cultural processes played a part in prevention aspects as well as knowledge about the transmission of HIV/AIDS.

6.8. Education in Schools

Kenway (1995) argues that gender norms are reinforced at the school level. She argues that schools teach boys about being male and becoming men and boys learn their lessons through filters of their histories. Connell (1989) further argues that masculinity shapes education as well as education forming masculinities. Schools are one setting in which meanings about masculinity are mobilised and masculine identities are formed and protected. Sport, discipline, authority patterns, knowledge and teaching identities are constantly caught up in the hard and soft polarities which distinguish between male and female, hegemonic and subordinate masculinities. Such an approach to education serves to reinforce gender norms, which could be counterproductive to the prevention of HIV/AIDS as it serves to foster high-risk behaviour amongst learners. This also serves to

create power differences where power imbalances result between men and women resulting in further engagement in high-risk behaviour (Moore & Rosenthal, 1995)

In the current study it was found that guidance periods and life skills programmes were introduced to the timetable, but it was found that closer to the examination periods, teachers would remove these periods to make more time available for the teaching of examination subjects, leaving no time for discussing various aspects that contribute to learners engagement in high risk behaviour. Furthermore against the background of academia, the improvement of examination results was seen to be the more important goal in the schools, since examination results were used as a standard for evaluating the effectiveness of the school. Therefore, the majority of resources in schools were used to achieve this goal.

Visser et al (2004) argue that AIDS education can impact on behaviour by increasing participants' knowledge about HIV/AIDS, self-esteem and life skills that can enhance safe sexual behaviour. Although education programmes are prevalent in the media and at schools, participants in the current study do not seem to be applying this knowledge to their experiences. This would relate to the argument by Miller et al (2004) that when the majority of the awareness programmes reach the youth, they do so after they have initiated sexual intercourse. They found that many youth begin experimenting with sexual behaviour prior to their entry into high school. Thus the implementation of prevention programmes in high school would not prove to beneficial as most teenagers may have already engaged in risky behaviour. In terms of the belief disconfirmation paradigm (Harman-Jones & Mills, 1999), there would be dissonance between one's own perception about the risk of HIV and the information elicited by awareness and prevention

programmes. Therefore, one could argue that implementing prevention programmes at high school may not be beneficial in light of the issues mentioned above.

6.9. Summary of findings

The findings of the study show that a majority of the respondents had adequate knowledge regarding HIV/AIDS prevention. However a significant difference was found between the knowledge male and female respondents had. More females seemed to have had adequate knowledge in comparison to their male counterparts. In addition to this females also had a more positive attitude towards HIV/AIDS prevention in comparison to male respondents, thus placing males at a probable increased risk of engaging in risky sexual behaviour. The overall correlations between attitudes towards HIV/AIDS prevention and knowledge was not very strong suggesting that there may have been external factors such as gender construction, peer influences, dissemination of appropriate knowledge and cultural factors that may have influenced this relationship. Both the hypotheses proposed in the current study have been found to be consistent with the findings of the current study as well as previous research.

CHAPTER SEVEN

Conclusions, Limitations and Recommendations for Further Study

7.1. Conclusions

Although HIV/AIDS is considered primarily as a medical condition, there are various complex social and psychological processes underlying the prevalence of HIV/AIDS in the community. At an individual level HTV/AIDS is related to high-risk behaviour that often stems from intra psychological processes related to low self-esteem, external locus of control, traumatic sexual experiences, lack of awareness of personal risk and lack of self-efficacy. At an interpersonal level, processes such as peer group norms play a role in high-risk behaviour. Shared meanings related to relationships, gender differences and sexuality are related to the formation and maintenance of behavioural patterns. Meanings attached to the protective strategies also have an impact on HIV/AIDS. High risk behaviour and its ensuing consequences are also functions of the context within they occur and are related to social, cultural, economical and political processes in the community (Visser et al, 2004).

The findings of the study indicated that the majority of the respondents had adequate knowledge regarding HIV/AIDS prevention as determined by the questionnaires. However there was a difference noted between males and females. It was found that females had more knowledge and a better attitude towards HIV/AIDS prevention as compared to their male counterparts. The study also indicated that female respondents had a better attitude as well as adequate knowledge regarding HIV/AIDS spread and

prevention. The study also indicated that the presentation of a less positive attitude and knowledge about HIV/AIDS could have been influenced by external factors.

Umerah-Uduzulu and Williams (2004) proposed that most of the problems around current interventions in schools is related to the fact that there is a lack of proper health education programmes resulting in myths, misconceptions, stigma, apathy and poor health knowledge and attitude about HIV/AIDS resulting in high risk sexual behaviour amongst learners and the general population. Although information about HIV/AIDS has been introduced to learners, there are still communication gaps between the few professional public health educators and health promoters. There seems to be a general mistrust and a lack of understanding and appreciation of social and cultural impacts on knowledge, attitudes, lifestyles, and practices of South Africans. These factors have been found to affect AIDS development, transmission, prevention and control.

In conclusion, consideration of a variety of factors could improve research, practice and delivery of STD and HIV prevention intervention for learners at schools in South Africa. To be successful we need to broaden our understanding and conceptualisation of the context and circumstances surrounding adolescent sexuality and adolescent risk reduction. One needs to have a better understanding and appreciation of the complexities of social and psychological issues facing South African youth today especially with regard to the areas of risk that are most salient in their lives. Tailoring messages and programmes to address the diversity among South African youth needs to be done. Based on the fact that youth begin to engage in sexual relations as young as 13 years old (Colllins & Stadler, 2001) one needs to target youth at an earlier age, try new and promising approaches, improve current programmes and not forget to involve the youth

in the design and delivery of intervention programmes that will foster their growth and development into young healthy adults.

7.2. Limitations

Whilst this study was conducted several limitations were noted. Firstly, the focus of the study was adolescents aged only between 16-18 years. The respondents were recruited from a boys' school, which chose to be anonymous and Westville Girls High schools. The results obtained cannot be generalised to the entire school or to other schools. However these results can be used to create intervention programmes at this school as well as to inform future research at other institutions. The results can also be used for intervention programmes that other institutions may implement.

The use of self-report measures of sexual behaviour can be unreliable, as participants may be reluctant to share personal information and as a result may present socially desirable answers. This is especially true due to the sensitive nature of the research. However, attempts were made to combat this by emphasising the confidentiality of information. Respondents were required to provide demographic details, but their names were not needed on the forms.

The study was conducted using reliable quantitative measures and the results elicited were consistent with previous research. However, more information about various factors such as the intersection of gender and race, class and culture could have proved valuable to further understand the relationship between knowledge and attitudes. Therefore this study could have benefited from qualitative measures such as individual interviews and focus groups and further research studies could utilise this recommendation.

7.3. Recommendations

Based on the exploration of relevant issues pertaining to the sexual attitudes and behaviour, it appears that it is necessary to add courses to the high school curriculum and create workshops to better equip students with knowledge about HIV/AIDS and the dangers of high-risk behaviour. HIV/AIDS education should not only concentrate on the dissemination of information alone but also equip them with certain life skills that would assist them to cope better with life's stressors. Van Dyk (2001) suggests that adolescents respond better to messages that emphasise their rights rather than their responsibilities. It is important to assure adolescents that it is their right to have information and to protect themselves. The right to information and protection indirectly implies responsibility (van Dyk, 2001). Adolescents need to be equipped with knowledge and attitudes and values need to be explored in life skills programmes. This is important to assist them with issues and difficulties around sexuality and relationships.

To be able to provide adequate knowledge, HIV/AIDS education and life skills programmes should be designed in such a way that it is age appropriate. Programmes with adolescents should focus firstly on the revision of knowledge, which may have been given to them in junior school, ensuring that adolescents have the correct information about the definition of AIDS, the effect of the virus on the immune system, the transmission of HIV, the symptoms, management and testing. Reinforcing the knowledge that adolescents have can also prevent HIV/AIDS

One needs to try and make HIV/AIDS issues as real and vivid as possible but at the same time not to frighten the learners. Movies about HIV-infected people or classroom visits from people with HIV often help learners overcome their denial of the disease and give HIV/AIDS a human face. The ability to plan ahead is often a powerful deterrent to unsafe behaviour. Van Dyk (2000) suggests that adolescents who have future plans are often less inclined to engage in high-risk behaviour. Learners also need to know that they have a right to abstain from sexual intercourse or to postpone becoming sexually active. They should be helped to develop the skills they need to assert those rights. Information needs to be provided in a clear and straightforward manner. Sexual vocabulary also needs to be expanded to include slang expressions or words that teenagers use if that is how one can get the message across (Eaton et al, 2003).

Programmes at schools also need to review and focus on certain issues that pertain to life skills. As van Dyk (2000) suggests, adolescents also need to begin to build a positive self-concept, respect themselves as well as others. Adolescents also need to be aware of their rights regarding privacy, the danger of not being able to resist peer pressure as well as the need to take responsibility for their actions. Other aspects that one could deal with are issues related to stereotypes, gender inequality and non-discrimination against those who choose not to engage in high-risk behaviour.

Life skills programmes should form the basis of AIDS prevention programmes, as it would assist with increasing self-awareness, critical thinking, responsible decisionmaking, negotiation skills, communication skills, refusal skills as well as conflict resolution.

Conducting more interactive intervention programmes in the form of discussion groups possibly with peer group leaders could assist in providing open discussion, where students can voice their problems as well as address their misunderstandings as well as fears associated with the disease. The programmes should also focus on how to conduct

relationships with people of the same gender as well as the opposite gender. Alcohol awareness needs to be created in line with how to use leisure time constructively and creatively (Katz et al, 2000). Focus should also be given to the importance of prevention methods regarding HIV/AIDS. Furthermore discussions should also focus on the use of contraception to avoid unwanted pregnancies.

HIV/AIDS education programmes as well as life skills programmes can be enhanced by having movies and other visual AIDS as mentioned earlier. Role-plays and participatory exercises would prove useful. Having discussions in same-sex groupings followed by sharing in a mixed sex group can prove to be useful. Involvement of students in future planning and teaching of HIV/AIDS can also prove to be useful. The use of adolescent models and peer educators has also proved to be useful as indicated in previous research, which has been reviewed in the literature presented in this thesis. The use of peer educators need not be underestimated as it has been found that adolescents learn best when they learn from their peers.

And finally it needs to be mentioned that in order for an intervention programme to be effective, attention should be given to ethnic/cultural and behavioural patterns, socioeconomic factors, social norms and the ethnographic infrastructure of most Africans in the affected areas (Umerah-Uduzulu & Williams, 2004). If all the above factors are taken into consideration when implementing interventions in schools, it may prove to be beneficial and it may give way to future researchers to develop appropriate intervention programmes within the South African school setting.

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