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Assessment of risky sexual practices with respect to HIV among South African young adults.

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CHAPTER 1
INTRODUCTION

1.1 GENERAL INTRODUCTION

South Africa is one of the countries hardest hit by the HIV/AIDS epidemic with a profound impact on many aspects of the society. Studies have projected that the pandemic will affect the country's demographic structure, economic, health and education sectors if any drastic measures are not taken to curb infection rates (UNAIDS, 2006).

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According to the UNAIDS (2009), South Africa has a population of about 46 million. The country has the highest number of people living with HIV in the world, 5.7 million. Almost 1,000 AIDS-related deaths occur in South Africa every day. It is believed that almost half of all deaths in South Africa and 71% of deaths among those aged 15-49 are AIDS-related. Young South Africans, aged 14–24 are among the fastest growing population at risk for HIV/AIDS, with women in this age group being the most at risk. The prevalence rate of HIV infection continues to still a matter of concern among this population, despite intensive efforts (dissemination of information and awareness campaigns) by governmental and nongovernmental organizations, aimed at increasing awareness of HIV/AIDS transmission and prevention. Many of these programs operate with the assumption that HIV awareness and knowledge will necessarily translate to less risky practices hence curb the ravishing effects of the pandemic. However, the ever increasing infection rates in the face of such proactive awareness and education campaigns suggests that either the message is not getting through to as many people, or that people are receiving information but not acting upon it. Hence, there is a need to explore and understand factors that might impact on whether or not knowledge and awareness about HIV will translate to behaviour change.

1.2 AIM

This study aims to explore factors that might predict, and perhaps mediate the relation between having HIV knowledge/ awareness and engaging in risky sexual practices. This may facilitate the understanding of factors that may inhibit translating youth knowledge into behaviour. A broader aim is to explore and reflect on why, in the context of campaigns and HIV/AIDS knowledge, many young adults still engage in risky sexual practices, resulting in the currently escalating rates of new HIV infections. The Health Belief Model has been thoroughly researched and applied to understand what health beliefs are predictive of behavioural choices. The present study will use the sub-dimensions of the Health Belief Model (see section 2.8 of this report) to understand how these health beliefs impact on the relation between HIV knowledge and Risky sexual practices. A final aim is to explore whether there are differences in these patterns as a function of sexual orientation.

1.3. SIGNIFICANCE OF THE STUDY

The high rates of HIV infection necessitate the development of HIV interventions that will effectively change young people's attitudes and the rates at which they engage in risky sexual behaviours such as engaging in sex without a condom and having multiple sexual partners. It seems that factors that might impact on HIV awareness campaigns that aim to equip young people with HIV knowledge are not sufficiently understood. This suggests that knowledge and awareness about HIV may not necessarily guarantee that people will not engage in risky sexual practices. Consequently, current research attempts to explore links between knowledge and action. The Health Belief Model (HBM) is one such model that attempts to predict health behaviours. This study will explore factors, such as those that form the HBM that might impact on South African young adults' ability to act based on their knowledge of HIV and these factors will enhance the understanding of what is needed in the long run to bring about behavioural change thereby reducing HIV risk and vulnerability.

CHAPTER 2
LITERATURE REVIEW

2.1 INTRODUCTION

According to Ross and Deverell (2004), early prevention methods which were primarily information based were intended to meet the urgent need for risk education services. The assumption was that a greater understanding of the behaviours associated with HIV transmission would more likely result in the adoption of HIV reduction health behaviours. Despite an increase in public awareness of HIV transmission, there has been no significant change in high HIV risk behaviours (Ross & Deverell, 2004).

Literature suggests that while information about HIV risk is necessary, it is not sufficient to motivate behaviour. Yet those motivating behaviours are poorly understood. Ross and Deverell (2004) assume that by changing behaviours, HIV risk can be reduced, since HIV infections are largely transmitted through unsafe sexual behaviours. They also acknowledge that risky behaviours, responsible for HIV infection occur in the context of people's interpersonal relationships and pose many social, psychological and cultural obstacles in curbing the pandemic. Therefore, they believe that health promotion interventions are more likely to be effective if they encourage associated changes at the level of the individual, the community and the wider social environment. The present section reviews literature that attempts to account for unchanged risky sexual behaviours among young adults in the face of high prevalence of HIV/AIDS (Ross & Deverell, 2004).

2.2 Adolescence

Adolescence is defined by World Health Organization (WHO) and is cited by Nduati and Kiai (1997) as the age between 15-24 years. With regards to the HIV/ AIDS pandemic, adolescents are of great concern for a number of reasons. Firstly, the 5-15 years age group is relatively free of HIV/AIDS and secondly, it is extrapolated from epidemiological data

that two out of every three HIV infected individuals acquired infection during adolescence, according to the WHO, as cited in (Nduati & Kiai, 1997). Thus, the adolescents and youth have been identified as high-risk groups who need to be targeted specifically, in an effort to reduce the risk of contracting the virus within this age group.

According to WHO (1992) as cited in Nduati and Kiai (1997) adolescence is understood as a period of the lifecycle characterized by biological, psychological and social changes and transition. Additionally, young people learn to assume control of their own lives and make mature decisions in light of the consequences for themselves and others. However, rapid changes in society such as urbanization, industrialization, the spread of non-traditional values through mass media, transformation of values, the decline of the influence and support of the extended family, have given many young people a wider range of behaviour from which to choose. Some of these behaviours may be harmful, more particularly sexual behaviour. Therefore, young people need to be made aware of the potential consequences of such behaviour and to be helped to develop the skills and resources to help them.

Young people's sexuality is associated with many adverse outcomes that include pregnancy, disrupted education, sexually transmitted diseases, health and developmental risks, as well as HIV/AIDS (Nduati & Kiai, 1997). Buga, Amoke and Ncayiyana (1996) shared evidence that suggest that adolescents start dating and become sexually active (i.e. have sexual intercourse) and sexually mature at an earlier age, than previously. Buga et al. (1996) also observed that teenage pregnancies are on the increase as a result of an increase in early sexual intercourse, high risk sexual behaviour, inadequate sexuality education and a tendency not to use contraceptives.

Since many young people are sexually active, have more than one sexual partner and do not use condom as a means of contraception, the risk is high that sexually transmitted diseases like syphilis and HIV could be transmitted.

2.3 Understanding sexual attitudes and behaviour

There are a number of obstacles which make it difficult for young people to engage in more healthy sexual behaviours and practices. According to Rycek, Stuhr, McDermott, Benker and Swartz (1998) risky behaviours may be influenced by the fact that adolescents often feel invincible and believe that bad things will not happen to them. This view is supported by Elkind's concept of adolescent egocentrism, stating that adolescents focus primarily on the benefits of their health behaviours and not the threats. This is because of the "*imaginary audience* and the *personal fable*". Van Ede and Louw (1998) describe imaginary audience as a situation in which an individual fails to differentiate the object of thought and thinks that others are preoccupied with them while personal fable is a belief that one is unique and invulnerable. Whereas personal fable is seen as a result of the conception of young adults as unique and their personal experience s are unlike those of others. Green, Frey and Derlega (2002) are also in agreement with Elkind's view that adolescents who have high levels of personal fables easily ignore warnings in health promotion messages regardless of the source because they feel unique, not at risk or believe health promotions messages of sources do not apply to them.

Rycek et al, (1998) on the other hand, argue that that there is a link between peer pressure and imaginary audience. He believes adolescents engage in risky behaviours because of peers, who are most influential during this period of development. The underlying belief of this principle is that if a friend is participating in an activity then it must not be harmful because a friend would not willingly put him or herself, or others, in danger. Secondly, Louw, Van Ede and Louw (1998) maintained that adolescence is a stage where young people emphasize their independence and explore their identity and a period where they crave the approval of their peers and worry about being rejected and not to be popular. This may affect the way they act and make choices when confronted with risky practices such as having multiple sex partners and engaging in unsafe sex as well as making them more at risk for HIV infection.

Thirdly, Lesser and Smoots (2005) maintain that girls are more likely to have poor self-esteem and negative feelings towards their rapidly changing bodies and need to feel loved

in relationships. This in turn may affect their capability of negotiating sexual practises with their partners. Rosenthal, Cohen and Stanberry (1998) assert that efforts aimed to change sexual behaviour are not sufficient to actually maintain safe sex practices. They acknowledge the fact that sex education on its own initially influences sexual behaviour, but cannot be maintained on long-term follow-up. Like any high-risk behaviour (such as smoking), the process of change can be a long and a difficult one with many relapses.

The above literature reflects a generally distorted view that young adults may hold against their vulnerability to the pandemic.

2.4 Stereotyped attitudes in young adults

From the above discussion, one can see that throughout adolescence and early young adults make decisions about sexual activity and reproduction. Many behavioural patterns that can affect the risk of pregnancy, sexually transmitted diseases and HIV/AIDS are established. External forces, such as images in the mass media peer relationships have a significant influence on these patterns. Hoffman and Futterman (1996) have noted that adults often tend to hold ambivalent attitudes towards young people, seeing them simultaneously as "small adults and as immature inexperienced and untrustworthy children" (ibid, p.236). Furthermore, many adults also struggle with the idea of accepting that adolescents are sexual beings and in some cases assume that young adults are not mature enough to need relevant knowledge about safe sex. Therefore, adolescent sexuality is viewed as something which must be controlled and restrained. These stereotypes have also informed much HIV-related research and practice with young people (Hoffman & Futterman, 1996).

While formal health education programs have been influenced by stereotypical attitudes about young people's sexuality, parents and families across a wide variety of cultures have also sought to deny young people information about sex and reproduction. In some cultures, sex is a taboo that often parents do not talk to their children about (Zelaya, Marín, García, Berglund, Liljestrand & Persson, 1997). By doing so, parents and family members

attempt to shield young people from information which they believe may lead to sexual experimentation.

Nonetheless, studies have suggested that young people prefer sources of information on dimensions of sexuality from parents, especially mothers. However, parents in many settings are not prepared to respond to such need and assume that these information needs are better met at school (Gupta, Weiss & Mane, 1996). Parents therefore can play an important role in setting the limits for behaviour, educating young adults about sexual matters as well as dangers of HIV. The study conducted Gupta, Weiss and Mane (1996) has clearly shown that young adults who openly communicate about sexual matters with their parents are less likely to be sexually active or, in the case of girls, they are also less likely to become pregnant before marriage (Gupta, Weiss & Mane, 1996).

Furthermore, Aggleton and Rivers (1998) highlighted the fact that young people have been commonly stereotyped as wild and irresponsible, yet they are in fact a remarkably heterogeneous group. He remarked on factors such as cultural background, gender, sexuality and socio-economic status among other variables that influence young adults' experiences. While some young people may take risks, the majority are at least as responsible as their parents and some may be even more so. Moreover, it is important to recognise that in many youngsters, the onset of puberty signals greater economic and family responsibility rather than increased pleasure-seeking and risk taking (Aggleton & Rivers, 1998). That said, it also suggests that there may be a number of structural as well as individual factors which may heighten young people's vulnerability to engage in behaviours that place them at risk for HIV.

These views suggest the importance of incorporating peer group support into prevention programmes and attempts to challenge societal stereotypical attitudes toward young adolescent's sexuality.

Various theories have been adopted to try and account for unchanged risky sexual behaviours among young adults in the face of high prevalence of HIV. Social cognitive theory has been identified by Pajares (2002) as one of the theories that has been regarded to play a critical role in self-beliefs of human cognition, motivation, and behaviour. According to this theory human functioning is the outcome of a dynamic interplay between personal, behavioral, and environmental influences.

The theory also reckons interaction of the environment, personal factors, and behavior that uniquely determine individual behavior, is triadic, dynamic, and reciprocal. As noted by Stone (1998), he sees this interaction as critical to a person's ability to construct reality, selectively encode information, self-regulate, and perform behavior based on values and expectations. Pajares (2002) further added that individuals possess self-beliefs about capabilities to produce designated levels of performance which thus enables a sense of control over thoughts, feelings and actions that affect one's life. This performance is called perceived self-efficacy (Bandura, 1997; Pajares, 2002).

2.5 Vulnerability of young adults to HIV infection

Despite the depth of knowledge and intervention around this disease the epidemic continues to spiral out of control and on an individual level, little has changed in terms of behaviour to ensure its prevention and lower its spread. In South Africa many still do not believe they are at risk of becoming infected with HIV. This is because some people still have a perception that HIV is an illness associated with homosexuals and intravenous drug use including Blacks and the poor that affect homosexuals and intravenous drug users (Weiner, 1993).

The most fundamental facts about HIV/AIDS remain misunderstood, yet studies conducted indicated that 13% of the persons who took their first HIV test in the 2005 national household survey were found to be HIV-positive. Until then, most of them had declined to take an HIV test because they felt they were at no risk of infection. Overall, half the respondents who were found to be infected with HIV had reported that they felt they were

at no risk of acquiring HIV (Shisana, Rehle, Simbaya, Parker, Zuma, Bhana, Connolly, Jooste & Pillay 2005). The study also indicated that approximately two million South Africans living with HIV do not know that they are infected and believe they face no danger of becoming infected. This therefore implies that they are unaware that they can transmit the virus to others. This suggests that, in the absence of an increase in HIV testing uptake, these HIV-infected persons would only become aware of their status when they become symptomatic, which can also limit the potential benefit of appropriate treatment (UNAIDS Epidemic Update, 2006).

The above literature suggests that one among many possible reasons for the continued rise of HIV infection is stereotyped beliefs and misconceptions held by the public. As a result of the stigmatized beliefs related to HIV, people delay HIV testing and are less willing to reveal their seropositive status to others. Assessing HIV risk factors will be helpful in changing stigmatizing beliefs and improving young adults' understanding of factors perdesposing them to high infection rates. The following is a review of the literature on risk factors pertaining to HIV infection.

2.6 HIV Risk factors

According to Eaton, Flisher and Aaro (2003), sexual risky behavior may be operationalized as

- Being sexually active as opposed to abstinence as this puts one at risk for HIV infection.
- Having multiple sexual partners (either serially or concurrently).
- And the practice of unprotected sex (vaginally, orally and anal). Unprotected anal sex poses higher risk for the partner being penetrated. HIV can enter through the mucous membrane (lining) of the anus and rectum. Anal sex can also cause small tears in the anal lining and on the penis, making it easier for the virus to enter. Furthermore, unprotected oral sex has a higher risk if there is exposure to semen.
- Rough sex play that causes abrasions or bleeding of the skin or mucous membranes.

Studies have indicated various factors that influence and motivate young adults to engage in risky sexual practices, hence placing them at increased risk of contracting HIV. The subsequent section explores these factors.

2.6.1 Condom use

Canterbury et al., (1998) as cited in Robbins & Hutchison (2005) stated that young adults tend to be unwilling to use condoms or they use them ineffectively and inconsistently in spite of high levels of HIV knowledge and positive attitudes towards safe-sex behaviours. According to Meyer-Weitz, Steyn and Ghama (1999) young people tend to have negative attitudes towards condom use, in a negative way, that condom use during penetrative sex is associated with untrustworthiness. In other words, it represents an unspoken confession that one partner has more sexual partners These belief probably is one of the possibilities that practices such as engaging in unprotected sexual intercourse may lead to widespread HIV infection. Another negative attribute that is associated with condom use is some form of discrimination. A study conducted by (UNAIDS, 2003) found that young adults had a belief that condoms should be used by those who are already infected with the HIV. Furthermore, the study revealed that young adults believed that condoms are for those who are not in "serious" relationships, but for casual encounters as well as those who lack respect for their partners (Robbins & Hutchison, 2005).

2.6.2 Gender

Researchers suggest that there is a link between men's use of violence and their own sexual risk taking. Studies have shown that gender power inequities play a key role in the HIV epidemic through their effects on women's power in sexual relationships. Women are believed to face social pressures from insisting on the use of condoms during penetrative sex, as men seem to lose trust in such women and perceive them as promiscuous (Tapia-Aguirre, Arillo-Santillán, Allen, Angeles-Llerenas, Cruz-Valdéz & Lazcano-Ponce, 2003).

In addition, Tapia-Aguirre et. al. (2003) suggest there is also an implication of distrust associated with condom use, as discussion of condom use sometimes is construed as confessing of infidelity which could also spark verbal attacks and physical violence. Consequently, this results in women feeling afraid to discuss or negotiate condom use and placing them at risk for HIV. Furthermore, research done by MacPhail and Campbell (2001) show that men with more traditional attitudes towards gender roles are more likely toward condoms and to use them consistently. Some of negative attitudes indicated that men believe condom use interferes with their sexual pleasure as well as affecting their masculinity during sexual intercourse. Hence, many young men are opposed to condom use during sexual intercourse (MacPhail & Campbell, 2001).

2.6.3 Sexual Practices

A study conducted by Boxford (2001) among 185 Cape Town gay men, where over 75% of the respondents were aged 20- 40 years and approximately 66% were White, 25% Coloured and 10% were Black. The results indicated that nearly half of the respondents were in a relationship of a same sex and the majority reported having been so for more than a year. Results also showed that 50% of the men were bisexual, having had sex with both men and women within the last year. What was a concern was the report of number of sexual partners that ranged from 1 to 150. The study also revealed that most of these men reported having had less than 10 partners in the previous year. Furthermore, those who reported having had over 20 partners tended to engage in unprotected sex.

Additionally, Boxford found that 33% of respondents reported having had anal sex, both penetrative and passive without use of condom or knowing their sexual partner's HIV status. Encouragingly, 75% had been tested for HIV (Boxford, 2001 as cited by Rotheram-Borus, Marelich and Srinivasan, 1999). These results suggest that gay youth maybe at extremely high risk, in part due to the nature of the sexual practices which are deemed to be high risk behaviours and practices (e.g. anal intercourse).

Rotheram-Borus et al. (1999) reckons that, with the largest heterosexual epidemic in the world, resources in South Africa have generally not been directed towards the relatively

smaller group of homosexual men. The priority target group for HIV prevention in South Africa is the youth. There has been an outcry from the gay activists that attention has been paid to other high-risk groups, such as sex workers and migrant labourers, but little to no focus has been directed towards homosexual youth. Another reason for the relative lack of focus on the gay community may be the widespread denial that homosexuality exists within the Black South African community and also the fact that homosexuality is still burdened with incredible stigma in South Africa (Rotheram-Borus et al., 1999).

2.7 Culture and behaviour change

Historically, HIV prevention programmes have relied on campaigns that provide information about HIV prevention along with recommendations for disease management, health risks and condom distribution. It is believed that sexual behavior change remains the primary target of the HIV prevention efforts and acknowledged that behavior change is entrenched in individual desires, social relationships, which makes it a complex task that involve multi-dimensional perspectives. The provision of information will not lead to behaviour change, because behaviour is said to be rooted within culture and social history, and is conceptualized within social relations (Mann, Netter & Tarantola, 1992).

According to Richter and Griesel (1998), HIV infection occurs not only in the context of individual response, but also within the cultural, socio-economic and political contexts and all these contribute to individuals' vulnerability. Current approaches are moving towards more multi-dimensional perspectives, which consider the individual, social, and cultural spheres simultaneously in order to bring about shifts in beliefs and gain some meaningful understanding of sexual behaviours and practices relating to vulnerability to HIV infection.

Hoosen and Collins (2001) states that there has been growing awareness that interpersonal ties and social, political, cultural and economic factors play influential roles in HIV transmission and prevention. According to MacPhail and Campbell (1999) as cited in Marcus (2002) see this as a realization that lead to a shift towards investigating social and cultural factors that promote or impede behaviour change in specific social settings, where

its aim is not only to provide information, promote individual behavioural change and the treatment of sexually transmitted diseases, but also to encourage the development of social and cultural environments that promote behaviour change. This also means not overlooking the fact that for behaviour to change to occur, other factors which shape and constrain certain behaviours need to be considered. These views are important because they show that social factors and culture play an important role that determines the effectiveness of HIV/AIDS intervention programmes. Campbell and Hayes (1998) as cited in Marcus (2002) add that HIV intervention must be tailored to the specific culture in which it is being implemented.

It is clear from the above views that attention on knowledge as being the key to behaviour change, fails to acknowledge both the culture in which people live and the context in which the behaviour needs to occur. Thus, addressing the socio-cultural influences on risky and preventative behavior may therefore prove to be the most among young adults effective HIV prevention strategy.

South African society is largely partriachial hence more power is vested in males and this could reduce woman's power to enjoy and control their sexual lives and cannot say "no" to men (Strebel, 1992). This means men are seen as more powerful than women, hence women cannot demand safe sex and condom use. A study of South African Black women conducted by Hoosen and Collins (2001) found that men are positioned as more superior and intelligent than women. This notion disempowers women to adopt safe sexual practices against HIV infections. This therefore raises many questions around trying to understand the gap between knowledge and behavior and it also highlights the need to explore the context and the culture in which behaviour change is meant to occur.

These various practices are key drivers of high HIV infections as well as underlying factors for risk practices leading to new infections among South African young adults, more particularly women. Lawson (1999), asserts that it will be impossible to introduce the fundamental changes required to master this pandemic so long as the interrelationships between HIV/AIDS, medical factors, cultural and social values and human rights are not fully understood (1999, p. 1). This point is also raised by UNAIDS (2001), which states

that individuals do not live in a vacuum, therefore, prevention programs should be designed to incorporate cultural and socioeconomic factors.

2.8 The Health Belief Model

There is also research looking at internal factors such as certain beliefs and cognitions that underlie young adults' vulnerability to HIV infection. Various theories attempt to explain how knowledge, attitudes and beliefs interact with each other to result in behaviour change. The Health Belief Model (HBM) is one of the most commonly used theories to explain the role of human behaviour in the transmission of HIV. It is believed that understanding of the theory of behaviour change can lead to a better understanding of the trends in sexual behaviour and the spread of the epidemic. The Health Belief Model (HBM) provides insights for why individuals make health decisions and creates a process for encouraging change. It relates largely to the cognitive (internal) factors predisposing a person to engage in health behaviours, concluding with a belief in one's self-efficacy for the behaviour. Therefore, the concept of self-efficacy has recently been included in the health belief model as one of its components. The health belief model is used to explain and predict more complex lifestyle behaviours that need to be maintained over a lifetime (Lin, Simoni & Zemon, 2005). According to Lin, et al. (2005), essentially, the model suggests that the likelihood that individuals will act to protect or promote their health is determined by the following elements:

(a) Beliefs that one is susceptible to a condition or problem (perceived susceptibility).

(b) One's opinion of how serious a condition is and its consequences (perceived severity).

(c) Beliefs that recommended actions to deal with the problem are beneficial (perceived benefits).

(d) Beliefs that the benefits of taking action outweigh the costs or barriers (perceived barriers).

(e) Cues to action- these are events, either bodily (such as physical symptoms of a health condition) or environmental (media publicity) that motivate people to take action. It is assumed that if perceived threat is high and perceived benefits outweigh barriers; a cue to action can trigger an individual to adopt and maintain preventative behaviour, in effect stimulating the belief –action link. However, cues to action are still the least studied construct in HBM (Lin et al., 2005). The present study will not include a measure of the cues to action.

(f) Other variables: diverse demographic, socio-psychological, and structural variables that affect an individual's perceptions and thus indirectly influence health-related behaviour. Negative aspects of a particular action may act as impediments to undertaking the recommended behaviour (Rosenstock, Stretcher & Becker as quoted by Lin, et al., 2005).

In another study of Secondary school students from Northern Province conducted by Peltzer, Cherian & Cherian's (1998) revealed a reasonably high level of HIV/AIDS knowledge (75% accuracy), 18% of the students still believed that AIDS does not exist and 19% thought that there is a cure for AIDS. This implies many young adult are still hold the view of being invulnerable to HIV infection. It also means many are still in the dark regarding basic modes of HIV transmission and condom use. According to Rosenstock, Stretcher and Becker as quoted by Lin et al. (2005) perceived susceptibility and perceived severity are indicated to be critical steps of taking a recommended action to reduce the threat. The HBM views perception of threat as a combination of two factors: individual perception that they are susceptible to the disease and perception that illness is severe (which may include medical, financial and social consequences).

Rosenstock et al., (as cited by Lin, et al., 2005) indicated perceived susceptibility as a stronger predictor of preventative health behaviour and the perceived benefit being the weakest predictor. Overall, perceived severity is seen as the least powerful predictor within the model. Deverell (2004) stated that an individual exhibiting an optimal level of beliefs in susceptibility and severity would not be expected to accept any recommended health action

unless that action was perceived as potentially efficacious. Perceived barrier has been indicated as the most powerful predictor of behaviour related to other HBM constructs across behaviours and types of studies. Concepts of benefits and barriers are often open ended, and can include a wide range of factors such as emotional and physical factors (Rosenstock et al., as quoted by Lin et al., 2005).

A systematic, quantitative review of studies that had applied the Health Belief Model among adults into the late 1980s found it lacking in consistent predictive power for much behaviour, probably because its scope is limited to predisposing factors (Harrison, Mullen & Green, 1992). One study that specifically compared its predictive power with other models found that it accounted for a smaller proportion of the variance in diet, exercise, and smoking behaviours than did the theory of reasoned action and theory of planned behaviour model (Harrison, Mullen & Green, 1992).

The Health Belief Model has continued to be the most frequently applied model in published descriptions of programs and studies in health education and health behaviour. It is regarded as a valuable guide to practitioners in planning the communication component of health education programs.

The association between perception of risk of HIV infection and sexual behaviour remains poorly understood, although perception of risk is considered to be the first stage towards behavioural change from risk-taking to safer behaviour. Using data from the 1998 Kenya Demographic and Health Survey, logistic, regression models were fitted to examine the direction and the strength of the association between perceived risk of HIV/AIDS and risky sexual behaviour in the last 12 months before the survey. The findings indicated a strong positive association between perceived risk of HIV/AIDS and risky sexual behaviour for both women and men (Volk & Koopman, 2001).

The research concluded that, controlling for socio-demographic, sexual exposure and knowledge factors such as age, education, work status, ethnicity, source of AIDS information, specific knowledge of AIDS and condom use to avoid AIDS did not change the direction of the association. The study also highlighted the fact that that young and unmarried women and men were more likely than older and married ones to engage in risky sexual behaviour. Ethnicity was significantly associated with risky sexual behaviour, suggesting a need to identify the contextual and social factors that may influence behaviour among young people (Volk & Koopman, 2001).

The Health Belief Model constructs were believed to predict sexual behaviours and the concept of self efficacy was added in the model as it has been alleged to be the strongest predictor within the health belief model and an effective strategy for reducing health risky behaviours (Lin, et al., 2005).

2.9 Self efficacy

The history of HIV awareness campaigns have demonstrated that simply presenting information about health behaviour is insufficient. Nevertheless, behaviour change theories such as the social cognitive theory by Bandura have improved the understanding of how intrapersonal factors such as knowledge and beliefs, the social environment and behaviour, work together in a complex relationship (Bandura, 1997). The theory emphasizes the importance of self-efficacy as a cognitive mediator of action.

Self-efficacy has been examined extensively in relation to healthy behaviour by positively or negatively affecting the way people behave in situations. Studies have shown that highly self-efficacious people approach difficult tasks as challenges to be mastered and this leads to fostered interest, enhanced expectations and strengthened commitment toward future tasks (Bandura, 1997). On the contrary, people with low self-efficacy tend to avoid difficult tasks and have low aspirations. Hence their commitment to goals tends to be weaker (Bandura, 1997).

Literature has identified four main sources that build a strong sense of self-efficacy. The first source is mastery experience, which is known to be the most effective way to improve self-efficacy. For example, a person who overcomes obstacles and succeeds in a given situation gains a higher level of self-efficacy. Second, self-efficacy is believed to be strengthened through vicarious experiences. That means, by observing another individual succeed at a task that is perceived to be of similar ability improves the self-efficacy of the person watching. Finally, by reducing the negative stress reaction and emotional physical states of an individual, Bandura asserts that self-efficacy could be modified (Carr, 2004). The present study will investigate whether self efficacy is a necessary skill young adults need to acquire in order to avoid engaging in risky sexual practices.

From the literature outlined in this chapter, it is apparent that more research is needed in the field of HIV. A deeper study of various mediating variables in relation to HIV-related risk behaviours is clearly necessary. Although South African literature has been shown to conform largely to research literature from the rest of the world, a danger to this is generalization between different populations. Literature in this study has highlighted that the chosen HIV prevention strategies and programmes need to account for contextual and cultural variables. In the following chapter, the research methodology of this study will be examined.

2. 10 RESEARCH QUESTIONS

As mentioned in Chapter 1, this study aims to assess the risky sexual practices with respect to HIV among South African young adults. The aim of the research is achieved by attempting to respond to the following questions:

- What level of HIV knowledge do young adults in a university environment have?

- Does knowledge about HIV predict risky sexual experience?

- Which of the constructs of the Health Belief Model: Perceived severity, Perceived susceptibility, Perceived barriers and Self efficacy predict Risky sexual experience?

- Which aspects of the Health Belief Model are the strongest moderators of the relation between HIV knowledge and Risky sexual experience?

- Are there differences as a function of Sexual orientation?

CHAPTER 3
METHODOLOGY

3.1 RESEARCH DESIGN

The study used a quantitative correlational survey design to obtain relevant data. The quantitative approach was chosen because it produced numerical and factual data that were useful for statistical and numerical analysis of the phenomenon of risky sexual practices explored in the study. Additionally, the survey method was employed as it was seen to be appropriate for research questions enquiring about self –reported sexual practices (Neuman, 1997).

The study investigated the relationship between risky sexual practices, sexual orientation and constructs of Health Belief Model including self efficacy as well as HIV Knowledge. Since the predictor variable was an intrinsic characteristic of the participant, it could not be manipulated by the researcher for the purpose of the study and thus the design implemented was non-experimental in nature. Furthermore, the study was cross-sectional in nature, because all the information on all variables was collected at a single point in time (Neuman, 1997).

For the purpose of this study, a non-probability sample procedure was used as it allowed the researcher to select the sample on the basis of her own knowledge of the population, its elements and the nature of the research aims (De Vos, 1998).

3.2 RESEARCH SAMPLE

Data was collected from undergraduate students from the Humanities Faculty, Second year psychology class at the University of the Witwatersrand. Undergraduate students were the

sample of choice, in part because the youth are the most vulnerable population group for HIV/AIDS epidemic, but also in part because they were a sample of convenience.

3.3 PARTICIPANTS

An ethnically diverse sample of 200 undergraduate students from the Humanities Faculty, second year psychology classes participated in this study. Out of 200 questionnaires that were administered, 20 of them had to be eliminated due to errors such as: not completing questionnaires correctly and choosing more than one answer for a question. The sample of 180 questionnaires consisted of 119 females (66.11%) and 61 male participants (33.89%).The mean age of the participants was 22.51 years with the ages ranged between 18 and 35 years. Most of the respondents (N = 150) described themselves as heterosexuals (83.3%), although eight (5.33%) respondents chose to describe themselves as bisexuals. Whereas 22 (14.67%) were homosexuals.

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3.4 PROCEDURE

Permission to undertake the research was obtained from the ethics committee at the University of the Witwatersrand (see Appendix H). The researcher then set up a meeting with the Dean of Humanities Faculty to present the purpose of the study and to obtain permission to invite the students to participate. After obtaining the permission, the researcher, approached Psychology undergraduate lecturers for permission to invite their students to participate in the research. The lecturers of two different classes gave permission, and a mutually convenient date and time during class time was set aside in order to allow the researcher to invite the students to participate. The lecturers were advised that the study would take approximately 20 to 25 minutes of the students' time.

At a specified date and time the researcher then informed the students about the aim and rationale of the study, without specifically stating that the study was exploring factors

related to Risky sexual practices. This deception was necessary as knowledge of the true purpose of the research could have influenced the responses of the self-reported questionnaires. The participants were informed that in order to be eligible, they were required to be over the age of 17 age years and the true purpose of the study was provided in a debriefing sheet (see Appendix F) that was handed out once all questionnaires were completed. Participants who agreed to participate in the research were assured that participation will be strictly voluntary and no identifying information was required from the participants. As such anonymity was guaranteed. They were further told that they would not be advantaged or disadvantaged for participating or for not participating in the study. They were also notified that they could withdraw from the study at any time. The questionnaire pack was then handed out by the researcher and participants were asked to read the cover letter (see Appendix G) as it contained further information about the study and details of the researcher in case participants needed to contact the researcher.

The researcher assured confidentiality before distributing the information sheets and asked the participants to read the information sheet carefully before distributing the questionnaire packets.The questionnaire packet consisted of five self-report questionnaires: the Demographic information, HIV Knowledge Questionnaire, AIDS Health Belief scale, Sexual Practice Questionnaire and Generalized Self efficacy Scale. Each packet received a specified identifying number that appeared on all pages of the questionnaires and forms. This was the only form of identification for the participants and no names appeared on the questionnaires. All participants were asked to complete the questionnaires before they were deposited into the box that was located next to the exit. They were made aware that completion of the questionnaires and placing them into the box was regarded as consent to take part in the study. The researcher then handed out debriefing letters which thanked the participants for their participation and furnished them with additional information about the study as well as with researchers' contact information.

3.5 MEASURES

The key variables of the study were assessed as follows. The Health Belief constructs including self efficacy were assessed using the AIDS Health Belief Scale. HIV knowledge was assessed using the HIV Knowledge Questionnaire, risky sexual practices were assessed using a Risky Sexual Practices Questionnaire, and demographic variables were ascertained using the Demographic Questionnaire.

3.5.1 AIDS Health Belief Scale

The AIDS Health Belief Scale (AHBS) developed by Zagumny and Brady (1998) was used to assess the components of the HBM (see Appendix A). It is a 16-item scale that was developed to measure the four components of the Health Belief Model as it is believed to relate to HIV risk behaviours. The scale components are perceived severity of contracting HIV, perceived benefits of prevention methods, perceived susceptibility to contracting HIV and perceived barriers to engaging in HIV prevention behaviours. AHBS items are scored on a six-point scale ranging from 1 (strongly disagree) to 6 (strongly agree) with no middle point. The following are examples of items from each of the subscales: "AIDS causes death." (Perceived severity); "I believe that the chances of contracting AIDS can be significantly reduced by using a condom." (Perceived benefits); "I am afraid I might contract AIDS" (Perceived susceptibility); "It is embarrassing (to me) to buy condoms." (Perceived barriers).

The HBM suggests that risk-taking behaviour is a function of the perceived severity of and susceptibility to an illness, perceived benefits of engaging in preventive measures, and perceived barriers to engaging in preventive behaviours. The model has been used in various studies in South Africa. Macintyre, Rutenberg, Brown and Karim (2005) have applied the Health Belief Model to explore factors predicting HIV risk perceptions among adolescents in Kwa-Zulu Natal.

3.5.2 HIV Knowledge Questionnaire

In order to assess HIV knowledge, the HIV Knowledge Questionnaire (HIV-KQ-18) developed by Carey, Morrison-Beedy and Johnson (1997) was used to measure HIV knowledge of the participants (see Appendix B). It is a self-administered measure that consists of 18 forced-choice statements that are known to be critical in assessing knowledge regarding HIV transmission and prevention.

The questionnaire consists of true, false or don't' know type questions for participants to choose from. Carey et al. (1997) reported a good internal consistency of α =.91 and the test-reliability of r = .90. The questionnaire has been used before in various South African research studies and had been administered across various populations. For example, a study conducted by Kalichman, Simbayi, Kaufman, Cain, Cherry, Jooste and Mathinti (2005) on gender attitudes, sexual violence and HIV/AIDS risks among men and women in Cape Town. The questionnaire is easy to administer, it takes 3 to 5 minutes to complete.

3.5.3 Demographic Questionnaire

A demographic questionnaire (see Appendix C) will be used to gather participants' information regarding gender, ethnicity, and relationship status, number of sexual partners, (past and current) and to find out whether they know their HIV status.

3.5.4 Sexual Practices Questionnaire

The questionnaire was devised by Caroline Cupitt (1998) with an aim of assessing the degree to which an individual's sexual behaviour is placing one at risk of contracting HIV (see Appendix D).

The questionnaire first asks for information concerning basic demographic characteristics. The measure comprises of 23 items divided into Section A, B, C and D. Section A begins by asking whether respondents have sex with women or men and followed by asking

whether the respondent had ever had protected sex or unprotected penetrative sex. Section B asks for details of sexual encounters over several months. Section C asked about the last occasion the respondent had sex and Section D includes a set of questions relating to contact with HIV sufferers and risk assessment.

For the purpose of this study, Section C and D were omitted as were seen to be inapplicable to the present study. It is important to note that the questionnaire is not scored, but a combination of multiple choice, yes/no, 5-point scale and numerical questions are used and information obtained provide an indication of respondents' risk of HIV infection.

Cupitt (1998) reported a high level of reliability, with $r > .80$ and $p < .001$. Cupitt maintained that most of the questions in the questionnaire are considered to have high face validity and no specific values were given.

The questionnaire used questions from Section A and B of the above questionnaire, but some of the questions used had to be adapted in order to properly fit in with the specific objectives of this study. These were piloted with a small group of students. The questionnaire took approximately three to five minutes to be completed.

3.5.5 The Generalized Self -Efficacy Scale

The Generalized Self-Efficacy Scale (see Appendix E) was developed by Matthias Jerusalem and Ralf Schwarzer in 1979. The measure is a 10-item scale that is designed to assess optimistic self-beliefs to cope with a variety of difficult demands in life. Jerusalem and Schwarzer (1993) reported internal consistencies between $\alpha = .75$ and .90 with the majority in the high .80's. Criterion-related validity has been documented in numerous correlational studies, where positive coefficients were found with favourable emotions, dispositional optimism, and work satisfaction (Luszczynska, Gutie´rrez-Don˜a & Schwarzer, 2005).

Negative coefficients were found with depression, anxiety, stress, burnout and health complaints. Generalized self-efficacy scale has sound psychometric properties and has been

used in many South African research projects before. The scale has been used in a study conducted by Sassoon (2005) in female adolescents diagnosed with anorexia nervosa in Gauteng high schools. Its aim was to determine the girl's level of coping abilities across a wide range of demanding situations. The scale is short and easy to complete and may take about five minutes to administer.

All questionnaires were available in English, which meant that a relatively large number of students had to complete the questionnaires in a language other than their home language. However, this was not considered to be problematic since the University of Witwatersrand requires all prospective students to have passed the national Matric examination with acceptable final symbols. English is one of the compulsory subjects. Additionally, students are taught in English and are thus required to have sufficient proficiency.

3.6 DATA ANALYSIS

3.6.1 Preliminary analysis

The data gathered from the participants was entered into Microsoft Excel in order to create a master dataset. The means, standard deviations and Pearson's correlation matrices including all key variables were computed. The mean HIV knowledge score gave an index of how much the average University students knows about HIV. No norms have yet been established in South Africa.

3.6.2 Main Analysis

For the main analyses, the data was analysed in a series of procedures using the SAS programme. A SAS Proc GLM procedure was used to enter and analyze the data. In two separate equations, the criterion variable (Risky sexual practice) was examined. The predictor variables were the constructs that comprise the Health Belief Model, specifically Self-efficacy, Perceived susceptibility to contracting HIV and Perceived barriers to engaging in HIV prevention behaviours. The final predictor variable was HIV related

knowledge. A series of two-way ANOVA's was utilized to investigate the relationship between all the variables: Perceived severity, Perceived susceptibility, Perceived benefit, Perceived barriers, General self efficacy and HIV Knowledge.

3.7 ETHICAL CONSIDERATIONS

The study sought to gather information around HIV, which for many people is a sensitive topic as HIV touches the emotional and psychological aspects of all human spheres in society. For this reason, the researcher was aware of the challenges, obstacles and difficult nature of the study. As a result, a debriefing sheet was included with all questionnaire packs. It provided a resource list for the person who may need additional psychological and emotional help.

The study also considered ethical standards from the outset by ensuring that prior to data collection, permission to conduct a research from the Humanity faculty in the University of the Witwatersrand was obtained. Participants in the study were informed of the purpose and scope of the research. Participants were informed that participation was voluntary and were made aware of their right to withdraw at any time. The study did not record names of individuals on questionnaires; instead codes were used to maintain confidentiality.

Another issue was that of the deception. It was not overtly stated that study was assessing risky sexual experiences with respect to HIV, as this would possibly influence the responses given by participants. Therefore, participants were informed that the study was aimed at understanding how South African young adults make sense of different aspects of the HIV pandemic.

CHAPTER 4
RESULTS

4.1 Introduction

Descriptive statistics for the relevant measures and their subscales will be presented and followed by a correlation matrix depicting the relations between variables including risky sexual practices, HIV knowledge, perceived severity, perceived susceptibility, perceived benefit, perceived barriers, perceived benefits and self-efficacy.

4.2 Descriptive Statistics

4.2.1 Demographics of the sample

4.2.1.1 Race

The total sample (*N*=180) roughly approximated the wider second year Psychology student population. The racial distribution of the sample comprised of 55.56% Black students, White students followed at 24.44%, while Coloured students were 17.22%, 12.22% identified themselves as Indian or Asian students and 2.22% students identified themselves as “other”. The demographic distribution of the sample is demonstrated in Figure 1.

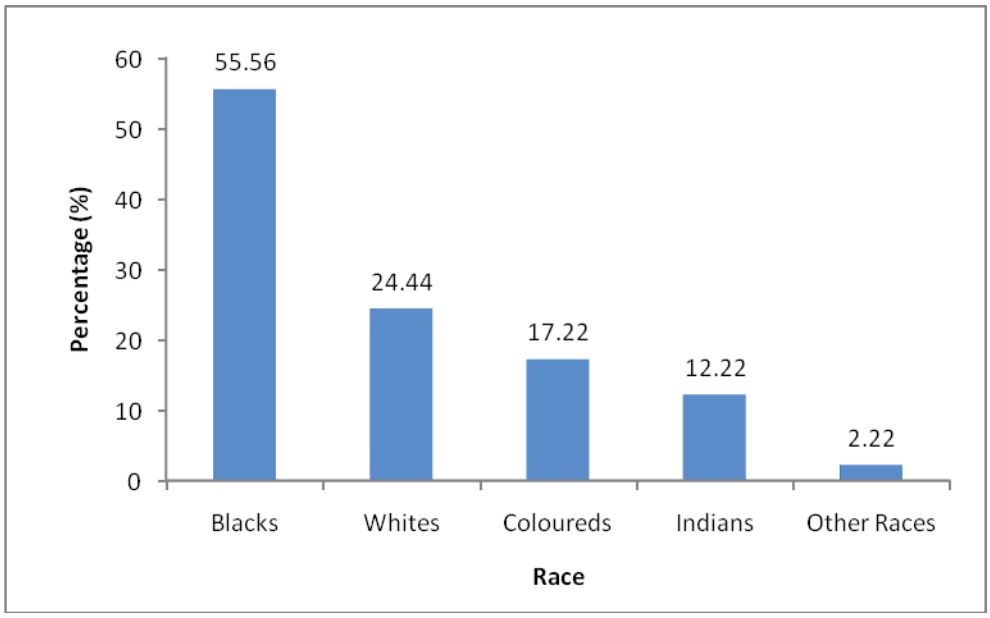


Figure 1: Distribution of sample according to race

4.2.1.2 Gender

The sample consisted of 66.11% female and 33.89% male respondents. The comparison to the population is indicated in Figure 2.

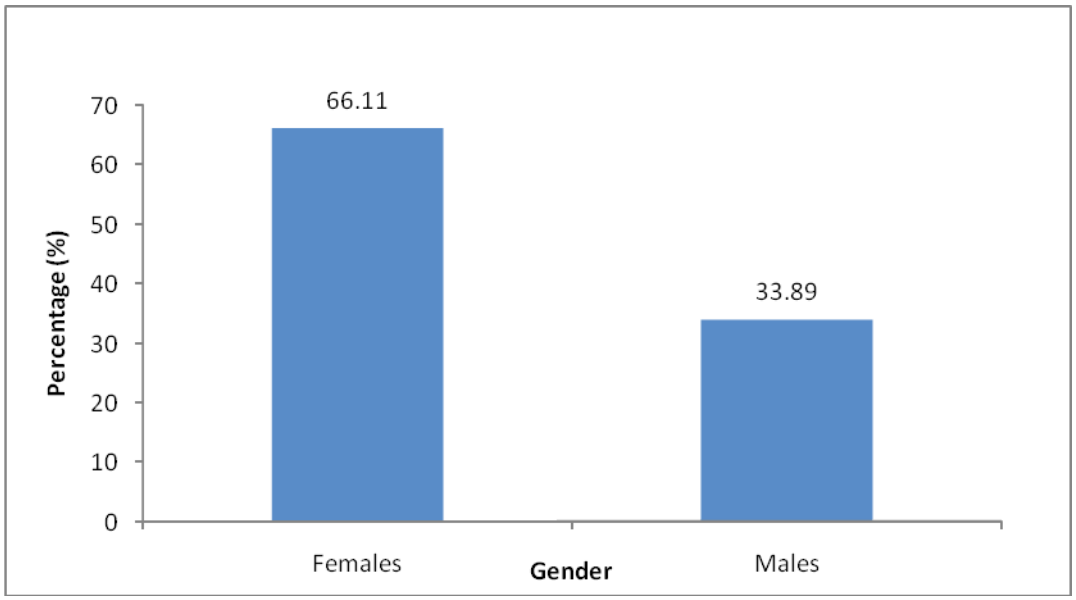


Figure 2: Distribution of sample according to gender

4.2.1.3 Age

The study consisted of 180 students, aged over 17. Over half of the respondents (55.56%) were between the ages of 18-21, 31.67% fell between the age group 22-26; this was followed by the age groups 31-35 and 27-30 represented by equal number of respondents (5%). The lowest number of respondents (2.78%) was the age group above 35. The mean age of participants was 22.51 years (*SD* = *.979* years; *Range* = 18-35 years). The comparison is illustrated in Figure 3.

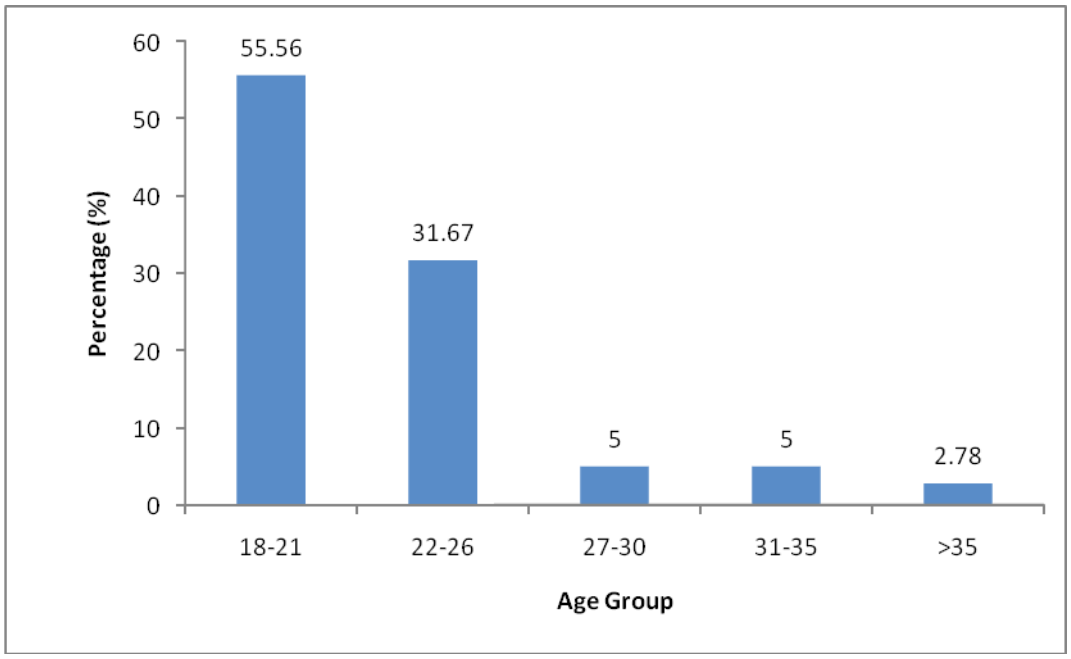


Figure 3: Distribution of sample according to age

4.2.1.4 Sexual Activity

It is evident in Table 1, that 127 of the respondents reported having sexual intercourse in the past 3 months. Hence 71% of the sample reported being sexually active. Of the participants who reported being sexually active, 70.87% reported having had one sexual partner, 18.9% reported having had two sexual partners, 8.66% reported having had three sexual partners and 1.57% reported having had four or more sexual partners. Fifty-three

participants (29.44% of the total sample) reported that they had never had sexual intercourse.

Looking at number of sexual partners as a function of sexual orientation, it appears as though participants who identified themselves as homosexual were more likely to be sexually active (82% of those who identified themselves as homosexual) when compared with their heterosexual counterparts (67% reported being sexually active). It is difficult to comment on the bisexual participants because they were so few (N = 8). Additionally, it is not possible to comment on whether bisexual participant's sexual practices are similar to those of the heterosexual or the homosexual participants. Hence their results will be included in analyses but it is difficult to reflect on what their results actually mean based on these data.

Table 1: Number of sexual partners of respondents by sexual orientation

		NUMBER OF PARTNERS (%)					
		Never	**1 person**	**2 people**	**3 people**	**>=4 people**	**Total**
SEXUAL ORIENTATION	Heterosexual	49 (33%)	79 (53%)	14 (9%)	8 (5%)	0 (0%)	**150**
	Homosexual	4 (18%)	7 (32)	7 (32%)	3 (14%)	1 (4%)	**22**
	Bisexual	0 (0%)	4 (50%)	3 (37%)	0 (0%)	1 (13%)	**8**
	Total	**53 (30%)**	**90 (50%)**	**24 (13%)**	**11 (6%)**	**2 (1%)**	**180**

4.2.1.5 Sexual activity and age distribution

Of the 127 participants who indicated that they were sexually active, 45.67% were in the 18-21 age group, 40.16% were in the 22- 26 age group, and the rest where distributed among the older age groups. Table 2 indicates that a little less than 58% of all participants in the 18- 21 age group reported being sexually active in this sample with 43% reporting that they had never had sexual intercourse. Additionally, most (91%) of the 22 – 26 year olds were sexually active. It is difficult to comment on the older age groups because of the low sample sizes. However, approximately 80% of each of the 27- 30, the 31- 35 and the over 35 age groups reported being sexually active.

Table 2: Age distribution in terms of sexual partners

		NUMBER OF PARTNERS (%)					
		Never	**1 person**	**2 people**	**3 people**	**>=4 people**	**Total**
AGE	18-21	43 (43%)	44 (44%)	13 (13%)	1 (<1%)	0	**101**
	22-26	5 (9%)	34 (61%)	9 (16%)	6 (11%)	2 (3%)	**56**
	27-30	2 (22%)	3 (33%)	1 (11%)	3 (34%)	0	**9**
	31-35	2 (22%)	6 (67%)	0	1 (11%)	0	**9**
	>35	1 (20%)	3 (60%)	1 (20%)	0	0	**5**
	Total	**53 (29%)**	**90**	**24**	**11**	**2**	**180**

4.2.1.6 Sexual activity and gender

Table 3 shows that of 119 female respondents, 65% reported being sexually active. Of these, 46% indicated having one sexual partner, 15% reported having had two sexual partners, 3 % reported having had three sexual partners and 1 person reported having had four or more sexual partners. Furthermore, of the 61 male respondents, 80% reported being sexually active. Of these, 57 % reported having one sexual partner, 10% reported having had two sexual partners, 11% reported having had three sexual partners and one participant reported having had four or more sexual partners.

Table 3: Gender distribution of sexual partnership

		NUMBER OF PARTNERS (%)					
		Never	**1 person**	**2 people**	**3 people**	**>=4 people**	**Total**
GENDER	Male	12 (20%)	35 (57%)	6 (10%)	7 (11%)	1 (2%)	**61**
	Female	41 (35%)	55 (46%)	18 (15%)	4 (3%)	1 (1%)	**119**
	Total	**53**	**90**	**24**	**11**	**2**	**180**

4.3 Means and Standard Deviation

The means and standard deviations for the total sample (N =180) on the key variables of Risky sexual practices (Risk), Perceived severity (Severity), Perceived susceptibility

(Susceptibility), Perceived benefits (Benefit), Perceived barriers (Barrier) and HIV knowledge (HIV) are presented in Table 4.

Table 4: Means and Standard Deviations of Risky Sexual Practices, Health Belief Model Constructs and HIV Knowledge

Variable	*N*	*Mean*	*Std Dev*	*Minimum*	*Maximum*
Risk	180	6.56	3.08	0	21
Severity	180	8.65	3.00	3	18
Susceptibility	180	18.85	4.13	1	30
Benefit	180	4.71	2.70	2	12
Barrier	180	23.43	6.98	9	77
HIV	180	13.51	3.08	0	18

Note. Risk = risk; Susceptibility = Perceived susceptibility; Severity = Perceived severity; Barrier = Perceived Barrier; Benefit = Perceived benefit; GPSES = General Perceived Self Efficacy; HIV = HIV Knowledge

4.4 Correlation Analyses of the variables

Pearson's correlation analyses were performed to assess relations between Health Belief Model constructs (including self-efficacy), HIV knowledge and Risky sexual practices for all the respondents. The correlation matrix shown in Table 5 depicts the relations between Risky sexual practices (Risk), Health Belief Model constructs (including self-efficacy) and HIV knowledge for the total sample. . Risky sexual practices were significantly negatively correlated with Perceived susceptibility (r = -.15, p<.0394) and with HIV knowledge (r = -.26, p<.0004). Risky sexual practices were not significantly correlated (positive or negative) with any other variables. This relationship suggests Perceived susceptibility and HIV knowledge are negatively related to Risky sexual practices. Perceived severity was significantly negatively correlated with Perceived barriers (r = -.24, p<.0011) and HIV knowledge (r = -.18, p<.0141).This indicates that Perceived severity was negatively associated with both Perceived barriers and with HIV knowledge.

When examining correlations between Perceived susceptibility and Self efficacy among the respondents, several differences were seen. Analyses showed significant negative correlation (r = -.15, p<.0444). A significant negative correlation (r =-.37, p<.0141) was also computed between Perceived benefit and HIV knowledge. Furthermore, analysis showed that Perceived barriers were significantly correlated with Self efficacy (r = .26; p = .0003).

Table 5: Correlation Matrix among Variables for Total Participants (N = 180)

	Risk	Severity	Susceptibility	Benefit	Barrier	GPSES	HIV
Risk	1.00000	-	-	-	-	-	-
Severity	.06736 .3690	1.00000 -	-	-	-	-	-
Susceptibility	-*.15372* .0394*	-.02182 .7713	1.00000 -	-	-	-	-
Benefit	.05841 .4360	.11489 .1246	.01406 .8514	1.00000 -	-	-	-
Barrier	-.11442 .1261	*.2422* .0011*	-.00103 .9891	-.02376 .7515	1.00000 -	-	-
GPSES	-.09921 .1851	.09247 .2170	-*.15003* .0444*	-.09715 .1945	*.26667* .0003*	1.00000 -	-
HIV	-*.25893* .0004*	-*.18263* .0141*	.13420 .0725	-*.37293* <.0001*	.12156 .1040	.08027 .2841	1.00000 -

*p < .05

Note. Risk = risk; Susceptibility = Perceived susceptibility; Severity = Perceived severity; Barrier = Perceived barrier; Benefit = Perceived benefit; GPSES = General Perceived Self Efficacy; HIV = HIV Knowledge

4.5 Preliminary analysis

Preliminary analyses were conducted to ensure that participants did not significantly differ on key variables such as Risky sexual practices, as a function of sexual orientation. Results suggested a significant mean difference between homosexual and heterosexual participants (see Table 6). These results suggest that perhaps homosexual and heterosexual participants are not a homogenous group. In the present study, post-hoc analyses were conducted, to explore whether or not Sexual orientation is a moderator of HIV knowledge in predicting Risky sexual practices.

Table 6: Mean scores and Standard Deviations for Heterosexual and Homosexual participants *(N*=180)

	HETEROSEXUAL (N = 150)		HOMOSEXUAL (N = 30)	
Variable	**Mean**	**SD**	**Mean**	**SD**
Risk	5.98667	2.36583	9.43333	4.40754
Severity	8.50000	2.97134	9.40000	3.09170
Susceptibility	19.30667	3.84245	16.56667	4.80433
Benefit	4.62000	2.67895	5.13333	2.78832
Barrier	23.76000	7.25164	21.8000	5.20875
GPSES	31.00667	4.59573	28.86667	5.39306
HIV	13.71333	2.81734	12.46667	4.04912

Note. Risk = risk; Susceptibility = Perceived susceptibility; Severity = Perceived severity; Barrier = Perceived barrier; Benefit = Perceived benefit; GPSES = General Perceived Self Efficacy; HIV = HIV Knowledge

When scores were compared by sexual orientation, significant correlations were seen. Table 7 indicates that for homosexuals, Risky sexual practices were significantly correlated with Perceived severity (r = .45, p<.0132); Perceived benefit (r = -.38, p<.0386) and HIV knowledge (r = -.41 p<.0253). Perceived severity positively correlated with Perceived benefit (r = .47 p<.0088), and negatively correlated with HIV knowledge (r = -.60 p<.0005). These correlations suggest that Perceived severity is related to Perceived benefit and HIV knowledge.This suggests that participants who perceived HIV as a serious diagnosis were more likely to perceive benefits to preventative efforts. Analyses also suggested a relation between Perceived benefit and HIV knowledge exists, which suggests that as people become more knowledgeable about HIV/AIDS, they tend to perceive it as less serious and possibly even perceive the condition as manageable. This is indicated by a significant correlation that was found between the two variables (r = -.69 p<.0001). This suggests that participants who perceived less benefit for engaging in Risky sexual practices were more likely to have higher level of HIV knowledge. No other significant differences were identified between the other variables.

Correlation analysis to determine if gender and age of the respondents influence Risky sexual practices was conducted. No significant patterns were found between these groupings. Correlation analysis comparing scores by race was not performed since several racial groups contained small numbers of participants (see Figure 1).

Table 7: Correlation Matrix among Homosexual Respondents

	Risk	Severity	Susceptibility	Benefit	Barrier	GPSES	HIV
Risk	1.00000	-	-	-	-	-	-
Severity	.44739 *.0132*	1.00000	-	-	-	-	-
Susceptibility	-.31163 .0937	.05850 .7588	1.00000	-	-	-	-
Benefit	.37954 *.0386*	.46960 *.0088*	-.04959 .7947	1.00000	-	-	-
Barrier	.02043 .9147	-.21113 .2627	-.00909 .9620	-.15718 .4068	1.00000	-	-
GPSES	.11712 .5377	-.11250 .5539	.00169 .9929	.164403 .3864	.02480 .8965	1.00000	-

*$p < .05$

Note. Risk = risk; Susceptibility = Perceived susceptibility; Severity = Perceived severity; Barrier = Perceived barrier; Benefit = Perceived benefit; GPSES = General Perceived Self Efficacy; HIV = HIV Knowledge.

As shown in Table 8, the constructs that reached statistical significance was the negative correlation between Perceived barrier and Perceived severity. Self efficacy construct positively correlated with Perceived severity, Perceived susceptibility and Perceived barriers. Risky sexual practices were not significantly related to any Health Belief constructs and HIV knowledge.

Table 8: Correlation Matrix among Heterosexual Participants

	Risk	Severity	Susceptibility	Benefit	Barrier	GPSES	HIV
Risk	1.00000	-	-	-	-	-	-
Severity	.13653 .0957	1.00000	-	-	-	-	-
Susceptibility	.05730 .4861	-.00705 .9317	1.00000	-	-	-	-
Benefit	-.09823 .2351	.03162 .7009	.05378 .5134	1.00000	-	-	-
Barrier	-.11129 .1752	.32736 <*.0001*	-.03203 .6972	.00391 .9621	1.00000	-	-
GPSES	-.09752 .2351	.16735 *.0407*	-.25818 *.0014*	-.14643 .0738	.29608 *.0002*	1.00000	-
HIV	-.12141 .1389	-.04530 .5820	.12535 .1264	-.27685 *.0006*	.08925 .2774	.11263 .1700	1.00000

*$p < .05$

Note. Risk = risk; Susceptibility = Perceived susceptibility; Severity = Perceived severity; Barrier = Perceived barrier; Benefit = Perceived benefit; GPSES = General Perceived Self Efficacy; HIV = HIV Knowledge.

Table 9 below presents participants responses towards condoms use. It can be seen that overall 26.89% of female respondents and 31.14% male respondents agree that condom use reduces pleasure in sex. The male proportions were slightly higher than the female counterparts. About 18.48% of female and 29.51% of males participants stated that they prefer use of condom during sex. For females, 26.06% and 31.14% for males reported that they would rather use some other kind of birth control than condoms. About 12.6% females and 11.48% males believed that condoms are expensive. It was interesting to see that a large proportion of males (32.79%) believed that condoms are inconvenient; this varied significantly when it comes to female respondents, as 18.48% accounted for this

proportion. The questionnaire received 31.09% females and 24.59% males who agreed with the statement that it was embarrassing to buy condoms. The findings highlight the need to increase young adults' awareness and effective use of condom to prevent HIV transmission.

Table 9: Attitudes towards using condom and discussing condom use with partners

Characteristics	Females (*N* = 119) (%)				Males (*N* = 61) (%)			
	TRUE	FALSE	DK	NA	TRUE	FALSE	DK	NA
Condom decrease pleasure during sex.	26.89	47.05	19.33	6.72	31.14	39.35	24.59	4.92
Using condoms during sex is a hassle.	18.48	52.95	16.81	6.72	29.51	52.46	13.11	3.28
I would rather use some other kind of birth control than condoms.	26.06	56.31	6.72	10.92	31.14	47.54	14.75	6.56
Condoms are expensive.	12.60	69.75	6.72	5.88	11.48	78.68	3.28	6.56
Condoms are inconvenient.	18.48	63.87	8.40	9.24	32.79	55.73	9.84	1.64
Buying condoms is embarrassing.	31.09	52.93	10.08	5.88	24.59	59.02	9.84	4.92

Note: DK = Don't Know; NA = Not applicable

4.6 Main Analyses

The main analyses were conducted to investigate the relationship between all the variables: Risky sexual practices, Perceived severity, Perceived susceptibility, Perceived benefit, Perceived barriers, General self efficacy and HIV knowledge.

4.6.1 What level of HIV knowledge do young adults in a university have?

In general, the HIV knowledge mean (13.71) revealed that the respondents were relatively knowledgeable about HIV (Table 9). The maximum possible HIV knowledge score was 18. Despite being knowledgeable, it was evident that a number of questions from the HIV knowledge questionnaire had high rate of incorrect responses (Graph 4). It was observed that question 9 received the highest number of incorrect responses (n = 129), which means 71.67% of the respondents were misinformed about deep kissing through putting one's tongue in a partners mouth, if the partner has HIV. The second most frequent incorrect response (n = 89) was question 12, which indicates that half of the respondents (49.44%) were either uncertain or had the wrong impression about the effectiveness of a latex condom. Question 17 received the third highest incorrect score, in which 43.89% (N = 79) thought an individual cannot contract HIV from oral sex. Finally, question 4, 11 and 15 received 32.22% (N = 58), 31.11% (N = 56) and 32.78% (N = 59) respectively. This means respondents had little knowledge about modes of HIV transmission as well as knowledge about methods of prevention against HIV infection. Furthermore, this shows that the respondents either possessed insufficient basic knowledge or were not certain of the HIV "window period". The overall results caused concern as none of the participants scored 100% on the questions, which means there is still a reasonably high rate of misinformation about HIV knowledge among young adults.

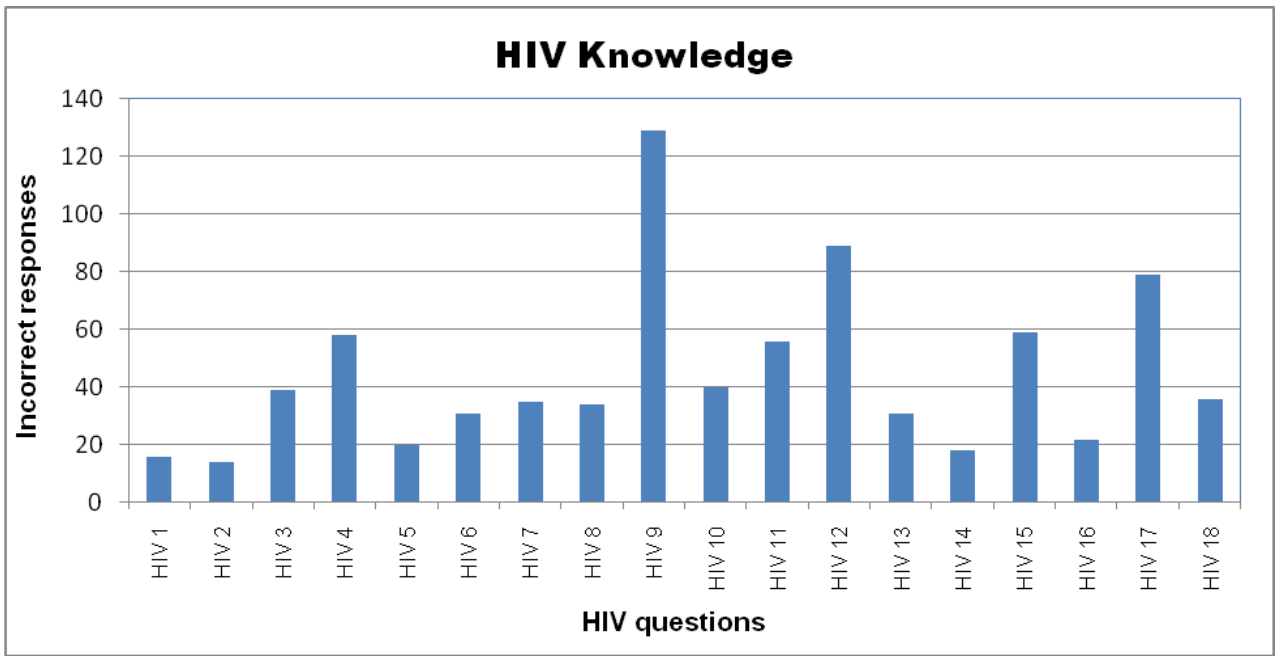


Figure 4: HIV knowledge score distribution

Regression results looking at Health Belief Model constructs (Perceived severity, Perceived susceptibility, Perceived benefit and Perceived barrier), Self efficacy and HIV knowledge as moderators of Risky sexual practices are presented in Table 10.

Table 10: A Summary of Regression Results for Heterosexual Respondents

Variables	N	R-square	Model DF	Error DF	F- Value	P-Value
Severity	150	.044152	3	146	2.25	.0852
Susceptibility	150	.023344	3	146	1.16	.3259
Benefit	150	.067423	3	146	3.52	.0167*
Barrier	150	.032374	3	146	1.63	.1854
GPSES	150	.021865	3	146	1.09	.3563
HIV	150	.014700	1	148	2.21	.1389

*$p < .05$

Note. Susceptibility = Perceived Susceptibility; Severity = Perceived Severity; Barrier = Perceived Barrier; Benefit = Perceived Benefit; GPSES = General Perceived Self Efficacy; HIV = HIV Knowledge.

4.6.2 Does HIV knowledge predict Risky Sexual Practices?

From Table 10, the results indicate that no significant relation exist between the level of HIV knowledge and Risky sexual practices among the heterosexual sample ($F = 2.21$, $p = .1389$).

4.6.3 Which of the constructs of the Health Belief Model predict Risky sexual practices and which are the best moderators of the relation between HIV knowledge and Risky sexual practices?

(a) Perceived severity

A two way ANOVA was conducted testing the effects of perceived severity, HIV knowledge and their interaction in predicting Risky sexual practices. The overall model was not significant ($F = 2.25$, $p = .0852$). However, the p-value was relatively close to approaching significance. Although unlikely, there is a possibility that this may be an artefact of insufficient power due to sample size. Further tests were not necessary as the omnibus test was not significant.

(b) Perceived susceptibility

A two way ANOVA that was conducted testing the effects of Perceived susceptibility, HIV knowledge and their interaction in predicting Risky sexual practices. The overall model was not found to be significant ($F = 1.16$, $p = .3259$). Perceived susceptibility ($F = .95$, $p = .3313$) and HIV knowledge ($F = .03$, $p = .8665$) main effects were also not significant.

(c) Perceived benefit

Table 11 below indicates results obtained from a two way ANOVA that was testing the effects of Perceived benefit, HIV knowledge and their interaction in predicting Risky

sexual practices. The overall F statistic was significant (F = 3.52, p = .0167) for Risky sexual practices. The main effect of Perceived benefit was significant (F = 6.75, p = .0104) and the main effect of HIV knowledge was also found to be significant (F = 8.51, p = .0041). A significant interaction between the two variables: HIV knowledge and Perceived benefit was found (F = 5.30, p = .0227). This finding suggests that for heterosexual individuals, acquisition of HIV knowledge does not directly predict Risky sexual practices, but depends on whether or not the individual perceives benefits to (e.g. wearing condoms).

Table 11: A Summary of ANOVA Results for Perceived Benefit

Variables	DF	Type III SS	F- Value	P-Value
HIV	1	45.34886983	8.51	.0041*
Benefit	1	35.94192969	6.75	.0104*
HIV * Benefit	1	28.23832070	5.30	.0227*

*$p < .05$

Note. Susceptibility = Perceived Benefit; HIV = HIV Knowledge.

(d) Perceived Barriers

A two way ANOVA was conducted testing the effects of Perceived barriers, HIV knowledge and their interaction in predicting Risky sexual practices. The overall model indicated no significant relation between the variables (F = 1.63, p = .1854). Perceived barriers (F = 1.53, p = .2188) and HIV knowledge (F = 1.79, p = .1832) main effects were also not significant.

(e) Self Efficacy

A two way ANOVA was conducted testing the effects of Self efficacy, HIV knowledge and their interaction in predicting Risky sexual practices. The overall model indicated no significant relation between the variables (F = 1.09, p = .3563). Perceived barriers (F = .10, p = .7577) and HIV knowledge (F = .08, p = .7796) main effects were also not significant.

4.7 Post-hoc Analyses

The next set of analyses tested whether Sexual orientation is a moderator of HIV knowledge in predicting Risky sexual practices. Two way ANOVAs were performed on the scores for the dependent variables of HIV knowledge and Health Belief Model constructs including Self efficacy. Table 12 presents means and standard deviations for heterosexual, homosexual and bisexual respondents.

Table 12: Means and Standard Deviations scores for Risky Sexual Practices, Health Belief Model Constructs and HIV Knowledge

Variable	HETEROSEXUAL (*N* = 149)		HOMOSEXUAL (*N* = 22)	
	Mean	Standard Deviation	Mean	Standard Deviation
Risk	6.01	2.36	9.05	4.20
Severity	8.46	2.93	9.14	3.12
Susceptibility	19.31	3.86	17.41	4.57
Benefit	4.59	2.66	5.09	2.71
Barrier	23.72	7.26	22.09	5.93
GPSES	31.01	4.61	29.95	4.69
HIV	13.75	2.79	12.55	4.43

Note. Std Dev = Standard Deviation; Risk = Risky Sexual Practices; Susceptibility = Perceived Susceptibility; Severity = Perceived Severity; Barrier = Perceived Barrier; Benefit = Perceived Benefit; GPSES = General Perceived Self Efficacy; HIV = HIV Knowledge.

Mean scores for heterosexuals, homosexuals and bisexuals were calculated and showed that homosexuals (M = 9.05, SD = 4.20) and bisexuals (M = 10.50, SD = 5.07) scored higher on Risky sexual practices (see Table 12). This implies that homosexuals and bisexuals were more likely to engage in Risky sexual practices than the heterosexual sample.

4.7.1 Correlation analyses

Pearson's Correlation analyses were conducted to examine whether relations exist between the four constructs of Health Belief Model (including Self efficacy) and the HIV knowledge. The results are presented in Table 13.

Table 13: Standard ANOVA for Regression for Homosexual Respondents

Variables	N	R-square	Model DF	Error DF	F- Value	P-Value
Severity	30	.182527	3	175	13.02	<.0001*
Susceptibility	30	.238868	5	173	10.86	<.0001*
Benefit	30	.270202	5	173	12.81	<.0001*
HIV	30	.291859	5	173	14.26	<.0001*

*$p < .05$

Note. Susceptibility = Perceived Susceptibility; Severity = Perceived Severity; Benefit = Perceived benefit; HIV = HIV Knowledge.

For HIV knowledge, results in Table 14 below showed that the overall F statistic was significant ($F = 14.26$, $p = <.0001$) for Risky sexual practices. There were significant main effects for HIV knowledge ($F = 26.53$, $p = <.0001$) and Sexual orientation ($F = 13.38$, $p = <.0001$). A significant interaction between the two variables: HIV Knowledge and Sexual orientation was also obtained ($F = 8.09$, $p = .0004$). An examination of the means in Table 12 indicates that heterosexuals had relatively higher scores on HIV knowledge than the homosexuals and bisexuals. This suggests that both homosexuals and bisexuals had insufficient knowledge about modes of HIV transmission as well as knowledge about methods of prevention against HIV infection than the heterosexuals.

Table 14: A Summary of ANOVA Results for HIV Knowledge

Variables	DF	Type III SS	F- Value	P-Value
HIV	1	182.6395048	26.53	<.0001*
Orientation	2	184.2238657	13.38	<.0001*
HIV orientation	2	111.3470020	8.09	.0004*

*$p < .05$

Note. HIV = HIV Knowledge

In order to test whether Sexual orientation interact with each of the four Health Belief Model constructs (including Self efficacy) in predicting Risky sexual practices, a two way ANOVA was conducted.

For Perceived severity (Table 15 below)**,** the overall *F* statistic was significant ($F = 12.85$, $p = <.0001$) for Risky sexual practices. The main effects for Perceived severity ($F = 16.57$ $p = <.0001$) and Sexual orientation ($F = 3.42$, $p = .0350$) was significant. A significant interaction between perceives severity and Sexual orientation was also found ($F = 10.47$, $p = <.0001$). An examination of the means in Table 12 indicated that both homosexuals and bisexuals had relatively higher scores on Perceived severity towards HIV infection than the heterosexuals. This suggests that both homosexuals and bisexuals perceive the consequences of HIV infection as more serious than do the heterosexuals.

Table 15: A Summary of ANOVA Results for Perceived Severity

Variables	DF	Type III SS	F- Value	P-Value
Severity	1	117.4313086	16.57	<.0001*
Orientation	2	24.2178224	3.42	.0350*
Severity Orientation	2	74.2393864	10.47	<.0001*

*$p < .05$

Note. Severity = Perceived Severity

For Perceived susceptibility (Table 16 below), it was evident that the overall *F* statistic was significant ($F = 10.86$, $p = <.0001$) for Risky sexual practices. There were significant main effect for Perceived susceptibility was ($F = 9.61$, $p = .0023$) and Sexual orientation ($F = 11.81$, $p = <.0001$). A significant interaction between Perceived susceptibility and Sexual orientation was found ($F = 6.31$, $p = .0023$). An examination of the means in Table 12 indicates that bisexuals had a relatively lower score on Perceived susceptibility towards HIV infection, followed by homosexuals and heterosexuals. This suggests that heterosexuals perceive themselves as more susceptible to HIV infection than do homosexuals.

Table 16: A Summary of ANOVA Results for Perceived Susceptibility

Variables	DF	Type III SS	F- Value	P-Value
Susceptibility	1	71.0877173	9.61	.0023*
Orientation	2	174.7088294	11.81	<.0001*
Susceptibility Orientation	2	93.3089126	6.31	.0023*

*$p < .05$

Note. Susceptibility = Perceived Susceptibility

For Perceived benefit (Table 17 below), the overall *F* statistic was significant ($F = 12.81$, $p = <.0001$) for Risky sexual practices. The main effect for Perceived benefit was also found to be significant ($F = 15.36$, $p = <.0001$) and Sexual orientation ($F = 2.03$, $p = .1349$). A significant interaction between Perceived benefit and Sexual orientation was obtained ($F = 10.32$, $p = <.0001$). An examination of the means in Table 12 indicates that both homosexuals and bisexuals had relatively higher scores on Perceived benefit than the heterosexuals. This suggests that homosexuals and bisexuals strongly believe in the benefit for taking preventive actions (condom use) to reduce HIV infection than do the heterosexuals.

For Perceived Barrier, there were no significant main effects or interactions between Perceived barrier ($F = .10$, $p = .7582$) and Sexual orientation ($F = .40$, $p = .6681$). This indicates that there were no significant differences between the heterosexuals, homosexuals and bisexuals groups in that they all perceive beneficial in taking necessary actions against HIV infection.

Lastly, in order to test whether Sexual orientation interacts with Self efficacy in predicting Risky sexual practices, a two way ANOVA conducted. The overall model indicated no significant relation between the variables (F = 1.07, p = .3034). Self efficacy (F = .10, p = .7577) and Sexual orientation (F = .77, p = .4659) main effects were also not significant. This suggests that there were no significant differences between heterosexuals, homosexuals and bisexuals groups in their level of confidence to engage in safer sexual practices.

CHAPTER 5
DISCUSSION

The purpose of the study as stated in Chapter 1, was to explore and understand factors that might impact on whether or not knowledge and awareness about HIV will translate into behaviour. The aim of the study was to explore factors that might predict, and perhaps mediate the relation between having HIV knowledge/ awareness and engaging in Risky sexual practices. This may facilitate the understanding of factors that may inhibit youth from translating their knowledge into behaviour. Finally the critical question why youth engage in Risky sexual practices in the midst of strong campaigns and HIV/AIDS knowledge may be answered.

Findings from the various statistical analyses performed from a sample of 180 students with age 17 and over, revealed that over half of the respondents (55.56%) were between the ages of 18-21, 31.67% fall between the age group 22-26; this is followed by the age groups 31-35 and 27-30 represented by equal number of respondents (5%). The lowest number of respondents (2.78%) was the age group above 35. An interesting finding was that out of 127 sexually active, 44.88% of the respondents were in the age range of 18-21, followed by 38.58% in the age range 22-26 respondents, 5.5 % were both between 27-30 and higher than 31-35 age range. Finally, 13.15% were those whose age was higher than 35 years old.

Similar results were found in the Kenya Demographic and Health survey done by Volk and Koopman (2001). The study highlighted the fact that young and unmarried women and men were more likely than older and married ones to engage in Risky sexual behaviour. The findings indicated a strong positive association between Perceived risk of HIV/AIDS and Risky sexual behaviour for both women and men.

Results from the sample indicated that 127 of the respondents reported having sexual intercourse in the past 3 months. These individuals constitute 70.55% of sexually active population. Among the sexually active respondents, 74.38% of them had sexual intercourse in the three months under review with one sexual partner, 19.83% had two sexual partners,

9.09% had three sexual partners and 1.65% had four or more sexual. Twenty nine percent reported to have never engaged in sexual intercourse in the 3 months leading to the study. The picture that emerges from these findings suggest that awareness of safe sex practices seems to be superficial and misinformation about the risks of unsafe sex and its consequences is widespread.

The young adults' attitude towards the use of condoms during sexual intercourse was not the mainstay of the study; however the HIV knowledge questionnaire revealed interesting outcomes. From the HIV knowledge questionnaire findings, the overall results indicated that 26.89% of female respondents and 31.14% male respondents agree that condom use reduces pleasure in sex. The proportions were higher among males where 29.51% agreed with the statement as compared to 18.48% of female responses.

It was also found that 26.06% females and 31.14% males agreed that they would rather use some other kind of birth control than condoms. The female respondents had negative attitudes towards condom use that overall, the male proportions were slightly higher than the female counterparts. About 12.6% females and 11.48% males believed that condoms are expensive. It was interesting to see that a large fraction of males (32.79%) believed that condoms are inconvenient and this varied significantly when it comes to female respondents, as 18.48% accounted for this proportion. The questionnaire received 31.09% females and 24.59% males who agreed with the statement that it was embarrassing to buy condoms.

The findings highlight young adult's negative attitudes towards condom, which might translate to negative influence on the use of condoms and pose a great challenge for HIV campaigns directed at educating young adults about the importance of effective use of condom to prevent HIV transmission. This finding was similar to the results from the study done by MacPhail and Campbell (2001) that indicated that men believe condom use interferes with their sexual pleasure. Perhaps this is an indication that HIV preventative interventions should be focussing on messages that focus on the benefits of condom use and other prevention messages.

Correlation analyses performed to assess relations between Health Belief Model constructs (including self-efficacy), HIV knowledge and Risky sexual practices for all the respondents. Risky sexual practices were negatively correlated with Perceived susceptibility and HIV knowledge. No other significant correlations (positive or negative) were identified between Risky sexual practices and other variables. Furthermore, Perceived severity was found to negatively correlate with Perceived barriers and HIV knowledge. These findings indicate a negative association between Perceived severity, Perceived barrier and HIV knowledge. Perceived susceptibility was seen to negatively correlate with Self efficacy. A significant negative correlation was also computed between Perceived benefit and HIV knowledge. Furthermore, analysis showed that Perceived barrier was significantly correlated with Self efficacy.

Lin, et al (2005) study has suggested that Self-efficacy is strongest predictor within the Health Belief Model and is associated with safer sex practices. Although the results from the study conducted among Asian American college students demonstrated that Perceived susceptibility failed to predict HIV prevention suggests that the participants who score high on Self efficacy are more likely to engage in protective behaviours (Lin, et al., 2005), it should be noted that similar results were obtained for Perceived susceptibility, that Self-efficacy score was negatively correlated to Perceived susceptibility. This means participants who felt less susceptible to HIV infection, had lower Self efficacy for taking precautionary measure against the condition. Therefore, these results do not support the assertion that Self efficacy is the strongest predictor within the Health Belief Model and also associated with reduced Risky sexual practices. However, a slight positive correlation between Self efficacy and Perceived barriers was found. In essence, when people perceive themselves to be at risk for HIV infection, the more they view the cost of engaging in unsafe sexual practices or experiences.

Regarding HIV knowledge, with the average result from the HIV knowledge questionnaire being 13.50, it can be deduced that respondents had approximately 75% rate of HIV knowledge.

These results are comparable to those from a study of secondary school students in Northern Province. Peltzer et al., 1998 as cited by Aitken (2005) reported 75% of

participants had high level of HIV/AIDS knowledge, with 18% of the students who believed that AIDS does not exist and 19% thought that there is a cure for AIDS (Aitken, 2005). Despite being knowledgeable, it was evident that a number of respondents were uncertain or misinformed about HIV transmission. Questions included basic knowledge about the condition, knowledge of modes of HIV transmission sexually, and effectiveness of condoms. For instance, 43.89% (n= 79) thought an individual cannot contract HIV from oral sex. This means respondents either possessed insufficient basic knowledge about the HIV condition.

A study by Pollak, Paicheler and Pierret (1992) asserted that people will engage in preventive behaviour if they feel susceptible to a health condition, if they believe the condition is characterized by a high level of severity and if they feel the costs of engaging in preventive behaviour outweighed by the benefits. But the model also assumes that diverse demographic, sociological, psychological and structural variables can affect Health Belief Model variables. In this way then affect preventive behaviour directly.

In the case of this study, Perceived benefit as the Health Belief Model constructs was found to be the only significant predictor variable (F =3.52; p = <.0167).All other variables, Perceived severity, Perceived susceptibility, Perceived barrier, Self efficacy and HIV knowledge were found to be non significant predictors of the Risky sexual practices, which increase the risk of contracting HIV. These results are inconsistent with the literature indicating that Perceived severity and Perceived barriers were significant predictors of the adoption of HIV preventative behaviours. There are few possible explanations as to why Health Belief Model results did not concur with the literature. The overall Health Belief Model did poorly in predicting Risky sexual practices in young adults. However, when scores were compared by Sexual orientation, significant correlations were seen. Results for homosexual group indicated significant correlation between Risky sexual practices and Perceived severity; Perceived benefit and HIV knowledge. These results suggest that perhaps homosexual and heterosexual individuals perceive the severity of HIV, the barriers and the benefits of engaging in safe sex differently.

This implies that HIV interventions should move past the focus on educating the young adults about the facts of HIV as the youth seem to receiving the message, and they appear to be very knowledgeable. Therefore, it is unrealistic to assume that HIV preventative campaigns targeting the general population will have a positive impact for the homosexual group, efforts perhaps need to take into account sexual orientation and consider for example that perceptions of severity, personal vulnerability, benefit of safe sex and the severity of the HIV pandemic differ as a function of sexual orientation.

It is acknowledged that such interventions are often undermined by the stigma of homosexuality. The social stigma associated with this group makes it difficult and even dangerous for homosexuals to disclose their sexuality openly. These individuals may worry about family and friends reacting negatively and this adds another burden that lays heavy on their shoulders. As such, most interventions tend to address heterosexual individuals only. In fact, homosexuality is often operationalized as high-risk in itself, which has proven problematic. These ways of thinking need to be challenged as they impact on whether or not the young adults engage in risky sexual practices, according to the present study.

5.1 LIMITATIONS OF THE STUDY

Several limitations of this study could be noted. Firstly, the university students sampled were from a convenient sample from the University of the Witwatersrand and therefore, the findings of this study should be applied with great caution to youth that are different from the sample. The sample not being a true representation of the country's young adults, as the young adults from the university population is more privileged, educated and affluent. However, this could also be the strength of the study, as it was possible to observe how the Health Belief Model constructs function within a population of youth assumed to be well educated about HIV. Secondly, the study could not rule out the shortcomings of the self reported method, which means accuracy of reports could have been affected by fear and embarrassment of revealing intimate sexual details as well as ethnic differences in public declaration of one's sexual practices discussing sex issues publicly. Respondents were not

asked about their frequency of condom use, which may influence their responses in the sexual practices questionnaire. Which could also mean their intention may not equal to actual practice. Despite these limitations, these results are significant as they provide evidence on the current and future sexual practices of this sample population.

CHAPTER 6
CONCLUSION

The spread of HIV pandemic in South Africa has a substantial impact on the nation's overall social and economic progress. A large amount of early prevention methods which were primarily information based, intended to meet the urgent need for risk education services. The assumption was that a greater understanding of the behaviours associated with HIV transmission would more likely result in the adoption of HIV reduction behaviours. Despite an increase in public awareness of HIV transmission, there has been no significant change in high HIV risk behaviours.

The current study thus aims to explore factors that might predict, and perhaps mediate the relation between having HIV knowledge or awareness and engaging in risky sexual practices in South African young adults. The study used a quantitative correlational survey design, with data collected from University of the Witwatersrand. The survey used consisted of a Demographic Questionnaire which was used to gather participants' information regarding gender, ethnicity, relationship status, number of sexual partners, (past and current) and to find out whether they know their HIV status. HIV Knowledge Questionnaire was used to assess knowledge regarding HIV transmission and prevention, AIDS Health Belief scale which was used to assess risk-taking experiences in the sample and Sexual Practice Questionnaire, which assesses individuals' degree to which sexual behavior places one at risk for contracting HIV. Additionally, Generalized Self efficacy Scale was used to measure optimistic self-beliefs to cope with a variety of difficult demands in life.

The study found that a relation exists between Perceived benefit and HIV knowledge, that a significant correlation was found between the two variables. No other significant differences were identified between the other variables. The lack of such findings could possibly be due to sensitivity of the subject of the study, as it touched on sex and homosexuality which is a taboo topic for many South Africans. This study was not without

limitations and is hoped that future the results of this study can contribute positively towards the development of effective, target specific HIV youth programmes.

CHAPTER 7
RECOMMENDATIONS

Psycho-educational programs can be developed to not only increase condom self- efficacy and also how to increase safer sex practices among this vulnerable population. These programs can challenge beliefs held regarding association of condom use with pleasure reduction. The results from this study and earlier studies of HIV knowledge have consistently shown that knowledge alone does not translate to safer sexual practices. Therefore, future sexual education should focus on understanding the social factors that hinder safer sexual experiences among this population. Again increased HIV knowledge could improve the efficiency and effectiveness of HIV prevention efforts and increase the ability to reach the full range of multiethnic youths, including the homosexuals. HIV and AIDS are pandemics that affect multitude, but mostly young adults. At this stage condoms as well and abstinence are the only effective preventative methods against transmission of HIV, yet young adults still report negative attitude towards condom use. Therefore, prevention efforts should incorporate peer education and intervention strategies amongst homosexuals as measures to curb the scourge. Such peer educators and advocates would help in educating people to adopt safe sexual practices in order to reduce or eliminate risk factors related to HIV infection.

In this light, future research should also be conducted to investigate the barriers towards the free use of condoms with more emphasis on psychological programmes that will focus on changes of attitudes towards condom use.

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APPENDIX A

AIDS HEALTH BELIEF SCALE

These questions ask about your feelings about using condoms and discussing condom use with your partner. Please respond even if you are not sexually active or have never used (or had a partner who used) condoms. In such cases, indicate how you think you would feel in such a situation.

Definitely True 1	Probably True 2	Don't Know 3	Probably False 4	Definitely False 5	Not Applicable 6

1. I am at low-risk for HIV infection.	**1**	**2**	**3**	**4**	**5**	**6**
2. People like me do not get HIV infections.	**1**	**2**	**3**	**4**	**5**	**6**
3. I am very healthy, so my body could fight off an HIV infection.	**1**	**2**	**3**	**4**	**5**	**6**
4. I'm too young to get an HIV infection.	**1**	**2**	**3**	**4**	**5**	**6**
5. I am not worried that I might get an HIV infection.	**1**	**2**	**3**	**4**	**5**	**6**
6. If I had an HIV infection, my family relationships would be strained.	**1**	**2**	**3**	**4**	**5**	**6**
7. People would avoid me if I had an HIV infection.	**1**	**2**	**3**	**4**	**5**	**6**
8. If I got AIDS, I would eventually die from it.	**1**	**2**	**3**	**4**	**5**	**6**

9. Condoms decrease pleasure during sex.	**1**	**2**	**3**	**4**	**5**	**6**
10. Using condoms during sex is a hassle.	**1**	**2**	**3**	**4**	**5**	**6**
11. I would rather use some other kind of birth control than condoms.	**1**	**2**	**3**	**4**	**5**	**6**
12. Condoms are expensive.	**1**	**2**	**3**	**4**	**5**	**6**
13. Condoms are inconvenient.	**1**	**2**	**3**	**4**	**5**	**6**
14. Buying condoms is embarrassing.	**1**	**2**	**3**	**4**	**5**	**6**
15. When I use a condom when having sex, I worriless about getting an HIV infection.	**1**	**2**	**3**	**4**	**5**	**6**
16. I worry less about getting an HIV infection when I am abstinent.	**1**	**2**	**3**	**4**	**5**	**6**

APPENDIX B

HIV KNOWLEDGE QUESTIONNAIRE

For each statement, please circle "True" (T), "False (F) or "I do not know" (DK).
If you do not know, please do not guess, instead, please circle "DK"

	True	False	I do not know
1. Coughing and sneezing DO NOT spread HIV.	**T**	**F**	**DK**
2. A person can get HIV by sharing a glass of water with someone who has HIV.	**T**	**F**	**DK**
3. Pulling out the penis before a man climaxes/cums keeps a woman from getting HIV during sex.	**T**	**F**	**DK**
4. A woman can get HIV if she has anal sex with a man.	**T**	**F**	**DK**
5. Showering or washing one's genitals / private parts, after sex keeps a person from getting HIV.	**T**	**F**	**DK**
6. All pregnant women infected with HIV will have babies born with AIDS.	**T**	**F**	**DK**
7. People who have infected with HIV			

quickly show serious signs of being infected.	**T**	**F**	**DK**
8. There is a vaccine that can stop adults from getting HIV.	**T**	**F**	**DK**
9. People are likely to get HIV by deep kissing, putting their tongue in their partner's mouth, if their partner has HIV.	**T**	**F**	**DK**
10. A woman cannot get HIV if she has sex during her period.	**T**	**F**	**DK**
11. There is a female condom that can help decrease a woman's chance of getting HIV.	**T**	**F**	**DK**
12. A natural skin condom works better against HIV than does latex condom.	**T**	**F**	**DK**
13. A person will NOT get HIV if she or he is taking antibiotics.	**T**	**F**	**DK**
14. Having sex with more than one partner can increase a person's chance of being infected with HIV.	**T**	**F**	**DK**
15. Taking a test for HIV one week after having sex will tell a person if she or he has HIV.	**T**	**F**	**DK**

16. A person can get HIV by sitting in a hot tub or a swimming with a person who has HIV.	**T**	**F**	**DK**
17. A person can get HIV from oral sex.	**T**	**F**	**DK**
18. Using a Vaseline or baby oil with a condom lowers the chance of getting HIV.	**T**	**F**	**DK**

APPENDIX C

DEMOGRAPHIC QUESITONNAIRE

1. GENERAL BACKGROUND INFORMATION

Your anonymity is guaranteed and the material you submit will be treated with utmost confidentiality. Please answer as honestly as possible.

(Please circle the option you select)

2. PERSONAL DETAILS (Circle only one option in each case)

2.1 Gender:

Male Female

2.2 Age group

18- 21 22 – 26 27-30 31-35 >35

2.3 Racial/Ethnic Background (for statistical purposes)

Black
White
Coloured
Indian
Other

APPENDIX D

SEXUAL PRACTICE QUESTIONNAIRE

Please answer as honestly as possible.

(Please select one option)

1. What is your sexual orientation?

Heterosexual

Gay / Lesbian

Bisexual

2. During the past 3 months, with how many people did you have sexual intercourse?

I have never had sexual intercourse

I have had sexual intercourse, but not during the past 3 months

1 person

2 people

3 people

4 or more people

3. During the past 3 months, with how many people did you have oral sex (both giving and receiving)?

I have never had oral sex

I have had oral sex, but not during the past 3 months

1 person

2 people

3 people

4 or more people

4. During the past 3 months, with how many people did you have anal sex?

I have never had anal sex

I have had anal sex, but not during the past 3 months

1 person

2 people

3 more people

4 or more people

5. Currently (in the past month), how many sexual partners do you have?

I am not sexually active

I have had sexual intercourse, but not during the past 3 months

1 person

2 people

3 people

4 or more people

6. Do you know your HIV status?

Yes

No

7. When were you last tested, if ever?

3 years ago

1 year ago

Last 6 months

Last 3 months

Last 6 weeks

APPENDIX E

THE GENERAL PERCEIVED SELF-EFFICACY SCALE

In response to the following situations, please indicate for each item by circling the appropriate number next to each question.

1	2	3	4
Not at all true	**Hardly true**	**Moderately true**	**Exactly true**

1. I can always manage to solve difficult problems if I try hard enough.	**1**	**2**	**3**	**4**
2. If someone opposes me, I can find the mean and ways to get what I want.	**1**	**2**	**3**	**4**
3. It is easy for me to stick to my aims and accomplish my goals.	**1**	**2**	**3**	**4**
4. I am confident that I could deal efficiently with unexpected events.	**1**	**2**	**3**	**4**
5. Thanks to my resourcefulness, I know how to handle unforeseen situations.	**1**	**2**	**3**	**4**
6. I can solve most problems if I invest the necessary effort.	**1**	**2**	**3**	**4**
7. I can remain calm when facing				

difficulties because I can rely on my coping abilities.	**1**	**2**	**3**	**4**
8. When I am confronted with a problem, I can usually find several solutions.	**1**	**2**	**3**	**4**
9. If I am in trouble, I can usually think of a solution.	**1**	**2**	**3**	**4**
10. I can usually handle whatever comes my way.	**1**	**2**	**3**	**4**

APPENDIX F

DEBRIEFING STATEMENT

Dear Participant

I would like to thank you for participating in this study. The purpose of this study was to assess your perceptions and risky sexual experiments regarding HIV. If you have any questions, feel free to contact me, Mma-Lerato Seboka at Mma-Lerato.Seboka@students.wits.ac.za

If participation in this study has raised some questions or concerns for you regarding the subject of the study, you may wish to take advantage of one of the following mental health services located at Emthonjeni Centre. Services are available by appointment at a negotiated fee. Contact number (011) 717 4513.

Once again, thank you for your participation.

Sincerely,
Mma-Lerato Seboka

APPENDIX G

SUBJECT INFORMATION SHEET (QUANTITATIVE RESEARCH)

Assessment of risky sexual behaviours with respect to HIV among South African young adults

School of Human and Community Development
Private Bag 3, Wits 2050, Johannesburg,
Tel: (011) 717-4558

Hi,

My name is Mma-Lerato Seboka and I am conducting research for the purpose of obtaining a Masters degree in Clinical Psychology at the University of the Witwatersrand. My area of focus is that of Human immunodeficiency virus (HIV) interventions, more specifically understanding how people make sense of different aspects of the condition.

Participation in this research will entail completing five questionnaires. The whole process will last for approximately twenty minutes. Participation is voluntary, and you will not be advantaged or disadvantaged in any way for choosing to participate or not to participate in the study. All of your responses will be kept confidential and no information that could identify you would be included in the research report.

Information given on answer sheets will not be seen or heard by any person at this university at any time and will only be processed by myself. You may refuse to answer any questions you would prefer not to, and you may choose to withdraw from the study at any point. The raw data obtained from the study will be kept in a double sealed cupboard until the research has been completed and marked. Once the report has been marked, all raw data will be destroyed.

Your participation in this study would be greatly appreciated. This research will contribute both to a larger body of knowledge and help us understand better ways of addressing the

challenges that this HIV pandemic presents. The data will be destroyed upon completion of research.

Kind Regards
Mma-Lerato Seboka

APPENDIX H

ACCESS LETTER (QUANTITATIVE RESEARCH)

University of the Witwatersrand: The Dean and Staff

School of Human and Community Development
Private Bag 3, Wits 2050, Johannesburg,
Tel: (011) 717-4558

Dear Sir/Madam

My name is Mma-Lerato Seboka, and I am conducting research for the purpose of obtaining a Masters degree in Clinical Psychology at the University of the Witwatersrand. My area of focus is that of Human immunodeficiency virus (HIV) interventions in youth, more specifically understanding how people make sense of different aspects of the condition

I would like to obtain permission to conduct research on undergraduate students at the Humanities faculty, by requesting the second year psychology students to complete questionnaires.

South African youth are incredibly vulnerable to HIV infection with rising rates of sexually transmitted infections. Public health programmers urgently need better understanding of behaviours of this group over the next few years to help determine the course of the epidemic in the coming decades. This research, therefore, proposes to evaluate sexual behaviours and HIV related knowledge and attitudes among the students. A presentation providing the background of the study will be carried out during a portion of their class time and invited to participate in the study. Once the participants give completed questionnaires, this will be considered an indication to give consent to participate in the study.

This research will contribute both to a larger body of knowledge and help us understand better ways of addressing the challenges that this HIV pandemic presents. In addition it will help in informing the development of policies and procedures. Therefore your permission will be greatly appreciated.

Kind Regards

Mma-Lerato Seboka
Mma-Lerato.Seboka@students.wits.ac.za