

## **HIV/AIDS-related Knowledge, Attitudes and Risky Sexual Behaviour among a Sample of South African University Students**

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This study aimed to determine the level of sexual knowledge and attitudes about risky sexual behaviour among a sample of South African university students. The participants were 164 female and 56 male undergraduates, whose average age was 20 years. The main findings confirmed that more than 80% of the students may have a high level of knowledge and attitudes with regard to HIV/AIDS. Of the sample, 24% approved of not having sex before marriage, while only 33% reported having sex without a condom. Of the participants, 47% reported they would refuse having sex without a condom. Although 69% of respondents reported that they have been tested for HIV, 29% have never been tested. Results showed that 48% reported that more educational and awareness programmes with regard to HIV/AIDS are recommended. The results suggest that this particular South African university population may be aware of the dangers surrounding risky sexual practices.

**Keywords:** HIV/AIDS, risky behaviour, knowledge, students, prevention, attitudes

HIV/AIDS is a pandemic which proves to be one of the biggest challenges the youth in Sub-Saharan Africa currently face. With our local HIV/AIDS statistics continuing to skyrocket beyond expectation, we must confront the fact that, for the most part, our agendas for research and intervention have thus far done very little to affect the course of the epidemic (Leclerc-Madlala, 2002). The prevalence rate is 17.8 % among those aged 15-49, with some age groups being particularly affected (WHO, UNICEF and UNAIDS, 2010). In 2010, the South African government has been pro-active in a welcoming manner by launching a major counseling and testing campaign. In 2011, the HCT (counseling and testing campaign) aimed to raise awareness of HIV and to reduce the HIV incidence rate by 50%, noted the South African National AIDS Council (SANAC) (2010).

Previous South African studies suggest that many South African youth know about HIV/AIDS first-hand; among South Africans aged 15-24, 26% personally know someone with HIV/AIDS and 45% personally know someone who had died of AIDS (Pettifor, Rees, Steffenson, Hlongwa-

Madikizela, MacPhail, Vermaak, and Kleinsmith, 2004). UNAIDS reported in Anderson, Beutel and Maughan-Brown (2007) that in South Africa, as in many other less developed countries, the primary method of HIV/AIDS transmission is heterosexual intercourse. However, this may often include risky sexual behaviour in a direct or perhaps in an indirect manner, e.g. research has shown that adolescents are inclined to “experiment” with risky behaviour, which would therefore increase the chance of them participating in this type of behaviour.

As young adults form part of a highly vulnerable group for HIV infection, there is a need to identify effective prevention approaches. Motivation for more research to increase our knowledge, while addressing the HIV/AIDS problem amongst this group is also required. In order to do so effectively, risky behaviour needs to be identified and highlighted. Ironically, even though many surveys in the above studies found that the general knowledge of HIV was high amongst adolescents. Adolescents

and young adults usually indicate a high underestimation of personal risk.

As HIV/AIDS is one of the highly stigmatised diseases, first-year students may “down-play” their levels of vulnerability amongst themselves, due to not being seen as part of a “stigmatised” group. In addition, adolescents may also be “active” in risky sexual behaviour due to peer pressure within this group. Other studies have found positive associations between HIV/AIDS knowledge and HIV/AIDS prevention behaviours (MacPhail & Campbell, 2001). This implies that campaigns to increase knowledge about HIV/AIDS may be having an effect on behaviours.

Within the South African context, there seems to be a need for research on the risky sexual behaviour of young adults in South Africa. In the general population, of the more than six million South Africans now infected with HIV, over half are young people aged 15-24. Recent nationally representative surveys have found that HIV prevalence is around 15-16% in women aged 15-24, compared with less than 5% among men. Among women aged 20-24, prevalence is between 20-25% notes Harrison (2010).

Thus far, the South African government’s response to the pandemic proved to be effective, through the implementation of the currently offered Lifeskills and HIV/AIDS Education programmes in secondary schools and at this South African University. Through knowledge of HIV/AIDS prevention, an increase in the proportion of the sample knew that abstaining from sex is an indication of protective behaviour (Magnani, R., McIntyre, K., Karim, A.M., Brown, L., and Hutchinson, P. (2005).

The findings of a National Survey of HIV and sexual behaviour among young South Africans that was done by Hale, Householder and Greene (2003) predicted that there would be significant relationships between knowledge of HIV transmission, and testing for HIV,

educational level, and gender. A national HIV Prevalence study done by Shishana, Rehle, Simbayi, Parker, Jooste, Pillay-van Wyk, Mbelle and van Zyl, J, (2009), found that females aged 15-24 years had the lowest scores at 40.6%, while males in the 15 and older age group had higher levels of accurate knowledge about HIV transmission. However, with regard to how HIV is physically transmitted from one person to another, as well as the methods of prevention, may currently indicate a degree of less awareness on the part of the young adults.

This study also found that decision-making becomes very challenging during this stage of young adulthood. Thus, young adults’ ability to understand true objectivity of others seems to be quite limited. Unfortunately for young adults, society and its current processes appear to be branded with risky sexual behaviours.

Sexual inexperienced youth, who view themselves as at risk of HIV infection at some point in the future, may try to delay first sex - the gateway to further HIV-risk behaviours (Anderson et al., 2007). Positive parental influence can buffer adolescents against the influence of negative peer norms that could lead to risky sexual behaviour, including delaying early sexual intercourse according to Roche, Mekos, Alexander, Astone, Bandeen-Roche and Ensimerger, 2005; Rasamimari, Dancy and Smith, 2008). Many undergraduate students at university find themselves residing away from their parental home when embarking on graduate studies. These young adults fall in the age group which may be categorized as vulnerable to HIV infection.

Studies done by Brown, Nwokocho and Nwakoby as cited in Parmar, Bhatia, and Parmar (2007) motivated the need for an intensive campaign against the spread of HIV/AIDS. The campaign should focus on health education prior to the onset of high-risk behaviour. Thus, for educators to play an effective role in conveying current and correct knowledge, they need to acquire in-depth knowledge of HIV/AIDS. According to

Peltzer and Seoka (2004), improvements in knowledge and attitudes about HIV/AIDS, as well as an increase in condom use were demonstrated in schools receiving drama programmes, compared to schools who received written information alone.

Studies done by Abruquah and Bio (2008) and Hartell (2005) found that high-risk sexual behaviour increased with age and class, and was significantly higher among females than males, and that condom use and general knowledge of STIs are low among adolescents. This study confirmed the need for more education interventions to keep young adults informed about HIV/AIDS. However, these studies excluded to focus on the personalities of males and females, which also play a role in the decision-making process.

Within the South African context, going to university usually involves moving away from the parental “nest”. Thus, this proves to be a very important period of upheaval or transition, as the first-year student has to now be responsible for his/her own life, at the same time having to manage their sexual relationship(s) and classes. In this instance, the South African Department of Health needs to be aware of the fact that condoms are used by two people; therefore making this resource more readily available is a critical task for this department. At the same time, the effective usage of condoms should be monitored and evaluated on a continuous basis.

A South African National Survey done by the HSRC revealed that, although there has been a shift in the levels of condom negotiating skills, there is also an increased openness in the community to discuss sex and condoms among youth (Shishana et al., 2009). In order to create a better understanding of HIV-risk behaviour, several major theories of behavioural change have been applied in various studies.

#### *Behaviour Change*

This study will focus on the Health Belief Model, which will serve as a very useful theoretical framework, as it generally offers

suggestions for sexual risk prevention programmes on university campuses. Students and their peers tend to be misinformed about their susceptibility to sexual transmitted diseases and HIV/AIDS.

Boskey (2010) defines the Health Belief Model (HBM) as a realistic tool that scientists use to try and change health risk behaviours. This theory is introduced on the notion that a person’s willingness to change their behaviour is primarily due to perceived susceptibility; therefore “people will not change their health behaviours unless they believe that they are at risk”. Although the HBM offers insight into how a specific population of university students may be assisted with prevention which focuses on interventions, very little research has been done on how we could possibly be informed, as well as improve our understanding regarding how to effectively serve the needs of the university student population. As various health-risk behaviours mostly occur in psycho-social contexts, our own understanding will enhance how the HBM measures reflects these psycho-social contexts in an accurate way.

Very few adolescents tend to perceive themselves to be at risk for HIV/AIDS or any sexual transmitted disease. Although adolescents have the necessary knowledge about the severity of the disease; very small numbers of young adults see the need for safe sex as serious, and they downplay seeing AIDS as a personal threat. The HBM does not reflect how the student population often experience pressures from their peers as well as their partners. This may encourage risky sexual behaviour.

Although adolescents live and learn in various societies, the HIV prevention “compass” needs to be adapted to suit each person and his/her context for intervention purposes. For example, by having well-trained teachers or peer educators in HIV-related issues will certainly assist with the effective reduction of risky sexual behaviour among adolescents. This study will therefore determine the level of knowledge

and attitudes about risky sexual behaviour of first-year students.

#### *Rationale of the study*

First-year university students as a group are exposed to risks, whether it is during the transition period from high school to university, or when exposed to risky sexual behaviour. Young adults are particularly vulnerable to HIV infection. They may be at higher risk of engaging in risky sexual behaviour; especially if they are under the influence of alcohol or drugs, respond to peer pressure, or lack maturity (Centers for Disease Control and Prevention, 2007). Undergraduate students fall in this age range. Regardless of being acquainted with some form of knowledge and education, first-year students still indulge in risky behaviour. Thus, changing risky behaviour and mindsets will probably lead to safer decision-making among first-year students at this South African university.

#### **Method**

The survey utilised a descriptive research survey. Surveys may be used for descriptive, explanatory and exploratory purposes (Babbie and Mouton, 2001). The paradigm of this study was located within quantitative research, in order to determine the level of knowledge and how attitudes influence risky sexual behaviour of first-year students.

#### *Study setting and sample size*

The study consisted of a sample size of 220 students who were enrolled for a psychology class, and who have indicated willingness to participate in the study. Participants included 56 males and 164 females of undergraduate students between ages 18-24 years. According to Simbayi, Chauveau and Shisana (2004) in the urban areas, the sample needs to be stratified by race: African, Coloured, Indian and White. Due to the diverse cultures in South Africa, in this study, participants described themselves according to their preferred designation.

The research instrument consisted of several questionnaires that were developed for this study. In order to ensure that the items of the questionnaire were culturally

acceptable and easily understood a pilot study was conducted. No changes were made to the questionnaire after the pilot study. This indicated that questions would possibly be acceptable and easily understood among the participants in the actual study.

Ethical approval was obtained from the Human Research Ethics Committees of two South African universities. The consent form and the research tool were attached together and distributed to the participants at the end of a psychology lecture at the university. All queries were addressed during and before informed consent forms were read and completed by the participants. As per the consent form, students were also assured of anonymity, confidentiality, as well as assurance that they may withdraw from the study at any time. With English being the standard language used at this university, the research tool was administered in English and was completed by all participants within 30 minutes. English is not considered as their mother tongue by most students. The self-administered questionnaires were distributed in class and were returned to the research assistant anonymously. The statistical software programme STATISTICA version 10 was utilised to capture and presented the data. Demographic and socio-demographic data were presented using frequency tables.

#### **Results**

With 100% response rate, the results showed the gender distribution of the respondents, of which 25% were male and 75% were female. Of the various race groups, 34% (75 respondents) categorised themselves as "Black/African"; 57% (126 respondents) as "Coloured" (the highest percentage in this category); 3% (6 respondents) as "Indian/Asian" and 2% (5 respondents) as "White" ethnic category. The remaining 3% (7 respondents) were amongst the "Other" ethnic category. Three of these participants categorised themselves as "Pedi", while four participants were amongst the "Venda" grouping.

*Table 1:* Distribution of biographical characteristics of the study sample (N= 220)

Variables	N	%
<b>Gender</b>		
Male	56	25.5
Female	164	74.5
<b>Age</b>		
< 18 years	2	.9
18 years	34	15.5
19 year	70	31.8
20 year	35	15.9
>21years	79	35.9
<b>Race/Ethnicity</b>		
No response	1	.5
Black/African	75	34.1
Coloured/Mixed race	126	57.3
Indian/Asian	6	2.7
White	5	2.3
Other	7	3.2
<b>Language</b>		
Afrikaans	61	27.7
English	91	41.4
isiXhosa	42	19.1
isiZulu	3	1.4
Setswana	4	1.8
Other	19	8.6

It was not feasible for this study to focus on this aspect, as all race groups were not adequately represented. The current study therefore recommends that models should be culturally adapted or designed to suit individual ethnic needs. However, the above said, the results in the table 1 indicates that 27.7%, of the participants were Afrikaans speaking, with 41.4% English speaking, while 19.1% were Xhosa speaking. The outcome of this study will therefore have no impact on the variables such as race groups, language, work, region, caregiver and family members as they are not statistically feasible for this study, further than descriptive.

#### *Knowledge on HIV and AIDS*

The results suggest that the highest score obtained on HIV knowledge was 94.5% (males and females), whilst the lowest response rate indicated 39.5%. Participants scored lower in the use of condoms during sexual intercourse category. However, 40.4% disagreed that both partners should wear condoms during sexual intercourse. In this category, males scored on average lower than females in terms of having knowledge on HIV/AIDS.

A response rate of 97.2% (209 out of 220) suggested that you cannot get HIV by

touching an HIV positive person, whilst 54.5% indicated they knew someone who was HIV positive. An encouraging 93.1% (205 out of 220) suggested that if you had unprotected sex you needed to get tested for HIV. However, this finding should be interpreted with caution awareness may not necessarily reflect actual behaviour.

#### *Attitudes towards HIV and AIDS*

Knowledge, Attitudes, Beliefs and Practices (KABP) surveys have been criticized because their variables are poor predictors of participants' actual behaviours. As the reliability of this adapted questionnaire "surrenders" to low levels of reliability, it remains a challenge for the researcher to make any assumptions on it. KABP surveys may lack reliability and validity to answer different questions about how to determine behavior recommended Katzenellbogen et al. in Mwaba and Naidoo (2005). The researcher believes that a "mixed method" should have been utilised in this study. In other words, the adapted KABP survey, in addition a focus group to encourage open discussion about taboo topics amongst young adults and their peers. The respondents within this sample may, or may not have intentionally distorted their responses when the questionnaire was administered. These responses may therefore represent a source of bias, although the responses may be considered valid.

#### *Sexual history and beliefs on sexual behaviour practices*

Young adulthood is generally marked by elevated levels of sexual risk behaviour that can lead to various sexual diseases, such as HIV and unplanned pregnancy. The findings of this study cover indicate the likelihood of students contracting HIV and other sexually transmitted infections. The findings of this study may have been very different if this was perhaps students of another faculty. As this was a group from a specific Faculty, their curriculum included HIV/AIDS as part of the Health Psychology and the Life Skills and Health Education modules. This may have provided the study with an academic/intellectual advantage in terms of the sample. Furthermore, the

students were eager to participate in the study, as they may have had a better understanding of the focus of the study.

The results suggest that 65.4% (144 out of 220) respondents had already engaged in sexual intercourse. Sexual debut occurred from 12 to 29 years, with a median age of 20 years. The largest group of respondents, 42.7% (94 out of 220) indicated that they were in a sexual relationship with their partners during the ages of 15-20 years.

The results further suggest that 41.8% of respondents reported that they had one sexual partner in the past 6 months, while an almost equal percentage of 38.1% of the sample reported that they had no sexual partners in the past 6 months. Only 35% of respondents used a condom during their last sexual intercourse, while 33% reported they did not. This finding suggests that there may be a level of risky sexual behavior among undergraduate students.

The results indicated that 24% (53 out of 220) never had sexual intercourse. The results reported that the largest group of respondents (30%) used condoms each time when having sexual intercourse. Of the total sample, 25% used condoms sometimes when having sexual intercourse. This indicates a level of responsibility/attitude towards risky sexual behaviour. 15% of the students reported never using a condom when having sexual intercourse, indicating the level of negative attitude towards risky sexual behaviour. The high level of knowledge of HIV (94.5%) clearly indicated an increase of the knowledge of HIV, as well as the risks of being sexually active. At the same time, 69% of respondents reported that they have been tested for HIV, while 29% have never been tested. However, an overall 64% of respondents responded positively that they plan to test for HIV, while a group of 24% had no intention to test for HIV. A majority of 47% respondents refused to have sexual intercourse without a condom.

Regardless of race, interestingly the largest group of respondents (51.8%) reported that they have no sexual partners at present. Of

the sample, a total of 37.2% had one sexual partner, while an equal percentage (1.8%) reported that they have two or more than three respectively. Evidently, 97% of students have been taught about HIV or AIDS and STIs at school.

A majority of 72.2% suggested that at some stage of their lives they have used alcohol, while 23.6% have not used alcohol at all. The results suggested that 56% (124 out of 220) used alcohol for the first time at the ages of 14 years and over, while 14% had tried alcohol for the first time between 10-13 years, with 18% who had never tried alcohol at all. A very small number (2.7%) of the sample tried alcohol for the first time when they were younger than 10 years.

#### *Sources of HIV and AIDS information*

The results suggested that 23% of the respondents noted that they have received HIV/AIDS information from peer educators and friends equally, teachers (22%) and parents/caregivers (18%). Key places to obtain sex information were indicated as the health centre (31%), the internet (21%), television (16%) and school/university (15%). In terms of how students thought how we could possibly prevent South Africans from getting infected with HIV, the most frequently mentioned intervention was a need for more educational- and awareness programmes (48.2%), followed by abstinence (15%), and condoms to be made readily available (8.2%).

#### **Discussion**

The findings of this study showed that the majority (75%) of the students who participated in this study reported that condoms are the best method to use in preventing HIV infection. These results are consistent with the findings of the national surveys done by Shishana et al. (2009), where one of the key findings was a dramatic increase in the number of people reporting condom use, specifically seen among youth aged 15-24 years. In the current study one could assume that the students in this sample were academically equipped to negotiate condom use with their partners. However, Mwaba and Naidoo (2005) advised that the encouraging finding

on attitudes towards condom use must also be interpreted with caution because students' reporting of condom use may not necessarily reflect actual behaviour.

While most heterosexual college students know they are at risk for HIV infection, most do not feel at risk themselves (Lance, 2001). The findings of this study show that 129 of the respondents (58.6%) reported being currently in a monogamous relationship, while eight (3.6%) reported having more than three partners. Although eight (3.6%) warrants reason for further investigation; in the case of adolescents this figure may perhaps have to be treated with caution.

According to a study done in Shishana et al. (2009), 13 % of 15-24 year-olds had their first sexual relationship before age 15. In addition, girls who report first sexual intercourse during early teen years have much higher rates of teenage pregnancy and childbearing than girls who have a later debut, noted Shishana et al. (2009). Interestingly in this study, more than half (63.1%) of the respondents had their onset of relationship >15 years, with 22% between age 12-14 years. At the time of the study, 10 respondents (4.5%) had never been in a relationship before. This study found that more than half of the respondents (59.5%) reported that their sexual debut was not forced. This is in contrast to findings of a study done by Menda (2006) in Zambia where 74% respondents reported that their sexual debut was not forced. In this study, an encouraging figure of 24.5% respondents reported that they never had sexual intercourse. Similar findings were reported in Menda's (2006) and Pettifor et al. (2004) where 48% of schoolgirls had their first sexual intercourse experience for the simple reason of experimentation.

The findings in this study show an encouraging 51.8% of the respondents had no sexual partner, while 37.2% respondents reported having one sexual partner at the moment. However, it is important to recognize that previous research on dishonesty in dating and HIV/AIDS has

found that 25% of heterosexual students are dishonest about their sexual encounters (Lance, 2001).

Less than half (35%) of respondents reported that they used a condom during their last sexual intercourse. This is quite lower than the findings in a study done by Phillips and Malcolm (2006) and Lance (2001) where 50% reported using a condom at their last sexual intercourse. The low rate of condom usage, specifically in this study (33%) raises concern, as 97% of these respondents have been taught about AIDS or HIV infection and STI's at school. Menda (2006) found that 80% of students indicated that they received HIV and AIDS education from their university. Levine and Ross (2002) found in their study that HIV/AIDS and STI education proves to be the preferred form of intervention.

Findings of this study reflected that 15% of respondents reported they never used a condom during sexual intercourse. While this situation suggests negative attitudes towards risky behaviour, Hartell (2005) found in his study that those adolescents, who know and accept the practice of using contraceptives and condoms, were unable to access them. In the current university environment condoms are dispensed right across campus, from students' residences to all general bathrooms, students' clinics and counseling services.

One hundred and fifty-one respondents (69.6%) of the sample reported they have already tested for HIV. These findings are in stark contrast with a study done by Simbayi et al. (2005) where 39% of respondents had been tested for HIV in their lifetime. There is evidence that voluntary counseling and testing (VCT) services influence behaviour change. While only 28.8% of students have undergone HIV-testing in this study, this contradicts the findings in a study done by Othero, Aduma, and Opil (2009). It is encouraging that this study found that 91.8% respondents reported that they never had sexually transmitted infection (STI's).

Findings point to high rates of 72.2% respondents (159 in total) reported alcohol consumption, while 23.6% never consumed alcohol at any time. Of concern is the alcohol consumption of participants younger than 10 years of age, while 56.3% tried alcohol for the first time at the age of 14 years and older. One may assume that risky behaviour may result in early sexual debut for children of that age group. However, Cooper in Brown and Vanable (2007) clarifies that studies involving adolescents and college students point to an association between alcohol use and sexual risk during first time encounters. Although the adolescent's choice to experiment comes to mind when 54% confirmed that their reason for alcohol consumption was out of their own free will. Brown and Vanable (2007) found that drinking on college campuses is often a primary social outlet for students to seek new partners.

More than half of respondents (68.6%) reported that they had never tried drugs, with 66 participants (30%) admitted to drug consumption. A national survey done by Shishana et al. (2009) at the Human Sciences Research Council (HSRC) as well as at the Centre for Disease Control are consistent with findings of this study, where it found that both alcohol and drug use are associated with increased risks for HIV infection. This is due to the impairment in both judgment and decision-making which leads to users' risky sexual behaviour.

In this study 23% of the respondents indicated that the preferred sources of HIV and AIDS information include key persons such as a friend and a peer educator. Associated literature such as in Rasamimari et al. (2008) found that adolescents without parental supervision are more likely to emerge in early sexual debut, increasing their vulnerability to HIV and STIs. This is in contrast with a study done by Dawood, N., Bhagwanjee, A., Govender, K., & Chohan, E. (2006) who found that the preferred sources of information included television (84%),

teachers (39%), friends (32%) and parents (28%).

The results of this study show that 31% of students received their information on sex from key places such as health centres, the internet (21%), television (16%), school/university (15%), youth centres (8%) and the church (6%). In terms of the possible prevention methods within the South African context, findings of this study showed that one hundred and six respondents (48.2%) expressed a need for more educational and HIV/AIDS awareness programmes.

Although the findings of this study show high ratings of HIV-related knowledge; very few misconceptions are currently held by the respondents of this specific study. Only 2.7% believed the myth that only homosexuals could become infected with HIV, while a discouraging 1.3% indicated that a shower could cure HIV and 1.3% agreed that having sex with a virgin could cure HIV. Simbayi et al. (2005) revealed that traditionally more than five men believed that a person can cleanse their body of HIV by having sex with a virgin. Interestingly 88.6% respondents disagreed with the myth that HIV positive children should not play with other children, leaving 7.7% of respondents to agree with this myth. Based on the level of intellect of these students, generalisation of these findings may only be utilised with caution.

### **Conclusion**

As this study was confined to a particular university, the findings are not generalizable to the South African university student body on a national level. The undergraduate students in this study showed that they may engage in lower levels of risky sexual behaviour, as they demonstrated a reasonable degree of knowledge regarding risky sexual behaviours and the consequences thereof. However, this does not necessarily mean that these students will definitely practice safe-sex behaviours. With half of the sample not being in relationships, at the time of the study, may indicate that there is still an opportunity for them to be taught in



a didactic way by means of role-play and group discussions how to continue incorporating a risk-free lifestyle. This study highlights the benefits of self-reporting. In spite of the limitations of this study, the results contribute further to understanding the difficulties that surround sexual behavior of all young adults in South Africa.

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