

**STUDENTS' PERCEPTIONS OF VOLUNTARY COUNSELLING
AND TESTING: A CASE STUDY OF THE UNIVERSITY OF
KWAZULU-NATAL**

Fredrick Gachie Njagi

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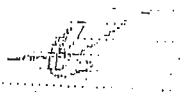
Submitted in partial fulfillment of the requirements for the degree of
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South Africa

Supervisor: Dr. Pranitha Maharaj

February 2005

DECLARATION

This dissertation represents the original work of the author and it has never been submitted for any degree or examination in any university. Full acknowledgement is given for all the sources referred to in this thesis.

Signed by..........

Date.....14/03/2005.....

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ABSTRACT

This exploratory study investigates the factors that facilitate or inhibit the uptake of voluntary counseling and testing (VCT) among students aged 18-24 at the Howard College campus of the University of KwaZulu-Natal. It also examines the sexual behaviour of the students in order to determine if, and to what they are at risk of HIV infection. The study used a self-completed survey questionnaire to elicit participants' responses. On one hand, the key factors that were found to motivate the students to undergo VCT include: the desire to know one's HIV status, peer influence, future planning and commitment to long-term relationships. On the other hand, factors that inhibit VCT uptake among students include lack of awareness, low risk perception, stigma, fear of an HIV positive test result, lack of confidentiality, long waiting period to secure an appointment, and perceived lack of benefits of counselling. The study also established that among the sexually active students, some engage in risky sexual behaviour such as involvement with multiple sexual partners and inconsistent condom use. In the light of the findings, the study recommends measures that would be taken to improve VCT uptake amongst students, and contribute in curbing the spread of HIV.

GLOSSARY OF TERMS

AIDS	Acquired Immunodeficiency Syndrome
ARV	Antiretroviral Therapy
FHI	Family Health International
HBM	Health Belief Model
HIV	Human Immunodeficiency Virus
HIVAN	Centre for HIV/AIDS Networking
KZN	KwaZulu-Natal Province
MFM	Merged Factor Model
MTCT	Mother-to-child Transmission of HIV
PLWA	People Living with AIDS
PLWH	People Living with HIV
SIM	Social Inoculation Model
STIs	Sexually Transmitted Infections
TRA	Theory of Reasoned Action
UKZN	University of KwaZulu-Natal
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VCT	Voluntary Counselling and Testing for HIV
WHO	World Health Organization

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CHAPTER ONE INTRODUCTION

1.1 Introduction

South Africa has the highest number of people living with HIV, with an estimated 5.3 million HIV positive people at the end of 2003 (UNAIDS, 2004b). Despite the magnitude of the epidemic in the country, less than 10% of those infected know their HIV status (Kenyon, Heywood and Conway 2001). Consequently, people who do not know that they are infected are transmitting the vast majority of HIV infections. Research has shown that increasing the proportion of persons who know their HIV status will help to reduce the rate of transmission (ibid). Thus providing and encouraging the utilisation of voluntary counselling and testing (VCT) for HIV in South Africa is a critical intervention strategy, particularly among the most vulnerable groups, such as young people. Young people's attitude towards VCT must be understood if such interventions are to be effective.

This study will examine the key factors that influence the uptake of VCT among students aged between 18 and 24 years at the Howard College campus of the University of KwaZulu-Natal and make recommendations on how VCT services can be improved to encourage student uptake. The study will also examine sexual behaviour of students in order to determine if, and to what extent, they are at risk of HIV infection. This first chapter provides the background of the study.

1.2 Background of the study ^{P.S}

Voluntary counselling and testing (VCT) is a confidential dialogue between a care provider and a client aimed at enabling the client to cope with stress and to take personal decisions related to HIV/AIDS and HIV testing (WHO, 1994). The VCT process generally consists of three stages: pre-test-counselling, post-test counselling and follow-up and counselling and support as required (UNAIDS, 2000b).

In the pre-test stage, the counsellor prepares a client for taking an HIV test by explaining what an HIV test is; correcting any misinformation about HIV/AIDS; discussing the personal risk profile and the implication of knowing one's HIV status. Informed consent is then obtained before the test is administered. In the post-test stage, the counsellor delivers and explains the results of the HIV test. HIV-negative clients are given

information on how to remain negative while HIV-positive clients are given an opportunity to discuss how they will cope under that status. The counsellor at this stage emphasizes on safer sex practices. The third stage, entailing follow-up and support, focuses on counselling services to address additional fears and concerns of HIV-infected clients and HIV-affected clients; that is mainly those caring for or living with HIV-infected people.

1.2.1 Benefits of voluntary counselling and testing

Communities, couples, families and the individual clients benefit in various ways through the provision of VCT (Ndenzako and Phil, 2003; Rehle, Saidel, Mills and Magnani, 2001). In the community, VCT reduces stigma by changing the image of HIV/AIDS from illness, suffering and death, to living positively with HIV (Boswell and Baggaley, 2002; Rehle *et al.* 2001). It also facilitates early referral and access to medical care including antiretroviral therapy (ARV), screening and treatment of sexually transmitted infections (STIs), and support services for people living with HIV/AIDS (Boswell and Baggaley, 2002; Jackson, 2002; Rehle *et al.* 2001;UNAIDS, 2000c; UNAIDS, 2001).

For couples and families, VCT enables planning for the future in such contexts as marriage, pregnancy and family planning (Jackson, 2002; Rehle *et al.* 2001, UNAIDS, 200c). It facilitates prevention of mother-to-child transmission of HIV (MTCT) through ARV (Jackson, 2002; UNAIDS, 2000c). It helps alleviate anxiety, increases individual's perception of their vulnerability to HIV and promotes behaviour change (Boswell and Baggaley, 2002). VCT also facilitates access to condoms for both male and females (UNAIDS, 2000c). The multiple benefits of VCT, which mainly lie in its links with other services, are explicitly illustrated in Figure 1.

Although individuals diagnosed with HIV may face discrimination and stigmatization, the benefits of VCT far outweigh the disadvantages. In the light of the benefits of VCT outlined and the fact that there is no known cure or vaccination for HIV/AIDS, there is need for the expansion of VCT services and promotion of its utilization as a priority intervention area, among the most vulnerable groups, such as young people.

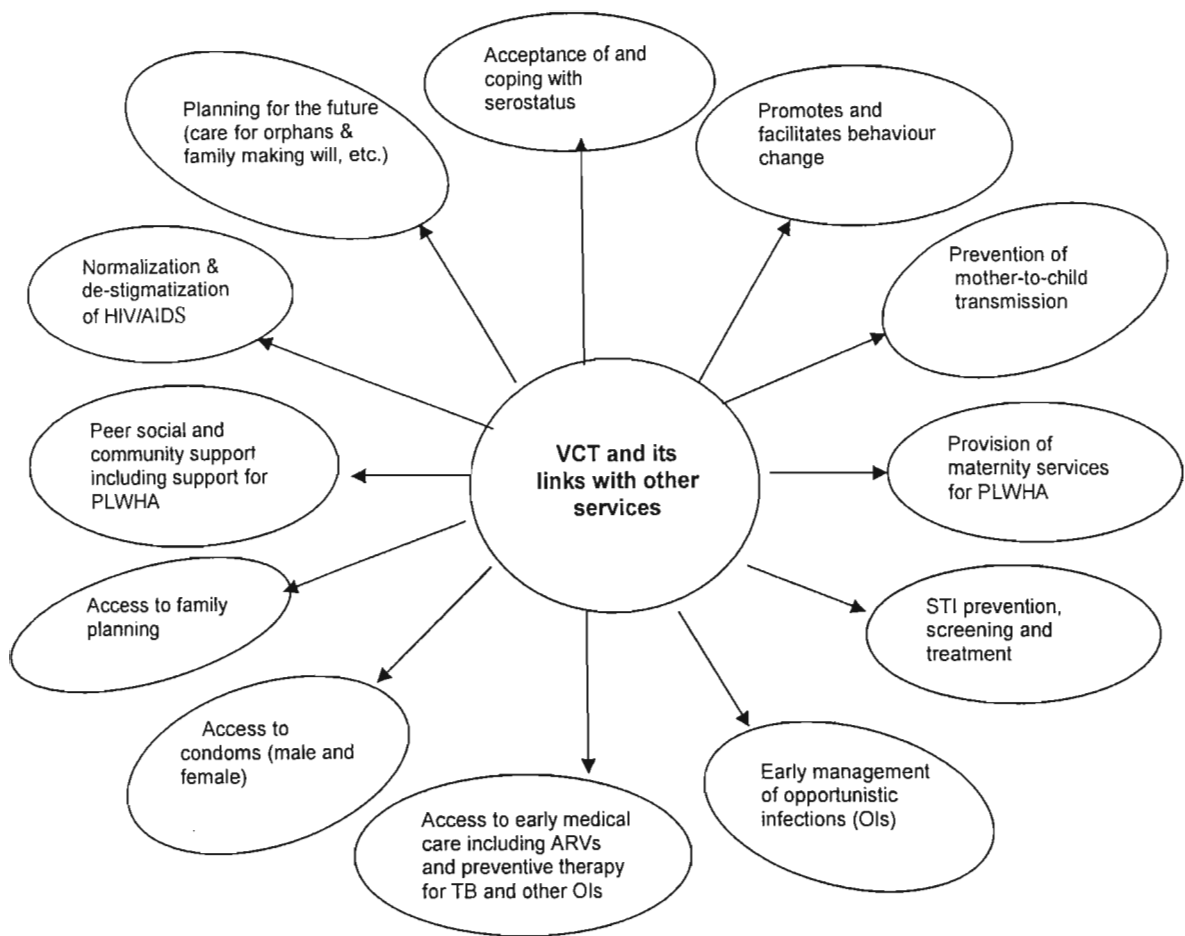


Figure 1: VCT as an entry point for prevention and care

(Source: UNAIDS technical update, May, 2000)

1.2.2 Young people: an important target for VCT

The World Health Organization (WHO) defines young people as those in the age group 10 to 24 years and adolescents as those in the age group 15-19 years (WHO, 2004). The WHO definition of young people will be adopted for the purpose of this study. Many behavioural patterns are formed during early adolescent years, and as such acquisition of HIV among young people is predominantly through sexual activities (UNFPA, 2001:1). This period in life thus provides an appropriate time to positively influence behaviours that would hopefully last into adulthood. VCT is one of the tools that can be used to facilitate safe sexual behaviour among young people.

Young people have been identified as particularly vulnerable to HIV infection and they are disproportionately affected by HIV/AIDS. (Boswell and Baggaley, 2002; Obarzaucher and

Baggaley, 2002; Tillotson and Maharaj, 2001; UNAIDS, 2001, UNFPA, 2001). It is estimated that 50% of all new HIV infections worldwide occur among young people in the 15-24 year age group and that 30% of all people living with HIV/AIDS are in this group (WHO, 2004). Moreover, the same age group accounted for 62% of the 10 million people living with HIV/AIDS in Sub-Saharan Africa at the end of 2003 (UNAIDS, 2004a). A number of factors contribute to the vulnerability of young people to HIV infection

Early sexual debut increases the chances of infection among adolescents (Tillotson and Maharaj, 2001; UNAIDS, 2001; UNAIDS, 2004a). For instance, in South Africa, sexual activity begins on average between 13-15 years (Richter, 1996). As compared to adolescents who experience a late sexual debut, studies have shown that young people who begin sexual activity early are likely to have sex with relatively more partners and with older partners who have been at risk of HIV exposure (WHO, 2000 in UNAIDS, 2004a). Other factors that predispose young people to infection include unprotected sexual intercourse, unsafe injection drug use and exposure to contaminated blood and blood products such as skin piercing procedures, lack of HIV information, sexual experimentation, erratic or non-use of condoms, increasing urbanization and poverty (Boswell and Baggaley, 2002; UNAIDS, 2004a).

ADP + GAV, Patriarchy
There are marked gender disparities in HIV prevalence in Africa. In Sub-Saharan Africa, 76% of young people aged 15-24 living with HIV are female (UNAIDS, 2004b). In South Africa, out of the 5.3 million people living with HIV/AIDS at the end of 2003, 2.9 million were women aged 15-49 (UNAIDS 2004a). Similarly, data from a nationally representative HIV prevalence survey of young South Africans age 15-24 years, established that 4.8% males and 15.5% females were HIV positive (Pettifor *et al.* 2004). The same trend was observed in a study conducted by the Africa Centre for Population Studies in Matubatuba in rural KwaZulu-Natal. The study reported that HIV prevalence was 0.4% amongst teenage men compared to 8.7% amongst women aged 15-19 years (Welz and Herbst, 2004). These statistics imply that young women are more vulnerable to HIV compared to men.

The higher biological vulnerability of girls and women to HIV infection is one explanation for the growing numbers of women infected with HIV (UNADS, 2004a). The immature genital tract of female adolescents makes them biologically more susceptible to the HIV

virus, compounded by a variety of social and environmental factors such as girls engaging with sex with older men (Brookman, 1990 in UNAIDS, 2001:33). Thus females are disproportionately affected by HIV/AIDS.

1.2.3 Justification for the study ^R

UNAIDS (2002) predicts that HIV/AIDS will have a devastating effect on student populations because a majority of them are young people currently in schools, colleges and universities. Moreover, it is speculated that due to high-risk activities such as 'sugar-daddy' practices, and unprotected casual sex with multiple partners at the institutions, universities in Africa are potentially at high-risk of the transmission of HIV (World Bank, 2001). In line with these speculations, a situation analysis of HIV/AIDS on former University of Natal campuses (now University of KwaZulu-Natal) conducted in 2000 found that HIV/AIDS is likely to result in increased death rates and illness amongst staff and students (University of Natal, 2002). The vulnerability of young people makes it imperative that they should be an obvious group for targeted HIV/AIDS interventions (Mac Phail, 2003) such as VCT. NB

Despite their vulnerability to HIV, many young people do not know where they can access VCT services. UNICEF (2002) estimates that in many countries, fewer than 50 percent of young people know where they can be tested for HIV. In spite of lacking this knowledge, research findings have shown that young people are interested in knowing their HIV status (UNICEF, 2002). A survey of young people aged 14-21 in Kenya and Uganda found that most would like to be tested while still healthy (Horizons, 2001). Similarly, a survey of sexually active adolescents in Massachusetts, USA, found that most adolescents were interested in being tested (Samet, Winter, and Hingson, 1997).

1.2.4 VCT at the Howard College campus, University of KwaZulu-Natal

The Howard College campus health clinic of the University of KwaZulu-Natal (UKZN) has offered VCT services since 1997. However, up to the 30th June 2003 only 1729 staff and students had received VCT at the clinic (University of Natal, 2003). The low uptake of VCT is a cause for grave concern, considering that over 60% of UKZN student population of 39242 are in the age group 18-24 years (University of KwaZulu-Natal, 2004), which falls among the most vulnerable groups at risk of HIV infection in South Africa.

The under-utilization of VCT services weighted against the potential impact of HIV/AIDS on students at UKZN underscores the need to evaluate the HIV/AIDS prevention strategies at the university with a view to devising ways of improving them. Through identifying students' attitudes about HIV testing, appropriate action can be taken to enhance VCT uptake at the institution. This study will therefore examine students' perceptions of VCT and the factors that motivate or inhibit them from utilizing the services.

1.3 Conclusion

Voluntary counselling and testing for HIV (VCT) provides a range of benefits to communities, families and individuals. In view of the fact that there is no known cure or vaccination for HIV, it is important to promote VCT and its utilization as a priority intervention area, particularly among the most vulnerable groups. Young people aged 15-24 years, a majority of whom are currently in schools, colleges and universities, have been identified as particularly vulnerable to the spread of HIV. Therefore this group constitutes an important focus for targeted HIV/AIDS interventions, such as VCT. It is therefore important to understand young people's attitudes towards VCT in order for such interventions to be effective. Encouraging sexual behaviour change is one of the key objectives of VCT, aimed at reducing the risk and spread of HIV. The effectiveness of VCT in relation to behaviour change and the factors that facilitate or hinder VCT uptake are discussed in the next chapter.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Voluntary Counselling and Testing for HIV (VCT) is increasingly being developed and linked to primary health care as a key component of HIV intervention strategy in many countries (Obarzaucher and Baggaley, 2002). However, research on peoples' perceptions of VCT remains scarce. Most of existing literature is composed of studies that have tried to assess the effects of VCT on behaviour following testing (Rehle, Saidel, Mills, and Magnani, 2001:81; UNAIDS, 2001). This chapter begins by examining these studies and underscores the rationale for the use of VCT in HIV/AIDS interventions. The focus is on examining studies relating to factors facilitating and inhibiting the uptake of VCT. A review of previous studies, both in South Africa and internationally, shows that important common themes emerge that can be used to explain why people, especially the young are motivated or discouraged from undergoing VCT. Finally, a number of behaviour change theories are discussed and their relationship with VCT uptake is examined.

2.2 VCT and behaviour change

One of the key objectives of VCT is to facilitate sexual behaviour change in order to reduce the risk and spread of HIV infection (USAID, 2002). It is argued that VCT is among the most targeted and focused set of social interventions intended to achieve individual behaviour change (Richter *et al.* 2001:152). However, the question of the effectiveness of VCT on behaviour change is highly contested.

Obarzaucher and Baggaley (2002) posit that VCT plays an important role in helping people to change their sexual behaviour and thus reduce HIV transmission. It is argued that knowledge of HIV status creates a motivation for behaviour change (De Zoysa *et al.* 1995; Namwebya, 2002). Furthermore, VCT encourages people to disclose their HIV status to others, which has an important social role in reducing stigma about HIV and AIDS (De Zoysa *et al.* 1995; King, 1999). In spite of these compelling arguments, research on the effectiveness of VCT programmes on behaviour change has shown mixed results.

On the one hand, it has been established that VCT facilitates the reduction of HIV – risk behaviour. Research evidence from a study in Nigeria indicates that VCT services for young people led to an increase in the use of condoms and a decrease in prevalence of sexually transmitted infections (Ita, 1998 in Boswell and Baggaley, 2002). In rural South-western Uganda, an area with high HIV prevalence, the majority of research participants indicated that they would change their behaviour if they knew their HIV status (Bunnell, 1996 in King, 1999).

Similarly, a study conducted at two VCT sites in Kampala, and Nairobi, revealed a positive relationship between VCT and behaviour change (Horizons, 2001). In this study, the majority of young people who had undergone VCT reported that they intended to practise safer sex, such as condom use, abstinence, and reduction of the number of sexual partners. Furthermore, several girls in Kampala indicated that they would encourage their partners to take the test and would break off their relationship if their partners declined to undergo VCT (Horizons, 2001). However, it should be noted that the findings of this study are limited since the participants only indicated their intentions, which may not necessarily translate to future action. Actual behaviour change would have been a stronger measure if behaviour were observed over a long period of time.

The positive effect of VCT on behavioural change is further supported by study results from Kenya, Tanzania, Trinidad and Tobago using randomly selected samples of 3120 individuals and 586 couples (UNAIDS, 2002:122). The UNAIDS studies reported a decrease in unprotected sexual behaviour with both steady and casual partners, following a VCT intervention programme. In addition, there seems to be consensus among many researchers that continuous post-test support services reinforce long-term behaviour change (Boswell and Baggaley, 2002; Dyk and Dyk, 2003a; Wolitski, Macgowan, Higgins and Jorgensen, 1997). These studies, among others suggest that VCT promotes behaviour change and in turn contributes to HIV/AIDS risk reduction.

On the other hand, research has shown that VCT intervention does not necessarily result in HIV/AIDS risk reduction behaviour. A study in the United States examining behaviour among high- risk young people over a period of two years following attendance of VCT at an adolescent medical clinic in Washington D.C. found that VCT did not result in any significant decrease in sexually transmitted infections or reduce risk behaviour (Boswell

and Baggaley, 2002:24). The strength of this study lies in the fact that it was conducted over a two-year period, which can be considered sufficient to make meaningful observations on behaviour change. However, the findings of this study cannot be generalized because of the small sample size, having been done only in one clinic.

An extensive review of 50 testing and counselling studies in Africa, Australia, Europe and North America, found significant risk reduction only among heterosexual couples with one infected partner (Higgins, 1991 in King, 1999). In the same studies, risk reduction was not significantly associated with VCT among injecting drug users and homosexual men. These findings suggest that although VCT motivates behaviour change in some individuals it does not always lead to the same effect in all populations and in different situations (Wolitski *et al.* 1997).

2.3 Rationale for use of VCT in HIV/AIDS interventions

Notwithstanding, the mixed evidence and the debate on the effectiveness of VCT on behaviour change; it has been widely recognized as an important component of any comprehensive HIV prevention and management strategies (Adler, 2001; Dyk, 2002; Ginwala *et al.* 2002; Horizons, 2001; Kenyon *et al.* 2001; Obarzaucher and Baggaley, 2002; Richter *et al.* 2001). Conclusively, as Phillippe (2000) argues, the challenge is no longer the need to show the efficacy of VCT but to make it accessible to those who desperately need it and render it more acceptable and affordable. Because of the existing evidence that VCT is cost-effective (Obarzaucher and Baggaley, 2002; Richter *et al.* 2001), and that it leads to behaviour change in individuals, whether HIV positive or HIV negative, many countries have embraced and included VCT as a priority intervention in their HIV/AIDS strategic plans (Namwebya, 2002). For instance, in South Africa VCT has generally been accepted as an integral part of many HIV care and control programmes (Ginwala *et al.* 2002; Kenyon *et al.* 2001).

In order for VCT programmes to be effective, it is important to understand the factors influencing VCT uptake (Hojman, 2004). These factors are discussed next.

2.4 Factors influencing the uptake of VCT

Research evidence shows that a range of factors influence the uptake of VCT. These factors are reviewed in two broad categories: those that motivate people to seek VCT and those that are barriers to the uptake of VCT.

2.4.1 Motivation factors to VCT uptake

Certain beliefs and perceptions motivate people to seek VCT services. In many cases, it has been established that the youth desire and actively seek VCT services. This section examines literature on what motivates people in general, and young people in particular to seek VCT services.

Desire to know one's HIV status

Research in Uganda and Kenya found that many young people seek HIV test while healthy; symptoms and feeling ill were rarely cited as reasons for wanting to know their HIV status (Horizons, 2001). The desire to know one's HIV status was also cited by a majority of the youth in a study conducted in Ethiopia (Dejene, 2001). Similarly, a survey in Uganda recorded that more adolescents (94.1%) requested their HIV results after donating blood than any other groups (Alwano-Edyegu and Marum, 1999). These findings are an indication that the youth are curious and are becoming more health conscious in the face of the HIV epidemic.

Plans for long-term relationships

It has been suggested that the youth seek VCT services prior to getting involved in long-term relationships. In Uganda, the AIDS Information Centre (AIC) reported an increase in the number of youth seeking VCT, particularly before proceeding with marriage arrangements, many of who visited the centre with their partners (Boswell and Baggaley, 2002). Similarly, studies conducted among couples in Tanzania (Maman *et al.* 2001) and Zambia (Obarzaucher and Baggaley, 2002), described testing as a preventive health measure prior to engaging in sex and long-term relationships. Many researchers agree that attending VCT prior to marriage has become common in recent times (Dejene, 2001; Dyk, 2002; Matovu *et al.* 2002). These findings underscore the influence that potential marriage partners have on each other in relation to making decisions about VCT.

Social factors and peer influence

Dejene (2001) emphasizes the importance of the social environment and the family in making the decision to undergo VCT. Likewise, participants in a case study in Tanzania cited the importance of the role of the family, friends, and other trusted community members such as priests in helping them with the decision making process for testing and disclosure (Maman *et al.* 2001). However, it must also be noted that when society limits the age of consent for HIV testing (as discussed later in this chapter), this could act as deterrent among the youth who would like to undergo VCT.

Nduati and Kiai (1997) posit that among the youth, peers are an important source of information on sexuality. In agreement with Nduati and Kiai's observations, research evidence in Kenya and Uganda established that most of the participants had learnt about HIV from their peers; more than 75% of them had discussed HIV/AIDS issues in general with peers (Horizons, 2001). Further, the study by Horizons found that peers were also the primary source of information for identifying HIV testing services and that many untested as well as tested youth had recommended an HIV test to someone. Likewise, peer influence was cited as a major contributing factor to increase in VCT uptake in youth centres in Zambia (Obarzaucher and Baggaley, 2002). It is therefore evident that the youth consult and discuss among themselves and in the process influence each other's decision regarding VCT.

Peer influence has also been found to be particularly effective in outreach and promotional activities. A study in Zambia found that involving the youth in discussions about the benefits of VCT and the interaction of young people with outreach workers helped in addressing their doubts and anxieties (Obarzaucher and Baggaley, 2002). Peer education has also been shown to be successful in reducing substance abuse, such as alcohol and drugs and in reduction of risk behaviour (Nduati and Kiai, 1997:71). Peer educators are a more desirable source of information because they communicate in a language that can be understood by their peers, and they serve as role models (di Clementi, 1993 in Nduati and Kiai, 1997:71). Thus peer-to peer communication has significant influence on decisions and attitudes to VCT among young people.

2.4.2 Barriers to uptake of VCT

Although the above section has clearly demonstrated factors that promote VCT utilization, there are also several factors that discourage people from seeking VCT services.

Inaccurate risk perception and VCT as a diagnostic tool

Low risk perception is a major deterrent to uptake of VCT (Obarzaucher & Baggaley, 2002). Findings from research by Family Health Trust among young people aged 12-23 in Zambian anti-AIDS clubs indicate that the majority of young people do not consider themselves at risk for HIV infection -- they cited reasons such as abstinence or never having had sex, sticking to one partner or using condoms consistently (Population Council, 2002). In another research in Uganda and Kenya, the findings indicated that young people do not feel at risk and therefore find no need for an HIV test, despite the fact that majority of them in Nairobi also reported risky sexual behaviour such as infrequent condom use during sexual intercourse (Horizons, 2001).

The low risk perception is fuelled by the widespread belief that VCT is for diagnostic purposes. The perception of the community including some young people (Horizons, 2001), and some medical practitioners (Dyk, 2002) that testing is only for the ill may discourage some healthy youth who want an HIV test from seeking it. Negative attitudes and erroneous perceptions about the purpose of VCT programmes may prevent people from participating in such programmes either for the first time or on a continuous basis (Dyk, & Dyk, 2003a). A study in Kenya found that young people considered the HIV test to be a tool for doctors to use in diagnosing a problem and determining appropriate treatment and that only those who suspect they have HIV or other illnesses seek a test (Horizons, 2001). It is therefore evident that the perception of being at low risk, coupled with the notion that VCT is for diagnosing HIV is a common misperception among young people, which discourages them from seeking VCT services.

Doubting the existence of AIDS

In Mali, a Country with low, HIV prevalence, it was found that a widespread belief that the AIDS virus does not exist was the cause of low motivation for using VCT services (Castle, 2003: 147). The low risk perception was linked to the fact that many people's personal experience of HIV and AIDS is rare compared with those in areas where HIV prevalence is high such as East and Southern Africa.

Stigma associated with VCT

In many countries, HIV infection is a stigmatizing condition, which discourages people from seeking HIV testing (Dejene, 2001). The attitude of the society towards HIV can

have a strong impact on individual choices; if HIV positive people face discrimination and stigma, VCT is unlikely to be a popular intervention (UNAIDS, 2000, in Dejene, 2001). A study conducted in Ethiopia by Dejene (2001) established that some male students in higher education institutions reported that it did not matter whether the HIV test result would be positive or negative; that the initiative to take VCT has a negative implication, which would lead to being labelled as a potential victim of HIV/AIDS. This in turn affects the image and reputation of the student thereafter; and if the result happened to be positive, the student would be marginalized by the community in the institution and by the general public as well. As a result, it was reported that some people had committed suicide on knowing that they are HIV positive (Dejene, 2001).

Similarly, a study aimed at promoting VCT targeting people aged 15-54, in Dar es Salaam, Tanzania found that stigma was a major obstacle to the uptake of VCT because HIV is associated with bad sexual behaviour (National Aids Control Programme, 2001). The study in Dar es Salaam revealed that although the majority of the people were willing to take VCT, they were afraid of discrimination, rejection by family and dismissal from occupation, training institution, school, and social clubs.

In other cases, research findings indicate that women have been beaten, abandoned or abused by their partners because of attending VCT and disclosing their HIV status (Alwano-Edyegu and Marum, 1999; Dejene, 2001; Dyk, 2003a; Maman, Mwambi, Hogan, Kilonzo, and Sweat, 2001; National Aids Control Council, 2001). In a study of women attending ante-natal clinic, in rural South-west Uganda, women expressed concern that if their husbands found out that they were HIV positive; they would be blamed and this would result in separation and domestic violence (Pool, Nyanzi, and Whitworth, 2001). Similar findings were reported in a survey among pregnant women attending antenatal clinic in Ogun State, Nigeria - those unwilling to be tested expressed strong fear of social stigma or rejection if they tested positive (Adeneye, Mafe, Adeneye, Salami and Adewole, 2004).

Stigmatisation of VCT is further exacerbated in some cases by attitude of health workers. The health workers' attitudes to teenage sexuality are sometimes negative and young people perceive them as intimidating (Obarzaucher and Baggaley, 2002; UNAIDS, 2001). Thus the poor response from health care providers discourages young people from

seeking VCT services. The poor attitude of service providers is a further reflection of the stigma that people seeking VCT are subjected to in society. Obarzaucher and Baggaley (2002) however observe that as increasing numbers of people undergo VCT, this will reduce stigma and enhance normalization and acceptance of VCT.

Perceived lack of confidentiality

The youth are concerned about the confidentiality of VCT services because of the stigma associated with HIV and the association of testing with being sexually active (Horizons, 2001). Research conducted in Kenya and Uganda to identify opportunities and barriers to providing VCT found that young people would like to access VCT services if the results were confidential and reported honestly (Population Council, 2003). Fear of the lack of confidentiality was identified as a key barrier to participating in VCT services in South Africa (Dyk & Dyk, 2003a). Similarly, women in South-west Uganda indicated that they were anxious about confidentiality of the HIV test and that maternity staff would refuse to assist them in child delivery if they were HIV positive (Pool *et al.* 2001). On the other hand, a survey among women attending antenatal clinic in Ogun state, Nigeria found that the perception that the clinic offered privacy encouraged women to undergo VCT (Adeneye *et al.* 2004).

Research in the United States and Australia suggests that anonymous services may be more desirable to young people and that the introduction of anonymous testing increases uptake in higher-risk populations, such as injecting drug users and homosexual men (Boswell & Baggaley, 2002). Similarly, research conducted in Zambia, where provision of "optional" VCT services where the counsellor visited clients at home attracted more clients compared to VCT services available at the local clinic (Fylkesnes, and Siziya, 2004). Furthermore, young people prefer to have tests in facilities where they will not run into parents or neighbours and where it is not clear to casual observers that they are there to have an HIV test (Horizons, 2001). These cases indicate, as suggested by Dyk & Dyk (2003a) that although people, [including young people] are not necessarily against VCT, they have serious doubts about the confidentiality of HIV testing services.

Fatalistic attitude to HIV testing

In many cases being HIV positive is viewed as equivalent to a death sentence, thus people fear to seek an HIV test. An evaluation of VCT services for mineworkers in

Welkom, South Africa, identified the fear of a positive result as a major barrier to HIV testing (Ginwala, *et al.* 2002). The low uptake of VCT in a mother-to-child transmission control program in Botswana was also attributed to the fear of an HIV-positive result (Mazhani *et al.* 2000 in Dejene, 2001). In a maternity clinic in rural South-west Uganda, women feared a positive HIV test result due to a widespread rumour that medical staff were intentionally killing HIV-positive patients in order to stop the HIV/AIDS epidemic (Pool *et al.* 2001).

Likewise, in a study of young people in Rwanda, some participants referred to an HIV-positive result as a “red card that is designed with a hoe and pick-axe” and being HIV positive was seen as a death signal (Boswell, and Baggaley, 2002:21). In the study conducted in Nairobi and Kampala some young people indicated that they would want to have an HIV test in future but have not done so because of fear of a positive result, this fear results in delay for seeking a test (Horizons, 2001). Moreover, the fear of a positive HIV test result has been associated with failure to return for post-test counselling and HIV test results, for instance in Burkina Faso, HIV infected women were three times less likely to return for test results than uninfected women (Cartoux *et al.* in Solomon *et al.* 2004:16).

Closely related to the fear of a positive HIV test result is the notion that there are no benefits in knowing ones HIV status. Even where VCT services are available, uptake is sometimes poor because of lack of perceived benefits (Baggaley *et al.* 1998 in Ginwala *et al.* 2002; Dejene, 2001). The lack of incentives for knowing one’s HIV status and the inability to handle psychological turmoil in case of HIV positive test result may influence people’s decision about VCT (Dyk and Dyk 2003a). The perceived lack of benefits is associated with ignorance of the benefits of being tested, the fear of being tested and of being HIV positive (Ngatia *et al.* 2000 in Dyk, 2003b). This attitude could also be exacerbated by the fact that there is no cure or vaccination for HIV/AIDS. However, with the increased promotion of VCT services and the availability of anti-retroviral drugs, this attitude may change in the long term. Linking medical care and support with VCT can contribute to a significant change in attitude. For instance, a study in Bali, Indonesia established that provision of free medical care incentives, such as syphilis testing and treatment and hepatitis B testing and vaccination resulted in significant increase in utilization of VCT services (Sumantera, Mayer and Wirawan, 2004)

Age of consent to HIV testing

Many countries have legal requirements that necessitate parental or guardian consent before medical procedures including HIV testing can be conducted (Boswell and Baggaley, 2002). In South Africa the legal age limit for VCT is 16 years¹. The majority of VCT sites have no formal policy on age of consent for testing, and usually procedures for VCT are done at the discretion of the counsellor on duty at the time (Boswell and Baggaley, 2002). Boswell and Baggaley (2002) further observe that age of consent is a controversial issue that complicates accessibility of youth to VCT services, care and support in many cases.

In Kenya and Zambia, the legal age of consent for VCT is 18 years (Boswell and Baggaley, 2002; Obarzaucher and Baggaley, 2002). Thus young people under 18 require parental or guardians consent in order to undergo VCT. The attitude of the parents further exacerbates this problem. A study conducted in Uganda found that parents and the community are generally not supportive of young people testing for HIV, possibly because it is an indication of sexual activity (Horizons 2001). The young people in Uganda reported negative reactions from their parents if they knew that their child had taken an HIV test. Limiting young people's access to VCT services is an indication that culturally, adolescents are deemed to be children and as such have fewer rights (Langhaugh *et al.* 2003). From these cases, the difficulties that young people under the 'age of consent' experience in accessing VCT services, even when such services would benefit them are evident.

Cost and accessibility of VCT services

In some cases, costs and availability limit the uptake of VCT. In a study conducted in KwaZulu Natal and Limpopo provinces, South Africa, lack of incentives, such as access to ARV when one tests HIV positive and the long distance that people have to travel to access VCT services were found to be discourage people from seeking and utilizing VCT services (Nompumelelo *et al.* 2004). Likewise, in a study done in Ethiopia, some commercial sex workers and street children reported that they did not have the financial capacity to pay for VCT (Dejene, 2001). Similarly, some youth in Masaka, a rural area in Uganda cited cost as the reason they have not had an HIV test yet (Horizons, 2001). The study in Masaka found that the test fees did not necessarily include counselling services,

¹ Source University of KwaZulu-Natal Clinic

which may be an added expense. However, in this study it was also established that major VCT providers in Uganda have free testing days and that others offer subsidized rates on a case-by-case basis. While free VCT services may be an incentive, some youth might avoid utilizing these services due to other non-financial factors such as stigmatisation, fear of a positive HIV test result and perceived lack of confidentiality.

On the other hand, Alwano-Edyegu and Marum (1999) emphasize that scarce economic resources and competing priorities are an obstacle to VCT uptake in developing countries. The cost and accessibility of VCT services, especially in under-resourced areas, therefore limits the uptake of VCT. However, Kenyon *et al.* (2001) contends that with increased donor support in the fight against the HIV pandemic, VCT services are increasingly being offered free of charge or at minimal cost to clients even in less developed countries. Therefore, the cost factor is not necessarily a major barrier to VCT uptake. However, it is evident that VCT services are not easily accessible in some cases, thus availability could be considered an obstacle to VCT uptake.

Waiting time for HIV-test results

Boswell and Baggaley (2002) posit that the rate of return for VCT services is correlated with capacity to provide same-day services. In some areas where same day services are not available in the United States, only 63 percent of people who undergo HIV testing at publicly funded HIV testing centres returned for post-test counselling (Boswell and Baggaley, 2002). The positive link between VCT uptake and a shorter waiting period for HIV test results is further supported by findings from a survey in three states in the United States (Burstein, Newman, San Antonio-Gaddy, Richardson-Moore, Krchnavek, Sonoda and Branson, 2004). The survey in the United States established that following the introduction of *OraQuick* rapid HIV testing, 90% of survey participants preferred receiving test results the same day. Similarly, a survey in Bushbuckridge, South Africa found that most clients did not return for their HIV test results due to delays in processing the results (Kim, 2002)

Moreover, in Uganda and Kenya majority of the youth indicated that they preferred to receive their HIV test results the same day (Horizons, 2001). Likewise, a short waiting period for the results was noted as a motivating factor to uptake of VCT by mineworkers in South Africa (Ginwala *et al.* (2002). Remarkable evidence from stand-alone VCT

centres in Malawi established that from 1992 to 1999 when the centres were using *Elisa tests*, which availed test results within one week, they served only 13,642 clients (Barnaba, Rayfield, Fridlund, Marum, Feluzi, Msowoya and Campbell, 2004). However it was revealed in this study that following the introduction of HIV rapid testing in 2000, which availed results on the same day, over 161,894 clients were tested between 2000 and 2003 (Barnaba *et al.* 2004). Therefore, a strong relationship exists between VCT uptake and the waiting period for the results. A long waiting period for HIV test results causes anxiety and could influence some people to change their minds about VCT. Thus, some people will not return for the HIV test results, while others will avoid seeking VCT altogether.

2.5 Theoretical framework

One of the key objectives of Voluntary Counselling and Testing is to facilitate behaviour change in order to reduce the spread and risk of HIV infection (USAID, 2002). Understanding what influences behaviour change is of critical concern for HIV/AIDS prevention strategies such as VCT. Behaviour change strategies in the context of HIV/AIDS are generally based on several psychological theories (Ross and Deverell, 2004). Three of these theories, namely: the health belief model (HBM), theory of reasoned action (TRA) and the social inoculation model (SIM) are discussed and an alternative framework to explain behaviour change is explored.

2.5.1 The Health Belief Model (HBM)

The Health Belief Model (HBM) attempts to explain and predict health behaviours by focusing on attitudes and beliefs of individuals (King, 1999). The HBM was developed in the 1950's as an attempt by psychologists in the United States Public Health Service to explain why people refused to participate in health screening and prevention programmes such as free tuberculosis screening services (Family Health International, 2003a). With the advent of HIV/AIDS, HBM has been increasingly used to gain a better understanding of sexual risk behaviours (Rosenstock *et al.* 1994 in Family Health International, 2003a).

According to HBM, health behaviour can be predicted by examining a person's perceived vulnerability to disease, the perceived seriousness of the disease, the perceived benefits of prevention, the perceived barriers or costs of prevention and the cues to action that may initiate the behaviour change (Becker and Maiman, 1975 in Ross and Deverell, 2004:16). Individuals' perceptions of their vulnerability and the seriousness of the disease

determine their health behaviour. Beliefs about the severity of AIDS might influence the extent to which individuals are likely to engage in risk avoidance behaviour (Maharaj and Cleland, 2004:6), such as condom use. Individuals also compare the benefits against the perceived costs; therefore benefits must outweigh costs in order for health promoting behaviour change to occur (King, R. 1999; Samet, Winter, and Hingson, 1997). When the perceived risk or cost is too high, individuals will escape the situation by avoiding taking action (Samet *et al.* 1997). Similarly, individuals consider the benefits and costs of undergoing voluntary counselling and testing before making a decision. Cues to action, such as the experience of a close relative or friend dying of AIDS, would also influence such a decision.

A study of people's attitudes towards VCT in South Africa found that many of the obstacles relate to peoples' attitudes and beliefs that negatively impact on their willingness to go for testing (Dyk and Dyk, 2003b). Obstacles include fear of breach of confidentiality, social exclusion, fear of disclosing HIV positive status, inability to handle the stress caused by HIV-positive test results, and lack of incentives for knowing one's HIV status. Similarly, a study among sexually active adolescents in Massachusetts found that beliefs about their vulnerability and severity of HIV/AIDS motivated them to seek HIV testing (Samet *et al.* 1997). These findings provide evidence of the applicability of most of the key variables for predicting and explaining health related behaviours, which are found in the health belief model.

However, the HBM has certain limitations. It places too much emphasis on abstract conceptual beliefs (Leventhal *et al.* 1980 in Niven, 1989). At the same time, combining the health predictors interactively may be more fruitful than simply adding them up (Wallston and Wallston, 1984 in Niven, 1989). Most of the research based on HBM to date has incorporated only selected components of the HBM, thereby not testing the usefulness of the model as a whole (Family Health International, 2003a) The HBM also ignores the fact the environment and social factors such as peer pressure also influence behaviour change.

2.5. 2 Theory of Reasoned Action (TRA)

The Theory of Reasoned Action (TRA) assumes that human beings think logically, they consider the consequences of their actions and make systematic use of available information (Ajzen and Fishbein, 1980). The theory postulates that behaviour is

determined by an individual's attitudes towards certain behaviour and social influence (King, 1999; Ross and Devereil, 2004). Social influence or subjective norms refers to individuals' perception of what others may think of their action (Ross and Devereil, 2004). For instance, a study in Ethiopia established that students were labeled potential victims of HIV/AIDS if they took the initiative to undergo VCT (Dejene, 2001).

The TRA lays particular emphasis on the personal intention of the individual to determine whether behaviour change will occur (King, 1999). The shorter the time span between the formation of the intention and the behaviour, the stronger the predictive value (Ross and Devereil, 2004). The theory suggests that individuals consider the implications of their actions and that most actions are consciously controlled (Ross and Devereil, 2004). By determining and influencing intention, behaviour becomes relatively easy to predict and manipulate (Ajzen and Fishbein, 1980)

The main strength of TRA is that it accounts for the variables that can intervene between an attitude and its corresponding behaviour to change the direction of the person's actual behaviour (Ross and Devereil, 2004:16). However, the theory is criticized for its individualistic approach and failure to consider the role of environmental and structural issues and the linearity of the theory components (Kippax and Crawford, 1993, in Family Health International, 2003a). Individuals may first change their behaviour and then their attitudes about it; for example, studies on the impact of seatbelt laws in the United States revealed that people often changed their negative attitudes about the use of seatbelts as they grew accustomed to the new behaviour (Family Health International, 2003a).

The assumption of TRA that individuals are rational in decision making is also criticized as not entirely accurate in relation to HIV/AIDS because AIDS-related behaviours are heavily influenced by emotion, originating from both the individual and the society at large (Michael-Johnson and Bowen, 1992 in Ross and Devereil, 2004).

2.5.3 The Social Inoculation Model (SIM) NB ✓

The Social Inoculation Model (SIM) or Social Influence Model argues that young people's behaviour, including early sexual activity, is partly determined by general societal influence, but more specifically by peer influence (Howard and Mc Cabe, 1990 in King, 1999). This model argues that society exposes young people to social pressures and that

young people often rely on role models such as teenagers slightly older than them for factual information and skills to solve problems (King, 1999).

The key strength of this model is that it recognizes the fact that peer influence plays an important role in the influencing health behaviour. It is particularly important to consider peer influence when working with adolescents on HIV/AIDS issues (Family Health International, 2003a). Research evidence from studies conducted in Eastern and Southern Africa shows that among young people, peers are an important source of information on sexuality (Nduati and Kiai, 1997). Considering that many young people do not know where they can access VCT services (UNICEF, 2002) peers are important sources of information for identifying HIV testing services (Horizons, 2001). Thus social and peer influence plays an important role among the youth in making decisions on whether to undergo VCT.

The limitation of SIM is that it overemphasizes the role of peer pressure and ignores the fact that individual attitude and intentions also influence behaviour. SIM therefore can be criticized of assuming that individuals are passive and that their behaviour is only influenced by factors outside their control.

2.5.4 The Merged Factor Model (MFM)

The Health Belief Model (HBM), Theory of Reasoned Action (TRA) and Social Inoculation Model (SIM) provide reasonable explanations of how behaviour change occurs (Family health International, 2003a). However, when looked at separately they do not capture all the elements necessary for behavior change in the context of HIV/AIDS. Consequently, this study proposes the *Merged Factor Model* (MFM) for a better understanding of how behaviour change occurs. The MFM sees behaviour change as a complex phenomena and a product of a multitude of factors. It recognizes the strengths of the variables identified in HBM, TRA, and SIM and combines these to explain how behaviour change occurs. In addition, the merged factor model includes the influence of other factors that have not been identified in HBM, TRA and SIM, such as the community and societal contexts, and the influence of partners in intimate relationships. The MFM argues that the multiple factors act interactively to influence behaviour change.

Community and social contexts impact on HIV related behaviour in several ways. For instance, a UNAIDS report linked high incidence of HIV among commercial sex workers

to poverty, gender inequality and other forms of social marginalization (UNAIDS, 2000 in Campbell and Cornish, 2003). The UNAIDS report established that commercial sex workers lack the economic power to negotiate condom use with male clients. The relative economic advantage of clients, compared to commercial sex workers, enables clients to enforce a preference for unprotected sex, irrespective of the preference of the commercial sex workers. Thus commercial sex workers often have little control over their health in high-risk situations (Campbell and Cornish, 2003). This provides an example of how community and social contexts influence behaviour.

The MFM also emphasizes that partners or spouses in intimate relationships have a considerable influence on each other's health related behaviour. The increasing popularity of couple counselling among young people prior to marriage in South Africa (Dyk, 2002), Tanzania (Maman, Mbwambi, Hogan, Kilonzo, and Sweat, 2001) and Uganda (Boswell and Baggaley, 2002) provides evidence of the influence of intimate partners on each other, which could impact on behaviour change.

The variables of the MFM interact in complex ways to influence behaviour change. For instance, although condom use may in some cases be viewed as socially unacceptable, partners in intimate relationships can influence each other's views and decisions about using them. Similarly, although individuals may desire to practice safe sex due to experience of a close family member die of AIDS, peer pressure can influence them to engage in sex with multiple partners without using condoms.

2.6 Conclusion

The main goal of VCT lies in its perceived role in promoting behaviour change in order to reduce the risk of HIV infection. However, whether VCT leads to behaviour change has been highly contested. This is because research on the effectiveness of VCT to behaviour change has shown mixed results.

Despite the debate and mixed evidence on the efficacy of VCT and behaviour change, many countries have embraced and included VCT in their HIV/AIDS intervention strategies. Two main reasons have influenced this decision: the existing positive evidence that VCT is a cost-effective HIV/AIDS prevention intervention, and that it leads to behaviour change. The challenge, however, is that certain factors influence the uptake of VCT. These factors generally relate to people's perceptions of VCT. On the one hand,

factors that motivate people, and the youth in particular to seek VCT services include: desire to know one's HIV status, plans for long-term relationships, and social and peer influence. On the other hand, barriers to VCT uptake include: inaccurate risk perception, doubts of the existence of HIV, stigma, perceived lack of confidentiality, fatalistic attitude to HIV testing, age of consent to HIV testing, cost and availability of VCT services, and waiting time for HIV- test results. It is important to understand the nature and magnitude of these factors in order to develop appropriate interventions to help increase the uptake of VCT and consequently facilitate safe sexual behaviour among young people.

Understanding what influences behaviour change is of critical concern for HIV/AIDS prevention strategies like VCT. Consequently, behaviour change strategies in the context of HIV/AIDS are generally based on psychological theories. Three of these theories: the Health Belief Model, Theory of Reasoned Action and Social Inoculation Model have been examined, highlighting their application to behaviour change, their strengths and limitations. Because of the limitations of these theories, the Merged Factor Model, which introduces new variables while integrating the strengths of the other theories, has been proposed. The underlying importance of the theories discussed is that they highlight possible influences to behaviour change and the uptake of VCT. Chapter three discusses the methods used in this study.

CHAPTER THREE RESEARCH METHODS

3.1 Context of the study

The province of KwaZulu-Natal (KZN) is located in the Eastern seaboard of the South African coast. According to year 2001 census, KZN has the highest population compared to other provinces in South Africa, with 9.4 million people (Statistics South Africa, 2003). The census report further indicates that of the 9.4 million people, 5 million are female and 4.4 million are male. The population composition by race is 84.9% African, 1.5% Coloured, 8.5% Indian, and 5.1% White (ibid). The total fertility rate in KZN is 3.3 and contraceptive use prevalence is below 60% (Department of Health, 2002). In South Africa, KZN is the worst affected province by the HIV epidemic, with a prevalence of 37.5% amongst women attending antenatal clinics (Makubalo *et al.* 2003). Some of the factors that have been known to contribute to high incidence of HIV in the province include poverty and multiple sexual partner practice (Whiteside, 2000).

The high incidence of HIV in the province points to the potential impact of the epidemic among young people in schools, colleges and universities. This study was thus conducted at the University of KwaZulu-Natal (UKZN), the largest tertiary institution in the province. The university has a student population of 39 242 (University of KwaZulu-Natal, 2004). The study focused on Howard College Campus, the largest of UKZN campuses. It was considered critical to understand university students' perceptions towards VCT; one of the key HIV/AIDS interventions aimed at behaviour change to curb HIV infection.

3.2 Research design

An exploratory research design was used to identify the key factors that facilitate or hinder the uptake of VCT, and to establish if, and to what extent students at Howard College campus of UKZN are at risk of HIV infection. Arkava and Lane (1983) posit that an exploratory research design is used when a poorly defined problem confronts the researcher, or when he possesses little objective information about the nature of the problem and possible factors influencing it. An exploratory research design was used because it would objectively describe the problem.

3.3 Sampling procedure

A non-probability purposive sample of 200 students aged 18-24 years was selected among students at the Howard college campus of the University of KwaZulu-Natal (UKZN). Students aged 18-24 years were selected primarily because they fall within the

age group that has been identified as most vulnerable to HIV infection. In addition, over 60% of UKZN student population falls within the same age group (UKZN, 2004). The Howard college campus was purposely selected for this study because out of the entire UKZN student population of 39 242, it has the highest number (43%) compared to other campuses: Westville has 30.9%, Pietermaritzburg 16.7%, Edgewood, 4.7% and Medical school 4.5% (UKZN, 2004).

X A non-probability purposive sampling method was used because it would have been difficult to obtain a representative number of participants who would be willing to take part in the study. Indeed, much of research in the behavioural sciences uses non-probability sampling methods (Cozby, 1998). Furthermore, purposive sampling is suitable for studies that target a specific pre-defined group, where sampling for proportionality (de Vaus, 2002; Trochim, 2002) and statistical inference (Schonlau, Fricker and Elliot, 2001) is not the main concern. Nevertheless, the selected sample largely reflects basic proportional representation of Howard College campus student population size by race and gender.

X The advantage of purposive sampling is that it is cheaper (de Vaus, 2002) and facilitates reaching the target sample quickly (Schonlau *et al.* 2001). With purposive sampling method, one is likely to get the opinions of the target population (Trochim, 2002). On the other hand, the main limitation of the method is that it is not possible generalize the results to the entire population (Babbie and Mouton, 2001; de Vaus, 2002). However, the primary concern of this study is not to generalise, but to explore. According to De Vos, (1996), an exploratory study seeks to establish facts, gather new data and determine whether there are interesting patterns in the data. Thus in this study, the representativeness of the sample is less important.

3.4 Data collection

The study used a survey questionnaire composed of open and closed-ended questions (See appendix B). The researcher personally contacted the participants verbally and administered the survey questionnaires between July and September 2004. The participants were contacted mainly outside the main library and in the gardens within the Howard College campus.

The questionnaire was divided into four sections. Section A was made up of questions about participants' biographic information such as sex, age, race and marital status. Questions in Section A were aimed at obtaining information to describe the population sample in order to place the data in context. Section B was composed of questions relating to knowledge and awareness of VCT, and the benefits of HIV testing. Section C comprised questions concerning participants' views about VCT. This section had three main aims. The first was to ascertain if and why participants had undergone or not undergone VCT. The second aim was to examine the opinions of the respondents about VCT services with a particular focus on the campus clinic. The third was to establish if and why some respondents preferred to undergo VCT at centres other than the campus clinic. The final section comprised of questions relating to sexual behaviour. The aim was to establish if, and to what extent the participants are at risk of HIV infection.

The survey questionnaires were self-administered because the participants were highly literate people. Moreover, the research dealt with sensitive and personal issues such as whether participants had been tested for HIV and their sexual behaviour. According to Mbugua (2004), most people have difficulties discussing certain issues such as sex because of cultural barriers or fear of incriminating themselves, thus the study took this fact into consideration. In addition, a self-administered questionnaire gives 'distance' between the interviewee and the interviewer, thereby reducing the formers' need to conceal any incriminating behaviour (Mbugua, 2004:106). Consequently, self-administered questionnaires encourage respondents to accurately report personal information (Arlene and Kosecoff, 1998). Another advantage of using self-administered survey questionnaire is that the researcher was present when conducting the survey and any questions asked by the respondents regarding research were clarified.

On the other hand, the disadvantage of self-administered questionnaires is that they require significant time and effort to develop and the researcher is not able to control the order in which questions are answered (Arlene and Kosecoff, 1998). At the same time, the participants are able to consult with each other, which could influence their responses. Similarly, the presence of the researcher may affect the participants' responses. The decision to use self-administered questionnaires was taken after weighing its overall advantages over disadvantages.

3.5 Pilot testing

The questionnaire was pilot-tested with a sample of 10 students in the age-group 18-24 years prior to administration. The aim of a pilot-test was to ensure that respondents understand the intended meaning of the questions and that their answers are coherent (de Vaus, 2002). In addition, pilot testing helps detect for errors such as ambiguous questions and is crucial in cases where more than one cultural group is included in the study (Babbie and Mouton, 2001). After a review of the responses to the pilot test questionnaire, it was clear that some participants misinterpreted a few questions. These questions were revised accordingly. In addition, the comments of participants in a space provided at the end of the pilot test questionnaire were taken into account. The pilot-test in this study helped improve and revise the questionnaire.

3.6 Research protocol and ethical issues

de Vaus (2002) stresses the importance of three ethical considerations in conducting surveys, namely: voluntary participation, informed consent and confidentiality. Voluntary participation requires the researcher to respect the right of individuals to agree or refuse to participate in research (de Vaus, 2002; Terre and Durrheim, 1999). It also includes the right of participants to refuse to answer any questions they find intrusive. The researcher explicitly informed the respondents that participation was voluntary before they completed the questionnaires. None of the participants was pressurized to take part in the survey and the researcher thanked those who did not wish to participate.

The principle of informed consent requires that participants be informed about a range of matters relating to the survey including the purpose of the study, how respondents were selected, identity of the researcher, and how the information obtained would be made available (de Vaus, 2002). The researcher briefed the participants on these issues prior to completing the questionnaires. In addition, an explicit covering letter was included in the questionnaires and participants were requested to read it and ask for clarification if necessary.

The researcher was extremely cognisant of the need for confidentiality in this study. In a confidential survey, the researcher may know the identity of individual respondents but guarantees that no identifying information will be revealed to any one else (de Vaus, 2002). In order to ensure confidentiality, the respondents were not required to write their

names on the questionnaires. They were assured that their responses would be treated with strict confidentiality and that their names would not be recorded anywhere. Therefore, when analysing the data, code numbers were written on the questionnaires to identify individual participants' responses to ensure confidentiality.

Prior to proceeding with the study, the researcher requested for ethical approval from the School of Development Studies (SODS) and a letter of ethical clearance was issued. The primary purpose of the ethics clearance process is to review the ethical acceptability of research proposals (Nuffield Council on bioethics, 2002)

3.7 Data Analysis

The survey questionnaire used in this study consisted of both open and closed-ended questions. Consequently, both qualitative and quantitative data were obtained. The data was analysed using an integrated qualitative and quantitative analysis. Since no single research method can tap all the dimensions of a complex research problem, it is often valuable to combine methods drawing conclusions from a mixture of the results (Ulin, Robinson, Tolley, and McNeil, 2002). The integration of the two methods has been supported, building on their complementary strengths (Bernard, 1994; Nau and Douglas, 1995; Ulin *et al.* 2002). White (2000) stresses that linking of the two approaches increases the validity and usefulness of findings in research. In addition, the combination of the two methods can be used to increase the explanatory power of research findings (Ulin *et al.* 2002:163).

Data derived from closed-ended questions was analysed using SPSS - statistical software for analysing quantitative data. This analysis provided results such as the percentage of the participants reporting that they had undergone VCT. Frequency tables and percentages were used to show variations between responses. The advantage of using SPSS is that it can compute a very large amount of data quickly.

Responses to the open-ended questions were analysed using thematic analysis. Thematic analysis is qualitative analysis, which involves sorting information into themes (Hayes, 2000:173). Themes, according to Hayes (2000) are the recurrent ideas or topics, which can be detected in the material being analysed and which come up on more than one occasion in a particular set of data. To facilitate thematic analysis, first the answers to the open ended questions were typed verbatim in a single *MS word* document. With all

the text in one document, the researcher was able to read the data several times and to identify the recurrent themes. The emerging themes were then categorized and analysed.

The advantage of thematic analysis is that it is a useful method of exploring the depth of qualitative data; however, it is a rigorous and demanding process (Hayes, 2000). Thematic analysis complemented the use of SPSS and enabled the researcher to explain the meaning of the quantitative data.

3.8 Limitations of the study

The main limitation of this study is that it comprised of a small sample of students at Howard College campus, which may not be regarded as wholly accurate representation of UKZN student population. The Howard college campus was chosen because of accessibility and reducing costs of conducting the research, considering that the study was self-sponsored. Another limitation of the study is that the use of questionnaires did not allow for probing and in-depth description of participants' opinions about VCT services. However, the use of the questionnaire enabled the researcher to reach a wide range of students, in the process collecting a variety of views.

3.9 Conclusion

The high prevalence of HIV/AIDS in KZN and its potential impact on student populations motivated the researcher to conduct this study at Howard College Campus of the University of KwaZulu-Natal. The study adopted an exploratory research design, with a view to objectively describing the factors influencing students' uptake of VCT and their sexual behaviour. A survey questionnaire composed of open and closed-ended questions was used to elicit participants' responses. Consequently, an integrated qualitative and quantitative method was used to analyse the data in order to derive the benefits of both approaches.

A non-probability purposive sampling method was used primarily because of two main reasons. First, the study targeted a pre-defined age group that has been identified as highly vulnerable to HIV infection. Second, because of the sensitive nature of the study, it would have been difficult to obtain a representative number of participants willing to take part in the study. In order to encourage accurate responses, a self-administered questionnaire was used. The questionnaire was pilot-tested and revised prior

administration. Ethical issues in conducting surveys, such as voluntary participation, informed consent and confidentiality were taken into consideration. In addition, a letter of ethical clearance was issued prior to proceeding with the study. The next chapter presents and discusses the findings of the study.

CHAPTER FOUR RESULTS AND DISCUSSION

4.1 Introduction

The aim of the results and discussion presented in this chapter is to examine what facilitates or hinders the uptake of VCT among students and to establish if, and to what extent students are at risk of HIV infection. The quantitative and qualitative findings are presented and discussed simultaneously, where possible examining the links between the two. The chapter begins by presenting the socio-demographic characteristics of the sample. This is followed by an examination of the participants' knowledge and awareness about VCT. Third, the participants' attendance of VCT is examined. This examination highlights the differences in participants' attendance at various VCT centres. The participants' opinions about VCT, with a particular focus on the services at the Howard College campus health clinic are discussed. Fourth, the key factors that motivate or hinder VCT uptake among students are examined. Finally, a brief examination of sexual behaviour of the participants is presented focusing on the extent to which they are at risk of HIV infection.

4.2 Description of the sample

The participants in this study were students at the Howard College Campus of the University of KwaZulu-Natal (UKZN) aged 18-24 years, with a mean age of 20 years. The composition of the sample by race and sex roughly reflects the student population distribution at the Howard College campus. Of the 200 students, 45% were males and 55% were females. The distribution by race was as follows: African 45%, Indian 36%, White 16%, and Coloured 3%. A minority of the sample (0.5 %) was married and 0.5% was living with their sexual partners, while 1% was separated. The majority (98%) were never married. Of the total sample, 27% were resident on campus while 73% were

residing off-campus. The socio-demographic characteristics of the sample are summarized in Table 1.

Table 1: Socio-demographic characteristics of the sample

Characteristics	Respondents (n=200)
1. Age (in years)	
Mean	20
Range	18 – 24
	%
2. Sex	
Male	45
Female	55
3. Race	
African/Black	45
White	16
Coloured	3
Indian	36
4. Marital status	
Married	0.5
Living together with partner	0.5
Never married	98
Separated	1
5. Residence	
Resident on campus	27
Residents off-campus	73

4.3 Knowledge and awareness of VCT

A number of structured questions were asked to explore participants' knowledge and awareness of VCT. These included questions such as if they had heard of VCT, from whom they first learnt about it, the centres that they knew provided VCT services and if they knew that VCT services were available to students at the campus health clinic.

Awareness of VCT by socio-demographic characteristics

About half of the 200 respondents (53%) indicated that they had ever heard about VCT. There were no major differences in awareness levels by sex and age. Of all 70 participants aged less than 20 years, 55% had ever heard of VCT compared to 53% of

the 170 participants aged 20 years and above. Of all females, 57% had ever heard of VCT compared to 47% of all the males.

There were marked disparities in awareness levels between students residing on campus and those residing off campus. Out of the 54 participants residing on campus, 42 (78%) had ever heard about VCT while 65 (45%) of the 146 students residing off campus had heard about it. There were also big disparities in awareness levels between the races with 83%, 74%, 44%, and 29%, of the Coloured, African, White and Indian respectively reporting that they had ever heard of VCT. Awareness levels are therefore comparatively lower among the White and Indian participants. A possible explanation for these disparities is that HIV awareness activities including VCT on campus are usually conducted within the campus residences. The Centre for HIV/AIDS Networking (HIVAN) regularly conducts HIV awareness activities on campus organized by resident assistants and HIVAN peer educators. The comparatively low level of awareness among the Indian and white students could be linked to the fact that all reported that they were residing off-campus.

Sources of VCT information

The 107 participants who reported that they had ever heard about VCT indicated that they learnt about it from diverse sources as illustrated in Table 2. A majority of the 107 respondents (28%) indicated that they first heard about it from their friends. This finding agrees with earlier studies suggesting that peers are an important source of information for identifying HIV testing services (Horizons, 2001).

At the same time, a relatively high percentage of 24% (as illustrated in Table 2) indicated that they had first learnt about VCT from the media. This implies that the media is an important tool of disseminating VCT information among the youth. The used advertisements on radio and television about VCT by the department of health and organizations such as *lovelife* are likely to be reaching a wide audience among the youth. Similarly, a large number of participants (22%) learnt about VCT during orientation at the university. This is probably attributed to the HIV awareness activities during orientation week when new students join the university. Indeed, this is supported by the increase in VCT uptake by 106% during the first quarter of 2003, compared to the same period in

2002 (University of Natal, 2003). This was as result of the integration of HIV/AIDS awareness in all the first year orientation programmes since the beginning of 2003.

Also interesting to note is that 15% of the 107, who had ever heard about VCT, indicated that they first heard about it from HIV peer educators. This underscores the importance of HIV awareness activities on campus facilitated by peer educators. Out of the 16 respondents who indicated that they first learnt about VCT from peer educators, 14 (88%) were resident on campus.

Only 6% of the 107 participants who had ever heard about VCT first learnt about it from a doctor. A smaller minority of 2% had first heard about VCT from parents. This may reflect the cultural barriers of communication between parents and young people regarding certain issues. Langhaugh *et al.* (2003) argues that in many societies parents do not discuss issues related to sex with their children. Discussing VCT with young people in many cases would be tantamount to acknowledging that they are engaging in sexual activity, which is considered a taboo in many societies. For instance, a study in Uganda found that parents were not supportive of young people testing for HIV because it was seen as a sign of being sexually active (Horizons, 2001).

Table 2: First source of information about VCT

First source of VCT information	n =107	%
Friends	30	28
Parents	2	2
HIV Peer educator	16	15
Doctor/nurse	6	6
Media	26	24
Orientation at university	24	22
Other	3	3

Awareness about centres providing VCT

Those participants who had heard about VCT were asked to select from a list the centres that they knew provided VCT services. A summary of the responses is presented in Table 3. The most frequently selected VCT services provider was the campus clinic at 43%. This means that the majority (97) of the 107 participants who had heard about VCT are

aware that UKZN campus clinics provide the service. However, 2 of the 97 participants who knew that the campus clinic provides VCT indicated that they did not know if the services are available to students. This finding perhaps might explain to some extent why some of the participants had attended VCT at other centres other than the campus clinic. Similarly, a large number (25%) of those who have ever heard about VCT are aware that government hospitals provide the service. This could be attributed to the increased advertisement of VCT in the media by the department of health.

Table 3: Knowledge of where VCT services are provided

Service provider	Number of responses (n=228)	%
Private hospital	28	12
Family planning clinics	45	20
Government hospitals	58	25
UKZN clinics	97	43

Note to the table: individuals were allowed to select multiple responses.

4.4 HIV testing

Of the 200 participants, 58 (29%) indicated that they had taken an HIV test. The number of participants who had ever had an HIV test largely corresponds with VCT awareness levels by demographic characteristics. There were no major disparities by age and sex in the number of participants who had ever taken an HIV test. However, there were remarkably lower numbers of White (28%) and Indian (15%) participants who had taken an HIV test compared to Coloured (68%) and African (38%). At the same time, 35% of the participants resident on campus compared to 26% of those residing off-campus had taken an HIV test. Therefore, it seems there is an important relationship between VCT awareness levels and HIV testing. The higher the awareness level, the more likely participants are to present for HIV testing.

Moreover, it is important to note that the majority (71%) of the participants do not know their HIV status. Consequently, if there are HIV positive people in this group who are currently involved in unprotected sex, then they are unknowingly exposing themselves and their partners to infection. The magnitude of this problem is illustrated by the fact that 50% of the 18 participants who reported being involved with multiple sexual partners and

not using condoms consistently also reported that they have not been tested for HIV and have never heard about VCT.

4.5 VCT attendance

Of the 200 participants, 27 reported that they had undergone VCT. Like HIV testing, the pattern of VCT attendance by demographic characteristics mostly corresponds with the participants' awareness levels. However, an interesting finding was that 74% of the participants aged 20 and above had undergone VCT compared to 24% of those aged less than 20 years. Perhaps an explanation for this is that the older participants also reported feeling more at risk of infection compared to the younger ones (as illustrated Table 8).

There were no disparities in VCT attendance by sex. Of all the male and female participants, an almost equal proportion of 13% of both had undergone VCT. On the other hand, there were remarkable differences in VCT attendance by race with 33%, 21%, 13%, and 3% of the Coloured, African, White and Indian participants respectively reporting that they had undergone VCT. There was a particularly low VCT attendance among the Indian participants, which is understandable because the majority of them indicated that they are not sexually active and therefore they found no need to attend VCT. Similarly, of the 54 participants residing on campus, 22% had undergone VCT while 10% of the 146 residing off campus had attended VCT. Thus it seems that participants resident on campus are more likely to undergo VCT than those residing off campus. This trend could also be attributed to HIV awareness activities on campus, which are usually conducted within the residences.

Services received at VCT centres

Out of the 58 participants who reported that they had ever had an HIV test, 31 did not go through the VCT process. This can be explained by the fact that some of the respondents indicated that they had an HIV test while donating blood, or as a mandatory procedure, for instance in order to obtain life insurance cover. Thus it seems that under certain circumstances HIV testing is not accompanied by counselling.

The participants who had undergone VCT were asked to indicate from a list the services they had received. It emerged from their responses that not all received pre-test and post-test counselling services, which ordinarily are basic services provided to VCT attendees.

Table 4 presents a summary of services received by those who indicated that they had undergone VCT.

Table 4: Services received at VCT centres

Service received	Number of responses (N = 68)	%
Pre-test counseling	23	33
Post-test counseling	17	25
HIV test	27	39
Referral	2	3

Note to the table: Individuals were allowed to select multiple responses.

VCT attendance at campus health clinic and other centres

There were marked differences in VCT attendance at various centres. The majority (63%) attended VCT at the campus health clinic. This was followed by private hospitals, government hospitals and youth centres at 26%, 7% and 4% respectively as illustrated in Table 5. The disparities in VCT attendance at various centres imply that participants have diverse opinions about the various centres, which influence their choices. This analysis will focus more on opinions about VCT services at the campus clinic.

Table 5: VCT attendance at different centres

VCT centre	No. of VCT attendees (n=27)	%
UKZN campus health clinic	17	63
Private hospitals	7	26
Youth centres	1	4
Government hospitals	2	7

VCT attendance at the campus clinic

The 17 participants, who attended VCT at the campus clinic, were asked to give their opinions about the service by answering statements presented in a four-item Likert scale. These items were reduced to two broad categories of 'agree' and 'disagree' for ease of analysis. Table 6 illustrates a summary of the positive responses.

The opinions of participants summarized in Table 6 will be discussed under four broad themes namely: interpersonal relations or personal dimensions, confidentiality of services, information given to clients and technical competence of providers. These themes constitute important aspects of the quality of care of family planning services and have been adopted from Bruce (1990). The themes have been adjusted to suit the context of this study.

Interpersonal relations refer to the personal dimensions of the service. This includes relationship between service providers and clients. It is evident as illustrated in Table 6 that a clear majority of clients (about 90%) agreed that the staff were friendly and helpful. It appears that in the view of VCT attendees at the campus clinic, the interpersonal relations were good, and they felt that they were treated in a friendly manner.

Confidentiality is emphasized as a crucial element in the definition of VCT (Horizons, 2001; WHO, 1994). Like interpersonal relations, a clear majority (94%) of the participants in the present study who had undergone VCT agreed that staff at the campus clinic made every effort to ensure their privacy.

The third theme evident in the opinions of the participants is that of information sharing. About 90% of respondents agreed that they were given an opportunity to ask questions and that staff were helpful in providing information. This implies that service providers at the clinic spent enough time with the clients, providing them with sufficient information to enable them make informed choices regarding whether to undergo VCT.

Technical competence involves factors such as the knowledge of service providers. Of all the 17 clients who attended VCT at the clinic, 94% reported that all their questions were answered to their satisfaction as illustrated in Table 6. This implies that in the opinion of most clients, service providers were knowledgeable and thus provided them with accurate information.

Generally, it is evident as illustrated in Table 6 that a clear majority of about 90% of VCT attendees at the campus clinic felt that the services were friendly, confidential and

informative. In addition, 94% of the participants indicated that they would recommend the VCT services at the campus clinic to someone else and 88% indicated that all their expectations were met. This illustrates that the experiences of those who attended VCT services at the clinic were good, hence their positive opinions.

Table 6: VCT attendants' opinions about services at the Campus clinic

No.	STATEMENT	(n=17) % Agreed
a)	Staff at the clinic were friendly.	88%
b)	Staff made every effort to ensure my privacy.	94%
c)	Staff gave me the opportunity to ask questions about issues that I thought were important.	94%
d)	Staff were helpful in providing information.	88%
e)	I was provided with all the information I wanted during the consultation.	88%
f)	There was sufficient time for me to ask questions.	94%
g)	The counsellor answered all my questions to my satisfaction.	94%
h)	I would recommend the VCT services at the campus clinic to someone else.	94%
i)	All my expectations of VCT service delivery were met.	88%

In addition to answering the closed-ended statements above, participants were asked to describe what they liked about the VCT services at the clinic. Generally, their responses to this question were in agreement with the responses illustrated in Table 6. Most of the participants observed that the services are private, informative, cheap, and convenient and that they liked the services because the HIV test results do not take long. A common response was that staff at the clinic were friendly and supportive and that the participants were given time to ask questions as illustrated by the following responses:

I like the lady who was checking my status. She is so nice and friendly. She explained every question I asked perfectly.

(Female)

It is private and they take time to explain everything

(Male)

On the other hand, when asked to describe what participants did not like about VCT services at the clinic, there were some contradictory responses. A few of the participants indicated that the service is not confidential particularly when making an appointment. Concerns were raised that people at the waiting room could tell when one is making an appointment. Others felt that fellow students might see them and stigmatise them, while some expressed concern that staff were not friendly, and that it took long to secure an appointment. Consider some of the following responses:

To make the appointment was not confidential at all. People in the waiting room could tell that I was enquiring about VCT and I had to wait for a long time to secure an appointment.

(Female)

The nurse was not friendly.

(Female)

Fellow students could see me and stigmatise me.

(Male)

I was told to come after two days because they were fully booked.

(Female)

Generally, most of the participants who received VCT services at the clinic felt that there was nothing that they did not like about the service. In response to what they thought should be improved, most said that there was nothing. However a few observed that more VCT staff are required and that nurses should be trained to be friendly with the clients. These findings verify the quantitative responses (as illustrated in Table 6), that only a few were not satisfied with the VCT services at the campus clinic.

VCT attendance at other centres

As illustrated in Table 5, ten of those who had undergone VCT had received the services at government hospitals, youth centres and private hospitals. One of the two participants who attended VCT at a government hospital indicated that he did so as a mandatory

procedure, as required by the South African National Defence Force. This was before he joined the university. Therefore attending VCT at a government hospital was not a matter of preference for him. The other participant who attended VCT at a government hospital did so after his appointment at the campus clinic was re-scheduled. The participant who attended VCT at a youth center said he chose the site because it was convenient and near his residence. The majority of those who attended VCT at private hospitals indicated that they felt that private hospitals were more confidential compared to the campus clinic.

4.6 Factors influencing the uptake of VCT

Having examined the knowledge, awareness, experiences and opinions of participants about VCT, it is evident that the common themes emerging can be used to explain what motivates or discourages young people and in particular university students at UKZN from the uptake of VCT. The themes are evident in the responses to both closed and open-end questions. These themes will be examined in two broad categories - those that facilitate and those that inhibit the uptake of VCT.

4.6.1 Factors facilitating the uptake of VCT

In a closed-ended question, participants were asked to indicate why they attended VCT. Table 7 illustrates a summary of their responses. The factors facilitating the uptake of VCT will be discussed in the light of the key responses illustrated here as well as responses to other closed and open-ended questions.

Table 7: Reasons for attending VCT

Why did you go for VCT?	Number of Responses (n=64)	%
Desires to know HIV status	21	33
Involvement with multiple sex partners	2	3
Plans to a committed relationship	8	12
Influenced by friends	7	11
Close relative or friend died of AIDS	3	5
Media and promotional activity influence	2	3
Suspicion that partner/spouse is unfaithful	3	5
Felt at risk of HIV infection	9	14
Plans to have a baby	1	1
Advised by doctor/nurse	3	5
HIV peer educator influence	3	5
Other	2	3

Note to the table: Participants were allowed to select one or multiple responses

Desire to know one's HIV status

The desire to know one's HIV status was the most commonly cited reason for attending VCT (33%) as illustrated in Table 7 above. Furthermore, the majority of participants indicated that knowing their HIV status was beneficial. The majority of participants indicated that knowledge of HIV status enabled people to seek medical care and treatment, and follow a healthy diet if the test is HIV positive. They repeatedly mentioned that if one knows that they are HIV positive, they could get antiretroviral treatment, and prolong their life span. Also emphasized in their responses was that knowledge of HIV status enabled an HIV positive person to take precautions to avoid re-infection and infecting partners while it motivates HIV negative people to ensure that they maintain their negative HIV status by practising safe sex. Below are some illustrative quotations extracted verbatim from the participants' responses.

...if positive, you will be able to start treatment early, ensuring a longer life.

(Male)

If you are diagnosed as HIV positive, it prevents you from infecting others with the disease.
(Female)

If you are HIV negative and you know, then you can practice safe sex. If HIV positive, you can get treatment, change your lifestyle; practice safe sex.
(Female)

Overall, it was evident that most of the respondents felt that the benefits of knowing one's HIV status outweigh the disadvantages. A common response to what the participants thought was the disadvantage of knowing one's HIV status was 'There are no disadvantages, only advantages'. The findings in this study are in keeping with the evidence of previous studies in Uganda (Alwano-Edyegu and Marum, 1999) and Ethiopia (Dejene, 2001) showing that young people desire to know their HIV status, even when they feel healthy. Nevertheless, the desire to know one's HIV status does not always translate into action of seeking and utilizing VCT services. For instance, a study conducted in Zambia found that of those stating that they wanted to be tested for HIV; only 9% actually came forward to be tested (Fylkesnes *et al.* 1999 in Solomon, 2004: 14)

On the other hand it also emerged from the present study that 49% of the 142 participants who did not know their HIV status were not willing to undergo VCT. The majority of these participants reported never having had sexual intercourse, or not being sexually active. Most of these participants indicated that they did not find the need to establish their HIV status because they did not feel at risk. Although this finding contradicts those of the studies in Uganda (Alwano-Edyegu and Marum, 1999) and Ethiopia (Dejene, 2001), it concurs with the prediction of the Health Belief Model that health behaviour can be predicted by an individual's perceived vulnerability to disease (Ross and Deverell, 2004). Similarly, the relatively high number of responses (14%) citing feeling at risk of HIV infection as the reason for undergoing VCT (as illustrated in Table 7) further confirms the prediction of the Health Belief Model.

Peer influence

Participants also commonly cited influence by friends (11%) and peer educators (5%) as the reason they had undergone VCT. This finding underscores the importance of peers as a source of information for young people. One male participant observed, 'I did it to convince my friend to go for VCT'. In addition, it seems that HIV awareness activities conducted on campus by peer educators of the Centre for HIV/AIDS Networking (HIVAN)

have significant influence on VCT uptake. The HIVAN peer educators conduct HIV awareness activities regularly on campus, covering issues such as VCT, condom use and abstinence.

The importance of the role of friends in making the decisions for HIV testing and disclosure was also emphasized in a study conducted in Tanzania (Maman *et al.* 2001). Similarly, research among young people in Kenya and Uganda established that peers were the primary source of VCT information and that many of the young people had recommended an HIV test to someone (Horizons, 2001). Likewise, awareness promotion activities by peer educators were found to encourage VCT uptake among the youth in Zambia (Obarzaucher and Baggaley, 2002).

The findings of the present study also concur with the Social Inoculation Model, which argues that peer influence plays an important role in influencing health behaviour (King, 1999). It seems that peer pressure plays an important role among young people in making decisions about undergoing VCT. However, it must also be noted that peer pressure in some cases might discourage young people from seeking VCT due to negative attitudes about HIV testing, as evident in the case of young people in Ethiopia (Dejene, 2001). Below is a illustrate quotation extracted verbatim from a participant in the present study responding to the question why he had not undergone VCT.

It is because of peer pressure, my friends have not gone for VCT. Thus if they go, I might end up with no alternative but to go.
(Male)

It is also evident from the above quote that some participants have little control about decisions on whether to undergo VCT or not. This concurs with the argument of the Merged Factor Model that the community and social context plays an important role in influencing individual behaviour. In the case of the male participant, the decision to attend VCT is not an individual matter. It is determined by whether his colleagues will undergo VCT.

Future planning and commitment in long-term relationships

Participants also commonly cited plans to commence a committed relationship (12%) as the reason why they attended VCT. In addition, most participants indicated that one is able to plan for the future and to make long term decisions such as whether to have

children or even drawing up a will. In their own words, participants described the benefits of knowing one's HIV status as follows:

You can draw a will [if HIV Positive]
(Male)

Good to know if you are planning to have a child
(Male)

You are able to plan your future well. You can make the best use of the time you have
(Female)

This finding illustrates that some individuals make well-considered decisions to undergo VCT as part of future planning. This seems to agree with the Theory of Reasoned Action (TRA). The TRA argues that individuals consider the implications of their actions and that most actions are consciously controlled (Ross and Deverell, 2004). Furthermore, this finding also agrees with previous studies conducted in Tanzania (Maman *et al.* 2001) and Zambia (Obarzaucher and Baggaley, 2002), where participants described HIV testing as a preventive health measure prior to engaging in sex and long-term relationships.

4.6.2 Factors inhibiting the uptake of VCT

On the other hand, it was evident from the responses of both closed and open-ended questions that there are a number of factors that discourage the uptake of VCT. These barriers are evident from the participants' awareness levels, experiences with VCT and their opinions about the services. These barriers are discussed next.

Lack of awareness

Of the 200 participants, 47% reported that they have never heard about VCT. Moreover, in response to why they had not undergone VCT, many participants indicated that it is because they had never heard about it. Others knew little about it while others were not aware that VCT services existed on campus. The reply 'I did not know about it' was commonly cited as the reason for having not attended VCT. The quotes below reflect the sentiments of those who were unaware about VCT.

I didn't know that it existed, or where it is performed or how much it costs.
(Female)

I have not considered it yet. I do not know where I can be tested.
(Male)

The main disparity in awareness levels, as observed earlier, is that the White and Indian participants were comparatively less aware of VCT. This is primarily attributed to the fact that they all reported residing off-campus, thus VCT information was unlikely to reach them through HIV awareness activities usually conducted on campus by HIVAN peer educators. This also explains why VCT awareness levels were comparatively higher among participants residing on campus.

Although the sample size in the present study was small, the evident lack of awareness among some of the participants confirms earlier estimates by UNICEF (2002) that in many countries, fewer than 50 percent of young people know where they can be tested for HIV. Consequently, lack of awareness is a major obstacle to VCT uptake.

Low risk perception

Most respondents indicated that they had not undergone VCT because they did not feel at risk of HIV infection, commonly citing never having had sex, abstinence, condom use and being with one sexual partner. While low risk perception may be accurate for those who reported never having had sex and using condoms consistently, it may be inaccurate for those citing that they were involved with one sexual partner. This is because their partner may have other sexual partners.

It was evident from some of the participants' responses that low risk perception is fuelled by the erroneous belief that HIV testing is meant for diagnostic purposes and that only those who suspect that they are HIV positive seek VCT. The perceptions of low risk are illustrated in the quotes below.

I don't have AIDS.

(Male)

I have not experienced any symptoms [of being HIV positive]

(Female)

Because I feel that there was no need – I am not sexually active

(Female)

I have never had sexual intercourse with more than a single person. I am monogamous.

(Male)

...I haven't found any reason because I have been practicing safe sex [using condoms].
(Male)

It is also evident from the closed-ended responses that most of the participants do not consider themselves at risk of HIV infection. Participants were asked to state what they thought were their chances of getting infected with HIV. They were required to select the item that best represented their risk perception from four items ranging from 'high' to 'no chance at all.' These items were reduced into two broad categories of 'high-risk' and 'low-risk' for ease of analysis. The risk perception of the participants was analysed by socio-demographic characteristics. The summary of risk perceptions is presented in Table 8.

Table 8: HIV risk perception by socio-demographic characteristics

Characteristics	High-risk %	Low-risk %
Age:		
Under 20	15	85
20+	23	77
Sex:		
Male	21	73
Female	16	79
Race:		
African/Black	24	76
White	17	83
Coloured	0	100
Indian	18	82
Residence:		
On-campus	24	76
Off-campus	19	81
HIV test:		
Tested	22	78
Not tested	13	87

As illustrated in Table 8 above, more than 70% of the respondents in all socio-demographic categories felt at low risk of HIV infection. Previous studies conducted in Zambia (Population Council, 2002) Kenya and Uganda (Horizons, 2001) have also established that low risk perception is a major obstacle to VCT uptake among young people. The findings of both the previous and the current study also concur with the argument of the Health Belief Model that perceived susceptibility to disease influences

health related behaviour (Ross and Deverell, 2004). Low risk perception has been identified as a major deterrent to uptake of VCT (Obazaucher and Baggaley, 2002). It is apparent that the low risk perception of most of the participants in the present study contributes to the low uptake of VCT.

Furthermore, it also emerged that there were some differences in risk perception based on age, sex, race, place of residence and whether participants had been tested for HIV. The younger participants, aged under 20 years were less likely to feel at risk compared to the older ones aged 20 and above. Table 8 illustrates that 15% of those under 20 indicated that they felt at high risk compared to 23% of those aged above 20. More male participants (21%) were likely to feel at high risk compared to the females (16%). The high-risk perception by race was 24%, 18%, and 17 % of the African, Indian and White participants respectively. None of the Coloured participants felt at high risk of infection. In addition, 24% and 19% of those residing on campus and off-campus respectively felt at high risk.

Out of those who had been tested for HIV, 22% felt at high risk while 13% of those who had not been tested felt at high risk. Thus it seems there is a difference in risk perception between the participants who know their HIV status and those who do not. The higher risk perception among those who had been tested for HIV could be the reason why they had been tested.

Stigma

The majority of respondents indicated that they were hesitant to seek and utilize VCT services due to stigma. Most of them expressed concern that if one were HIV positive they would be discriminated and stigmatized. This shows, as noted by UNAIDS (2000) that the attitude of the society towards HIV has a negative impact on individual decisions to have an HIV test. The experience of seeing HIV positive people facing discrimination and stigma, makes HIV testing and VCT in particular unpopular. The quotations below illustrate the respondents' opinions regarding stigma as an obstacle to utilizing VCT services.

I am afraid to know my HIV status because of the social implications it may have
(Male)

...my friends have not gone for VCT. How am I going to tell them if I know my [HIV positive] status?

(Male)

I am afraid of the social stigma, being shunned by others if they know [about my HIV positive status].

(Female)

Most of the participants who indicated that they would prefer to attend VCT services at other centres outside the university expressed concerns about stigmatization by other students. As a result they preferred to seek VCT services where they are not known. One female participant observed, 'I would prefer a private hospital. Students at the university tend to look at HIV positive people as a danger'. The preference to seek VCT in places considered more private reflects the secrecy associated with HIV/AIDS in society. It also explains why people prefer not to disclose their HIV positive status.

It is also evident in this study that stigma in some cases is exacerbated by the attitude of health care service providers. One participant reported that a nurse at the campus clinic suggested that she takes an HIV test because she assumed that she was HIV positive. She complained that the nurse was not friendly at all. This study confirms, like other studies conducted in Ethiopia (Dejene, 2001) Nigeria (Adeneye *et al.* 2004) and South Africa (Dyk and Dyk, 2003a) among others, that stigma is a major obstacle to VCT uptake.

Fear of a positive test result

The fear of a positive test result was commonly cited as the reason why participants were unwilling to undergo VCT. This fear is associated with the psychological and emotional stress it would cause. As a result, many participants expressed concern that they would not be able to cope with an HIV positive result. Some acknowledged that they had been involved in unprotected sex and that the HIV test results might turn out to be positive. The observations below illustrate the fear expressed by most of the participants.

I am afraid to find out my HIV status because I have never used a condom since I started having sex.

(Female)

I am scared of knowing my status. It might turn out to be positive

(Female)

I am scared of knowing my HIV status [HIV positive status], really scared.

(Male)

The view that being HIV positive is a 'death signal' was prevalent in this study like in other previous studies conducted in Rwanda, (Boswell, and Baggaley, 2002:21) and Ethiopia (Dejene, 2001). The fatalistic attitude towards being HIV positive could be related to the knowledge that there is no cure for the disease. A commonly recurring view in this study was that if one knew that they are HIV positive; they would live with the knowledge that they are going to die. As a result, some stated that it is better not to know their HIV status. Preferring not to know one's HIV status may reflect denial and a coping mechanism for those at high risk of infection (Wilson *et al.* in Solomon *et al.* 2004). It appears that many respondents equate HIV positive status with an imminent death sentence as illustrated in the quotes below.

... Personally, I may end up committing suicide [if HIV positive]. That is a terrible disease
(Female)

If you find out that you are HIV positive, then it is like living with a dark cloud hanging over you. Ignorance is bliss.
(Male)

It is stressful; having to live with the fact that one day you are going to die a painful death.
(Male)

It is evident that the fear of a positive test result causes delay in seeking an HIV test. Previous studies have also established that some people seek the test when they start showing symptoms of being ill (Solomon *et al.* 2004).

Lack of confidentiality

The majority (94%) of those who attended VCT at the campus clinic agreed that staff at the clinic made efforts to ensure their privacy. However, it emerged from the responses to the question, 'What did you not like about the VCT services at the clinic?' that some were concerned about lack of confidentiality. Concerns were raised that making an appointment was not confidential. This can be viewed as 'actual' lack of confidentiality as it is apparent that there is no privacy when clients make VCT appointments at the clinic reception. At the same time other participants felt that fellow students could see them at the clinic and realise that they are seeking VCT services. Consider some of the following responses:

To make the appointment was not confidential at all. People in the waiting room could hear me....
(Female)

Making the appointment was not confidential at all.
(Female)

I was afraid that fellow students could see me.
(Male)

On the other hand, the responses of some of the participants indicated that they anticipated or perceived lack of confidentiality in the VCT services at the clinic. This was particularly evident from those who indicated they preferred to undergo VCT at other centres outside the university, particularly private hospitals. Many observed that there is more privacy in the other hospitals because they were unlikely to meet fellow students there. The following are some of responses reflecting 'perceived' lack of confidentiality:

I would prefer to go to a private hospital because unlike campus clinic it is more private....unlike the campus clinic where I know my friends will end up knowing the outcome, but in a private hospital they don't know me.

(Male)

There are too many young people visiting campus clinic! They are very noseey and love to gossip. Too many people know me here because I do modeling, so they would make assumptions about me and spread rumours.

(Female)

This study thus provides evidence of both actual and perceived lack of confidentiality as an obstacle to VCT uptake among young people. The findings of previous studies in Nigeria (Adeneye *et al.* 2004), South Africa (Dyk & Dyk, 2003a) and Zambia (Fylkesnes and Siziya, 2004), have also established that perceived lack of confidentiality is a common obstacle to VCT uptake.

In this study, it was also noted that none of the participants expressed concerns of lack of confidentiality due to the gender of VCT service provider. It was evident that concerns about privacy expressed by both female and male participants did not relate to their gender or that of the service providers. The participants' main concern about confidentiality was related to the possibility of meeting fellow students at the clinic, who would know that they were seeking VCT services.

Long waiting period to secure appointment

Most participants who had attended VCT at the campus clinic commonly cited the long waiting period to secure an appointment as the main reason why they did not like the services. It was evident that it took long for some participants to secure an appointment for VCT. One of the participants changed his mind after his appointment was re-scheduled - he attended VCT at a government hospital. The following observations illustrate participants' dissatisfaction with the long waiting period.

I did not like being told to come after two days because they were fully booked.
(Female)

...when someone decides to go for VCT, they must not be made to wait for days to get an appointment, some people may end up changing their minds.
(Female)

I booked an appointment with the clinic. When I went, they told me that I had to re-schedule it and I quit.
(Male)

While previous studies have identified long waiting periods for the HIV test results as a barrier to VCT uptake (Barnaba *et al.* 2004; Boswell and Baggaley, 2002; Burstein *et al.* 2004; Horizons, 2001), the present study has identified the long waiting period to secure a VCT appointment as another dimension of the problem. This finding would also indicate that either there is a growing demand for VCT services among students at the campus clinic or that there is a serious shortage of VCT staff. Thus it is possible that staff at the campus clinic find it difficult to cope with the increased demand for VCT. The ability of health care workers to respond sympathetically to the needs of individual clients can be undermined if they work under pressure (Bruce, 1990).

Perceived lack of benefits for Counselling

A rather unusual finding in this study is that one male participant indicated that he would not go to a VCT centre, if he needed an HIV test, instead he would do the test himself. He observed, '... they [VCT counsellors] will tell me what I already know. So I don't need to go to a VCT centre, when I feel like doing it, I will just take the equipment and do the HIV test.'

While previous studies have identified lack of benefits in knowing ones HIV status as an obstacle to VCT uptake (Baggaley *et al.* 1998; Dyk and Dyk, 2003b) this study has further identified the lack of perceived benefit of counselling in particular as another potential

obstacle. None of the previous studies reviewed in this research have discussed this issue in particular. Because of the small sample size in this study and the fact that only one participant indicated he would do 'self-testing for HIV' it would not be possible to estimate the extent of this practice by the student community. The researcher did not explore this issue further, but notes that it is an issue that deserves thorough investigation in a separate study.

4.7 Sexual behaviour

Out of the 200 participants, 104 (52%) reported ever having had sexual intercourse. A sub-sample of the 104 students labeled 'sexually active participants' was created and their sexual behaviour examined. The analysis will first present a description of the sexually active participants by socio-demographic characteristics. This is followed by an examination of sexual behaviour exploring issues such as age at first sexual intercourse, number of sexual partners, incidence of STIs and condom use to determine if participants are at risk of HIV infection. Marital status was excluded in the analysis because the majority of participants (98%) indicated that they were never married. At the same time, the analysis is based on the actual responses to the questions. The missing values are therefore excluded from the analysis.

4.7.1 Sexually active participants by socio-demographic characteristics

There were some disparities in sexual activity by socio-demographic characteristics, as illustrated in Table 9. Participants under the age of 20 years were less likely to be sexually active compared to those aged 20 and above. The incidence of being sexually active was 45% among those under the age of 20 compared to 55% for those above the age of 20 years. Males were more likely to be sexually active compared to females. Of the 89 males, 59% reported being sexually active while 46% of the 111 females reported being sexually active.

Marked differences in the incidence of being sexually active were observed among the various races. The incidence of sexually active participants was 74%, 66%, 40% and 28% of all African, Coloured, White and Indian participants respectively. Of the 54 participants residing on campus, 78% were sexually active compared to 42% of the 146 residing off campus.

Table 9: Sexually active participants by socio-demographic characteristics

Characteristics	(n=200)	Sexually active (n=104)	%
Age			
Under 20	70	32	45
20+	130	72	55
Sex			
Male	89	53	59
Female	111	51	46
Race			
African/Black	90	67	74
White	32	13	40
Coloured	6	4	66
Indian	72	20	28
Residence			
On-campus	54	42	78
Off-campus	146	62	42

4.7.2 Overview of sexual behaviour

Of the 104 sexually active participants, the majority (54%) had first sexual intercourse between the ages 16-18 years. The mean age at first sexual intercourse was 16 years. The majority (94%) reported having had sexual intercourse under the age of 20 (see Table 10). In addition, 22% of the participants reported that they were not currently involved with any sexual partners, 61% reported being involved with one partner, while 17% were currently involved with two or more sexual partners. In the same group, 7% reported not being involved with any sexual partners in last twelve months while 44% and 49% reported being involved with one partner and more than one partner respectively.

Incidence of Sexually Transmitted Infections (STIs) was reported among the sexually active participants, with 9% reporting that they had ever had an STI and 19% reporting that they had been treated for STI in the last twelve months. All participants (apart from one) who reported having experienced an STI were found to be inconsistent condom users. At the same time 50% of them also reported being involved with multiple sexual partners in the last twelve months. Therefore, the incidence of STI is linked to involvement with multiple sexual partners and inconsistent condom use. A summary of sexual behaviour of the participants is illustrated in Table 10.

Table 10: Sexual behaviour variables

Variable	No. of respondents	%
Age at first sexual intercourse		
Under 20	91	94
20+	6	6
Number of current sexual partners		
0	20	22
1	56	61
2+	16	17
Number of sexual partners in the last 12 months		
0	7	7
1	43	44
2+	47	49
Used condoms at last intercourse		
Yes	63	61
No	40	39
Frequency of condom use		
Always	54	53
Sometimes	26	26
Never	8	8
At the beginning of a new relationship	13	13
Ever had a sexually transmitted infection		
Yes	9	9
No	95	91
Treated for a sexually transmitted infection in the last 12 months		
Yes	8	19
No	35	81

Note to the table: Missing values have been excluded from the table

Condom use

During their last sexual encounter, 61% of the participants reported using condoms. However the frequency of condom use differed among the participants, with 53%, 26%, and 13% reporting that they used condoms always, sometimes, and at the beginning of a new relationship respectively, while 8% reported that they never used condoms. The overall frequency of condom use is illustrated in Figure 2. The use of condoms will be further discussed in two broad categories. The first is those participants who indicated that they use condoms always and that they used them at the last sexual encounter. For the purposes of this study, these participants will be labeled 'consistent condom users.' The second category comprises those who indicated that they never use condoms, use them sometimes or at the beginning of a new relationship. This second category will be labeled 'inconsistent condom users' and will be discussed under 'risky sexual behaviour'.

Condom use

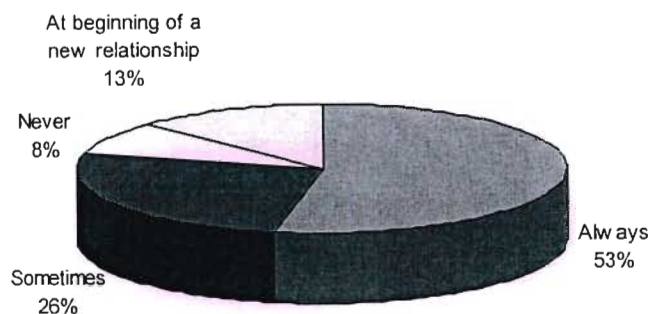


Figure 2: Condom use

Consistent condom users comprised 53% of the sexually active participants. The number of consistent condom users varied by demographic characteristics. Among those under 20, consistent condom users were 37% compared to 54% among those aged 20 and above. The incidence of consistent condom use was 60% among the males and 37% among the females. Consistent condom use was most frequent among the Coloured (75%), and Indian (65%), followed by African (37%) and White (23%). Among the students resident on campus, consistent condom use was 52% while among those residing off campus the incidence was 46%.

Of the participants in the consistent condom use category, 22% reported that they had undergone VCT. At the same time, in this category, the majority (43%) of the participants reported being involved with one sexual partner currently and in the last twelve months. At the same time, 9% and 24% of this group reported being involved with multiple sexual partners currently and in the last twelve months respectively. The risk perception among the consistent condom users was generally low with 80% of the participants indicating that they felt at low risk compared to 20% who felt at high risk of HIV infection. The low risk perception in this group would probably be attributed to consistent condom use. Only one incident of STI in the last twelve months was reported among the consistent condom users. The low incidence of STI in this group compared to the higher incidence among those involved in risky sexual behavior (as highlighted in the next section) underscores the protective effect of condom use.

4.7.3 Risky sexual behaviour

Risky sexual behaviour, for the purpose of this study refers to involvement with multiple sexual partners currently and in the last twelve months, and inconsistent condom use. Inconsistent condom users are defined as those who indicated that they use condoms sometimes or at the beginning of a new relationship and those who never use condoms. Those who never use condoms have been grouped together with inconsistent condom users for ease of analysis.

Of the 104 sexually active participants, 17% reported being involved in risky sexual behaviour. The incidence of risky sexual behaviour among participants aged under 20 years was 25% compared to 14% among those aged 20 and above. Male and female participants reported an almost equal incidence of risky sexual behaviour of 17% and 18% respectively. The prevalence of risky sexual behaviour varied by race with the highest among white students (23%), followed by African (18%) and Indian (15%). None of the Coloured students reported being involved in risky sexual behaviour. Among students residing on campus, the incidence of risky sexual behaviour was 21% compared to 14% among those residing off-campus.

The five incidences of STIs in the group involved in risky sexual behaviour highlights the potential for risk and spread of HIV infection. Incidences of STI were reported only among the African students with 3 African females reporting ever having had an STI and being treated for the same in the last twelve months. Among the African male students, two reported ever having had an STI, one of the two reported that he had been treated for the same in the last twelve months.

Another interesting finding about the group involved in risky sexual behaviour is that 67% of them had not undergone VCT and 50% reported that they have never heard about it. Therefore, there is a potential of unknowingly getting infected and/or spreading HIV among this group. Surprisingly, 55% of the participants in this group considered themselves at high risk of HIV infection. A possible explanation for involvement in risky sexual behaviour despite feeling at risk is peer influence. Of those involved in risky sexual behaviour, 60% indicated that they felt under pressure to have sex. The following are verbatim responses from some of the participants in this group who indicated that they felt under pressure to have sex:

I feel under pressure from my friends to prove to them that I am not a coward. I can be like them. We also have a competition over how many times one has had sex and make fun of it.

(Male)

All my friends have had sex and when they talk I feel left out.

(Female)

Finally, it must be noted that inconsistent condom users with one sexual partner were not classified as being involved in risky sexual behaviour. This implies that the risk estimates in this study are minimal.

4.8 Conclusion

The findings of this study have established that the majority of the participants are aware of the benefits of knowing one's HIV status. On one hand, the desire to know one's HIV status, peer influence, future planning and commitment to a long-term relationship facilitates the uptake of VCT among the participants. On the other hand, there are a number of obstacles to VCT uptake. Many students are not aware about VCT or the existence of the services at the campus clinic. At the same time, low risk perception, fear of a positive test result, concerns about confidentiality at the campus clinic, stigma, long waiting period to secure an appointment and perceived lack of benefits for counselling discourage VCT uptake.

Although the majority of respondents consider themselves at low risk of HIV infection, it is evident that some of the sexually active participants are at risk mainly due to involvement with multiple sexual partners and inconsistent condom use. It is therefore necessary to encourage VCT uptake among students so that those who are HIV positive can have access to medical care and support. At the same time, VCT would encourage those who are HIV negative to engage in safer sexual practices, thus preventing further infections. In order to promote VCT uptake amongst students, strategies must be put in place to address the obstacles identified in this study. These will be discussed further in the next chapter.

CHAPTER FIVE CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The main objective of this study was to examine students' perceptions of Voluntary Counselling and Testing for HIV (VCT) in order to determine what facilitates or inhibits VCT uptake among them. The study also sought to examine the sexual behaviour of students with a view to determining if, and to what extent they are at risk of HIV infection. The findings from this study have highlighted a number of factors that influence the uptake of VCT among students. These factors are related to students' awareness, knowledge, experiences and opinions about VCT, particularly the services at the Howard College campus clinic. The study has also established that some of the sexually active students are involved in risky sexual behaviour, potentially exposing both themselves and their partners to HIV infection.

It was evident from the findings in this study that the results are largely in agreement with previous studies and at the same time new dimensions of barriers to VCT uptake have been identified. The findings of the current study have also illustrated the applicability of some of the key variables of the theoretical framework guiding this research. This last chapter presents a summary of the major findings and suggests some recommendations to improve VCT uptake among students at UKZN. Finally, further research topics related to the present study are suggested.

5.2 Summary of findings

A number of themes in key factors that influence the uptake of VCT among students are evident in this study. First to be considered are the factors that motivate students to seek and utilize VCT services. The desire to know one's HIV status was found to motivate students to seek VCT services, with most indicating that the advantages outweigh the disadvantages of knowing one's HIV status. It was apparent that the majority of the students exhibited knowledge of the benefits of knowing one's HIV status with the majority indicating that it facilitated access to medical care and support, if one is HIV positive, and encouraged both HIV negative and positive people to practice safe sex. On the other hand, a large number of the participants who had not had an HIV test expressed unwillingness to undergo VCT with majority of them indicating that they were not at risk of infection since they were not sexually active. Thus they did not find the need to establish their HIV status.

Peer influence has been found to be another factor that motivates the participants in this study to undergo VCT. The findings of this study have highlighted that peers are an important source of information about VCT. Two sources of peer influence have been identified, mainly, HIVAN peer educators, who regularly conduct HIV awareness activities on campus. The second category is friends who have been found to play an important role in influencing decisions related to attending VCT. Peer influence has been found to have a two-sided effect. On one hand, it encourages VCT uptake among peers if there is a positive attitude towards VCT among them. On the other hand, it can also be a major barrier especially, where one is seen a potential carrier of HIV/AIDS if s/he undergoes VCT (Dejene, 2001).

It has also emerged from this study that some participants undergo VCT as part of future planning. This involves undergoing VCT prior to being involved in long-term relationships such as marriage and before deciding whether to have children. Many of the participants who had undergone VCT indicated that they did so as part of their plans in committed relationships. This implies that there is a potential for increasing popularity of VCT among couples. This would entail encouraging both partners to present for VCT.

On the other hand, various obstacles to VCT uptake have been identified. Many of the participants are either completely unaware of VCT or do not know where the services are provided. Almost half of the participants (47%) reported that they have never heard about VCT. At the same time, some of the participants who have ever heard about VCT do not know that the services are available to students at the campus clinic. The lack of awareness about availability of VCT services at the campus clinic is a possible explanation why some students would seek these services elsewhere.

Outstanding disparities in awareness levels were found among students based on place of residence and race. Awareness level is remarkably higher among students residing on campus compared to those residing off campus. Similarly, awareness levels are higher among the African and Coloured students compared to the Indian and white students. There is a notably low level of awareness among the Indian students. A possible explanation for the disparities in awareness levels is that most HIV awareness activities are organized and conducted within the campus residences, where most of the African and coloured students in this sample reported residing.

It is apparent from the majority of the participants who had not undergone VCT that low risk perception is a major barrier to VCT uptake. Two key conclusions can be made about the low risk perception. On one hand, this may be regarded as accurate to some extent considering that most who indicated that they are at low risk also reported not being sexually active or never having had sex. On the other hand, it was evident from the examination of the sexual behaviour of the participants that some are at risk of HIV infection, mainly because of involvement with multiple sexual partners and inconsistent condom use.

HIV has been found to be a stigmatising condition. As a result, VCT interventions are not popular (UNAIDS, 2000). It is because of the stigma that some participants in the present study preferred to seek VCT services elsewhere, other than the campus clinic, and where they were unlikely to meet people who know them. Besides, it has been illustrated that the attitude of service providers at times exacerbates stigma, which reflects the overall stigmatisation of HIV in society. This stigma discourages even those who would be willing to seek VCT services.

The fear of a positive HIV test result has been found to be a prevalent obstacle to VCT uptake in this study. This fear is associated with the psychological impact of knowing one's HIV status. It was also apparent from this study that some of the participants equate an HIV positive result with a death sentence. This fear would also be linked to unsafe sexual practices on the part of some of the participants such as lack of condom use and involvement with multiple sexual partners. Consequently, some participants prefer not to know their HIV status. Previous research has shown that due to fear of an HIV positive test result, some clients seek VCT when they start seeing the signs of being ill (Solomon *et al.* 2004).

Concerns were expressed related to the confidentiality of VCT services. The fear that one might be seen by friends and colleagues booking a VCT appointment at the campus clinic was found to be prevalent both among those who had already attended VCT at the campus clinic and those who expressed the view that they would prefer to receive these services elsewhere. The notion that VCT services were more confidential at the private hospitals was common.

The long waiting period to secure an appointment for VCT has been found to discourage students from utilizing the VCT services at the campus clinic, with evidence of one student opting to present for VCT at a government hospital after his appointment was re-scheduled. Several participants who attended VCT at the campus clinic expressed dissatisfaction with the long waiting period before securing an appointment. This implies that the campus clinic may not be adequately meeting the demand for VCT services at present.

A unique obstacle that has been identified in this study is the perceived lack of benefits of counselling. The view by one participant that he would not seek VCT services but would take the testing kit and do the test himself is rather unusual but an important issue that deserves to be addressed. This is particularly so considering the psychological impact that an HIV positive test result would have on an individual without counselling.

Finally, this study has found that some of the sexually active participants are at risk of HIV infection mainly due to involvement with multiple sexual partners and lack of or inconsistent condom use. Moreover, condom use among 47% of the sexually active participants in this study has been found to be generally erratic, which potentially exposes them to STIs, including HIV. The incidence of STIs reported in this study points to the potential magnitude of the risk of spreading or getting infected with HIV, considering that 50% of those involved in risky sexual behaviour do not know their HIV status. Next to be considered are the recommendations based on the research findings.

5.3. Recommendations

In the light of the findings presented in this study, the researcher suggests a number of strategies to improve VCT uptake among students at UKZN and to curb the spread of HIV. It is recommended that the University of KwaZulu-Natal should take the initiative to address the following issues.

The first and most important issue that needs to be addressed is the lack of awareness about VCT. The fact that 47 % of the participants in this study have never heard about VCT is a matter of grave concern. There is an urgent need to increase outreach and promotional activities with a particular emphasis on VCT. Innovative mechanisms must be designed for the promotional and outreach activities. These must be specifically designed to improve the overall VCT awareness levels and to address the existing

disparities. In addition to the existing promotional activities, which usually reach students resident on campus, strategies should be designed to reach students residing off campus, particularly the Indian and White students.

Electronic media promotion, such as 'pop-up' VCT messages in the computer LANS are more likely to reach a wider variety of students, including those who do not reside on-campus. This is because almost all students go to the computer LANS to do their assignments or to check e-mail. This should be done hand-in-hand with the wide distribution of information brochures on VCT. The promotion activities should bear positive message about VCT, and knowing one's HIV status. An element of hope and encouragement should be incorporated in such messages to address the fear of a positive test result and the stigma associated with being HIV positive. VCT communication messages that have been directly related to the theme of hope and incorporate notions of the future, positive thinking and safety are generally well received (Boswell and Baggaley, 2002:18).

At the same time, a vigorous awareness activity using mass media and interpersonal communication led to a positive effect in behaviour change in Cameroon among young people aged 13-22 (Asford and Agha, 2001) The Study in Cameroon found that following the awareness programme; the youth were more likely to use condoms; the women were less likely to have sex before they were 15 years old and the men had fewer sexual partners (ibid). Thus increased awareness activity is likely to have a positive effect on behaviour change at UKZN.

The notably inconsistent condom use and low risk perception among students is a matter that deserves serious attention. Awareness activities should also encourage the use condoms among students, specifically highlighting the benefits of consistently and correctly using condoms, and where to access them. The messages should also be informative, detailing all ways in which people can be exposed to risk of HIV infection. These messages must emphasize that even those with one sexual partner should also take precautions to protect themselves and their partners. The messages should be targeted at reversing the notion that only those involved with multiple sexual partners are at risk of HIV infection.

Given that a number of participants in the present study were found to be motivated to attend VCT as a part of future planning, students should be encouraged to attend VCT together with their sexual partners. Presenting for VCT together would encourage open communication about HIV among couples. This would also encourage safer sexual practices among the students.

Measures to increase confidentiality in VCT booking procedures need to be introduced. It is suggested that a confidential online facility is put in place to allow students to book appointments directly with the VCT counselors without necessarily going through the clinic reception. The VCT service should be made free of charge to avoid having students going to the reception to pay the consultation fees (currently students pay five Rand consultation fees for VCT). This would enhance confidentiality of the service.

In order to address the issue of long waiting period before securing an appointment, there is an urgent need to employ more VCT counsellors in order to cope with the apparent increasing demand for VCT services.

Post-test support clubs to offer emotional and social support for individuals both HIV positive and negative should be encouraged and supported by the university to help reduce stigma of VCT and HIV at UKZN. Post-test support clubs have been found to be successful in reducing stigma and encouraging VCT uptake among young people (Obarzaucher and Baggaley, 2002). At the same time, there is need to train health care providers at the campus clinic with emphasis on reducing stigma about HIV and VCT. Students will develop a trusting relationship with the healthy care providers and will be encouraged to go for testing if staff at the campus clinic have a positive attitude to clients presenting for VCT.

Further research

The researcher is of the view that the issue of sexual behaviour change following VCT interventions needs thorough investigation, particularly amongst young people at universities in South Africa. It is also worthy investigating if and to what extent 'self-testing' for HIV is practiced, as this could be a potential obstacle to VCT uptake.

5.4 Conclusion

This study has highlighted a number of key factors that facilitate or hinder the uptake of VCT among students at UKZN. It has also established that some of the sexually active students are at risk of HIV infection. A number of recommendations have been suggested on ways to improve VCT uptake among students at UKZN and to curb the spread of HIV. It is hoped that the findings of this research will contribute to the promotion of VCT services, and play a part in the efforts to meet the challenges posed by the HIV/AIDS epidemic both at UKZN and South Africa as a whole.

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In 2004, the School of Development Studies celebrates 50 years of Socio-Economic Research

**COURSEWORK MASTERS DISSERTATION
RESEARCH ETHICS CLEARANCE**

Student Name:	NJAGI Frederick Gachie
Student Number:	202526217
Dissertation Title:	Students perceptions of voluntary counselling and testing: A case study of the University of KwaZulu Natal

The proposed research towards the dissertation meets the following ethical requirements but does not require submission to the Ethics Committee

1. Provision has been made to obtain the informed consent of the participants
2. Potential psychological and physical risks have been considered and minimised
3. Rights of participants will be safeguarded in relation to:
 - Measures for the protection of anonymity
 - Maintenance of confidentiality
 - Access to research information and findings
 - Misleading promises regarding benefits of research

Signature of Student.....  Date..... 06/05/2004

Signature of Supervisor.....  Date..... 06/05/2004

Signature of Head of School.....  Date..... 06/5/04

SURVEY QUESTIONNAIRE

STUDENTS PERCEPTIONS OF VOLUNTARY COUNSELLING AND TESTING: A CASE STUDY OF THE UNIVERSITY OF KWAZULU-NATAL

Dear respondent,

RE: RESEARCH ON STUDENTS PERCEPTIONS OF VOLUNTARY COUNSELLING AND TESTING (VCT) FOR HIV

I am currently conducting a study on Voluntary Counselling and Testing. The aim of the study is to ascertain students' perceptions of Voluntary Counselling and Testing. You have been randomly selected to take part in the study because you fall within the targeted age group of 18-24 years. This letter is to kindly request you to participate.

Please take a few minutes to complete and return the questionnaire. Ensure that you read the instructions carefully as these will guide you in completing the questionnaire.

If you would like to have a copy of the final report, please do not hesitate to contact me via my email address listed below.

All the information provided in this survey will remain confidential and will be used solely for research purposes. Your name and identity will not be used at any stage of the research.

Your participation is highly appreciated.

Thank you.

Yours sincerely,

Fredrick G. Njagi
202526217@ukzn.ac.za

SECTION A: BIOGRAPHICAL INFORMATION

INSTRUCTIONS: *Please indicate your response by making a cross (X) in the appropriate box or typing in the spaces provided*

1. Sex

Male Female

2. What is your date of birth? *(Please provide month and year).*

Month..... Year.....

3. Which population group do you identify yourself with?

African/Black White
 Coloured Indian

Other (Specify.....)

4. Are you currently married or living with a partner?

Married Living together Neither

5. If neither, what is your current marital status?

Never married Engaged Widowed
 Divorced Separated

6. Do you stay in campus residence?

Yes No

SECTION B: KNOWLEDGE AND AWARENESS OF VCT

INSTRUCTIONS: *Please indicate your responses to the questions by making a cross (X) in the appropriate box or typing in the spaces provided*

1. Have you heard of Voluntary Counselling and Testing (VCT) for HIV?

- Yes No

2. If yes, from whom did you first learn about Voluntary Counselling and Testing for HIV?

- | | |
|--|--|
| <input type="checkbox"/> Friends | <input type="checkbox"/> Partner/spouse |
| <input type="checkbox"/> Parents | <input type="checkbox"/> Media |
| <input type="checkbox"/> HIV peer educator | <input type="checkbox"/> Orientation at University |
| <input type="checkbox"/> Doctor/nurse | Other (Specify.....) |

3. Where are services for HIV Voluntary Counselling and Testing provided? (You may select one or more answers)

- | | |
|--|---|
| <input type="checkbox"/> Private Hospitals | <input type="checkbox"/> Government Hospitals |
| <input type="checkbox"/> Family planning clinics | <input type="checkbox"/> UKZN Campus Health clinics |
| Other (Specify.....) | |

4. Are VCT services available to students on this campus?

- Yes No Don't know

5. Have you ever had an HIV test?

- Yes No

6. What are the advantages of knowing if you are HIV-negative or HIV-positive?

.....
.....
.....
.....

7. What are the disadvantages of knowing if you are HIV-negative or HIV-positive?

.....
.....
.....
.....

SECTION C: PERSONAL MOTIVATION AND CHOICE OF VCT SITE

INSTRUCTIONS: Please indicate your responses to the questions by making a cross (X) in the appropriate box or typing in the spaces provided.

1. Have you ever undergone Voluntary Counselling and Testing (VCT) for HIV?

- Yes No → (Go to Q 10)

2. If yes, what services did you receive? (You may select one or more answers)

- Pre-test counselling HIV test
 Post-test Counselling Referral for further counselling/services

Other (Specify.....)

3. Why did you go for Voluntary Counselling and Testing? (You may select one or more answers)

- Desire to know HIV status Suspicion that partner/spouse is unfaithful
 Involvement with multiple sex partners Felt at risk of HIV infection
 Plans to a committed relationship Plans to have a baby
 Influenced by friends Advised by doctor/nurse
 Close relative or friend died of AIDS HIV Peer educator influence
 Media and promotional activity influence

Other (Please specify.....)

4. Did you go for VCT at the campus health clinic?

- Yes No → (Go to Q 9)

5. If yes, answer the following statements. (Make a cross in the appropriate box number 1-4. The following numbers represent your answers: 1= Strongly agree, 2= Agree, 3=Disagree, 4= Strongly disagree)

STATEMENT	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE
a) Staff at the clinic were friendly.	1	2	3	4
b) Staff made every effort to ensure my privacy.	1	2	3	4
c) Staff gave me the opportunity to ask questions about issues that I thought were important.	1	2	3	4
d) Staff were helpful in providing information.	1	2	3	4
e) I was provided with all the information I wanted during the consultation.	1	2	3	4
f) There was sufficient time for me to ask questions.	1	2	3	4
g) The counsellor answered all my questions to my satisfaction.	1	2	3	4
h) I would recommend the VCT services at the campus clinic to someone else.	1	2	3	4
i) All my expectations of VCT service delivery were met.	1	2	3	4

6. What did you like most about the VCT service at the clinic?

.....
.....
.....

7. What did you not like about the VCT service at the clinic?

.....
.....
.....

8. What do you think could be done to improve VCT services at the campus clinic?

.....
.....
.....

9. If you received VCT services at any other centre (other than the campus health clinic),

a) Where did you undergo Voluntary Counselling and Testing?

- Private Hospital
- Government Hospital
- Youth centre
- Other (Specify.....)

b) Why did you prefer to attend VCT elsewhere, other than the campus clinic?

.....
.....
.....

10. IF YOU HAVE NOT UNDERGONE VOLUNTARY COUNSELLING AND TESTING FOR HIV,

(a) Please explain why you have not

.....
.....
.....

(b) Would you be willing to undergo Voluntary Counselling and Testing for HIV, if you were given the chance?

- Yes
- No → (Go to Q12)

11. If yes, Why? (You may select one or more answers)

- Desire to know HIV status
- Suspicion that partner/spouse is unfaithful
- Involvement with multiple sex partners
- Felt at risk of HIV infection
- Plans to a committed relationship
- Plans to have a baby
- Influenced by friends
- Advised by doctor/nurse
- Close relative or friend died of AIDS
- HIV Peer educator influence
- Media and promotional activity influence

Other (Please specify.....)

12. If no, Why? (You may select one or more answers)

- | | |
|---|---|
| <input type="checkbox"/> Do not feel at risk of HIV infection | <input type="checkbox"/> Do not feel sick |
| <input type="checkbox"/> Not sexually active/never had sex | <input type="checkbox"/> Fear a positive test result |
| <input type="checkbox"/> Use condoms every time I have sex | <input type="checkbox"/> Have sex with one partner only |
| <input type="checkbox"/> It is embarrassing. | <input type="checkbox"/> There is no cure for HIV. |
| <input type="checkbox"/> My parents would not allow me | <input type="checkbox"/> It is expensive |
| <input type="checkbox"/> Long waiting period for results | |
- Other (Specify.....)

13. If you would like to undergo Voluntary Counselling and Testing, where would you prefer to attend? (Select one answer)

- | | |
|--|--|
| <input type="checkbox"/> Private Hospital | <input type="checkbox"/> Government Hospital |
| <input type="checkbox"/> Family Planning Clinic | <input type="checkbox"/> Youth centre |
| <input type="checkbox"/> UKZN Campus health clinic | |
- Other (Specify.....)

14. If you would choose to attend Voluntary Counselling and Testing at the campus health clinic, explain why.

.....

.....

.....

15. If you would prefer to attend Voluntary Counselling and Testing elsewhere, other than the campus health clinic, explain why.

.....

.....

.....

SECTION D: ATTITUDES TO VOLUNTARY COUNSELLING AND TESTING

INSTRUCTIONS: Please indicate your response to the following statements by making a cross (X) in the appropriate box number (1-4)

The following numbers represent your answers:

1 = Strongly Agree, 2 = Agree, 3 = Disagree, 4 = Strongly Disagree

STATEMENT	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE
1) A healthy looking person does not need to undergo Voluntary Counselling and Testing (VCT).	1	2	3	4
2) It is embarrassing to go for Voluntary Counselling and Testing.	1	2	3	4
3) My friends would support me if I decided to go for VCT.	1	2	3	4
4) My partner/spouse would support my decision to go for VCT.	1	2	3	4
5) My partner/spouse would agree to attend VCT if I asked him/her.	1	2	3	4
6) Both partners should receive VCT services at the same time.	1	2	3	4
7) Voluntary Counselling and Testing is confidential.	1	2	3	4
8) It makes no difference to go for an HIV test because there is no cure for AIDS	1	2	3	4
9) Voluntary counselling and Testing is too expensive for students.	1	2	3	4
10) It takes too long to for the results of an HIV test to be released.	1	2	3	4

SECTION E: SEXUAL BEHAVIOUR

INSTRUCTIONS: Please indicate your response by making a cross (X) in the appropriate box or typing in the spaces provided

1. Have you ever had sexual intercourse?

Yes → (Answer Q 2-11)

No → (Answer Q 8-11)

2. If yes, at what age did you first have sexual intercourse?

Age:.... ..Years

3. How many sexual partners do you have?

Number of current sexual partners	
Number of Sexual partners in the last 12 months	

4. Did you use a condom at your last sexual encounter?

Yes

No

5. How often do you use condoms?

Always

Sometimes

Never

At the beginning of a new relationship

6. Have you ever had a sexually transmitted infection?

Yes

No

7. If yes, have you been treated for a sexually transmitted infection in the last 12 months?

Yes

No

8. What do you think are your chances of getting infected with HIV?

High

Medium

Low

No chance at all

9. People have different reasons for having or not having sex. What would be your reason?

.....
.....
.....

10. Did you feel under any pressure from others to have sex?

Yes

No

11. If Yes, please explain from whom and how?

.....
.....
.....

THANK YOU VERY MUCH FOR PARTICIPATING IN THIS SURVEY