AWARENESS , ATTITUDES AND BEHAVIOURS REGARDING HIV VOLUNTARY COUNSELLING AND TESTING (VCT) AMONG STUDENTS OF THE UNIVERSITY OF KWAZULU – NATAL ON HOWARD COLLEGE CAMPUS

By

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DECLARATION

The following study represents an original work by the author . Where work of others have been applied , it has been acknowledged in the text . This work has never been previously submitted for any other degree or examination at any other university . I am solely responsible for the opinions , interpretations and conclusion expressed in this study .

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06/06/2005

Date

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As the candidate's supervisor , I have approved this dissertation for submission .

Signature :

Prof O Adejumo

(Supervisor)

DEDICATION

This work is dedicated to my parents Liwen , Xing and Dexin , Dong ,

who encouraged me throughout this Master course and dissertation .

Your love and patience helped me through all of this .

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ABSTRACT

This survey was conducted to describe the awareness, attitudes and behaviours regarding HIV Voluntary Counselling and Testing (VCT) among students of the University of KwaZulu-Natal in the Howard College Campus residences.

A quantitative descriptive study design and a simple random sampling technique were used in this study. One hundred and seventy – eight students who lived in residences of Howard College Campus voluntarily participated in the study and completed the anonymous questionnaires. The questions in the questionnaire were designed to collect the demographics information of the participants and to address their awareness, attitudes and behaviours regarding VCT.

Analysis of findings revealed that the level of awareness of VCT was high among the students. The majority of the participants have heard of VCT before this survey and knew that campus clinic provided VCT service. To students, the two most major sources of VCT information were TV/radio and friends/classmates. A positive attitude towards VCT was found among the students. The participants perceived the benefits and importance of undergoing VCT as well as the value of counselling. Sixteen percent of all participants have received VCT and twenty – two percent intended to go for VCT within the following 6 months. The main reasons cited by students for undergoing VCT included: to know their health status, to recognize the risk to be exposed to HIV, and to seek for information about maintaining health. The main reasons for not seeking VCT were assuming their HIV status negative and unlikely exposure to HIV because they always practised safe sex. A need for VCT information was found in this study. Some barriers to VCT existed, such as perception of negative consequences of uptake of VCT (e.g. HIV – related stigma), low risk perception to HIV infection, and lack of VCT information.

The findings suggest that there is a need for communication campaigns at the University of KwaZulu–Natal, to address knowledge gaps, reduction of stigma, and promoting awareness of vulnerability to HIV. The findings of this study could be used to assist to plan HIV prevention programme at the University of KwaZulu–Natal.

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AIDS	Acquired Immunodeficiency Syndrome
HIV	Human Immunodeficiency Virus
PLWHA	Person Living with HIV/ AIDS
UNAIDS	Joint United Nations Programme on HIV / AIDS
VCT	Voluntary Counselling and Testing
WHO	World Health Organisation
ARV	Antiretroviral

CHAPTER ONE

INTRODUCTION

1.1 Background

1.1.1 HIV/ AIDS epidemic in the world and South Africa

The total number of people living with the Human Immunodeficiency Virus (HIV) rose in 2004 to reach its highest level ever. The number of people living with HIV has been rising in every region (Joint United Nations Programme on HIV/AIDS (UNAIDS), 2004). The United Nations estimated that in 2004, 39.4 million people in the world were living with HIV/AIDS (37.2 million adults, 2.2 million children under 15 years); 4.9 million people were newly infected with HIV (4.3 million adults and 640,000 children under 15 years); and 3.1 million died of AIDS (2.6 million adults and 510,000 children under 15 years) (UNAIDS, 2004).

Sub-Saharan Africa remains by far the worst-affected region by the HIV/AIDS epidemic. In 2004, an estimated 25.4 million people in this region were living with HIV/AIDS, including the 3.1 million who became infected during the year 2004 (UNAIDS, 2004). The HIV prevalence in this region was 7.4%. AIDS killed up to approximately 2.3 million people in 2004 (UNAIDS, 2004). Thirty percent (30%) of persons living with HIV/AIDS are in Southern Africa, yet this region has less than 2% of the world's population.

South Africa has one of the highest HIV prevalence rates in the world with an estimated 5.6 million South Africans living with HIV/AIDS, including 2.4 million men (aged 15 – 49 years), 3.1 million women (aged 15 – 49 years) and 96,228 babies by the end of 2003 (Department of Health , 2003a) . Based on the antenatal survey conducted in October, 2003, 27.9% of pregnant women were HIV positive, in comparison with a prevalence of 26.5% in 2002 (Department of Health, 2002 and 2003a). Projection indicates that more than one million South Africans will die of AID by 2008. Average life expectancy is expected to fall from approximately 60 years to 40 years between 1998 and 2008 (Department of Health, 2002). In 2004, the highest prevalence among the antenatal clinic attendees was KwaZulu-Natal with a rate 37.5% (Department of Health, 2003a). This was more than the 36.5% recorded in 2002.

AIDS has increased mortality rates and reduced life expectancy. The number of AIDS-related deaths among South Africans aged 15-34 years is projected to peak between 2010 and 2015, with an estimated 17 times as many deaths as there will have been in the absence of AIDS (UNAIDS, 2002). This will continue to affect the labour supply and diminish national productivity. By 2005, South Africa will have lost 11 percent of its workforce to AIDS (United Nations, 2004).

There is as yet no cure for AIDS. The results of these surveys show that HIV/AIDS continues to be significant public health problems in South Africa, as well as the whole world.

1.1.2 Voluntary counselling and testing (VCT)

Knowledge of HIV serostatus is necessary for early medical intervention and promoting behaviour changes that make HIV transmission less likely (Higgins, Galavotti, O'Reilly, Schnell, Moore and Rugg, 1991). A study (Wortley, Chu, Diaz, Ward, Doyle and Davidson, 1995) revealed that persons were tested late in their course of HIV infection in the United States: 36% of the study population were tested for HIV within two months and 50% within one year of their AIDS diagnosis. Data from the Los Angeles Health Survey (Los Angeles County Department of Health Services, 1999, cited in Rotheram–Borus, Mann, Newman and Grusky, 2001) indicated that only 36% of all adults and 52% of the adults at increased risk for HIV had been tested for HIV in the previous 2 years. In 2000, among the estimated 850,000–900,000 persons living with HIV in the United States, approximately one quarter (180,000–280,000) were unaware that they were HIV infected (Fleming, Wortly, Karon, DeCock and Janssen, 2000). According to the HIV Testing Survey (HITS) in the United States, about 20% of persons with self – reported high – risk behaviour had either not sought or not been offered HIV testing (Kellerman, Lehman, Lansky and Stevens, 2002). Other studies showed that around half of the prevalent HIV infections in England and Wales remained undiagnosed (De Cock and Johnson, 1998) , and up to one – third remained undiagnosed in Canada (Johnston and Conly, 2002) .

Data from the South African National HIV Prevalence, Behavioural Risks and Mass Media Household Survey (Human Sciences Research Council (HSRC), 2002), a nationwide community – based survey of the prevalence of HIV in South Africa, revealed that among the respondents aged 15 years or more, 18.9% said that they had previously had an HIV test and were aware of their HIV serostatus (23.1% among the HIV-positive respondents and 18.2%

among the HIV-negative respondents). Nearly two thirds (62.6 %) of those who were HIV positive but unaware of their serostatus did not think that they could possibly get infected by HIV.

Failure to undergo an HIV test can lead to delayed diagnosis; infected people do not benefit fully from antiretroviral therapy and prophylaxis to prevent opportunistic infections; they can transmit HIV to others if they practise unprotected sex, these lead to serious consequences for individuals and society (Vermund and Wilson, 2002; Nakashima, Campsmith, Wolfe, Nakamura, Begley and Teshale, 2003). Awareness of HIV serostatus has a positive impact on acceptability and adoption of preventive behaviours among individuals who are HIV positive (HSRC, 2002). People should be given the choice of knowing their HIV serostatus through voluntary HIV testing in order to facilitate rational behaviour change.

Voluntary counselling and testing (VCT) is the process by which an individual undergoes confidential counselling to enable the individual to make an informed choice about learning his or her HIV status and to take appropriate action (International Planned Parenthood Federation (IPPF) and The United Nations Population Fund (UNFRA), 2004). Figure 1 illustrated a VCT model. If the individual decides to take the HIV test, VCT enables confidential HIV testing. The voluntary nature of VCT is one of its underlying principles. Counselling for VCT consists of pre-test, post-test and follow-up counselling. During pre-test counselling the counsellor gives an individual (or a couple or group) the opportunity to explore and analyze their situation and consider being tested for HIV. Each individual makes an informed decision of whether or not to take the HIV test after they have been given information and support to reach an understanding of what is involved.

HIV voluntary counselling and testing (VCT) has been identified as a valued entry to both HIV prevention, and care and support services (UNAIDS, 2000). As shown in figure 2, VCT provides people with an opportunity to learn and accept their HIV serostatus in a confidential environment with counselling and referral for ongoing emotional support and medical care. People who have been tested seropositive can benefit from earlier appropriate medical care and interventions to treat and/or prevent HIV-associated illnesses (e.g. tuberculosis, other opportunistic infections). Pregnant women who are aware of their seropositive status can prevent HIV transmission to their infants. Knowledge of HIV serostatus can also help people to make decisions to change risk behaviors to protect themselves and their sexual partners from infection.

Some studies have been conducted to explore the benefits of VCT. HIV testing and counselling increased condom use and decreased the heterosexual transmission of HIV among HIV – discordant couples in a study conducted in Kigali, Rwanda (Allen, Tice, Van de Perre, Serufilira, Hudes and Nsengumuremyi, 1992). Persons who tested HIV – negative might resort to condom use in order to remain their seronegative status (van der Straten, Grinstead, Serufilira and Allen, 1995). A survey (Horizons Program, 2001) conducted at three cities: Nairobi (Kenya), Dare s Salaam (Tanzania), and Port of Spain (Trinidad) showed that VCT reduced unprotected intercourse among individuals and sex-partner couples. These findings support the efficacy of VCT in promoting behaviour change.

Figure 1: VCT model (YouthNet, 2002) .

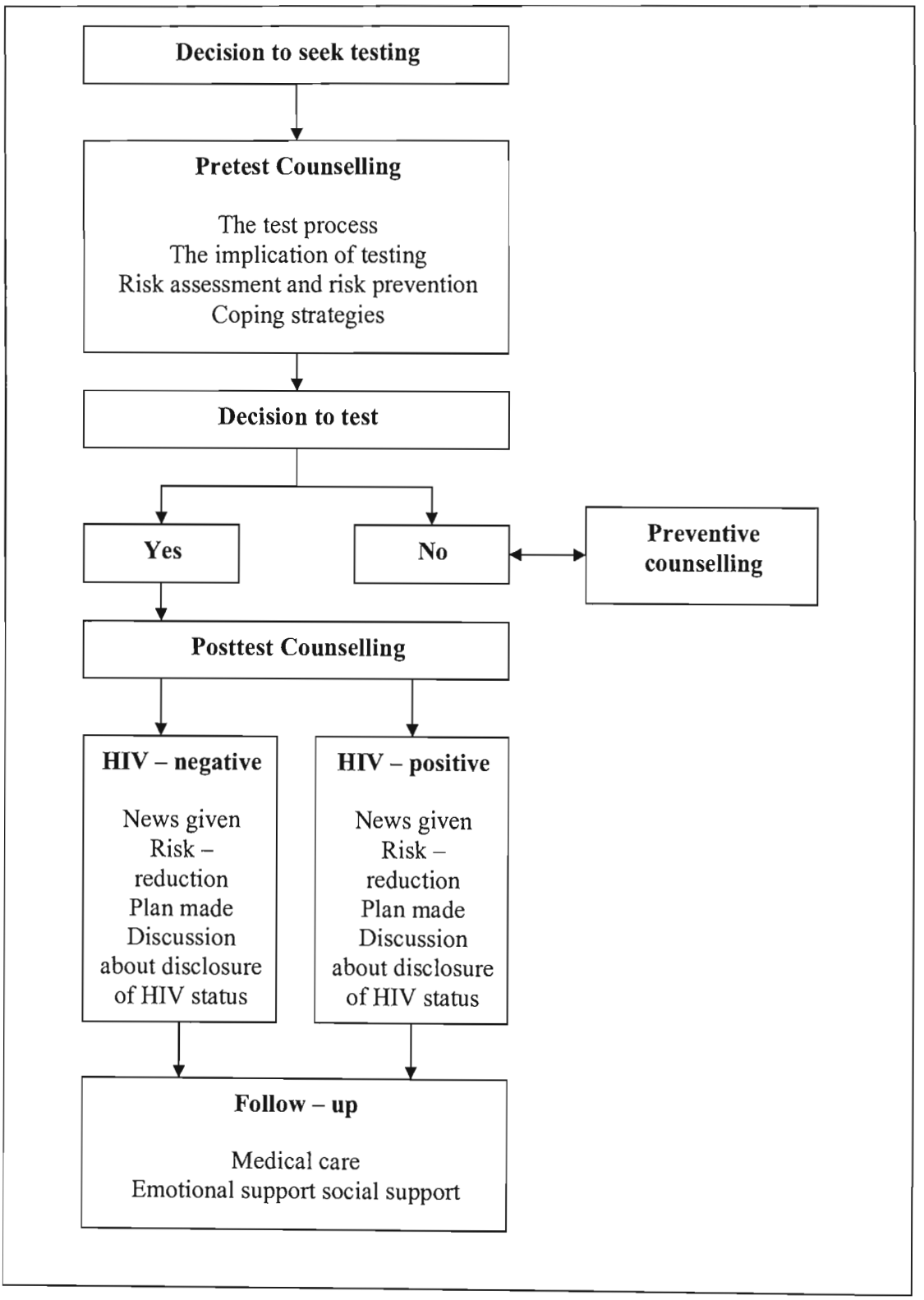
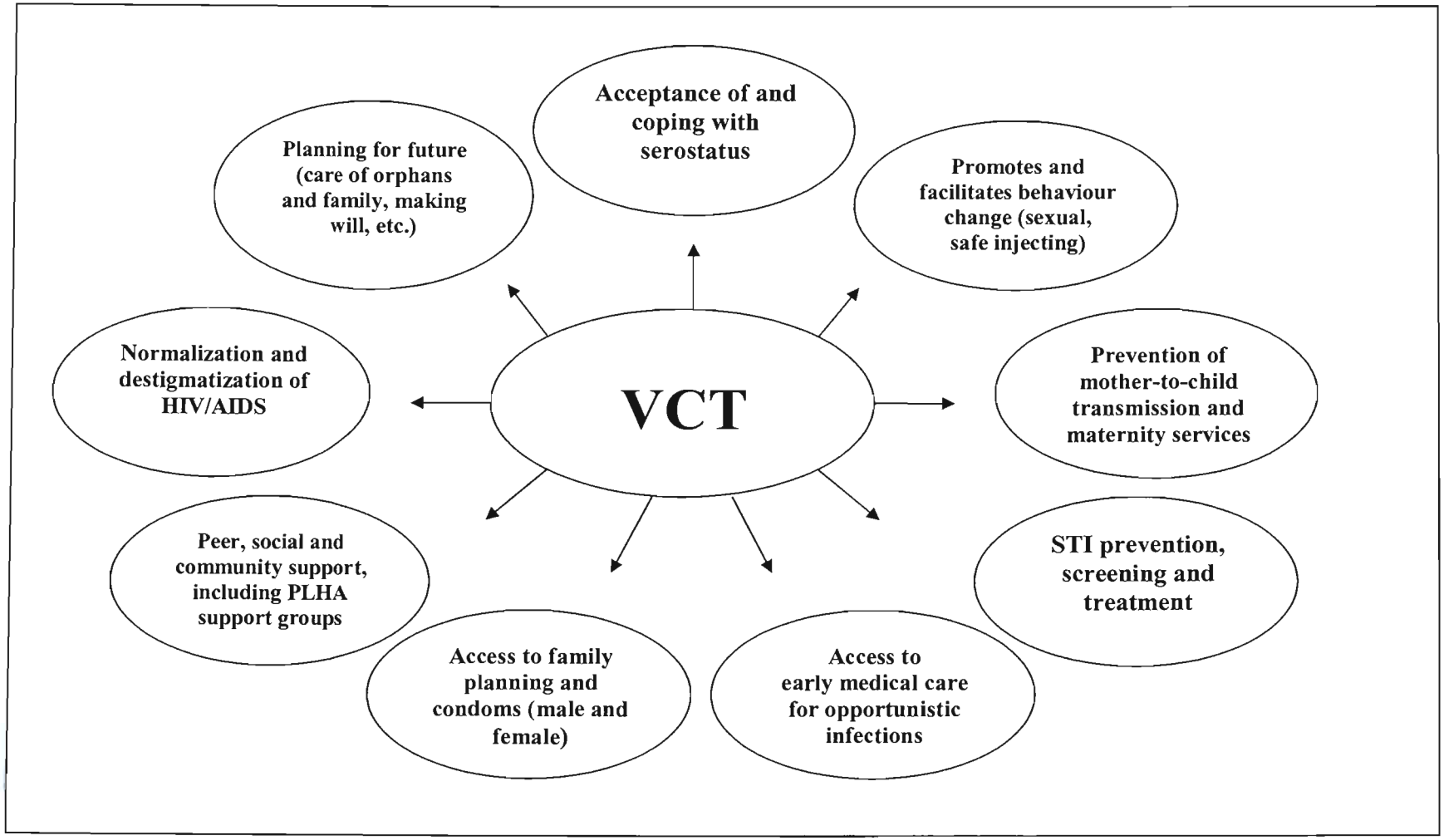


Figure 2: Voluntary counselling and testing as an entry point for HIV prevention and care (UNAIDS, 2002).



1.1.3 VCT in South Africa

South Africa has identified Voluntary HIV Counselling and Testing as a priority intervention (Department of Health, 2000a). VCT has been available in South Africa since the early 1990s – notably through city-based AIDS Training, Information and Counselling Centres (ATICCs), various NGOs, private sector services, and in some clinics and hospitals (Birdsall, Hajiyiannis, Nkosi and Parker, 2004).

In June 2000 the Department of Health launched the *HIV/AIDS and STI Strategic Plan for South Africa, 2000-2005*. One of four major strategies stated in this Plan is 'increased access and acceptability for voluntary HIV counselling and testing' (Department of Health, 2000a). This goal focuses on expanding access to VCT in both the private and public sectors. Through the expansion plans for both VCT and PMTCT, it is aimed to have VCT services available in 80% of the public health facilities by the end of the 2003/4 financial year (Department of Health, 2003b).

Guidelines were developed for voluntary HIV counselling and testing. *National Policy On Testing For HIV* (Department of Health, 1999) provided guidelines on the circumstances under which HIV tests might be conducted, definitions of AIDS, HIV, HIV testing, informed consent, pre-test counselling, post-test counselling and proxy consent, emphasis on informed consent, and the standards for informed consent, pro-test and post-test counselling should be undertaken. *Rapid HIV Tests and Testing HIV/AIDS & STD Directorate* (Department of Health, 2000b) was a guideline for the administration of rapid HIV testing, addressing the role and indications for rapid HIV testing, performing and interpreting rapid test results, pre- and

post – test counselling and communicating positive rapid HIV test results, and quality assurance and regulations concerning rapid HIV test.

Implementation of the comprehensive HIV and AIDS Care, Management and Treatment Plan started in the first quarter of the year 2004 (Department of Health, 2004). VCT has been identified as one of the key prevention strategies. The number of service points available to provide VCT services countrywide was 3,072 by the end of September, 2004, with service points recording an estimated 100% increase in uptake since the launch of the Plan. The total number of people tested during 2003/2004 was 511,843 as compared to 247,287 in the previous financial year (Department of Health, 2004). These sites primarily were public health facilities and clients accessed VCT in the context of PMTCT or home – based care; VCT also expanded in the private health facilities, workplaces, and community-based/non-profit organizations (Department of Health, 2003b).

In 2003, WHO and UNAIDS set a "3 by 5" target that 3 million people living with HIV/AIDS in developing and transitional countries would be receiving antiretroviral therapy by 2005. In the second half of 2004, the number of people on antiretroviral (ARV) therapy in developing and transitional countries increased dramatically from 440,000 to an estimated 700,000 (Joint United Nations Programme on HIV/AIDS (UNAIDS) and World Health Organization (WHO), 2005). In South Africa the number of people receiving ARV treatment increased by more than 10,000. To qualify for ARV therapy, an individual must be tested for HIV. Whatever the results of tests, they must be accompanied by pre-test and post-test counseling . For many individuals, the point of entry to ARV therapy will be a counselling and testing site at which the client voluntarily opts into the process (UNAIDS and WHO, 2005).

1.2 Problem statement

The majority of the university students, especially undergraduate students, are young people. The impact of HIV / AIDS on young people is severe. People aged 15 – 24 years account for more than 50 % of all HIV infections worldwide (excluding perinatal cases) (Boswell and Baggaley, 2002). Statistics showed that more than half of those newly infected with HIV were between 15 and 24 years old. An estimated 11.8 million young people aged 15 -24 years were living with HIV / AIDS , and each day , an average of 6,000 to 7,000 became infected with HIV. Young people are particularly vulnerable to HIV (UNAIDS and WHO, 2001).

According to the data from the 2003 South Africa antenatal survey (Department of Health, 2003a), the age group with the highest prevalence was 25-29. This survey confirmed high prevalence in the 25-29 age group (35.4%) (29.1% in 2002), followed by 30 – 34 age group (30.9%) and 20 – 24 age group (30.3%), the prevalence in under 20 age group was 15.8% (14.8% in 2002) (Department of Health, 2002 and 2003a). The National Survey of HIV and Sexual Behaviour among Young South Africans (Reproductive Health Research Unit (RHRU), 2003), one of the largest nationally representative, household surveys of young people in the world , found that overall HIV prevalence among 15-24 age group was 10.2%. Prevalence among 15-19 age group was 4.8%; among 20-24 age group was 16.5%. HIV prevalence was higher among females (15.5%) than males (4.8%) aged 15-24 years. Most young South Africans living with HIV/AIDS were females (77%). By province, the highest HIV prevalence was found in KwaZulu-Natal (14.1%) and the lowest one in Limpopo (4.8%). Youth living in urban informal areas had the highest HIV prevalence (17.4%), followed by rural formal areas (13.5%), urban formal areas (9.8%) and rural informal areas (8.7%).

Young people, like adults, contract HIV primarily in three ways: through injecting drug use; through unprotected sexual activity between men and women; and through unprotected sexual activity between men (MSM). HIV can also be transmitted via blood transfusions, through the sharing of nonsterile equipment that breaks the skin (United Nations, 2004). Heterosexual relationships become one of the major means in the spread of AIDS.

University students fall within the most active and high HIV risk groups. In South Africa approximately two thirds (67%) of young people aged 15-24 years reported having had sexual intercourse; sexual experience increased with age, with 48% of 15-19 age group reporting having had sex compared to 89% of 20-24 age group (RHRU, 2003). Studies on sexual behaviour of students in Sub – Saharan African (Kaaya, Flisher, Mbwambo, Schaalma, Aaro and Klepp, 2002) indicated high prevalence rates of sexual intercourse; infrequent use of condoms and other contraceptives; and a significant proportion of adolescents who had two or more lifetime sexual partners.

University life brings with it many opportunities which can potentially increase the risk of HIV infection (Bernand and Prince, 1998). Students are often enjoying new-found independence and are experimenting with a variety of behaviors which may place them at greater risk for HIV infection, such as unprotected sexual activity, multiple sexual partners, drinking and/or drug use.

A limited number of studies of HIV/AIDS have been undertaken among the students at the tertiary institutions in South Africa. HIV infection levels in the tertiary institutions in 2000 were estimated as follows: 22% for university undergraduates, 11% for postgraduate university students and 24.5% for technikon undergraduates. These were expected to increase

to 33%, 21% and 36%, respectively, by the year 2005 (Chetty, 2000, cited in Uys, Ichharam, Martin and Alexander, 2001). According to a media report , at the University of Durban – Westville (UDW) (the University of Natal and the University of Durban-Westville merged in 2004, the name of the new university is University of KwaZulu-Natal), HIV infection rates was 26 % in women and 12% in men aged 20 - 24 years in 2001 (Stremlau and Nkosi, 2001). The findings of a study conducted at Rand Afrikaans University (RAU) showed that HIV prevalence was 1.1% among the students of RAU (Uys et al., 2001). The results varied because different methods were used in these studies.

HIV/AIDS is likely to have a major negative impact on students and staff numbers: illness among students and staff, increasing death rates, a negative influence on the student loan fund as a consequence of non-repayment (University of Natal, 2002).

As a result, the challenges are not only the need to focus on students' knowledge of HIV/ AIDS and safe behaviour, but the need to expand VCT and render it more acceptable among the students. VCT provides an opportunity for students to know their HIV serostatus and to discuss risky and safe behaviour. Testing for HIV with the necessary and appropriate counselling has been promoted as a key motivating force for safer sexual behaviour (UNAIDS, 2002).

HIV voluntary counselling and testing (VCT) has been studied among different high – risk groups or age groups in the rest of the world. Some studies were based on large – scale national surveys. They explored the demand for VCT (Horizons Program, 2001; YouthNet, 2002); the knowledge, attitudes and practices or experiences regarding VCT (Bernand and Prince, 1998; Horizons Program, 2001; Rotheram – Borus et al., 2001; Kelleman et al., 2002;

Day, Miyamura, Grant, Leeuw, Munsamy and Babbaley, 2003; Kalichman and simlayi, 2003; Alemu, Abseno, Degu, Wondmikun and Amsalu, 2004; Peltzer, Nzewi and Mohan, 2004; Thiede, Palmer and Mbatsha, 2004); and determined what factors influenced the acceptance of VCT (Samet, Winter, Grant and Hingson, 1997; Killewo, Kwesigabo, Comoro, Lugalla, Mhalu and Biberfeld, 1998; Dejene, 2001; Castle, 2003). However, little is known about students' awareness, attitudes and behaviour regarding VCT in the university community in South Africa. So this study was to describe awareness, attitudes and behaviours regarding VCT among the students of the University of KwaZulu- Natal, the biggest tertiary education institution in Durban.

1.3 Purpose of study

To describe the awareness, attitudes and behaviours regarding VCT among students of the University of KwaZulu-Natal in the Howard College Campus residences.

1.4 Objectives of study

1. To describe the status of awareness of VCT among students of the University of KwaZulu-Natal in the Howard College Campus residences.
2. To describe the sources of information about VCT among students of the University of KwaZulu-Natal in the Howard College Campus residences.
3. To describe the attitudes towards VCT among students of the University of KwaZulu-Natal in the Howard College Campus residences.
4. To analyse the behaviours regarding VCT among students of the University of KwaZulu-Natal in the Howard College Campus residences.

5. To analyse the reasons given by students for their behaviours regarding VCT.

1.5 Research questions

1. What is the status of students' awareness of VCT?
2. What sources of VCT information are the students exposed to?
3. What are the students' attitudes towards VCT?
4. What are the students' behaviours regarding VCT?
5. What are the reasons given by students for their behaviours regarding VCT?

1.6 Significance of study

The findings of this study will provide a profile of the university students' awareness, attitudes and behaviours regarding VCT. These information are helpful for planning HIV prevention programme at the University of KwaZulu – Natal. They also provide a baseline for evaluation of the strategies on promoting VCT awareness and knowledge among the students at the University.

1.7 Conceptual framework

This study was based on the Theory of Reasoned Action described by Ajzen and Fishbein (1980).

According to Kerlinger (1986), a theory is a set of interrelated constructs (concepts), definitions, and propositions that present a systematic view of phenomena by specifying

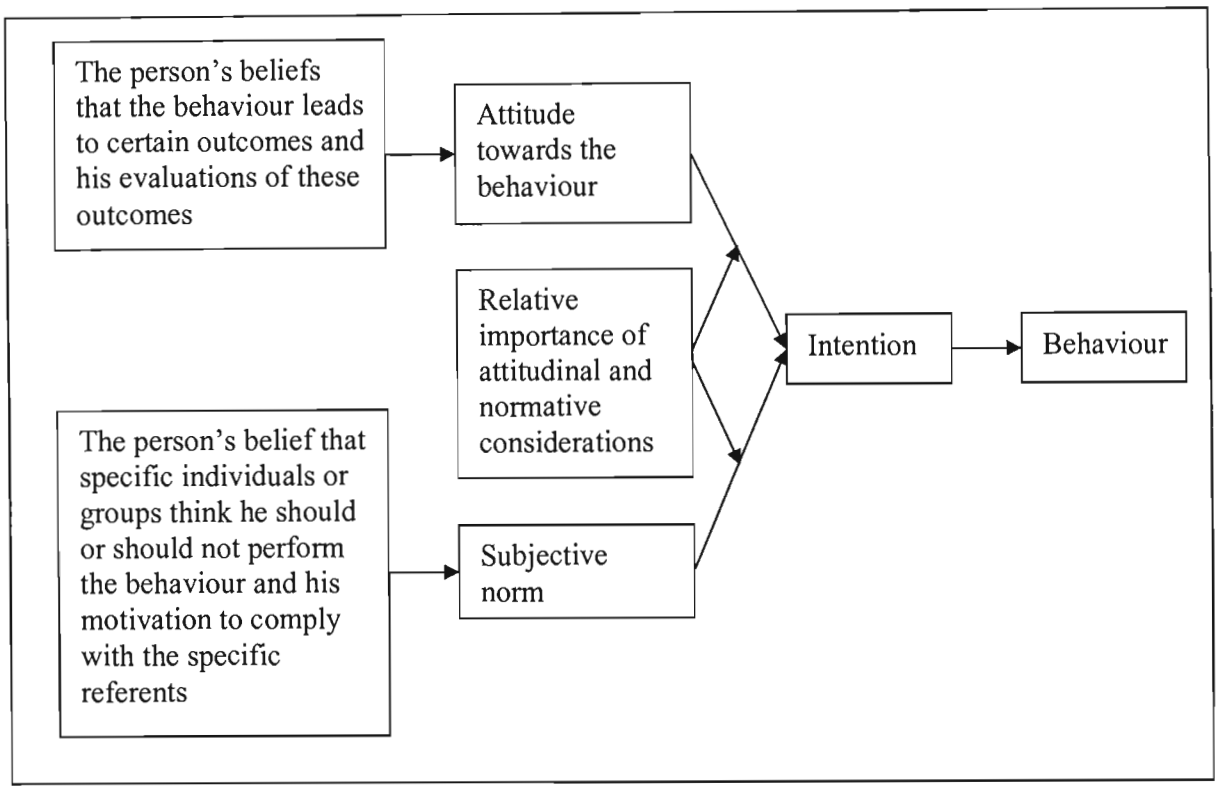
relations among variables, with the purpose of explaining and predicting the phenomena. The theoretical framework in a study provides a context for examining a problem; that is the theoretical rationale for developing hypotheses. It is also a frame of reference that is a base for definitions of variables, research designs, interpretation, and generalizations (LoBiondo – Wood and Haber, 1990).

In this study, the theory of reasoned action provided a conceptual framework with which to consider the behaviour regarding VCT.

The theory of reasoned action (Ajzen and Fishbein, 1980) is a general theory of human behaviour that deals with the relations among beliefs, attitudes, intentions, and behaviours. As can be seen in figure 3, behaviour is viewed as a function and is seen as a joint function of one's overall positive or negative feeling toward performing the behaviour, and one's overall perception of social pressure to perform or not to perform the behaviour.

Attitude and subjective norm are viewed as a function of underlying cognitive (i.e. belief) structures. Attitudes are viewed as a function of behavioral beliefs that performing the behavior will lead to certain outcomes and one's evaluation of those outcomes. Subjective norms are viewed as a function of normative beliefs that specific referents (i.e. certain individuals or groups) think one should or should not perform the behavior and one's motivation to comply with those referents. Thus, according to the theory, behavior is ultimately determined by a cognitive structure composed of underlying behavioral and normative beliefs.

Figure 3. A theory of reasoned action: factors determining a person's behavior (Ajzen and Fishbein, 1980). Arrows indicate the direction of influence with hypothesized relationships.



According to Valdiserri (1989), the theory of reasoned action holds that a person's intention to act is the immediate: the person's attitude towards the behaviour or evaluation of it (in this study, whether students believe that the knowledge of HIV status from VCT will benefit them); the person's beliefs about the behaviour (whether students believe that HIV testing is accurate, or the results will be kept in confidentiality); the person's perception of subjective norms (beliefs about what significant others will think of the behaviour) (in this stud, what are the peer's attitudes towards VCT: positive or negative ; what is the social norm for a negative attitude towards people living with HIV/AIDS); and the value the person places on approval by others.

1.8 Definition of terms

HIV Voluntary Counselling and Testing (VCT): The process by which an individual undergoes counselling enabling him or her to make an informed choice about being tested for HIV. This decision must be entirely the choice of the individual and he or she must be assured that the process will be confidential (UNAIDS, 2000).

Awareness: Having knowledge or perception of a situation or a fact. Students' awareness regarding VCT means knowing something about VCT.

Attitude: A settled way of thinking or feeling towards a fact or a state (in this study is towards VCT). A student may have a positive or a negative attitude to HIV testing.

Behaviour: The way in which someone behaves. Students' behaviours regarding VCT include to have an HIV testing or to refuse to be tested, etc.

Student: Any person who has registered at the University of KwaZulu-Natal and dwells in a residence of Howard College Campus.

Campus residence: A specific place (hall) in the Howard College Campus where students live during an academic year.

CHAPTER TWO

LITERATURE REVIEW

The literature review can be defined as an extensive, exhaustive, systematic, and critical examination of publications relevant to the research project (Seaman and Verhonick, 1982). By reviewing the literature the researcher hoped to accomplish two main goals:

- Identifying and becoming familiar with all of the relevant published material and ;
- Composing this foundation so that it puts this study into the context of all the previous researches.

The literature was selected for its relevance to the aim of this study. These studies conducted in South Africa, other developing countries and industrialized countries focused on different high – risk groups or age groups. They explored the knowledge, attitudes and practices or experiences regarding VCT and determined what factors influence the acceptance of VCT.

2.1 Studies from industrialized countries

An anonymous, random, digit-dial telephone survey (Samet et al., 1997) was undertaken in Massachusetts, United States, 1993. The researchers analyzed the survey data to assess sexually active adolescents' knowledge, attitudes, and behaviours associated with HIV testing and to determine the factors important in their decision to obtain voluntary HIV testing. Out of 906 adolescents (aged 16 – 19 years) surveyed, 63% had sexual intercourse within the previous year.

Voluntary HIV testing was uncommon: 22% of the adolescents surveyed had received HIV testing; 42.5% of them had been tested for personal reasons, the remainders (57.5%) tested for

other reasons (blood donation, pregnancy care, etc.). Fifty – six percent (56%) felt that it was at least at little likely that they would get AIDS. The researchers found that misconceptions were common about aspects of HIV testing: 35% did not believe or did not know that the HIV test results were kept in confidence; 30% did not think that the HIV test was very accurate. Thirty percent of those who were not tested but wanted to get tested did not know where to go for HIV testing. Five factors were identified as independently associated with voluntary HIV testing: 1) having had more than one sexual partner within the previous year; 2) believing that condoms were only somewhat effective at preventing the spread of AIDS; 3) having discussed AIDS with a doctor; 4) not having had a teacher discuss AIDS; and 5) believing that an HIV-positive test result meant one had AIDS as opposed to carrying the virus.

A study (Bernand and Prince, 1998) was conducted to explore the HIV testing practices and attitudes among the college students from a commuter university in the Midwest area, United States. Out of the 1919 students (42.7% male and 57.3% female) who completed the questionnaires, 37% had been tested for HIV. Age was significantly associated with HIV testing status: students between ages of 25 and 35 were more likely to report for being tested for HIV than other age groups. It was found that there was a significant association between marital status and HIV testing status. Over half of the married students and separated or divorced students had been tested for HIV, whereas only one – third of single students had. It was also found that there were significant associations between the number of sexual partners within the previous year, rate of condom use over the previous six months and HIV testing status. The most frequently reported reasons for not being HIV tested were the assumption of an HIV negative status (30.6 %) and practising safe sex (25.7 %), followed by not being in a high risk group (21.2 %) and never had sex or used IU drugs (18.0 %). The researchers examined the safe sex practices of those who had never had an HIV test because they

assumed that they were HIV negative. It was found that 42 % of them reported never used a condom and 16.8% had more than one sexual partner within the previous year, while only 10.3% used a condom all of the time, over half practised monogamy, and 22.8% had not had sex within the previous 6 months. Among those who reported no need for HIV testing because they practised safe sex, only 20% used a condom all of the time and almost 60% practised monogamy, whereas close to one third never used a condom and 15% had more than one sexual partner within the previous year. This study revealed that students had inaccurate and underestimated perceptions about the susceptibility to HIV.

A street intercept survey was done (Rotheram-Borus et al., 2001) to assess HIV – testing attitudes and behaviours. A total of 385 participants were recruited from three types of settings in Los Angeles, United States: a gay-identified agency, a substance-abuse treatment program, and inner-city community venues (a shopping mall and community center). The findings showed that 77% of the participants had been tested for HIV. Among them, 72% had been tested more than once, 91% had been tested within the previous two years. Almost 20% did not return for the results of an HIV test. Seventy percent reported that they intended to get test for HIV in the following 12 months. The community subsample had a lower rate of testing, fewer testing times, a higher rate of receiving the test results, compared to gay – identified agency and substance – abuse treatment program subsamples. Most participants thought strong benefit for HIV testing. Gay – identified agency participants were less likely to agree that health departments and partners should be notified of a person's infection with HIV than the participants in other two subsamples. Gay – identified agency participants were also more likely to have taken an anonymous test than the participants in other two subsamples.

Using the data from the HIV Testing Survey (HITS) – a cross-sectional study of persons at high risk for HIV infection in the United States , the researchers (Kellerman et al., 2002)

explored HIV testing attitudes and behaviours in high – risk groups (men who have sex with men (MSM) ; injection drug users (IDUs); STD (sexual transmitted disease) clinic attendees). HITS was conducted twice (1995–1996 and 1998–1999). 1577 of 1781 persons interviewed during the HITS – I study period and 1711 of 1885 persons interviewed during the HITS – II study period were in the final analysis.

Eighty percent of the participants in the HITS – I and seventy – seven percent in the HITS – II had been tested for HIV. In both surveys, younger respondents (< 25 years old) were significantly less likely to have been tested for HIV than those 25 years old and more (HITS – I: 71% versus 78%, respectively, p=0.007; HITS – II: 63% versus 85%, respectively, p <0.001). Testing rates between surveys did not differ significantly by racial/ethnic group. Five most common reasons given by the respondents previously tested for HIV as the "main reason" for VCT were: to know where he/she stood, thought exposed to HIV through sex, concerned about transmitting HIV , thought exposed through drug use, part of medical check-up. The first four reasons were personal reasons for HIV testing. The three most common reasons given as the "main reason" for not being tested among the respondents who had never been tested in the HITS – I were: afraid of finding out HIV positive (27%), unlikely to be exposed to HIV (17 %), and thought HIV negative (14 %). The most common three reasons indicated as the "main reason" for not being tested among the respondents who had never been tested in the HITS – II were: unlikely to be exposed to HIV (30%), and thought HIV negative (22 %), and afraid of finding out HIV positive (18 %).

In both surveys, respondents who were under 25 years were more likely to deny HIV risk than the respondents aged 25 years old and more. IDUs were less likely to deny exposure risk than MSM or STD clinic attendees. Tested persons in both surveys were less likely than untested persons to report that they would rather not know if they were HIV seropositive until they had to. Tested persons in both surveys were also less likely than untested persons to

report that they would not tell people if they were HIV positive. The finding showed that untested respondents were less likely to believe that medical care could maintain the health of those who were HIV – positive, were more afraid of HIV, had a greater level of HIV risk denial, and had less knowledge of HIV risk factors than the respondents who had been tested for HIV.

Supplement to HIV/AIDS Surveillance (SHAS) project was an ongoing, cross-sectional, multi-site interview study, which was conducted by the Centers for Disease Control and Prevention (CDC) in the United States. SHAS data collected by 16 states or local health departments were analyzed. During May, 2000 to February, 2003, persons at 16 sites who were tested early in the course of HIV disease (early testers) were compared with persons who were tested late in the course of HIV disease (late testers) (Nakashima et al., 2003). Early testers were defined as persons who reported that they had their first positive HIV test $\geq$5 years before the diagnosis of AIDS or had $\geq$5 years without a diagnosis of AIDS after their first positive HIV test. Late testers were defined as persons who had their first positive HIV test within one year before the diagnosis of AIDS.

Of 7,584 persons invited to participate in the survey, 5,980 (79%) completed the interviews (72% male and 28% female; 56% black, 22% white, and 19% Hispanic). Overall, 2,281 (38%) HIV - exposures were attributed to men having sex with men (MSM), 2,166 (36%) to heterosexual transmission, 1,010 (17%) to current or former injection-drug use (IDU), and 477 (8%) to MSM / IDU.

Compared with the 1,573 early testers, the 1,877 late testers were significantly more likely to be younger (aged 18-29 years), to be black or Hispanic, to have been exposed to HIV through heterosexual contact, to have a high school or lesser education level , or to have been tested negative for HIV previously before their first positive HIV test . The majority (65%) of late

testers received HIV testing because of illness, while 29% of early testers were tested because of self-perceived risk to HIV infection and 19% because they wanted to know their HIV status; 87% of late testers and 69% of early testers had their first positive HIV test at an acute or referral medical care setting, and 8% of late testers and 22% of early testers were tested anonymously.

2.2 Studies from developing countries

The acceptability of voluntary HIV testing with counseling was investigated in a study conducted in a rural village in Kagera, Tanzania (Killewo et al., 1998). Thirty percent of the 450 adults in the village who attended the health education group meetings agreed to participate in the survey and received both pre-test counselling and HIV testing. Thirteen volunteers (9.8%) were HIV-positive. Interviews were conducted with 195 village adults. The results revealed: 96% of those who voluntarily underwent VCT in order to learn their HIV status. Half of the volunteers compared with only one-third of non-participants had a relative with AIDS. A significantly higher proportion of women than men did not want their spouses to know about their HIV status. People might choose not to take a voluntary HIV test because they perceived themselves at low risk of infection or because they apparently felt well and hence saw no reason for testing.

The results of this study revealed a moderate level of acceptability of VCT. There was a need for developing innovative ways of enhancing acceptability of voluntary HIV testing with counselling.

A study (Horizons Program, 2001) to explore whether VCT programs were appropriate for young people was done in Kenya and Ugandan. The first phase of the study completed in

May 2000. In Uganda, the survey sample consisted of 135 tested and 210 untested young people; in Kenya, 105 tested and 122 untested young people. The ages of the participants were 14 to 21. In – depth interviews were conducted with sampled youth, and parents, service providers, community members and policymakers. The study findings showed that most tested young people intended to practise safe sex. The respondents who had participated in VCT felt that counseling was a valued part of HIV testing. A majority of the clients mentioned that the counseling were the most satisfactory aspects of their testing experience than any other component. Yet some young people did not receive counseling with the test. This occurred less often in Uganda than in Kenya, where fewer testing facilities provided truly voluntary services and good counseling. One out of four tested participants in Nairobi did not receive post – test counseling. Seventy – seven percent of the untested respondents in Kenya and more than ninety percent in Uganda reported that they would like to be tested for HIV at some point in the future. VCT service providers interviewed in the two countries reported that counseling young people required special training. Ugandan providers mentioned a need of more youth – oriented services, because few youth – appropriate services or support groups existed. The results indicated that youth would like to make use of VCT services if the services were confidential and inexpensive and if the results were reported honestly. The researchers suggested some strategies for implementation of youth – oriented and high – quality VCT programs.

A study was done to identify the factors that affected the accessibility and acceptability of VCT services in Bahir Dar town, Ethiopia (Dejene, 2001). A random sample of 478 (323 females and 155 males) was selected in two randomly selected Kebeles from Bahir Dar town. They completed the questionnaires. For the qualitative study, a total of seven focus group discussions (home- and hotel-based commercial sex workers, male and female youth, street children, young male and female college students) were conducted.

A vast majority (83%) of the respondents knew about whether one could check his/her HIV status and almost a similar proportion knew where the VCT service was available. Radio and Health personnel were indicated as the major sources of information about the availability of VCT service.

Ninety–four percent of the respondents felt that VCT service was necessary. The desire to know HIV status and to avoid risk behavior were the two common reasons cited by the majority of those who would like to undergo VCT. Almost half of the respondents said that everybody should be tested for HIV while commercial sex workers, youth, and couples before marriage were the groups indicated to need the VCT service most.

Almost all of the respondents (99.3%) reported that using the VCT service was not something to be afraid of, however, one quarter of them were not ready to tell of their decisions to be tested for HIV to anyone. Nearly three quarters of the respondents believed that people would have a negative attitude towards those who were willing to be tested.

Some hotel-based female sex workers and female street children said that they were not ready to go for VCT even if it was provided free of charge. They believed that free medical service would not come up with reliable results.

The researchers found that male students from higher academic institutions were not willing to go for VCT. They felt that a negative connotation or implication that would lead to them being labeled as a potential victim of HIV/AIDS which, in turn, would affect the image and reputation of the student thereafter.

The hospitals were the commonly mentioned places where the majority (83%) of the respondents had identified as sites where VCT services were provided. However, some health facilities, where the services were not actually available, were also mentioned by 41.6% of the respondents as sites where the services were available. This reflected the fact that many people had inadequate knowledge about the whereabouts of VCT service.

These findings suggested that the demand for VCT service was high in Bahir Dar Town (particularly among the student population). The organized and well-equipped VCT centers should be established to address the needs.

Another study had been conducted in Awassa, Yirgalem, Leku and Wolkite towns, Ethiopia (United Nations Children's Fund (UNICEF), 2001). The purpose of this cross-sectional study was to assess obstacles and challenges in accessing health care and Voluntary Counseling and Testing (VCT) of HIV/AIDS among the youth. A total number of 374 interviewees responded to the structured questionnaires; 15 service providers attended in-depth interview; and 5 focus group discussions, which had 120 youths from different segments of young people (out-of-school and in-school youth; male and female; and commercial sex workers), were conducted in each town.

The findings showed that most young people had heard of VCT service. However, young people's knowledge about VCT service was poor: little knowledge prevailed about what it meant, its purpose and scope, how it was delivered, by whom, where and when it was provided. A great majority (84.1%) of the participants expressed their willingness to use VCT services. Almost all participants (94%) confirmed the importance of the service.

Most participants had mentioned that the existing health service was not youth-friendly. The environment in health facilities was not interactive and attractive. Staffs were not welcoming. There was a long waiting time; privacy and confidentiality were not secure. In Wolkite town, there was a tendency to provide VCT service primarily for pre-marriage requests and, consequently, voluntary youth who in need of the service were mostly ignored.

The shortage and lack of testing materials and the shortage of trained heath professionals in VCT in the most towns were perceived as serious problems by the health staff informants. The affordability of health care and VCT service was identified as a hindering factor in this

study. The proportion of the young people who could not attend health service in time of need due to lack of money was 39%. Twenty – six percent of the participants suggested free service.

In this study obstacles that prevented young people from using health care and VCT service were outlined. The challenges about how to allocate the very limited human and financial resources to reach all young people, and how to improve the quality of health care and VCT services should be addressed.

A qualitative research (Castle, 2003) was conducted to explore the factors associated with low motivation for using HIV voluntary testing and counselling (VCT) services in the Malian cities of Sikasso and Bamako, Mali. Eight focus group discussions were carried out to capture normative attitudes and beliefs concerning HIV / AIDS and HIV testing. In each city, one focus group about VCT services was undertaken with educated and uneducated participants of both sexes. They were aged 20 - 34 years.

The findings showed that fear of stigmatization, disbelief in AIDS and lack of confidence in the health services were the main barriers for the potential use of VCT services. The sense of stigmatization seemed greater among educated individuals who were unfamiliar with the disease, compared with uneducated respondents for whom the illness often touched upon their daily lives.

Disbelief in AIDS was perceived by some educated participants to be a barrier to the potential use of VCT services. However, the majority of uneducated respondents appeared to be more likely to believe in the existence of HIV. They reported that they would go and be tested. Some respondents perceived the staff to be incompetent, leading to the giving of a positive result when in fact the person tested was HIV – negative.

The results of study pointed to a need for an awareness campaign. The researcher suggested the strategies to combat scepticism and to support people who tested positive for HIV.

To examine the factors affecting readiness for and acceptability of voluntary HIV counselling and testing (VCT), a study was done in Zambia by Fylkesnes and Siziya (2004). Participants in a population-based HIV survey conducted in an urban population in Zambia in 1996 were offered VCT. Although 29% of them expressed interest in being tested (readiness), only 4% used the services (acceptability). When the survey was repeated 3 years later, VCT was designed differently to assess acceptability.

Readiness varied significantly by age group (47% in age group 20-24 years versus 18% in age group 40-49 years). Whereas self-perceived risk of being HIV infected was the only significant factor related to the uptake of VCT among the young people, poor self-rated health and ever HIV tested were important factors among the older persons.

At the cluster level the participants were randomly allocated to VCT either at the local clinic (n=1102) or at an optional location (n=1343). The acceptability was 11.8% among the group allocated to VCT at the local clinic compared with 55.8% for the group allocated to an optional location (Relative Risk = 4.7). A strong effect of placement on acceptability of VCT was demonstrated, indicating this factor to be important in explaining the low demands for VCT in the past. Differences in perceptions of how confidentiality was handled at the two locations might be an important underlying factor.

A number of researchers as Alemu, Abseno , Degu, Wondmikun and Amsalu (2004) conducted a cross-sectional survey aimed at assessing the knowledge, attitude and practice towards VCT in Ethiopia. A total of 992 subjects (response rate, 99.2 %) aged 15 to 49 years (49% male and 51% female) residing in urban and rural Kebeles Condar town and Dabat District were interviewed.

A great majority (89.8%) were aware that one could check his/her HIV status. However, a lesser number of them (73.8%) knew about the availability of the VCT services. The main sources of VCT information were health personnel (22.8%) and radio (10.8%). The main sites mentioned by the respondents where VCT services were offered were hospitals (69.3%) and polyclinics (7.5%).

Almost all respondents (98.2%) revealed that VCT was necessary. The two most important reasons for thinking that VCT was necessary were to know the HIV status (36.6%) and to protect themselves from the infection (20.2%). Responses to the question about when people had to be tested for HIV were: when feeling sick (31.9 %), at any time (25.2%) and before marriage (12.8%).

A very high proportion (93.8%) of the subjects reported their willingness to use VCT service if it was available free of charge. The main reasons given for being ready to use VCT were to know the HIV status (34.8%) and to avoid risky behavior (21.7%).

The study showed that participants would like to use VCT services. This necessitated making VCT services to the great majority of people.

A cross-sectional behavioral survey was done in general population and commercial sex workers in Asosa Town, Ethiopia, in 2001 (Eshetu, Kebede, Ismail, Sanders, Wolday and Messele, 2004). The objective of this survey was to assess high-risk behaviors for HIV transmission and to describe the determinants of willingness to voluntary HIV counseling and testing (VCT). A total of 883 adults in the general population aged 15–49 years were included with a response rate of 94 %. All 209 female sex workers in this town were interviewed.

The findings showed that 28.2% of the adult general population knew that voluntary counseling and testing services were available in Asosa. However, it was only 3.9% of them who ever had an HIV test. Provision of HIV testing and counseling to married couples and to

pregnant women were accepted by 89.2% and 84.5% of the respondents respectively. The multi variate analysis revealed that the participants who never married and who lived 11 years and above in Asosa had negative attitude towards HIV testing.

In female sex workers (FSW) it was found out that 59.3% had no intention to take voluntary HIV testing and counseling. After controlling for possible confounders such as demographic characteristics, FSW who lived in Asosa 6 years and more were willing to undergo VCT.

2.3 Studies from South Africa

South African National HIV Prevalence, Behavioural Risks and Mass Media Household Survey was the first systematically sampled, nationwide community – based survey of the prevalence of HIV in South Africa (HSRC, 2002). A total of 9963 persons agreed to be interviewed and completed the questionnaires, 8,840 (65.4 %) out of them agreed to also give a specimen for an HIV test (the HIV prevalence results were based on 8,428 (62.3%) persons whose specimens were usable). Four questionnaires were developed for adults aged 25 years and older, youth aged 15–25 years, caregivers of children aged 2 - 11 years, and children aged 12–14 years. Questions focused on: demographic characteristics; knowledge and communication about sex and HIV/AIDS in families, communities and the media; sexual experience and behaviour; traditional practices and experiences; and general health status.

The findings showed the level of awareness of HIV serostatus was low. Among the respondents aged 15 years or more in this study, 18.9% reported that they had previously had an HIV test and were aware of their HIV serostatus. Nearly two thirds (62.6%) of those who were HIV seropositive but unaware of their serostatus did not think that they could possibly get infected by HIV.

Ii was found that radio (77.0%) and television (67.7%) were considered to be most informative for HIV/AIDS information, followed by newspapers (42.6%). The main sources of interpersonal HIV/AIDS information were health personnel in health facilities, followed by schools and parents (for young people aged 12 – 24 years). Telephone helplines are an important source of information for people who have specific questions about HIV/AIDS. The Department of Health's tollfree AIDS helpline was the most well – known service and was noted by 60% of all the respondents. The vast majority of the respondents indicated that they needed further information about HIV / AIDS, including VCT.

The survey found that the overall HIV prevalence among 15-24 age group was 10.2%. (prevalence among 15-19 age group was 4.8%; among 20-24 age group was 16.5%). Among the participants who were HIV positive and aware of their status, a majority (47.3 %) had an HIV test for personal reasons. A higher proportion (37.5%) of people who were HIV negative and aware of their status had undergone testing because of external requests and a significantly lower proportion (29.7%) for personal reasons. Prenatal HIV testing contributed to HIV testing in a greater proportion among Africans (25.3%) than in other racial groups (9.0%).

It was found that awareness of serostatus was significantly associated with some common socio-cultural characteristics: respondents aged 25-49 years, living in urban areas, with a higher level of education and strong religious background were more likely to have been tested for HIV.

Among those who were HIV positive, females were significantly more likely to be aware of their serostatus than males, whilst the situation was reversed among those who were HIV seronegative. Among HIV negative respondents, Africans were significantly underrepresented

in the group of individuals who were aware of their serostatus. Overall, respondents who were HIV negative and who had access to testing were in higher socio-economic groups.

Although most people (61.4%) knew about VCT service availability, the majority of persons did not make use of VCT services. Only 19.8% of people who knew about VCT services made use of the services. Among the respondents who had not been tested for HIV but considered to go for an HIV test, 59.4% reported that they would consider a test if confidentiality was maintained (e.g. being unknown in the clinic, assured confidentiality), whilst 28.5% stated that they would consider HIV testing based on the accessibility, cost and the quality of services. At least 12.0% indicated that they would be encouraged to undergo testing if the counselors were more friendly and supportive.

Among those who would not consider going for an HIV test, 71.7% reported that they were at low risk of being infected. This suggested that reasons for undergoing VCT were more closely related to the negative perceptions of services and low risk perception to HIV infection than to problems of availability of services. Among the majority of the participants who were HIV seronegative, access to testing was easier for groups with higher levels of education and income.

This study also found that about 40% of the young people between the ages of 15 to 24 as well as a third of the adults between the ages of 25 to 49 did not know where to find VCT services. Urban respondents were more likely to know about VCT services than rural ones. The respondents from high educational backgrounds were more likely to know about VCT services than those from low educational backgrounds.

Although most people were aware of the VCT services and knew how to access them, they did not make use of them. This might be due to the fact that people lacked understanding of the importance of using these services. The researchers suggested that existing prevention campaigns should increase emphasis on using VCT services.

A survey which aimed at examining the relation between HIV testing history, attitudes towards testing , and AIDS stigmas was carried out at 12 public locations in a black township in Cape Town (Kalichman and Simbayi, 2003). A total of 224 male and 276 female participants completed venue intercept surveys. A self – administered questionnaire was used as research instrument to collect data. Forty – seven percent of the participants had been tested for HIV. Those who refused to indicate whether they had been tested for HIV and those who had tested positive were excluded from the final sample. Analysis was based on data from the remaining 469 respondents, of whom 25% had tested negative, 18% did not know their results and 57% had never been tested.

Multiple logistic regressions that controlled for age, gender, education and survey venue indicated that participants who had been tested for HIV were significantly more likely than those who had never been tested to have a history of STI (sexual transmitted disease) diagnosis (odds ratio=1.7). They were also significantly less likely than those not tested to report that they had injected drugs or had never used a condom. In addition, participants who had been tested and obtained their results were significantly less likely than those who had been tested but did not return for the outcome to report that they had either given or received compensation for sex (odds ratio = 0.4, odds ratio = 0.2, respectively).

Those who had been tested for HIV were significantly more likely than those who had not been tested to agree with two statements asserting that HIV testing had a positive impact on people's lives (odds ratio = 2.2, odds ratio = 2.9, respectively). Respondents who had have an HIV test were significantly less likely than those who had not been tested to endorse stigmatizing attitudes towards people with HIV/AIDS (odds ratio = 0.3).

Compared to people who had been tested for HIV, individuals who were not tested for HIV demonstrated significantly greater AIDS - related stigmas, ascribing greater shame, guilt, and social disapproval to people living with HIV.

The researchers concluded that the social stigma attached to HIV/AIDS might be a more powerful deterrent to testing than attitudes towards testing itself. They suggested that prevention and education programs seeking to improve testing patterns should continue to focus on reducing social stigma against people with HIV/AIDS.

Van Dyk and Van Dyk (2003) collected data on people's attitudes towards VCT, using a sample of 1,422 South Africans. Their study attempted to ascertain the reasons why people might resist participating in VCT programme. The instrument used in this study was a questionnaire that contained questions covering beliefs and attitudes of the participants towards voluntary HIV counselling and testing, disclosure and behavioural change, as well as their previous experiences with HIV testing and counselling.

The data analysis showed that 51.4% of the participants had been tested for HIV and 79.1% personally prepared to go for VCT. Most participants (87.3%) believed that every person should know his or her HIV status. The most common reason given by the participants for their belief that people should know their status was related to the prevention of the transmission of HIV (49.5%), followed by access to treatment (3.4%), enhancing surveillance and awareness programmes (2.6%). A vast majority (66.7 %) of the participants thought the reasons why people did not want to know their HIV status was 'to know their HIV status would cause depression and bring about an early death'. Other reasons why participants preferred not to know their status were: 'no treatment options' (13.9 %) and 'be rejected by loved ones and the community' (11.7 %).

The findings also revealed that confidentiality in VCT was an important issue which the participants cared about. Sixty – seven percent of the participants said that they would go to a clinic where nobody would know them. The most frequent mentioned reasons given by the participants preferred to their own clinics or doctors were: trust in the health services close by

(51.8 %), logistics (e.g. convenient transport) (24.6%), and the belief that they were probably HIV negative and that they therefore had nothing to hide (14.6%). The reasons some participants gave for preferring to attend a clinic (for VCT) where nobody would know them included: a distrust of the health care system (50.3 %), fear that confidentiality would not be observed (29.6 %), fear of rejection and prejudice by health care workers (8.6 %), a preference for total strangers (7.2 %), and fear and embarrassment (4.3 %).

It was found that participants who preferred to go for VCT to a distant clinic where nobody could know them tended to be young ($p=0.005$), unmarried ($p<0.001$), living in rural areas ($p=0.002$) and black ($p<0.001$).

A cross – sectional study (Day et al., 2003) was conducted to identify attitudes that influenced the uptake of HIV voluntary counselling and testing (VCT) among gold mineworkers in South Africa. A systematic sampling method was used. One hundred and five (all male) employees participated in the study. They completed the questionnaires.

The results showed that 31% of the participants had been tested for HIV. Sixty – four percent had their tests done within the mine health service; 86% of them had an HIV test because of illness. The most common responses to the question about "when a person should be tested for HIV/AIDS" were: health problems (49%), to know the result or any time (45%), and 16% felt that people should take the test periodically. Thirty–seven percent of the participants indicated "to protect others from infection" as one of the advantages of knowing one's HIV status, followed by to protect themselves (30%), to be free from the fear of HIV/AIDS (17 %), to plan for the future (15%), to seek medical care (13 %), to being tested had potential to improve awareness of HIV / AIDS (11.0%). Ten percent of the participants perceived no advantages to be gained from taking the test. The three most common reasons given by the

participants for people's failing to have a HIV test were: fear of being HIV – positive (43 %), fear of colleagues' reaction (36 %), and fear of death (22 %).

More than half (52%) of the participants mentioned there was a need to improve workplace education programs to encourage people to take HIV testing, 11% suggested improving the confidentiality of VCT services. Twenty–six percent became more favorably inclined towards HIV testing in response to information on improvement that had been made to the confidentiality and convenience of the company's VCT services. Only 14% of the participants indicated that they would be more likely to use VCT if ARV therapy became available. The researchers suggested that provision of an anonymous, convenient VCT service and the prospect of ARV treatment could increase the uptake of VCT.

A cross-sectional study to examine attitudes towards HIV testing and determinants of attitudes towards People Living With HIV/AIDS across different population groups was conducted by Peltzer et al. (2004). The sample consisted of 600 first-year university students from India, South Africa and America: 200 Indian students from Pondicherry, South India, 200 South African students from Limpopo Province, 200 American students from San Francisco. These countries were chosen because of their different prevalence of HIV and stages of the AIDS epidemic. The three countries selected for this study were a good representation of Asia, Africa and North America. The America represented one of the countries that had been able to control and reduce the rate of infection with HIV. India represented an intermediate country in terms of rates of infection with South Africa showing a high HIV infection rate. Students filled in a self–administered questionnaire. Questions asked sought information on biographic data, sexual behaviours and HIV testing behaviour. Other measures included an Attitudes Towards HIV-Antibody Testing Scale and a scale on readiness to engage in personal forms of contact with People With AIDS (PWA).

Almost 20% of the American and South African participants but only 10% of the Indian students admitted to having had an HIV test. Only those who had sex within the previous12 month went for an HIV test. The main reasons for not having been tested for HIV were: it was unlikely that he or she had been exposed to HIV (32.7%), did not want to think about HIV or about being HIV positive (14.6%), to be afraid to find out that he or she was HIV positive (10.9%). More American students (93%) than Indian (87%) and South African students (78%) collected their last HIV test results.

Generally, the intention to go for HIV testing was moderately high among the American and South African students and significantly lower among Indian than American students. According to the researchers, this might be, in part, related to the strong presence in many universities in the United States of programs on education and prevention of infection with HIV and indicated some positive outcomes of such programs. Participants had a moderately supportive attitude towards HIV testing. American students had a much more positive attitude towards HIV testing than South African and Indian students. Positive attitudes towards HIV testing was associated with getting the results from an HIV test and inversely related with the intention to use condoms.

The findings of the study were important for determining the psychosocial factors associated with HIV risk in these three populations as well as likely influences on their participation in HIV risk reduction counselling.

Thiede et al. (2004) conducted a study of how well public voluntary counseling and testing (VCT) programs for HIV/AIDS reached poor people in township areas of Cape Town, South Africa. This study attempted to ascertain the socioeconomic status of individuals accessing VCT at public sector clinics and reasons for any unusual distribution of uptake. South Africa's health system offers free primary care at public sector clinics and VCT is free of

charge in the public sectors. Three clinics with relatively well-established VCT programmes in the greater Cape Town area were selected. A total of 540 waiting room interviews were conducted, after data cleaning, the final sample included 525 patients, 208 of whom had attended the clinics for VCT. The socioeconomic information collected was compared with comparable information for people in South Africa as a whole.

The principal finding was a much higher use of VCT services by lower-income than higher-income clients. Almost 75% of the VCT clients came from the poorest 40% of South Africa's urban population. VCT clients were also poorer on average than clients attending the clinics for other reasons.

In – depth interviews and focus group discussions with staff, clinic users, and local community groups were conducted to explore the barriers to access to VCT and attitudes towards VCT.

The fear of an incurable disease was paired with the perceived risk of expulsion from the family or rejection by a partner. Lack of access to treatment was also expressed as a reason not to have a test for HIV.

These general fears lead many people to delay attending VCT unless they experienced symptoms that might be AIDS-related. For the same reasons, people criticized the lack of anonymity in the clinics. Closely linked to the issue of stigma was the problem of confidentiality. People feared that their interaction with nurses and counselors was not confidential. Community members might travel to a clinic in a different part of town to have an HIV test. Some interviewees stated that they preferred to go to a private general practitioner for testing for reasons of confidentiality. Several participants mentioned the radio, leaflets at the clinic, and LoveLife as the sources of VCT information.

This study revealed that public sector users were from the poorest quintiles. Furthermore, public sector users for VCT were still more concentrated in the poorest quintiles. Findings

from this study suggested that VCT in public sector clinics reached poor groups, but this might be happening as a result of negative attitudes towards the services rather than positive ones.

The AIDS Helpline was established by the South Africa Department of Health in 1992. It provides callers with basic information, counselling, and referral to services in all eleven South African languages and is available 24 hours, seven days a week. The Helpline has received close to seven million calls since May 2001. Seventy – five percent of callers were under 30 years. A number of researchers (Birdsall et al., 2004) conducted a study to assess call trends and to explore key issues raised by callers of National Tollfree AIDS Helpline.

Qualitative data drawn from a series of focus group discussions conducted with AIDS Helpline counsellors revealed that VCT – related calls were clustered into 4 main areas: reluctance to access VCT; concerns about the safety and accuracy of HIV tests; confusion about the meaning of test results; and obstacles to accessing counselling services as part of testing.

Fear of stigma and discrimination – and of disease itself made individuals reluctant to be tested for HIV. However, at the same time, callers also expressed an awareness and understanding of the importance of testing. Callers concerned about the confidentiality of VCT. They worried that their parents could find out that they had sought testing, as well as the possibility of a positive result being disclosed to others. These concerns about confidentiality closely linked to the HIV/AIDS – related stigma.

Callers expressed their scepticism about the accuracy and reliability of HIV rapid test. Some callers were concerned that the process of being tested could put them at risk for contracting

HIV. Callers were sometimes given written results without any explanation and they did not always understand what their test results meant. Many callers did not receive the post – test counselling. Sometimes the callers were confused about contradictory results from rapid and lab-based tests. Callers also expressed confusion or misunderstood about the importance of the three – month "window" period following possible exposure to HIV. The study revealed that pre and post – test counselling services were not universally available to people who wished to learn their HIV status. Rural residents might be particularly impacted by the lack of counsellors at clinics and health facilities. The callers expressed lower satisfaction with the testing experiences in cases when counselling was absent.

2.4 Summary

Related literature has been explored in this chapter. The literature review showed that the levels of awareness, attitudes, and patterns of practice regarding Voluntary HIV Counselling and Testing varied in different countries or study populations. Generally, people felt that VCT was necessary and knowledge of one's HIV status was essential for seeking appropriate treatment and care. However, the proportion of people who had undergone VCT was low. The barriers to VCT were identified in a number of studies: fear of adverse consequences of disease, low risk perception to HIV infection, lack of information about HIV/AIDS and VCT, HIV–related stigma , lack of confidentiality, lack of confidence in the quality of counseling, lack of access to HIV treatment, and cost of VCT services. The findings of these studies also revealed the demands for high quality VCT service among different study populations. The researcher did not find enough literature about attitudes and behaviours regarding VCT among young people, especially university students in South Africa. The researcher believed that the current study conducted at the University of KwaZulu – Natal would be appropriate.

CHAPTER THREE

METHODOLOGY

3.1 Study Design

This study was a quantitative descriptive survey. Descriptive research aims to accurately portray the characteristics of a particular individual, situation, group, sample, or population (Palys, 1997). A descriptive study which sets out to comprehensively describe the current state of affairs of a certain aspect of health is also known as a situational analysis (Katzenellenbogen et al., 1997). The descriptive survey was estimated as suitable for this study because according to Darling and Rogers (1986) the descriptive survey method is used to identify factors existing in particular situations and to identify any relationships or links between these factors. In this research, the study design allowed for assessing and describing university students' awareness, attitudes and behaviours regarding HIV Voluntary Counselling and Testing .

Quantitative approach focuses on known issues and identifies trends (Clifford, Carnwell and Harken, 1997). The researcher chose to use quantitative method because this survey method is used to describe and explain phenomena such as knowledge, behaviours or attitudes (Blanche and Durrheim, 1999). In this study, a well – designed questionnaire was used to gain an understanding of students' VCT–related awareness, attitudes and behaviours. The numerical (or quantifiable) data were then analysed and interpreted in a way which generally provided standardised information to explain social phenomena and to create generalisations in order to predict the outcomes of similar situations (Yin , 1984).

3.2 Study population

The target population was students who lived in the Howard College Campus residences of University of KwaZulu-Natal, Durban, and were registered for the year 2004.

There are a total of 15 residences for Howard College Campus. They accommodated 2000 students in 2004. Three of them are for male students exclusively and two for females. The others are mixed .The capacity of each residence are different (see table 1).

Table 1 : Capacity of Residences

No	Residence Name	Number of Rooms
01	Albert Luthuli	430
02	Anglo Clusters	105
03	Ansell May	158
04	Charles James	57
05	Ernest Jansen	102
06	Florence Powell	78
07	John Bews	113
08	JV. Smit	89
09	Louis Botha	142
10	Mabel Palmer	189
11	Pius Langa	252
12	Postgraduate	8
13	Scully House	5
14	St. Hillier	165
15	Townley Williams	107
	Total	2000

(Source: Department of Student Housing, Howard College Campus, University of KwaZulu – Natal, Durban, 2004).

3.3 Sample size

Based on the common formula (Katzenellenbogen et al., 1997), the sample size can be calculated:

$n = (Z^2 * P * Q) / d^2$

n = Sample size

z = the normal deviate (1.96 for 95% confidence level)

p = the expected proportion (0.5used for sample size needed)

q = 1 – p

d = the required precision (half the width of the confidence interval)

So, $n = ((1.96 * 1.96) * 0.5 * (1 - 0.5)) / (0.1 * 0.1) = 96$

In some cases, the selected sample students may not be available or may refuse to participate in the survey for some reasons. To address these problems, the researcher raised the sample size to 10% of the study population. Thus the sample size was 200.

3.4 Sampling

A simple random sampling was used in this study. Simple random sampling is one of probability – based sampling methods. Probability sampling is a selection tool which can ensure that one study's sample is representative of the population (Katzenellenbogen et al., 1997). Each individual in the study population has an equivalent chance of being included in the sample. Whether an individual is selected or not is determined by chance.

In simple random sampling, the researcher must have a sampling frame in which every sampling element is listed once and only once. Thereafter, sample elements are chosen at random from the list.

Each room in the residences of Howard College Campus was a sampling element. A list of these room numbers was the sampling frame. All sampling elements were to be numbered from 01 to 2000.Then the researcher used a computer to generate 200 numbers between 01 and 2000 at random. The students living in the rooms whose numbers had been randomly generated would be selected and included in the sample.

3.5 Instrument

A self-administered questionnaire was used for data collection. According to Palys (1997), researcher makes face to face contact with a single respondent who completes the self-administered questionnaire by himself or herself and the researcher may or may not continue to be present. Face to face contact provides a higher response rate, and the chance to clarify ambiguities or misunderstandings, and to monitor the conditions of completion.

Questionnaire is appropriate when the target samples are adequately literate (Babbie and Mouton, 2001), in this case were university students. In this study, the questions involved some sensitive issues, like HIV testing history and sexual behaviours. Respondents are sometimes reluctant to report deviant attitudes or behaviours in interviews but are willing to respond to an anonymous self-administered questionnaire (Babbie and Mouton, 2001). Moreover, questionnaires are affordable and flexible. It is a good way to amass a lot of data quickly (Palys ,1997).

In this study, the questionnaire included four main sections: section one, students' demographic background (age, gender, study year, race group); section two, awareness of VCT and sources of VCT information ; section three , attitudes towards VCT; section four, behaviours regarding VCT (VCT history, intention to go for VCT, reasons for undergoing VCT and not seeking VCT , the need for VCT information) .

The questionnaire consisted mainly of structured, closed-ended questions: single or multiple response and Likert scale questions. Highly structured, closed – end questions are useful in that they can generate frequencies of response amenable to statistical treatment and analysis (Cohen, Manion and Keith, 2000). The larger the sample, the more structured questions need to be (Brink and Wood, 1989). A small number of open-ended questions were included.

The questionnaire contained clear instructions which helped the respondents complete the questionnaire. Approval of the research instrument was obtained from Faculty of Community & Development Disciplines before the survey was conducted.

3.6 Pilot study

Pilot testing is an important stage in the development of a new survey instrument. It is used to examine whether there are any problems, like ambiguous questions, typographical errors, misspelled words, whether the vocabulary is appropriate for the respondents, etc. It predicts possible problems a researcher may encounter in using the instrument.

Ten students were asked to take part in the pilot study to evaluate the quality in terms of clarity, user friendliness and time taken to complete it. Based on the pilot test, some changes were considered to increase the clarity of statements.

3.7 Reliability

Reliability (Katzenellenbogen et al., 1997) refers to the degree of similarity of the information obtained when the measurement is repeated on the same subject or the same group. According to Clifford et al. (1997), test-retest method is a useful technique commonly applied to determine the reliability of a method and it is appropriate in quantitative studies.

Litwin (2003) defines the test – retest reliability as "a measure of the stability of responses over time in the same group of respondents". The researcher administers the survey instrument to the same respondents to complete them at two different points in time to see how stable their responses are. Correlation coefficients (or r values) will be calculated to compare the two sets of responses. Correlation coefficient is a statistical measure of how close two variables or measures are related to each other (Litwin, 2003).

In general, the correlation coefficients are considered good if they are at least 0.70 (Litwin, 2003). This implies that the survey responses are reasonably consistent from one point in time to another.

In this study, the research instrument was administered to 10 students and one week later, the test was readministered to the same students. The test – retest reliability coefficient was 0.84.

3.8 Validity

There are internal and external validity. According to Vaus (1992), internal validity is the extent which the structure of a research design enables the researcher to draw unambiguous conclusions from the results. To address internal validity, the questions in this study were designed to cover awareness, attitudes and behaviours regarding VCT to make sure that they measured what the researcher intended to measure. External validity (Vaus, 1992) refers to the extent to which results from a study can be generalized beyond the particular study. The most common threat to external validity is the use of unrepresentative samples (Vaus, 1992). In this study a representative random sample was used. On the basis of statistical probability, the findings were generalized to a wider population that the sample was designed to represent.

Validity of research instrument (Katzenellenbogen et al., 1997) refers to the extent to which a measure actually measures what it is meant to measure. Different levels of validity exist. Face validity refers to the validity 'on the face of it' and refers to the extent to which the measure or question makes sense (Katzenellenbogen et al., 1997). Face validity is assessed by untrained judges, to see whether the questions look all right.

Content validity requires that the measure includes or accounts for all the elements of a variable or issue being investigated (Katzenellenbogen et al., 1997). The assessment of content validity typically involves an organized review of the surveys contents to ensure that it includes everything it should and does not include anything it should not (Litwin, 2003).

In this study, face and content validity were established to validate the research instrument. To ensure the face and content validity of the instrument, six experts were invited to review it,

which were from School of Nursing, School of Psychology, and Campus Health Clinic of University of KwaZulu-Natal. They had expertise in research and/or had participated in HIV/AIDS research or programme. They made comments and suggestions, mainly in the awareness, attitudes and behaviours parts. The instrument was revised and sent to these experts for further assessment. They approved the revised instrument.

3.9 Data collection

The questionnaires were hand delivered to each student selected in the daytime in a weekend. Subjects were asked to fill in them in a maximum of three days. The researcher collected them. Those who can complete the questionnaires immediately returned at the same day.

The researcher explained the purpose of the study, the methods of sampling and collecting data, and how the questionnaire to be completed to the participants when questionnaires were administered. A brief explanation about these content was mentioned on the first page of the questionnaire as well. Any concerns about the study and questionnaire were addressed.

Participation was anonymous and voluntary. Approval to administer the questionnaire was obtained from the Department of Student Housing of the University of KwaZulu – Natal.

Those who refused to participate in the study or did not complete the questionnaire within three days were excluded from this study.

3.10 Data analysis

The quantitative data collected from the closed–ended questions were edited, coded, categorised and analysed using SPSS version 11.5 for Windows.

The analysis of data in this study was mostly based on the frequencies. Frequency distributions were calculated to provide descriptive statistics regarding the characteristics of the sample and their VCT–related awareness, attitudes, behaviours, sources of VCT information, reasons for undergoing VCT or not seeking VCT.

The Chi–square test was used to test the significance level of the response. The results of Ch – square test were considered significant when value of p was less than 0.05. The researcher used cross–tabulations and Chi–square test to check the relations among the following variables:

- gender, and attitudes towards VCT;
- VCT status, and attitudes towards VCT;
- gender, age group, level of study, ethnicity, and VCT status;
- gender, age group, level of study, ethnicity, and intention to go for VCT;
- gender, age group, level of study, ethnicity, and the need for VCT information;
- the need for VCT information, and VCT status;
- the need of VCT information, and intention to go for VCT;
- gender, and reasons for undergoing VCT;
- gender, and reasons for not seeking VCT.

There were six open–ended questions. One was used to assess the participants' age. Age is a continuous variable. For analysing data conveniently, age data were recorded and a new variable was created that combined age ranges into a small number of categories.

The other five open–ended questions allowed the participants to state their views without being restricted. The data collected from these questions were summarized and coded into categories according to the themes that emerged.

Tables were used to classify the data and percentages were used to show variation between responses.

3.11 Ethical consideration

- A research proposal was submitted to the University of KwaZulu-Natal for approval and the ethical clearance was obtained.
- A permission to conduct research was obtained from Faculty of Community & Development Disciplines.
- The research instrument was reviewed and approved prior to use to ensure ethically acceptability.
- Participation was anonymous. An individual consent was obtained from each of the participants. Individual consent and the questionnaire were separated. They were put into two different collecting – boxes.
- Participation was voluntary and students were informed that they could withdraw from the research if they liked to do so.
- Confidentiality was maintained. The data and results were held unavailable to unauthorised persons outside of the study.

- Raw data was held inaccessible to all expect the researcher and research supervisor.

3.12 Limitation of the research design

Because of the time limitation and no financial support, a limited sample was used in this study. Random sample selection might still not adequately represent the population of all target students. The study population was confined to students who lived in the residences of Howard College Campus, Durban, and did not extend to all students of the University of KwaZulu-Natal.

CHAPTER FOUR

RESULTS AND ANALYSIS

This chapter reports the findings of the study. The demographic characteristics of the respondents are described, as well as the results of the survey questionnaires, which displayed in tables and graphs using frequency and percentage scores. A total of 200 students were invited to participate in the survey, 178 respondents completed the questionnaires. The response rate was 89%.

4.1 Demographic Information of the respondents

The first part is demographic characteristics of the respondents like gender, age, level of study and ethnicity.

Table 2. Gender of the respondents.

Gender	Frequency	Percentage
Male	107	60.1
Female	71	39.9
Total	**178**	**100.0**

The sample size was 178; it consisted of 107 (60.1%) male and 71 female (39.9%) respondents (shown in table 2).

Table 3. Age of the respondents.

Age group	Frequency	Percentage
<= 19	27	15.2
20 – 24	101	56.7
25 – 29	28	15.7
>= 30	22	12.4
Total	178	100
Minimum	**16.00**	
Maximum	**45.00**	
Mean	**23.31**	

The respondents were between the ages of 16 to 45 years and the average age of was 23.31. As illustrated in table 3, which provides a breakdown of age groups, 71.9% of the respondents were under 24 years old. More than half of the respondents (56.7 %) fell in the age between 20 and 24.

Table 4. Level of study of the respondents.

Level of study	Frequency	Percentage
Undergraduate	143	80.3
Postgraduate	35	19.7
Total	**178**	**100.0**

Most of the respondents (80.3%) were undergraduate students, 19.7 % were postgraduates (shown in table 4).

Table 5. Ethnic groups of the respondents.

Ethnic group	Frequency	Percentage
Black	161	90.5
White	10	5.6
Coloured	5	2.8
Others	2	1.1
Total	**178**	**100.0**

The majority (90.5%) of the respondents were black, 5.6% were white, 2.8% were coloured, and 1.1% other ethnic groups (shown in table 5).

Table 6. Demographic characteristics of the respondents by gender.

Demographic characteristics		Male		Female		Total	
		Frequency	%	Frequency	%	Frequency	%
Age group	**< = 19**	14	13.1	13	18.3	27	15.2
	20 - 24	62	57.9	39	54.9	101	56.9
	25 - 29	18	16.8	10	14.1	28	15.7
	>= 30	13	12.1	9	12.7	22	12.4
Level of study	**Undergraduate**	87	81.3	56	78.9	143	80.3
	Postgraduate	20	18.7	15	21.1	35	19.7
Ethnic group	**Black**	96	89.7	65	91.5	161	90.4
	White	8	7.5	2	2.8	10	5.6
	Colored	2	1.9	3	4.2	5	2.8
	Others	1	1.0	1	1.4	2	1.1
Total		**107**	**60.1**	**71**	**39.9**	**178**	**100.0**

Table 6 provides the overall demographic information of the respondents.

Table 7. Distribution of the respondents according to their residences.

Residence Name	Number of respondents
Albert Luthuli	33
Anglo Clusters	16
Ansell May	12
Charles James	3
Ernest Jansen	7
Florence Powell	11
John Bews	10
JV. Smit	7
Louis Botha	12
Mabel Palmer	24
Pius Langa	15
Postgraduate	1
Scully House	0
St. Hillier	17
Townley Williams	10
Total	**178**

The response rate was 89 % in this survey.

4.2 Awareness of VCT

Table 8. Frequency of the respondents who have heard about VCT before the survey.

Have heard about VCT before this survey	Frequency	Percentage
Yes	131	73.6
No	47	26.4
Total	**178**	**100.0**

The majority (73.6 %) of the respondents knew about VCT before this survey, while more than one quarter (26.4 %) said that they had never heard of VCT (shown in table 8).

Table 9. Sources of VCT information.

Sources of VCT information	Frequency	Percentage
TV/ radio	56	42.7
Newspapers / magazines / books	41	31.3
Family numbers	16	12.2
Friends / classmates	44	33.6
Teachers	17	13.0
Doctors / nurses / other health care workers	32	24.4
Campus peer educators	32	24.4
Information leaflets / posters	36	31.3
Internet	22	16.8
Others	13	9.9

The respondents who knew VCT before this survey were asked to indicate all the sources of information about VCT. As shown in table 9, four most main sources of information of VCT were TV/radio (42.7%), friends/classmates (33.6%), newspapers/magazines/books (31.3%), and information leaflets/posters (31.3%), followed by doctors/nurses/other health care workers (24.4%), and campus peer educators (24.4 %).

Internet, as an advanced technology in modern world, was chosen as a source of VCT information by 16.8% of the respondents who had heard of VCT. Information leaflets/posters (31.3%) and campus peer educators (24.4%) as sources of VCT information showed the effect of VCT awareness campaigns.

Table 10. A place where VCT service is available.

A place where VCT service is available	Frequency (N = 87)	Percentage
Campus clinic	54	62.1
HIVAN	8	9.2
Student counselling centre	3	3.4
Clinics and hospitals	20	23
Durban Christian Centre	2	2.2

Then the respondents were asked to give a place where VCT service was available. Eighty – seven students answered this question (see table 10). A majority (74.7%) mentioned campus health and student service facilities: campus clinic (62.1%), HIVAN (The Centre for HIV/AIDS Networking) (9.2%) or student counselling centre (3.4%). Other answers included: clinics and hospitals (23%) and Durban Christian Centre (2.2 %).

Table11. Frequency of the respondents who know that students can get VCT service at the campus health clinic.

Know that students can get VCT services at the campus health clinic	Frequency (N = 131)	Percentage
Yes	105	80.2
No	26	19.8

Among those who had previously heard of VCT, a vast majority (80.2%) knew that students could get VCT service at the campus health clinic at the University (see table 11). Forty – one respondents answered the question about how they knew about that: 46.3% from friends, 39% from campus clinic or HIVAN, and 34.1% via posters, advertisements or leaflets.

Table 12. Frequency of the respondents who personally know somebody who have undergone VCT.

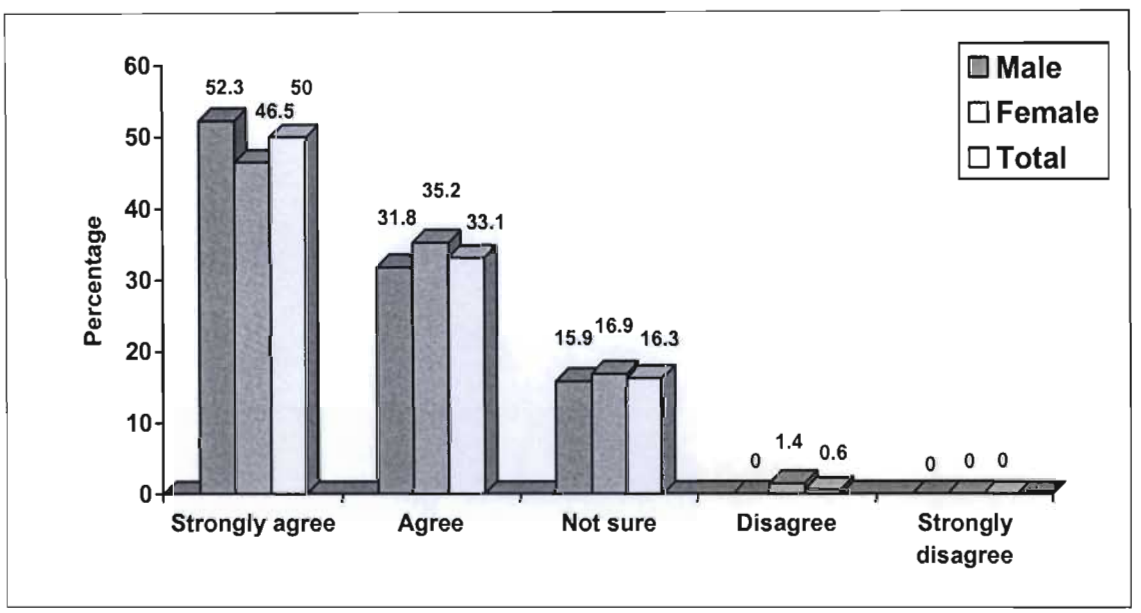
Personally know somebody who have undergone VCT	**Frequency (N = 131)**	**Percentage**
Yes	51	38.9
No	80	61.1

Among the respondents who had heard of VCT, close to forty percent (38.9%) personally knew somebody who had undergone VCT.

4.3 Attitude towards VCT

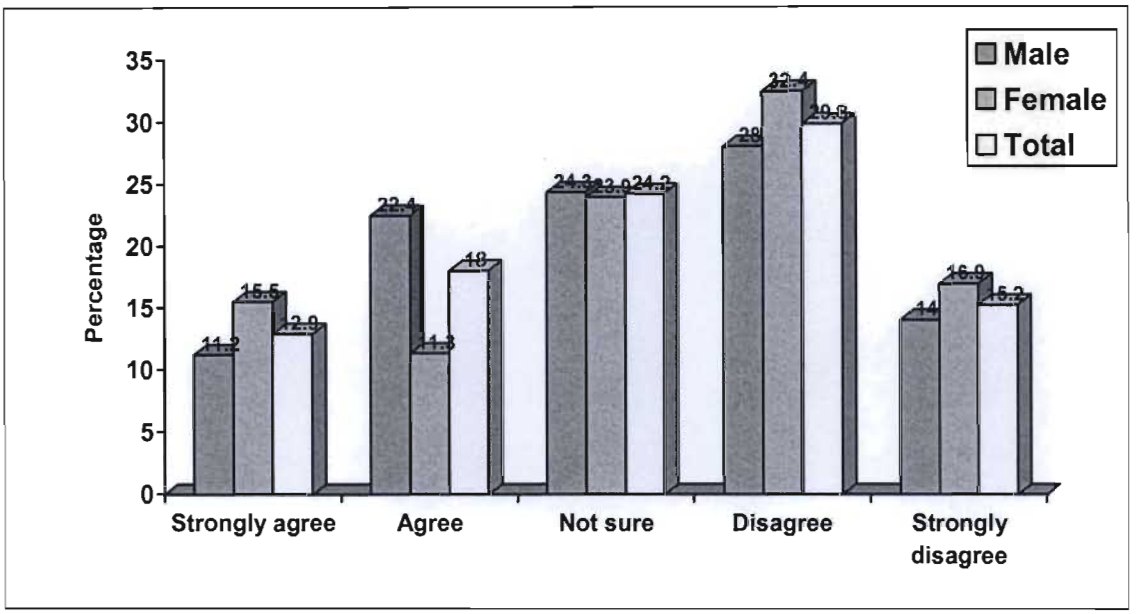
The researcher examined the respondents' attitudes towards VCT.

Graph 1. Responses to the statement: Knowledge of HIV status through VCT is a vital point of entry to other HIV/AIDS services.



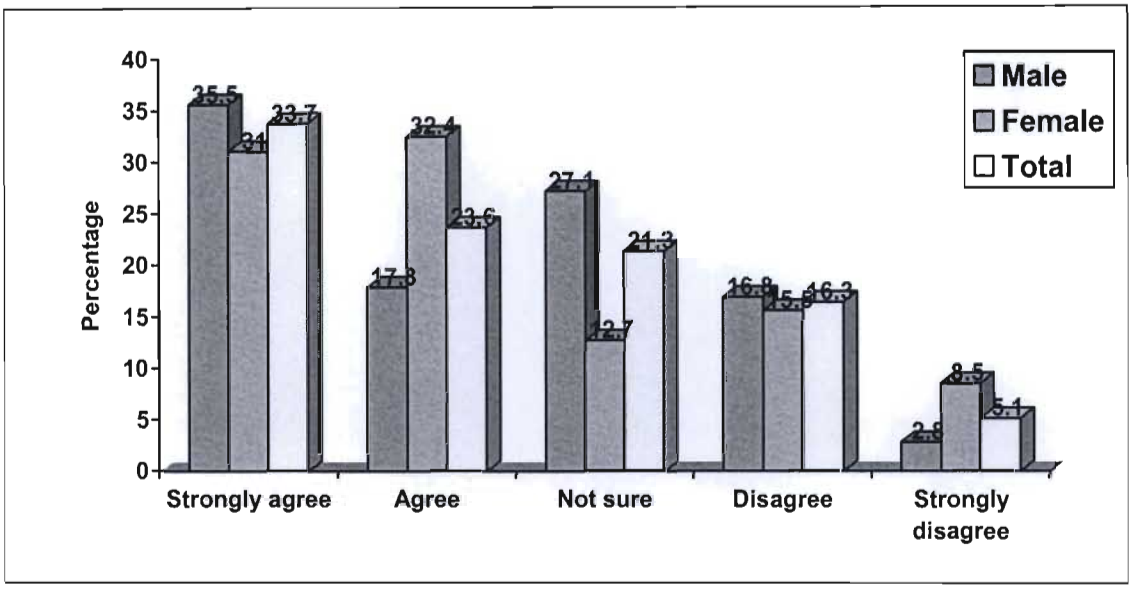
A vast majority (83.1%) of the respondents agreed or strongly agreed that knowledge of HIV status through VCT was a vital point of entry to other HIV/AIDS services, while only 0.6% disagreed. The remainder (16.3%) were not sure.

Graph 2. Responses to the statement: I feel that VCT is only for diagnostic purpose.



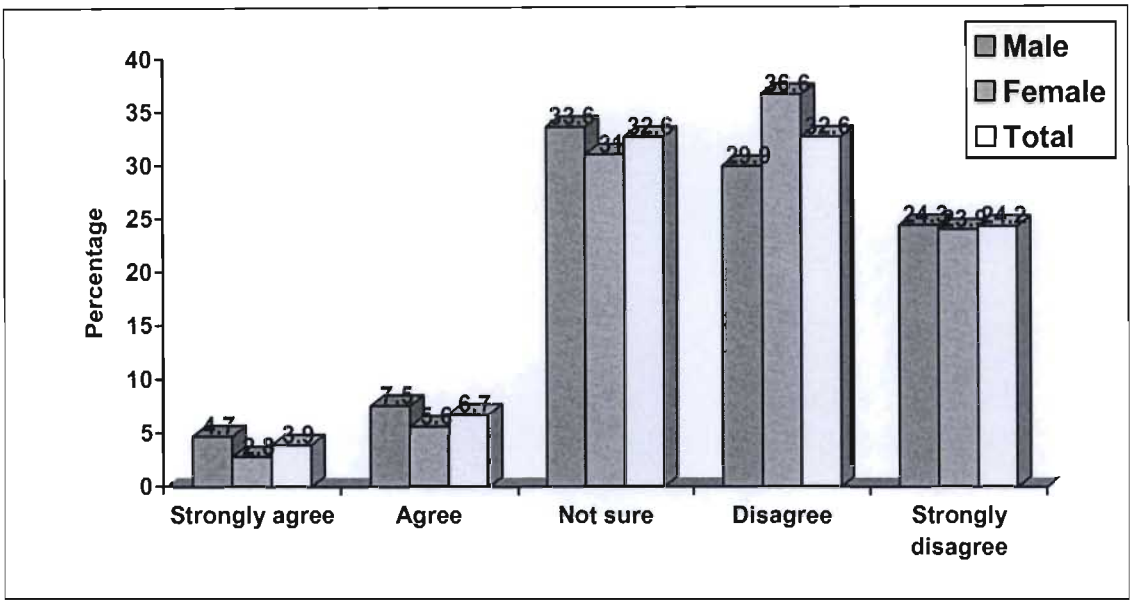
Thirty – one percent (30.9%) of respondents agreed or strongly agreed that VCT was only for diagnostic purpose. Fifty – five percent (55%) disagreed or strongly disagreed with this statement. About one quarter (24.4%) were not sure.

Graph 3. Responses to the statement: I feel that AIDS – related stigma prevents people from VCT.



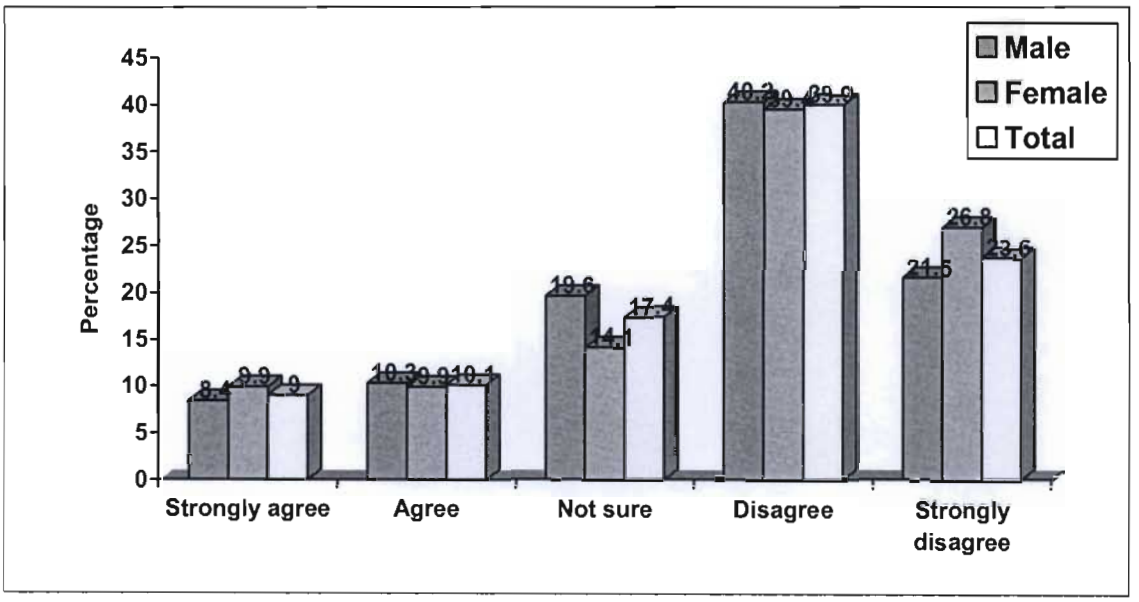
More than half (57.3%) of the respondents agreed or strongly agreed that AIDS – related stigma prevented people from VCT, 21.4% disagreed or strongly disagreed with it. The remainder one fifth (21.3 %) were not sure.

Graph 4. Responses to the statement: I feel that VCT doesn't offer benefits to those who tested negative.



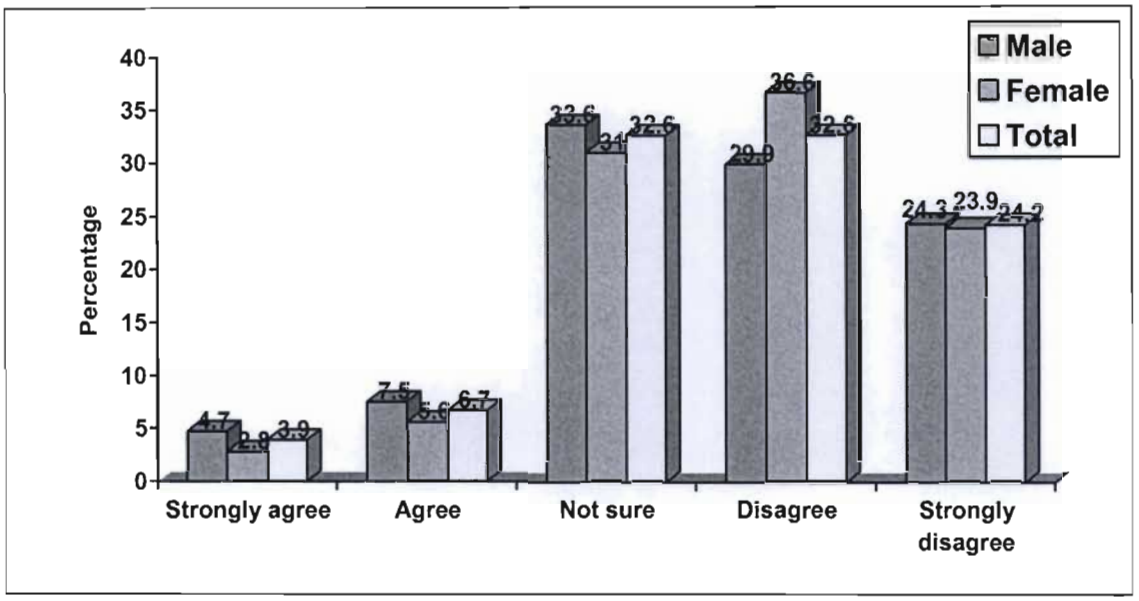
More than half (56.8%) of the respondents disagreed or strongly disagreed that VCT did not offer benefits to those who tested negative, while only ten percent (10.6%) agreed or strongly agreed with this statement, 32.6% were not sure.

Graph 5. Responses to the statement: I believe that post-test counselling should be offered only to those who test positive for HIV infection.



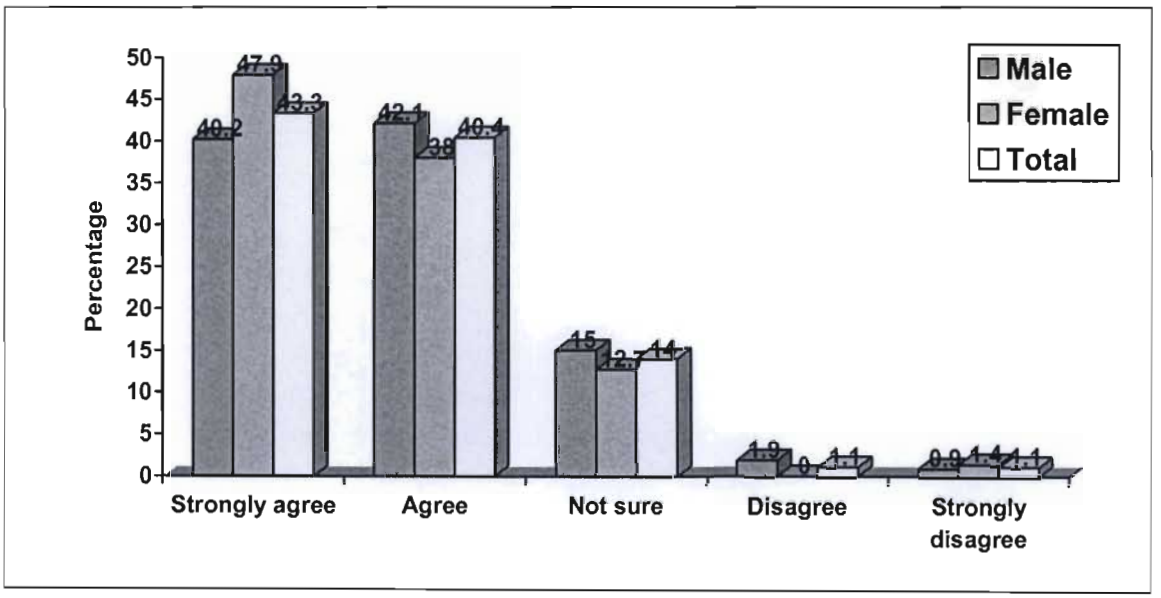
Only nearly one fifth (19.1%) of respondents agreed or strongly agreed that post-test counselling should be offered only to those who tested positive for HIV infection. A big proportion (63.5%) disagreed or strongly disagreed with this statement and 17.4% were not sure.

Graph 6. Responses to the statement: I don't think that the HIV test is accurate.



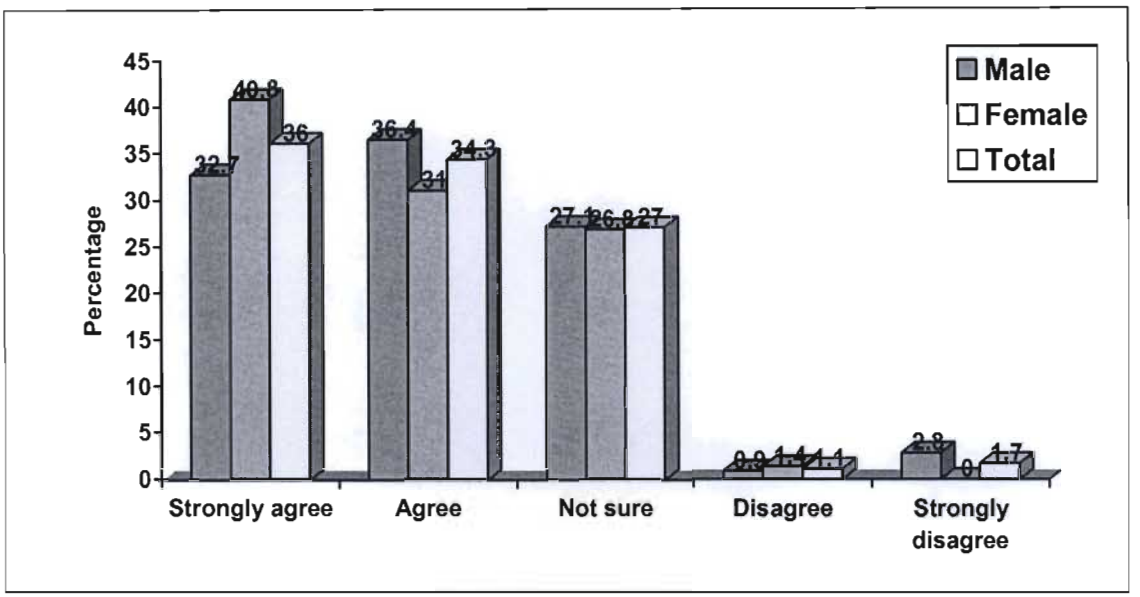
Only 10.6% of respondents agreed or strongly agreed that HIV test was not accurate, while 56.8% disagreed or strongly disagreed with this statement. However, more than thirty percent (32.6%) were not sure.

Graph 7. Responses to the statement: I feel that counselling is a valued part of VCT.



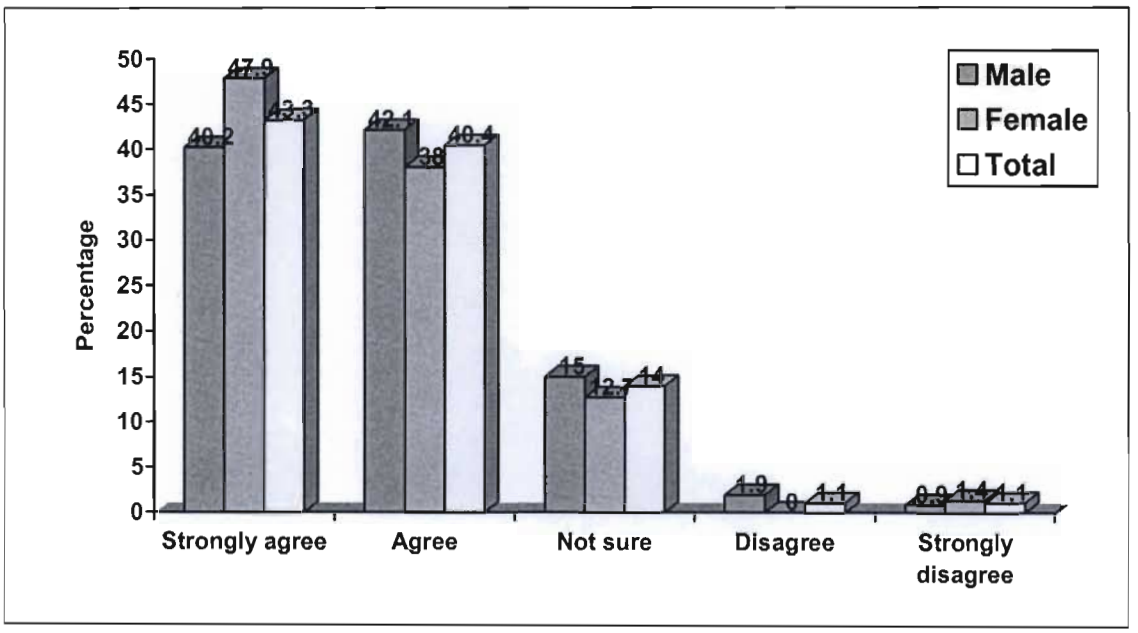
A high percentage (83.7%) of the respondents agreed or strongly agreed that counselling was a valued part of VCT, while only 2.2% disagreed or strongly disagreed this statement. Fourteen percent (14.0%) were not sure.

Graph 8. Responses to the statement: I believe that VCT information (especially about testing result) is kept confidential by VCT staff.



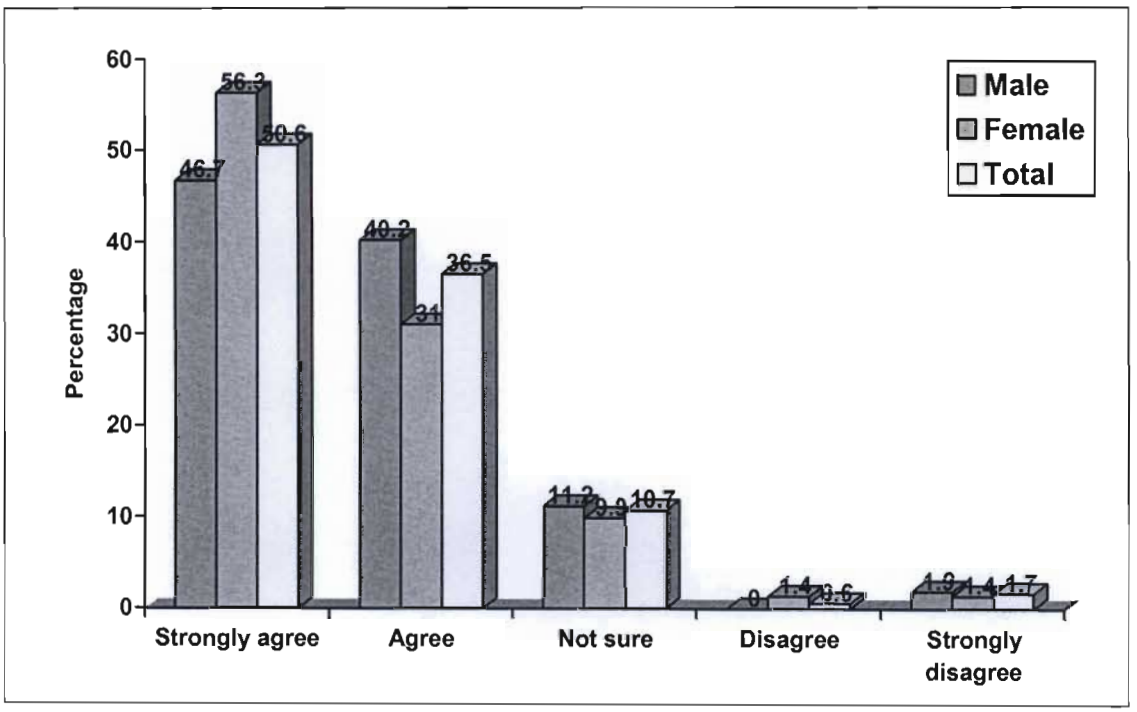
Seventy percent (70.3%) of the respondents agreed or strongly agreed that VCT information (especially about testing result) was kept confidential by VCT staff , while 2.8% disagreed or strongly agreed with this statement. More than one quarter (27 %) were not sure.

Graph 9. Responses to the statement: I believe that availability of antiretroviral therapy will promote people to seek VCT.



Three quarters (83.7%) of the participants agreed or strongly agreed that availability of antiretroviral therapy would promote people to seek VCT, while only 2.2% disagreed or strongly disagreed with it. Fourteen percent (14%) of the respondents were not sure.

Graph 10. Responses to the statement: I feel that the integration of VCT in campus health care services is an important strategy for students for HIV prevention and support



A high percentage (87.1%) of the respondents agreed or strongly agreed that the integration of VCT in campus health care services was an important strategy for students for HIV prevention and support. Only 2.3% disagreed or strongly agreed with this statement, and 10.7% were not sure.

According to Chi–square test, there was a significant difference between males and females on the responses to the statement 'AIDS–related stigma prevents people from VCT' (p=0.026).

Table13. Benefits of VCT.

Benefits	Percentage
To know one's HIV status.	55.1
To get help and support , (treatment and other services needed for those who tested positive).	21.4
To plan for future, to stay healthy, to protect oneself, to practise safe sex.	21.4
To get HIV / AIDS related knowledge, to improve HIV / AIDS awareness.	17.3
To help build confidence in HIV test.	7.1
To help eradicate HIV related stigma.	4.0

Ninety–eight students indicated the benefits of undergoing VCT. To know one's HIV status (55.1%), to get help and support (21.4%), to plan for future and stay health (21.4%), and to get HIV/AIDS related knowledge and improve HIV/AIDS awareness through VCT (17.3%) were the most frequent responses. Some respondents believed that VCT helped people build confidence in HIV test (7.1%) and helped reduce HIV-related stigma (4.0%) (shown in table 13).

Table 14. Disadvantages of VCT.

Disadvantages of VCT	Percentage
Psychological distress and depression : *"Anxiety and depression about their (HIV) status."* *"You give up life."* *"Afraid of the outcome."*	43.5
Being exposed personal information and lack of confidentiality : *"Not all VCT staff are to keep confidentiality firmly."* *"It will expose personal information."* *"If VCT is not kept confidential, it could be bad for student."*	21.0
Improper VCT : *"If staff are not sufficiently trained in counselling , the VCT will not help the seeker."* *"Staff is not professional."* *"Inadequate support resource."* *"No follow up."*	16.1
HIV related stigma or discrimination : *"Stigmatised."*	9.7

Seventy-two students mentioned the potential disadvantages of VCT. The three most frequent responses included: psychological distress and depression (43.5%), being exposed personal information and lack of confidentiality (21.0%), and improper VCT (16.1%). Nearly one tenth (9.7%) of the respondents thought that HIV related stigma or discrimination (for HIV seropositive individuals) was one of the disadvantages of VCT (shown in table 14).

4 .4 Behaviours regarding VCT

4.4.1 VCT status

Table 15. Demographic characteristics of the respondents by VCT status.

Demographic characteristics		Have received VCT					
		Yes		No		Total	
		Frequency	%	Frequency	%	Frequency	%
Gender	Male	16	55.2	91	61.1	107	60.1
	Female	13	44.8	58	38.9	71	39.9
Age group	< = 19	1	3.4	26	17.4	27	15.2
	20 - 24	15	51.7	86	57.7	101	56.7
	25 - 29	6	20.7	22	14.8	28	15.7
	> = 30	7	24.1	15	10.0	22	12.4
Level of study	Undergraduate	23	79.3	120	80.5	143	80.3
	Postgraduate	6	20.7	29	19.5	35	19.7
Ethnic group	Black	29	100.0	132	88.6	161	90.4
	White	0	0.0	10	7.8	10	5.6
	Coloured	0	0.0	5	3.4	5	2.8
	Others	0	0.0	2	1.3	2	1.1
Total		**29**	**16.3**	**149**	**83.7**	**178**	**100.0**

Twenty – nine respondents (16.3%) reported that they had previously received VCT. Table 15 shows the characteristics of the respondents those who had received VCT and those who had never undergone VCT.

A chi–square test did not show any significant association between the demographic characteristics of the respondents and the VCT status.

4.4.2 Pre – test and post – test counselling

Table 16. Frequency of the respondents who received pre – test and post – test counselling.

Received pre – test and post – test counselling	Frequency (N = 29)	Percentage
Yes	26	89.7
No	3	10.3

Among those who had previously undergone VCT, a majority (89.7%) received pre–test and post–test counselling.

4.4.3 Intention to go for VCT

Table17. Frequency of the respondents who intend to go for VCT within the following 6 months.

Intend to go for VCT within the following 6 months	Frequency (N = 178)	Percentage
Yes	39	21.9
No	78	43.8
Not sure	61	34.3

Thirty – nine respondents (21.9%) reported that they intended to go for VCT within the following 6 months (shown in table 17).

There was a statistically significant difference between the undergraduate and postgraduate students on the intention to undergo VCT within the following 6 months ($p = 0.036$).

Table18. Frequency of the respondents who intend to go for VCT within the following 6 months by VCT status.

Intend to go for VCT within the following 6 months	Have received VCT					
	Yes		No		Total	
	Frequency	%	Frequency	%	Frequency	%
Yes	12	41.4	27	18.1	39	21.9
No	10	34.5	68	45.6	78	43.8
Not sure	7	24.1	54	36.2	61	34.3
Total	**29**	**16.3**	**149**	**83.7**	**178**	**100.0**

As shown in table 18, among the students who had received VCT before, 41.4% reported that they had an intention to undergo VCT within the following 6 months, 34.5% did not have such a plan, 24.1% did not decide that.

Among the students who had never sought VCT, 18.1% reported that they had an intention to go for VCT within the following 6 months, 45.6% did not have such a plan, and 36.2% did not decide that.

According to the chi – square analysis, there was no significant association between the intention to undergo VCT and the VCT status of the respondents.

4.4.4 Reasons for undergoing VCT

Table 19. Reasons for undergoing VCT by VCT status.

Reasons for undergoing VCT	Have received VCT		
	Yes	No	Total
	Percentage of the respondents	Percentage of the respondents	Percentage of the respondents
To know my health status	**62.1**	**53.4**	**57.3**
Thought exposed to HIV	**31.0**	11.4	14.6
In a high risk group	10.3	6.0	6.7
Some people advised me to do	6.9	8.1	7.9
To get information about how to avoid HIV infection	**20.7**	14.1	15.2
To get information about how to take care of myself	17.2	**27.5**	**25.8**
Seek support	3.4	10.1	9.0
Others	13.8	4.0	5.6

The respondents were asked to choose reasons why they decided to undergo VCT or would seek VCT, table 19 shows their responses.

Among those who had previously received VCT, the three most commonly reported reasons were: to know their health status (62.1%), thought exposed to HIV (31.0%), to get information about how to avoid HIV infection (20.7%). More than one tenth of the respondents indicated the following two reasons: to get information about how to take care of himself / herself (17.2%), and thought in a high risk group (10.3%). Less frequently reported reasons included: some people advised him / her to do it and to seek support.

Other reasons for undergoing VCT indicated by the respondents included: to get married, to want to have a baby, after being involved in a car accident, and professional exposure.

Among the respondents who had undergone VCT, the chi – square test showed that there was no significant difference between males and females regarding any reason for VCT with the exception of seeking support ($p=0.032$).

Among those who had never sought VCT, the two most commonly reported reasons which would make them seek VCT were: to know their health status (53.4%), and to get information about how to take care of himself / herself (27.5%). More than one tenth of the respondents indicated the following three reasons: to get information about how to avoid HIV infection (14.1%), thought exposed to HIV (11.4 %), and to seek support (10.1%). Less frequently reported reasons included: thought in a high risk group and some people advised him / her to do it.

4.4.5 Reasons for not seeking VCT

Table 20 lists the reasons students indicated for not go for VCT.

Table 20. Reasons for not seeking VCT by gender.

Reasons for not seeking VCT	Percentage of respondents (%)		
	Male	Female	Total
Do not want to know my HIV status	18.7	**19.0**	**18.8**
Assume my HIV status is negative	**58.3**	**52.0**	**55.8**
Unlikely exposed to HIV because always practise safe sex (have only one sexual partner , use condom)	**20.9**	**19.0**	**20.1**
Unlikely exposed to HIV because have never had sex	14.3	5.2	10.7
Unlikely exposed to HIV because not in a high risk group	15.4	10.3	13.5
Unlikely exposed to HIV because not an injection drug users	14.3	13.8	14.1
Unlikely exposed to HIV because have never had a blood transfusion	18.7	12.1	16.1
Afraid of finding out HIV – positive	17.6	12.1	15.4
Too embarrassed to go for VCT	6.6	6.9	12.8
Don't know where to get VCT service	7.7	3.4	6.0
Lack of VCT information	17.6	**19.0**	**18.1**
It costs too much	3.3	0	2.0
VCT can't help me if I was HIV positive	8.8	0	5.4
Others	7.7	13.8	10.1

More than half (55.8%) of the respondents who had never undergone VCT cited "assuming his / her HIV status is negative as the reason for not seek VCT.

The two most frequently reported reasons for not seeking VCT among male respondents were: to assume their HIV status were negative (58.3%), and to be unlikely exposed to HIV because they always practised safe sex (had only one sexual partner, used condoms)

(20.9 %). Approximately one fifth of the respondents indicated the following four reasons : did not want to know their HIV status (18.7 %), to be unlikely exposed to HIV because they had never had a blood transfusion (18.7%), to be afraid of finding out HIV–positive (17.6%) , and lack of VCT information (17.6%). Less frequently reported reasons included: to be unlikely exposed to HIV because they had never had sex, to be unlikely exposed to HIV because they were not in a high risk group, to be unlikely exposed to HIV because they were not an injection drug user, too embarrassed to go for VCT, did not know where to get VCT service, VCT cost too much, and VCT could not help them if they were HIV positive.

The four most frequently reported reasons among female respondents were: to assume their HIV status were negative (52.0%), did not want to know their HIV status (19.0%), to be unlikely exposed to HIV because they always practised safe sex (had only one sexual partner, used condoms) (19.0%), and lack of VCT information (19.0%). More than one tenth of the respondents indicated the following four reasons: to be unlikely exposed to HIV because they were not an injection drug user (13.8 %), to be afraid of finding out HIV–positive (12.1%), to be unlikely exposed to HIV because they had never had a blood transfusion (12.1%), to be unlikely exposed to HIV because they were not in a high risk group (10.3%). Less frequently reported reasons included: to be unlikely exposed to HIV because they had never had sex, too embarrassed to go for VCT, did not know where to get VCT service. No one chose "VCT cost too much" and "VCT could not help them if they were HIV positive" as the reasons for not go for VCT.

Other reasons for not seeking VCT mentioned by the respondents included: very busy, scared of (HIV) test, and did not want someone to know if the result of test was positive.

Among the respondents who had never undergone VCT before, a chi–square test found that there was no significant difference between the male and female students regarding any reason for not seeking VCT with the exception of "VCT could not help them a lot if they were HIV positive" (p=0.020).

4.4.6 Need for information about VCT

It was found that there was a need for VCT knowledge among the respondents. When asked whether the participants wanted to know more information about VCT, 120 answered that they did (shown in Table 21 and table 22).

Table 21. Need for VCT information by VCT status.

Need of VCT information	Have received VCT					
	Yes		No		Total	
	Frequency	%	Frequency	%	Frequency	%
Yes	21	72.4	99	66.4	120	67.4
No	6	20.7	26	17.4	32	18.0
Not sure	2	6.9	24	16.1	26	14.6
Total	**29**	**16.3**	**149**	**83.7**	**178**	**100.0**

Close to three quarters (72.4%) of those who had previously received VCT and more than three fifths (66.4%) of those who had never sought VCT reported that they would like to have more information about VCT.

A chi–square test did not find any significant association between the need for VCT information and the VCT status of the respondents.

Table 22. Need for VCT information by intention to go for VCT.

Need for VCT information	Intention to go for VCT within the following 6 months							
	Yes		No		Not sure		Total	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Yes	29	74.4	52	66.7	39	63.9	120	67.4
No	7	17.9	14	17.9	11	18.0	32	18.0
Not sure	3	7.7	12	15.4	11	18.0	26	14.6
Total	**39**	**21.9**	**78**	**43.8**	**61**	**34.3**	**178**	**100.0**

Among those who had an intention to go for VCT within the following 6 months, 74.4 % reported that they would like to know more VCT information; 66.7% of those who did not want to undergo VCT and 63.9% of those who did not decide whether go for VCT said that they had a need for VCT information.

A chi–square analysis found that there was no significant association between the need for VCT information and the intention to undergo VCT. A chi–square analysis also showed that there was no significant association between the demographic characteristics of the respondents and the need for VCT information.

Eighty – five students indicated which VCT information they would like to know (see table 22). A quarter (25.3%) of the respondents wanted to know general information about VCT.

More than ten percent of the respondents indicated the followed three aspects of VCT information they wanted to know: what services VCT provides (especially services for people who tested positive) (15.7%), the venues and cost of VCT (15.7%), and the procedure involved in VCT (11.8%). These three were the most frequent responses (see table 23). Other

responses included: counselling, confidentiality, information about HIV/ AIDS, benefits and disadvantages of VCT.

Table 23. What information about VCT students would like to know.

No	Information	Frequency	%
1	General information about VCT.	21	25.3
2	Services which VCT provides: *"What is available for students who are (tested) positive?"* *"What VCT offers after testing and counselling?"* *"What hope and support is given to HIV positive students?"*	13	15.7
3	The venues and cost of VCT: *"Where people can get it?"* *"The place where VCT is done."* *"I want to know the cost of VCT."*	13	15.7
4	The procedure involved in VCT: *"How the VCT operates?"* *"Structure and steps included (in VCT) ."* *"How about the testing goes?"*	10	11.8
5	Counselling: *"If it is really practised properly with the counsellors?"* *"The length and benefits of the counselling?"* *"How does the counselling work?"*	7	8.4
6	Confidentiality : *"Whether they guarantee total confidentiality?"* *"How confidential it is?"* *"Confidentiality in VCT."*	6	7.2
7	Information about HIVAIDS.	6	7.2
8	Benefits and disadvantages of VCT : *"Information about the benefits of VCT."* *"The benefits for doing VCT."* *"Advantages and disadvantages of VCT."*	4	4.8
9	Others.	3	3.6

CHAPTER FIVE

DISCUSSION, RECOMMENDATION AND CONCLUSION

This study was done in order to explore the awareness, attitudes and behaviors regarding Voluntary HIV Counseling and Testing among the students of the University of KwaZulu – Natal. It was a descriptive quantitative research and a questionnaire was used as a research instrument. A random sample of 200 students was drawn from a population of 2000 students living in the residences of Howard College Campus during the year 2004. One hundred and seventy–eight students (60.1% male and 39.9% female) completed the questionnaires. The rate of response was 89%. The respondents were between 16 and 45 years of age and the mean age was 23.3. Four fifths (80.3%) of the respondents were undergraduates, the remainder one fifth (19.7%) were postgraduates. The majority (90.4%) of the respondents were black, followed by white (5.6%), coloured (2.8%) and other ethnic groups (1.1%).

5.1 Discussion

5.1.1 Awareness of VCT

5.1.1.1 Level of awareness of VCT

It was heartening that a high level of awareness of VCT was found among the respondents in this study: 73.6% had previously heard of VCT. Among them 38.9% personally knew

somebody who had undergone VCT. This finding was consistent with literature. Two studies conducted in Ethiopia found that the proportions of the respondents who knew that VCT services were available were 73.8% and 83%, respectively (Dejene, 2001; Alemuet et al., 2004). In South Africa, 61.4% of the participants in the South African National HIV Prevalence, Behavioural Risks and Mass Media Household Survey (HSRC, 2002) knew about the availability of VCT service. Data also showed the respondents from high educational backgrounds were more likely to know about VCT than those from low educational backgrounds. Urban respondents were more likely to know about VCT than rural ones. In tribal areas, perceived accessibility was low at 48.1%. However, a low level of awareness of VCT was reported by Eshetu et al. (2004): only 28.2% of the adult general population in their study knew that VCT services were available.

In this study, more than three fifths (62.1%) of the respondents who knew about VCT indicated campus health clinic as a place where VCT service was provided, followed by clinics and hospitals (23%). A vast majority (80.2%) knew that students of University of KwaZulu–Natal could get VCT service at the campus health clinic. In other studies, hospitals were the commonly - mentioned place by the majority of the respondents where VCT services were provided (Dejene, 2001; Alemu et al., 2004). However , according to data from the South African National HIV Prevalence , Behavioural Risks and Mass Media Household Survey (HSRC, 2002, 40% of young people between the ages of 15 to 24 as well as a third of the adults between the ages of 25 to 49 did not know where to find VCT services.

The high proportion of the students that knew about VCT and knew that the campus clinic provided VCT service indicated some success of HIV/AIDS and VCT awareness campaign programmes at the University of KwaZulu–Natal. From the inception of the VCT programme

on the 25th August 1997, to the 30th June 2003, a total number of 1729 staff and students have received VCT at the Campus Health Clinics. The introduction of free, rapid HIV testing technology in June 2002 resulted in an average increase of 57.8% in the demand for VCT at the Campus Health Clinics. HIV/AIDS, and in particular, Voluntary Counselling and Testing, was incorporated into all Orientation Programmes for the first-year students. This integrated, multilevel approach resulted in a 16% increase in VCT in the first quarter of 2003, when compared to the same period in 2002 (University of KwaZulu–Natal, 2004).

5.1.1.2 Sources of VCT information

In the current study, the four most main sources of information about VCT indicated by the respondents were: TV/radio (42.7%), friends/classmates (33.6%), newspapers/magazines/ books (31.3 %), and information leaflets/posters (31.3%), followed by doctors/nurses/other health care workers (24.4 %), and campus peer educators (24.4%).

Media was found to be the most important source of VCT information in this study. Most students received VCT information via TV/radio (42.7%), from newspapers/magazines/ books (31.3%), and via leaflets/posters (31.3%). Similarly, according to the data of the South African National HIV Prevalence, Behavioural Risks and Mass Media Household Survey (HSRC, 2002), it was that found radio (77%), television (67.6%), newspapers (42.6%), and magazines (39.9%) were the most informative for HIV/AIDS information. However, in the current study, a relatively low percentage of students chose TV/radio (42.7%), newspapers/ magazines/books (31.3%). Media plays a very important and constrictive role on disseminating VCT knowledge as well as promoting awareness, challenging stigma, normalization of HIV and HIV testing.

The results of the South African National HIV Prevalence, Behavioural Risks and Mass Media Household Survey (HSRC, 2002) also showed that the main sources of interpersonal HIV/AIDS information were health personnel in health facilities, followed by schools and parents (for young people aged 12–24 years). In the current study, the most common source of interpersonal VCT information was friends/classmates (33.6%), then health care workers (24.4%), and campus peer educators (24.4%). Samet et al. (1997) found that clinicians was an influential source of HIV information. Adolescents who had discussed AIDS with physicians were 2.6 times more likely to have an HIV test. However in this study, only one quarter (24.4%) of the students received VCT information from health care workers.

Other studies showed similar findings that radio, health personnel, and leaflets at the clinics were the main sources of VCT information (Dejene, 2001; Alemu et al., 2004; Thiede et al., 2004).

Internet, as an advanced technology in modern world, was also chosen as a source of VCT information by 16.8% of the respondents. Information leaflets/posters (31.3%) and campus peer educators (24.4%) as sources of VCT information showed the effect of VCT awareness campaigns at University.

Telephone Helplines are an important source of information for people who have specific questions about HIV/AIDS. Sixty percent of all the respondents in the South African National HIV Prevalence, Behavioural Risks and Mass Media Household Survey (HSRC, 2002) mentioned the Department of Health's Tollfree AIDS Helpline. In this study, however, no participant cited AIDS Helpline.

According to the South African National HIV Prevalence, Behavioural Risks and Mass Media Household Survey (HSRC, 2002), faith–based organisations were an important source of HIV/AIDS information and rated higher than AIDS organisations, youth groups and sports clubs, However, no student mentioned them in this study. It was suggested that faith–based organisations should provide VCT information and encourage people to undergo VCT.

Family numbers and teachers were less common sources of VCT information, only 12.2% and 13.0% of the respondents, respectively, cited them.

5.1.2 Attitudes towards VCT

5.1.2.1 Attitudes towards VCT

The statements in questions 11 to 20 examined students' attitudes towards VCT. They involved three issues: 1) perception of value and importance of VCT (question 11, 12, 14, 15, 17); 2) factors affecting the uptake of VCT (question 13, 16, 18, 19); 3) strategy of integration of VCT in campus health care services (question 20).

In this study, a positive attitude towards VCT was found among students. A vast majority (83.1%) of the respondents believed that knowledge of HIV status through VCT was a vital point of entry to other HIV/AIDS services, while only 0.6% disagreed with it. Similarly, in a study in Ethiopia (UNICEF, 2001), almost all young people confirmed the importance of VCT. Dejene (2001) and Alemu et al. (2004) reported that more than 94% and 98.2% of the respondents in their studies, respectively, felt that VCT was necessary. Van Dyk and Van Dyk (2003) found that most of the respondents (87.3%) believed that every person should know his or her HIV status. Birdsall et al. (2004) reported that the callers to AIDS Helpline were

aware of and understood the importance of HIV testing. However, Peltzer, et al. (2004) found a moderately supportive attitude towards HIV testing among students. In their study, it also found that American students had a much more positive attitude towards HIV testing than South African and Indian students.

In the current study, students also showed a positive attitude towards counselling. More than half (55%) of the respondents thought that VCT was not only for diagnostic purpose; a high percentage (83.7%) of the respondents felt that counselling was a valued part of VCT; 56.8% believed that VCT offered benefits to those who tested negative; a big proportion (63.5%) thought that post-test counselling should be offered to those who tested positive for HIV infection as well as those with a negative test result. Literature confirmed these findings. According to the Horizons Program (2001), 10% of the young people in the study who went for testing for HIV were not sexually active but still wanted counselling and accurate information about HIV. The same study also showed that the majority of the clients who had undergone VCT mentioned that the counselling were the most satisfactory aspects of their testing experience than any other component. Testing without counselling have limited benefits in terms of care, support and prevention, and may even favour undesired behaviours. Clients of VCT services needed to be able to draw from their own experiences, to express their fears and concerns in a non–judgemental environment and to form positive relationships to address their own priorities (Hughes and McCanly, 1998, cited in Castle 2003).

The finding of this study revealed that more than half (57.3%) of the respondents believed that AIDS–related stigma prevented people from VCT. This finding was consistent with literature. Fear of stigma and discrimination made individuals reluctant to have a test for HIV (Birdsall et al., 2004). Dejene (2001) found that one quarter of the participants were not ready

to tell of their decisions to be tested to anyone. Nearly three quarters of the respondents believed that people would have a negative attitude towards those who were willing to be tested. According to Kalichman and Simbayi (2002), compared to people who had been tested, individuals who were not tested for HIV demonstrated significantly greater AIDS-related stigmas, ascribing greater shame, guilt, and social disapproval to people living with HIV. The social stigma attached to HIV/AIDS may be a more powerful deterrent to testing than attitudes towards testing itself. According to Peltzer et al. (2004), South African students scored higher on the two emotional reactions (fear and irritation) towards People Living With HIV/AIDS (PLWHA) than American and Indian students. And of South African students who went for the HIV test, 22.5% did not get the results of the last test, while only 7.5% of American students did so. Stigmatizing attitudes towards PLWHA may reduce people's willingness to have themselves tested for HIV and return for the test result.

In the current study, 70.3 % of the respondents believed that VCT information (especially about testing result) would be kept confidential by VCT staff, while 2.8% did not think so. However, Samet et al. (1997) reported that among college students, 35% did not believe or did not know that the HIV test results were kept in confidence. The South African National HIV Prevalence, Behavioural Risks and Mass Media Household Survey (HSRC, 2002) found that 59.4% of the participants reported that they would consider a test if confidentiality was maintained. Van Dyk and Van Dyk (2003) reported that the confidentiality of VCT was an important issue. The participants said that they would go to a clinic where nobody would know them. Thiede et al. (2004) revealed that people feared that their interaction with nurses and counsellors was not confidential. In the Horizons Program (2001), young people considered privacy and confidentiality to be primary considerations in determining whether and where to go for VCT. Birdsall et al. (2004) found that callers to AIDS Helpline were

concerned with the confidentiality of VCT and VCT results. These concerns were closely linked to the stigma.

Around sixty percent (65.7%) of the respondents in this study thought that the HIV test was accurate, while only 11.3% disagreed with it. It was found that 30% of the college students did not think that the HIV test was very accurate in a study conducted in the United States (Samet et al., 1997). Other studies showed the similar scepticism about the accuracy and reliability of rapid HIV test (UNCIEF, 2001; Birdsall et al., 2004).

In this study, close to three quarters (76.4%) of the participants believed that availability of antiretroviral (ARV) therapy would promote people to seek VCT. A study of commuters in Cape Town (Kalichman and Simbayi, 2003) confirmed this finding. The residents surveyed at Khayelitsh, where ARV drugs were available, had more positive attitudes towards HIV testing than in other areas throughout South Africa. The possibility of treatment may reduce the stigma and fear of learning one's status, and encourage people to undergo VCT. In contrary, some studies revealed that people did not change their attitudes towards VCT because ARV therapy could not cure HIV. According to Kellerman et al. (2002) testing, proportions did not increase more after widespread use of ARV treatment and data on decrease in AIDS were published in the United States. Day et al. (2003) found that only 14% of the mineworkers surveyed in South Africa reported that they would be likely to use VCT if ARV therapy became available.

A high percentage (87.1%) of the participants felt that the integration of VCT in campus health care services was an important strategy for students for HIV prevention and support. Only 2.3% disagreed with this statement. To respond effectively and comprehensively against

HIV/AIDS at the University of Natal, the University has developed a thorough plan: The AIDS Plan: 2002 – 2004. Voluntary Counselling and Testing programme is one of the objectives of this plan (University of Natal, 2002). It is stated in the Plan: 1) A voluntary counselling and testing programme will continue to be available at all campus clinics and Student Counselling Centres. Confidential pre-test and post-test counselling will be provided, as well as ongoing individual and group counseling. 2) As an integral part of its activities, HIVAN will actively promote testing. 3) The University will explore avenues for providing testing services free of charge, to encourage more students and staff to come forward. From the inception of the VCT programme on the 25th August 1997, to the 30th June 2003, a total number of 1729 staff and students have received VCT at the Campus Health Clinic.

5.1.2.2 Benefits and disadvantages of VCT

In the current study, students indicated the benefits of undergoing VCT they perceived. More than half (55.1%) of the respondents thought that one could know his or her HIV status through VCT. The other common responses were: to get help and support (treatment and other services needed for those who tested positive) (21.4%); to plan for future, to stay healthy, to protect oneself and to practise safe sex (21.4%); to get HIV/AIDS related knowledge and improve HIV/AIDS awareness (17.3%). Similar findings were revealed in literature. The main reasons given by people for thinking that VCT was necessary were 'to know HIV status', 'to avoid risk behaviour', 'to protect people from the infection' and 'access to treatment' (Dejene, 2001; Unger, Weiz and Haran, 2002; Van Dyk and Van Dyk, 2003; Alemu et al., 2004). According to Dejene (2001), almost half of people surveyed thought everybody should be tested for HIV. Commercial sex workers, youth, and couples before marriage were the groups indicated to need the VCT service most. In this study some

students mentioned that VCT helped people build confidence in HIV test and helped eradicate HIV related stigma.

Some respondents thought there were some potential disadvantages of undergoing VCT: psychological distress and depression (43.5%), being exposed personal information and lack of confidentiality (21.0%), improper VCT (16.1%) and HIV-related stigma or discrimination (9.7%). Similarly, according to Unger et al.(2002), the harms of VCT noted by nurses in a district hospital in KwaZulu–Natal province, South Africa , included: no treatment; patient health deterioration; patient depression; family/relationship disruption; lose health benefits ; stigma and discrimination; no confidentiality. These disadvantages of VCT mentioned by people reflected the fear of the negative consequences of a positive testing result: incurable disease and social stigma.

5.1.3 Behaviours regarding VCT

5.1.3.1 VCT status

In the current study , the proportion of the respondents who had previously received VCT was 16.3% (15.5% of males and 18.5% of females). This result was lower than those found in two other studies which study subjects were university or college students. Bernand and Prince (1998) reported that 37% of the college students surveyed had been tested for HIV. In a study conducted in universities in American, South Africa and India found that 20% of the American and South African participants had an HIV test; but only 10% of the Indian students admitted to having had an HIV test. These studies did not involve the issue whether these students had an HIV test for personal reasons or for external requests (e.g. for medical insurance). Some studies conducted in South Africa showed higher rates of people who had been tested for HIV: 20% in the HIV and Sexual Behaviour Survey among Youth South

Africans (RHRU, 2003); 18.9% in the South African National HIV Prevalence, Behavioural Risks and Mass Media Household Survey (HSRC, 2002); 51.4% in another study conducted in South Africa (Van Dyk and Van Dyk, 2003); in a study of mineworkers, 31% of the participants had been tested for HIV (Day et al., 2003). In Uganda and Zambia urban areas, rates of testing appeared to be high (20% of the participants aged 15 – 49 years), but in almost all rural samples rates fell below 15% (Glick and Sahn, 2004).

Other literature revealed lower rates of people being tested for HIV voluntarily than that in this study. Samet et al. (1997) reported that 22% of the sexually active adolescents surveyed had been tested for HIV, while only 9.35% had their tests done for personal reasons. The rates of people who had been tested for HIV among heterosexual men and women in Italia were 27.5% and 32.8% respectively. However, voluntary testing was only reported by 8.4% of heterosexual men and 6.1% of heterosexual women (Renzi, Zantedeschi, Signorelli and Osborn, 2001). Eleven point six percent (11.6%) of the participants in a study in Zambia (Fylkesnes and Siziya, 2004) and three point nine percent (3.9 %) of the participants in a study in Ethiopia (Eshetu et al., 2004) reported that they had used VCT services.

In this study, 21.8% of the respondents reported that they intended to go for VCT within the following 6 months. Among the students who had participated in VCT, 41.5% wanted to undergo VCT again, while only 18.1% of the students who had never participated in VCT intended to undergo VCT. However, this difference was not statistically significant. Peltzer et al. (2004) reported the intention to go for HIV testing was moderately high among American and South Africa students, and significantly lower among the Indian than American students. In Horizons Program (2001), 77% of the untested respondents in Kenya and more than 90% of the untested respondents in Uganda reported that they would like to be tested for HIV at

same point in the future. However, willingness for undergoing VCT is not always consistent with actual behaviour. According to the data from the Demographic and Health Surveys in six African countries (Glick and Sahn, 2004), two–thirds or more of the individuals who did not know their HIV serostatus reported that they would like to get tested, whereas the portion of adults who reported actually having had been tested was usually very low. Similarly, Fylkesnes and Siziya (2004) found that 29% of the participants in their study expressed their interest in being tested, but only 4 % actually had received VCT services.

A chi–square test did not find any significant association between the demographic characteristics of the respondents and the VCT status. Reviewing the literature, the researcher found that some demographic characteristics were associated with the behaviour of having been tested for HIV. Bernand and Prince (1998) reported that students between ages of 25 and 35 were more likely to have an HIV test than other age groups; students married or divorced were more likely to have an HIV test than singles. Data from the South African National HIV Prevalence, Behavioural Risks and Mass Media Household Survey (HSRC, 2002) showed that respondents aged 25 - 49 years, living in urban areas, with a higher level of education and strong religious background were more likely to have been tested for HIV. Some studies revealed that people with higher level of education were likely to have an HIV test (HSRC, 2002; Inungu, 2002, cited in Vermund et al., 2002; Glick and Sahu, 2003).

5.1.3.2 Reasons for VCT and for not VCT

Reasons for undergoing VCT

In the current study, among those who had previously received VCT, 62.1% cited 'to know my health status' as the major reason for undergoing VCT. Other main reasons included:

recognition of risk (i.e. thought exposed to HIV, 31.0%), and seeking information about maintaining their health (i.e. how to avoid HIV infection, 20.7%; how to take care of themselves, 17.2%). These findings were consistent with literature (Kellerman et al., 2002; Killewo et al., 1998; Alemu et al., 2004). Reviewing the literature, people that practised unsafe behaviour underwent VCT because they perceived the risk of HIV infection. Bernand and Prince (1998) found that there were significant associations between the number of sexual partners within the previous year, the rate of condom use over the previous six months and HIV testing status. According to Renzi et al. (2001), having multiple sexual partners significantly increased the odds of HIV testing. A study conducted in South Africa (Kalichman and Simbayi, 2003) revealed that the participants who had been tested for HIV were significantly more likely to have had a history of STI diagnosis, to have injected drugs or to have never used a condom , than those who had never been tested for HIV. Nakashima et al. (2003) reported that early HIV testers had undergone HIV testing because of self – perceived risk and wanted to know their HIV status. Illness was a main reason for HIV testing cited by the majority of late HIV testers in United States. Day et al. (2003) also found that illness was the major reason for HIV testing among mineworkers in South Africa.

Reasons for not seeking VCT

In this study, the main reasons cited by the participants for not seeking VCT included: assuming that his/her HIV status was negative (55.8%), to be unlikely exposure to HIV because they always practised safe sex (had only one sexual partner, used condoms) (20.1%), did not want to know their HIV status (18.8 %) , and lack of VCT information (18.1%).

The low perceived risk to HIV infection was identified as a major barrier to VCT (Vermund et al., 2002). In this study, among the respondents who had never undergone VCT, "assuming his/her was HIV–negative" was the most commonly-reported reason for not seeking VCT. However, only 10.7% of the respondents reported that they had never had sex; 20.1% thought they were unlikely to have been exposed to HIV because they always practised safe sex; 13.5% believed that they were not in a high risk group. Students might have inaccurate and underestimated perception about the susceptibility to HIV.

The findings of the current study were consistent with the literature (Bernand and Prince, 1998; Kellerman et al., 2002; Killewo et al., 1996; HSRC, 2002; Peltzer et al., 2004). In a study conducted in the United States (Bernand and Prince, 1998), the most frequent reasons cited by the college students for not being HIV tested were the assumption of an HIV negative status (30.6%) and practising safe sex (25.7%). However, when researchers examined the safe sex practices of those who had never been tested for HIV because they assumed they were HIV negative, it was found that 42% of them reported had never used a condom, 16.8% had more than one sexual partner within the previous year. Only 10.3% of them used a condom all of the time, over half practised monogamy, and 22.8% had not had sex within the previous 6 months. Among those who reported no need for an HIV testing because they practised safe sex, only 20% used a condom all of the time and almost 60% practised monogamy , whereas close to one third had never used a condom and the remainder used condoms sometimes. It was also found that 15% of the respondents had more than one sexual partner within the previous year.

Data from the National Survey of HIV and Sexual Behaviour among Young South Africans

(RHRU, 2003) revealed that approximately two thirds (67%) of young people aged 15-24 years reported having had sexual intercourse (48% of 15-19 years age group and 89% of 20-24 years age group). Only 17% indicated that they had not had sex within the previous 12 months; 35% reported only having had one lifetime sexual partner. Of those who reported having had sex within the previous 12 months, 33% always used a condom with their most recent sexual partner while 31% had never used a condom. However, the survey found an underestimation of personal risk: 62% of HIV infected young people reported that they thought they were at little or no risk of contracting HIV.

Young people may not feel vulnerable to HIV because of lack of the appreciation of the distant consequences of current action (Bernand and Prince, 1998). Sexually active people may recognise personal risk, but not perceive the risk derived from the high – risk behaviour of a sexual partner.

The negative perception of the consequences of an HIV – positive testing result was another major reason for not seeking VCT revealed in a number of studies (Dejene, 2001; Kellerman et al., 2002; Castle, 2003; Van Dyk and Van Dyk, 2003; Peltzer et al., 2004; Thiede et al., 2004). In this study, 18.8% of the respondents did not want to know their HIV status; 15.4% were afraid of finding out HIV – positive; 12.8% felt too embarrassed to go for VCT; and 5.4% thought VCT could not help them if they were HIV positive.

The negative perception of the consequences of an HIV–positive testing result related to social stigma towards people living with HIV/AIDS. People who are potentially HIV positive are afraid of stigmatization and discrimination, of being rejected by partners, families and the community; and of colleagues' reaction. Their HIV–positive status may affect their image and

reputation; and many will suffer depression. People are afraid of finding out that they became infected with HIV also because of fear of an incurable disease and death. They feel that they are not able to cope with a positive test result.

The availability and affordability of VCT services is one of the factors influencing the uptake of VCT (Samet, 1997; UNICEF, 2001; Castle, 2003; Alemu et al., 2004). In this study, only 6.0% of the respondents mentioned that they did not know where to get VCT service and 2.0% thought that VCT cost too much for them. Availability and affordability were only the minor reasons for not participating in VCT among this study population. VCT service is charge free at the campus clinics of the University of KwaZulu – Natal.

Nearly one fifth (18.9%) of the respondents in this study cited "lack of VCT information" as a reason for not seeking VCT. It revealed that lack of VCT information is a barrier to VCT. Similar findings were found in literature. A study conducted in Ethiopia (UNICEF, 2001) found that young people's knowledge about VCT was poor. There was little knowledge prevailed about what VCT meant, its purpose and scope, how it was delivered, by whom, where and when it was provided. According to Dejene (2001), knowledge about the whereabouts of the VCT service was inadequate. Some health facilities, where the VCT service was not actually available, were also mentioned by 41.6% of the respondents as a place where the service was available. Samet et al. (1997) reported that 30% of the respondents who did not have an HIV test but wanted to get tested did not know where to go for HIV testing. Many callers to AIDS Helpline expressed concerns about the accuracy and reliability of HIV testing. They were confused about contradictory results from rapid and lab - based tests. Some callers also expressed confusion or misunderstanding about the importance of the three–month "window" period following possible exposure to HIV (Birdsall et al.,

2004).

5.1.3.3 Need for information about VCT

The majority (67.4 %) of the respondents expressed their interest in getting more information about VCT. The proportions of students wanting to know more VCT information among those who had previous received VCT and those who had never undergone VCT were high: 72% and 66.4%, respectively. Almost three quarters (74.4%) of those who had an intention of undergoing VCT within the following 6 months wanted to know more VCT information, but a chi-square analysis did not find any significant association between the need for VCT information and the intention of undergoing VCT. Similarly, in the South African National HIV Prevalence, Behavioural Risks and Mass Media Household Survey (HSRC, 2002), the vast majority of the respondents indicated that they needed further information about HIV/ AIDS, including VCT service.

In this study, 85 students mentioned which VCT information they would like to know. One quarter (25.3%) of the respondents wanted to know general information about VCT. Other information which students would like to know included : what services VCT provides (especially the services which VCT offers to people tested positive (15.7%), the venues and cost of VCT (15.7%), the procedure involved in VCT (11.8%), counselling part (8.4%), confidentiality of VCT (7.2%), information about HIV/AIDS (7.2%), and the benefits and disadvantages of VCT (4.8%).

These findings suggested there is a need of a communication campaign to address the knowledge gaps existing among the University students.

5.2 Recommendation

Based on the findings of this study and literature review, the researcher would like to make recommendations for practice and future research:

5.2.1 Recommendations for practice

Communication campaigns

There is a need for communication campaigns for promoting VCT at the University of KwaZulu–Natal. These campaigns should address VCT – related issues as follows:

- **Vulnerability to HIV to young people.** In this study, a low level of risk perception to HIV infection was found. Among students who had never sought VCT, 58.8% thought that they were not infected with HIV. However, only 20% reported that they were unlikely exposed to HIV because they always practised safe sex (had only one sexual partner, used condoms); 10.7% reported that they had never had sex and no need to undergo VCT. These suggested that it is critical to educate students and help them recognize and understand their vulnerability to HIV.
- **Benefits of VCT.** Some students thought that VCT was only for diagnostic purpose, and denied the value of counselling. Some students perceived the negative consequences of a HIV-positive testing result. The communication campaigns should emphasise the benefits of VCT: VCT as an entry point to prevention and care (e.g. to promote behaviour change), to medical care (e.g. preventive therapy for tuberculosis, and other opportunistic infections), prevention of mother–to–child transmission of HIV infection (PMTCT), and for emotional, spiritual and social support. These

information assist students to weigh potential benefits and disadvantages of VCT, and make a decision on seeking VCT.

- **VCT – related information.** The communication campaigns should address VCT-related information gaps existing among students of the University of KwaZulu-Natal, including policy and guidelines of VCT in the University , VCT services (especially for students who tested positive), HIV testing protocol, safety and accuracy of rapid HIV tests, counselling process, confidentiality principle, availability of VCT at the university (cost, venue), etc.
- **Stigma deduction.** Stigma is one of barriers for seeking VCT services. Emphasis on elimination of prejudice and negative attitudes towards people living with HIV/AIDS should be an important component in communication campaigns.

Approaches of communication

- Peer–education programmes should engage people who have undergone VCT and disclosed their HIV-positive status, and people who were tested negative and changed their risky behaviour to avoid HIV after VCT.
- VCT services providers (VCT programme organizers, nurses, counsellors from local hospitals or clinics), and role models or valued members of the community which have been tested should be invited as speakers to University for promotion VCT awareness.
- University authorities should organize presentation about VCT (especially in informal settings such as Student Union, cafeterias or residence lounges) and cultural, social, sporting and recreation activities to promote VCT awareness and provide VCT information. A lecture or workshop on VCT awareness promotion should be arranged on all campuses of the University.

- The Information and Communication Technology Division of University should develop a user–friendly, easily–assessable webpage about campus VCT services and fact sheets for campus website of the University of KwaZulu–Natal.
- University should provide opportunities for effective learning by all students – cultural ethnicity, sexual orientation, genders, persons with disabilities and religious affiliations represented in the campus community.
- Education material on VCT should be made available to all university students. Campus clinics, HIVAN, and Student Counselling Centre's telephone number and physical location, National AIDS Helpline number should be routinely advertised in all university publications.

For University of KwaZulu - Natal authorities and Campus Clinics

- The researcher would recommend that campus clinics provide walk–in HIV testing in student residence halls one day each month.
- A post–test support system should be established at the University. A comprehensive post–VCT service should include: on–going support of HIV–positive individuals through a post – test club; sustainable follow–up of HIV–positive status individuals; integration with other post – test health and psychological support; encouragement and support for HIV-positive and HIV-negative individuals to change HIV–related risky behaviours and maintain safe behaviours after VCT.
- University authorities should implement curriculum development projects focusing on mainstreaming HIV/AIDS issues (including VCT) into the curriculum offered at the University of KwaZulu–Natal (e.g. integration of VCT information in the modules which involve HIV/AIDS) .

- Policy on providing antiretroviral drugs treatment to HIV-positive students and management of HIV-positive cases should be made at the University.

5.2.2 Recommendations for future research :

- The researcher would recommend to the University authorities to conduct a survey about HIV prevalence, and students' awareness, attitudes and behaviours regarding VCT among all students of the University of KwaZulu–Natal for policy and planning purposes. Establishing prevalence of HIV will provide useful information for HIV/AIDS prevention programmes (including VCT). The current study did not specifically address students' sex behaviours. Promoting and maintaining safe sex behaviours and reducing risk sex behaviours are important aspects in HIV prevention. It is desirable, in future research on HIV / AIDS at the University, to explore students' sex behaviour patterns (e.g. sexual activity, number of sexual partner, condom use), to assess their HIV risk perception, to determine the factors that influence the uptake of VCT. These information are helpful for planning VCT promotion programmes. They also provide a baseline for evaluation the strategies on HIV prevention among the students at the University.
- A study focusing on students' experiences of undergoing VCT is recommended. This study should address the following issues: how and to whom students disclose their HIV–positive status; the specific needs of students who tested positive; the effect of pre- and post–test counselling on sexual behaviour change.
- There is a need to carry out a study on evaluation the effectiveness of HIV education programmes and VCT awareness campaigns at the University of KwaZulu–Natal.

- University authorities should establish a database of VCT research. Studies on efficacy and the quality of VCT service are needed to be done. A collaborative partnership among the University of KwaZulu–Natal and other institutions of Higher Education in South Africa should be developed and enhanced in order to disseminate and communicate the experiences on establishing and implementing VCT promoting programmes.

Conclusion

In 2004, HIV prevalence remained high in South Africa. The epidemic is still in the stabilisation phase and has not yet begun to decline (Department of Health, 2003a). HIV/AIDS is still an important public problem in South Africa. HIV Voluntary Counselling and Testing (VCT) plays an important role in HIV prevention, and for people with HIV infection, as an entry point to care and support. VCT provides an opportunity for students to know their HIV serostatus, and with the appropriate counselling, to promote safe behaviour.

The aim of this study was to describe the awareness, attitudes and behaviours regarding VCT among students who lived in the residences of Howard College Campus, University of KwaZulu-Natal. The findings showed that the level of awareness of VCT among the students was high , and a vast majority of the respondents were aware of availability of VCT services in the University. Sixteen percent (16%) of the respondents had previously undergone VCT and most of them received pre–and post–counselling. This study revealed a positive attitude towards VCT among the participants. Students perceived the benefits of VCT. They also felt that the integration of VCT in campus health care services was an important strategy for HIV prevention and support in the University community. However, the findings revealed some barriers for the potential use of VCT services: the low perception of the risk to HIV infection and the negative perception of consequences of an HIV–positive result. Social stigma prevented people from seeking VCT. Students also expressed their interest in knowing more information about VCT.

A communication campaign is necessary to address knowledge gaps and reduction of stigma. Recommendations are made for the communication campaign and VCT promotion programmes as well as future research at the University of KwaZulu–Natal.

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THE SOUTH AFRICAN CENTRE FOR EVIDENCE BASED NURSING & MIDWIFERY
THE JOANNA BRIGGS INSTITUTE

UNIVERSITY OF KWAZULU-NATAL

2 November 2004

The Director of Student Residences
Howard College Campus, UKZN

REQUEST FOR PERMISSION TO CONDUCT RESEARCH ON AWARENESS, ATTITUDES AND BEHAVIORS REGARDING HIV VOLUNTARY COUNSELLING AND TESTING (VCT) AMONG STUDENTS OF UNIVERSITY OF KWAZULU – NATAL ON HOWARD COLLEGE CAMPUS RESIDENCES

I am a Masters student of School of Nursing, registered at the University of KwaZulu - Natal in the year 2004.

Permission is hereby requested that students in Howard College Campus residences, UKZN, complete the questionnaire used for the above quoted research. A copy of the questionnaire is attached.

I have already presented my research proposal and it has been accepted. I am now at the stage of collecting data as part of the study requirements. This will take place as soon as I get a positive response from you.

I hope that my request will receive your favorable attention.

Thank you!

Your sincerely,

Xing Ying

Xing Ying

cc Professor O Adejumo
Supervisor

School of Nursing, Howard College Campus

Postal Address: Durban, 4041, South Africa

elephone: +27 (0)31 260 2499 **Facsimile:** +27 (0)31 260 1543 **Email:** **Website:** www.ukzn.ac.za

ounding Campuses: Edgewood Howard College Medical School Pietermaritzburg

UNIVERSITY OF
KWAZULU-NATAL

17 November 2004

Xing Ying
203512416

re : Research in Residences

I have assessed your request for conducting your academic research in the Howard College Residences.

Permission is hereby granted for this research, and it must be noted that :

a) Residence students may not be compelled to partake in the survey

b) Every caution and courtesy must be exercised during this research in residences

c) The relevant Residence Life Staff must be informed prior to conducting the survey.

Sincerely

Sifiso Dludla
Manager :
Student Housing

Department of Student Housing

Postal Address: Howard College Campus, Durban 4041, South Africa

lephone: +27 (0)31 260 1449 **Facsimile:** +27 (0)31 260 1396 **Email:** dludla@ukzn.ac.za **Website:** www.ukzn.ac.za

unding Campuses: Edgewood Howard College Medical School

UNIVERSITY OF KWAZULU-NATAL

RESEARCH ETHICS COMMITTEE

Student: Xing Ying

Student No: 203512416 Qualification: Course Work Masters in Research

Research Title: Awareness, attitudes and behaviours regarding HIV Voluntary Counselling and Testing (VCT) among students of University of KwaZulu-Natal on Howard College campus residences

A. The proposal meets the professional code of ethics of the Researcher:

(YES) NO

B. The proposal also meets the following ethical requirements:

	YES	NO
1. Provision has been made to obtain informed consent of the participants.	✓	
2. Potential psychological and physical risks have been considered and minimised.	✓	
3. Provision has been made to avoid undue intrusion with regard to participants and community.	✓	
4. Rights of participants will be safe-guarded in relation to:		
4.1 Measures for the protection of anonymity and the maintenance of confidentiality.	✓	
4.2 Access to research information and findings.	✓	
4.3 Termination of involvement without compromise.	✓	
4.4 Misleading promises regarding benefits of the research.	✓	

Signature of Student: Xing Ying Date: 02/11/2004

Signature of Supervisor: [signature] Date: 03/11/2004

Signature of Head of School: [signature] Date: 03/11/04

Signature of Chairperson of the Committee: [signature] Date: 3/11/04

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Founding Campuses: Edgewood Howard College

APPENDIX D : QUESTIONNAIRE

QUESTIONNAIRE

Dear students:

The aim of this study is to explore students' awareness , attitudes and behaviours regarding HIV Voluntary Counselling and Testing (VCT) of the University of KwaZulu – Natal.

Voluntary counselling and testing (VCT) is the process by which an individual undergoes confidential counselling to enable the individual to make an informed choice about learning his or her HIV status and to take appropriate action . If the individual decides to take the HIV test, VCT enables confidential HIV testing. Counselling for VCT consists of pre-test, post-test and follow-up counselling.

Participation is anonymous and voluntary. All of the information collected will be kept confidential.

Thank you for your participation.

Please indicate your responses with a tick or write on the space provided.

I . Demographic Information :

1 . Gender	Male	
	Female	
2 . Age		
3 . Level of study	Undergraduate	
	Postgraduate	
4 . Ethnic group	Black	
	White	
	Coloured	
	Indian	
	Others , specify :	

II . Awareness about VCT :

5 . Have you heard about VCT before this survey ?	Yes	
	No	
6 . If yes , where did you hear about VCT? ***(Please tick all those that apply to you)***	TV/ radio	
	Newspaper / magazine / book	
	Family numbers	
	Friends / classmates	
	Teacher	
	Doctor / nurse / other health carer	
	Campus peer educator	
	Information leaflet / posters	
	Internet	
	Others , specify :	
7 . Could you tell me of a place you know where VCT service is provided ?		
8 . Do you know whether students of the University of KwaZulu - Natal can obtain VCT service on the campus?	Yes	
	No	
9 . If yes , how did you know about that ?		
10 . Do you personally know somebody who underwent VCT ?	Yes	
	No	

III . Attitude towards VCT :

Please answer the following questions 11 - 20 using the response category : Strong Agree / Agree / Undecided / Disagree / Strong Disagree

Statements	Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
11 . Knowledge of HIV status through VCT is a vital point of entry to other HIV/AIDS services .					
12 . I feel that VCT is only for diagnostic purpose .					
13 . I feel that AIDS – related stigma prevents people from VCT .					

	Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
14 . I feel that VCT does not offer benefits to those who tested negative .					
15 . I believe that post-test counselling should be offered only to those who tested positive for HIV infection .					
16 . I do not think that the HIV test is accurate .					
17 . I feel that counselling is a valued part of VCT .					
18 . I believe that VCT information (especially about testing result) is kept confidential by VCT staff .					
19 . I believe that availability of antiretroviral therapy will promote people to seek VCT .					
20 . I feel that the integration of VCT in the campus health care services is an important strategy for students for HIV prevention and support .					

21 . What do you think are the benefits of undergoing of VCT ?	
22 . What do you think are the disadvantages in undergoing VCT ?	

IV . Behaviours regarding VCT :

23 . Have you received VCT ?	Yes	
	No	
24 . If yes , have you received pre-test and / or post-test counseling ?	Yes	
	No	
25 . Do you intend to go for VCT within the next 6 months ?	Yes	
	No	
	Not sure	

26 . Please tell me the reason that made you underwent VCT or will make you seek VCT ? ***(Please tick all those that apply to you)***	To know my health status	
	Thought exposed to HIV	
	In a high risk group	
	Some people advised me to do	
	Get information about how to avoid HIV infection	
	Get information about how to take care of myself	
	Seek support	
	Others , specify :	
27. Please tell me the reason that will make you not to go for VCT? ***(Please tick all those that apply to you)***	Don't want to know my HIV status	
	Assume my HIV status is negative	
	Unlikely exposed to HIV because always practice safe sex (have only one sexual partner , use condom)	
	Unlikely exposed to HIV because have never had sex	
	Unlikely exposed to HIV because not in a high risk group	
	Unlikely exposed to HIV because not an injection drug users	
	Unlikely exposed to HIV because have never had a blood transfusion	
	Afraid of finding out HIV – positive	
	Too embarrassed to go for VCT	
	Don't know where to get VCT service	
	Lack of VCT information	
	It costs tomuch	
	VCT can't help me if I was HIV positive .	
	Others , specify :	
28 . Do you want to know more information about VCT ?	Yes	
	No	
	Not sure	
29 . If yes , what information you like to know ?		