An Implementation Evaluation of the University of Cape Town's HIV Voluntary Counselling and Testing Programme

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COMPULSORY DECLARATION:

This work has not been previously submitted in whole, or in part, for the award of any degree. It is my own work. Each significant contribution to, and quotation in, this dissertation from the work, or works of other people has been attributed, and has been cited and referenced.

Signature: .....

Date: .....

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EXECUTIVE SUMMARY

The *Human Immunodeficiency Virus* (HIV) is one of the most serious global health issues. There is currently no cure for HIV and prevention is therefore our best chance of reducing the spread of the virus. Voluntary Counselling and Testing (VCT) is becoming recognised as a fundamental component in the effective prevention of HIV (Day et al., 2003). VCT provides important HIV related information to at risk individuals as well as support to those who are infected (Subramanian, Gupte, Mathai, Boopathi & Dorairaj, 2008). The University of Cape Town (UCT) established a VCT programme for all students and staff. This programme aims to ensure that all students and staff are aware of their HIV status and encourages the reduction of high-risk behaviours. Furthermore, UCT's VCT programme provides access to both medical care and social support for HIV positive individuals. The focus of this implementation evaluation was to determine the extent to which UCT's VCT programme was operating effectively and in keeping with UCT's mission.

The first phase of the evaluation included a literature review which concluded that although VCT was an effective means of educating individuals about HIV, there are still a numerous researchers who believe that those making use of VCT are not the same individuals that VCT should be targeting (Fako, 2006; Hutchinson & Mahlalela, 2006). The evaluator designed a confidential questionnaire focusing on service utilisation, service delivery and support. This questionnaire was voluntarily completed by UCT students and staff making use of VCT on campus during the data collection period.

In general, it appears as though UCT's VCT programme is predominately used by females. The racial distribution of student respondents reflects, for the most part, the racial distribution of students registered at UCT for 2009.

The majority of these students are in their first or second year of study and come from the Humanities or Commerce faculties. This is to be expected as these two faculties are the largest on campus and are located on Upper Campus making VCT access considerably easier. The average age range of respondents is 18 to 22 years. This reflects the dominant age cohort of UCT and is also considered to be the age group most succeptable to the contraction of HIV/AIDS. It can therefore be concluded that universities are ideally positioned to offer VCT as part of a HIV/AIDS prevention strategy because they are able to target the high risk age group. The majority of responses were received from the VCT Drive and approximately half of the respondents indicated they had previously been tested for HIV.

The results of the evaluation imply that UCT's VCT programme is, for the most part, operating as intended. All respondents received the same sequence of activities across VCT sites and indicated that, in general, their experience of UCT's VCT programme was good to excellent. Furthermore, they appear to be satisfied with the quality of counselling they received. There was however uncertainty as to whether the Rapid HIV test at the VCT Drive was performed by a nurse practitioner. VCT took the longest to complete at Student Wellness followed by the VCT Drive, Sports Centre and Mobile Bus sites.

This evaluation contributes to the area of programme evaluation by providing evidence to substantiate previous arguments that VCT is an effective means of HIV/AIDS prevention. This is however contingent on whether VCT is easily accessible and targeted at the correct individuals. Furthermore, this evaluation demonstrates how VCT is implemented in a university setting and indicates that VCT is effective in terms of getting students tested for HIV. There are however, a few concerns relating to VCT uptake, that need to be dealt with successfully before VCT can be judged to be a fundamental component of HIV/AIDS prevention programmes.

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CHAPTER 1: INTRODUCTION

The rapid spread of the *Human Immunodeficiency Virus* (HIV) is one of the most serious health issues confronting both developed and developing countries worldwide. The *Acquired Immune Deficiency Syndrome* (AIDS) pandemic in sub-Saharan Africa accounts for three-quarters of the worldwide HIV burden (Standton et al., 1998). Antiretroviral treatments have improved quality of life for people living with HIV and AIDS, but there is currently no cure or vaccine available (Coetzee & Patel, 2000). Prevention is therefore the best way to reduce the spread of HIV and AIDS.

Voluntary Counselling and Testing (VCT) is becoming increasingly recognised as a component of effective HIV prevention initiatives (Day et al., 2003; UNFPA, 2002). It provides important HIV related information to individuals who may be at risk of contracting HIV. Furthermore, it provides treatment and support to those who are infected (Subramanian, Gupte, Mathai, Boopathi & Dorairaj, 2008). VCT is made up of three stages: Pre-test counselling and assessment of risk, a Rapid HIV test with same-day results, and post-test counselling. VCT is perceived by some researchers and medical practitioners as a milestone for early access to prevention of HIV as well as for support offered to those living or dealing with HIV (Mabunda, 2004). There are however issues relating to the uptake of VCT that must be successfully dealt with before it is possible for VCT to be perceived as an essential, and effective, means of preventing the HIV/AIDS pandemic (Bhagwanjee, Petersen, Akintola & George, 2008; Mundy & Dickinson, 2004).

Programme Description

The VCT programme at the University of Cape Town (UCT) is available to all students and both permanent, part-time and contract staff at the institution. In 2007, 5247 students and staff members made use of the VCT service at UCT. For 2008, the total number of students and staff tested was 5209. Based on the programme documentation compiled by Coetzee and Patel (2000, p.1) it is evident that the high-level goal of UCT's VCT programme is to "reduce the spread of the HIV virus by altering the behaviours of people, particularly those who are infected and those who are at risk". When implemented properly, the programme aims to "break the vicious circle of fear, stigma and denial" (Coetzee & Patel, p.1). These goals have been aligned with UCT's HIV and AIDS Policy and Mission Statement which states that UCT aims to "address the challenges facing our society" (UCT, 2009a, p.1), as well as National Department of Health (DOH) guidelines. According to programme documentation, further aims and objectives of UCT's VCT service are as follows:

- To offer confidential and interactive pre-test counselling.
- To perform Rapid HIV tests on site, which offer a result within 10-15 minutes.
- To provide post-test counselling to all students and staff who are tested.
- To provide suitable follow up referrals for both medical and psychological care and support to all those who test HIV positive.

According to Coetzee and Patel (2000), the activities of the VCT programme can be broken down into three categories. The first of these categories is pre-test counselling (15-25 minutes). During the pre-test counselling, the participant will be introduced to the VCT process. The goal of pre-test

counselling is to determine the parameters of the session, describe the roles and responsibilities of the student/staff member and counsellor and establish agreement with the participant as to the objectives of the session. A risk assessment will then take place. The purpose of the risk assessment is to engage the student/staff member in an initial exploration of his/her HIV risk behaviour. The counsellor requires this information in order to understand the participants HIV concerns and risks and to improve their knowledge of HIV and the risks involved. Once the counsellor has determined the participant's level of risk, appropriate prevention counselling will be provided.

Prevention counselling is provided during the pre-test counselling in order to identify the participants' productive risk reduction attempts. It furthermore aims to help participants overcome barriers to behaviour change. The counsellor will attempt to empower the student/staff member to take action to protect him/herself and others through skills building, role-plays, problem-solving, communication enhancement, and condom skills. The student/staff member will then receive test decision counselling which is done to assist the participant in determining his/her willingness to be tested.

The Rapid HIV test (Abbott Determine Antibody Test) is the second category of activities involved in the VCT programme. It takes approximately 10-15 minutes to complete. A small drop of blood is collected from the participant's finger using a glass pipette. It is subsequently transferred directly to a small chamber on the test kit. A drop of buffer is then added to the chamber. The result of the test is read by observing lines on the test kit. One line indicates a negative result and two lines indicate a positive result. No lines indicate an indeterminate result which means that the sample has to be repeated using a different screening test. The Abbot Determine Antibody Test is accurate. It has 99.90% sensitivity and 99.75% specificity (Inverness Medical, 2009). After every 25 tests administered, a control test (Pareekshak Triline) is performed

for the purpose of quality assurance. These blood tests can only be performed by a nurse practitioner or a medical practitioner. Once the student or staff member has completed the Rapid HIV test, they will then be provided with post-test counselling.

Post-test counselling is the third category of activities for the VCT programme (10 – 25 minutes). During this phase of the VCT programme, the student or staff member will receive the results from their Rapid HIV test. With regard to a negative HIV test result, the goal is to provide clear and accurate HIV negative test results with an emphasis on the need for the participant to initiate risk reduction in order to remain HIV negative. When providing an HIV positive result, the counsellor needs to provide the result in a manner that is clear, compassionate and supportive. They also need to assist the participant in coping with the result. Counselling for disclosure and partner referral is also conducted during post-test counselling. Here the counsellor assists the student or staff member in exploring his/her feelings about telling partners or family about the test results. When the test result is positive, the counsellor will assist the student or staff member to identify support resources and access to necessary medical follow up and referrals. Negotiation of a risk reduction plan is another activity that takes place during post-test counselling. The objective of this activity is to develop a specific plan for the student or staff member to reduce HIV. This is designed to increase the participant's ability to implement their risk-reduction plan.

The VCT programme is operated from a number of locations on, and around, the university campus. A free VCT service is available, by appointment, at the Student Wellness Centre on Lower Campus and at the Sports Centre on Upper Campus on a first come first served basis. Major VCT Drives take place twice a year, in March and August, at both Upper Campus and at the Medical School. A Mobile VCT Bus was introduced in 2008. This Mobile Bus moves

between the university's campuses providing VCT services to students and staff on a walk-in basis.

UCT's VCT programme was set up in 1995 by Dr. Wendy Orr. She discovered that a number of universities in the United States of America (USA) offered VCT programmes and was interested in setting up a similar facility at UCT. After attending a seminar on VCT in the USA, Orr returned to UCT and developed, together with the Dean of Students, UCT's HIV/ Aids policy. UCT became the first African university to have an HIV/ AIDS policy for staff and students and it was intended that the policy would protect individual rights and encourage VCT. VCT was, at this time, considered to be of significant importance because it was assumed that if people were aware of their HIV status, they would take action in terms of not transmitting the disease to others as well as improve their immune status. Dr. Orr along with Sister Knighton – Fitt (Sr. J. Knighton – Fitt, personal communication, March 10 , 2009) compiled the initial format for the VCT process and drew up a step-by-step plan as to what should be covered during both the pre-test and post-test counselling sessions.

VCT at UCT is currently sponsored by the university in terms of special HIV funding allocated to the programme by the UCT Council (Dr. C. Landon, personal communication, March 15, 2009). In 2008, the programme received seed funding for the Mobile Bus from HEAIDS (Higher Education Aids – National Department of Education) which was in the form of grant money from the European Union (EU). In 2009, the VCT programme received funding for the March VCT Drive from an NGO, Engenderhealth.

Programme Theory

According to Donaldson (2007) programme theory relates to the way in which a specific programme intends to solve the problem which it is addressing. It focuses on the fundamental components of the programme that are presumed to result in the intended outcomes of the programme as well as the conditions under which said components are supposed to operate (Donaldson; Donaldson & Lipsey, 2006). Figure 1 illustrates a programme theory as visualised by UCT's VCT stakeholders. It shows how the VCT programme is expected to lead to important desired outcomes.

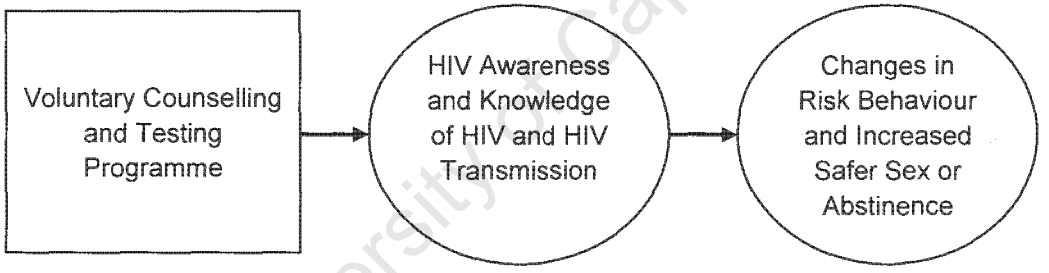

Figure 1. Programme theory for UCT's VCT programme

From Figure 1 it is clear that the VCT programme aims to increase HIV awareness and knowledge of HIV and HIV transmission so as to change risk behaviours and increase safer sexual practices or abstinence among UCT students and staff. The programme theory presented above can also be encapsulated in more detail within a logic model. Figure 2 presents a logic model for the VCT programme at UCT.

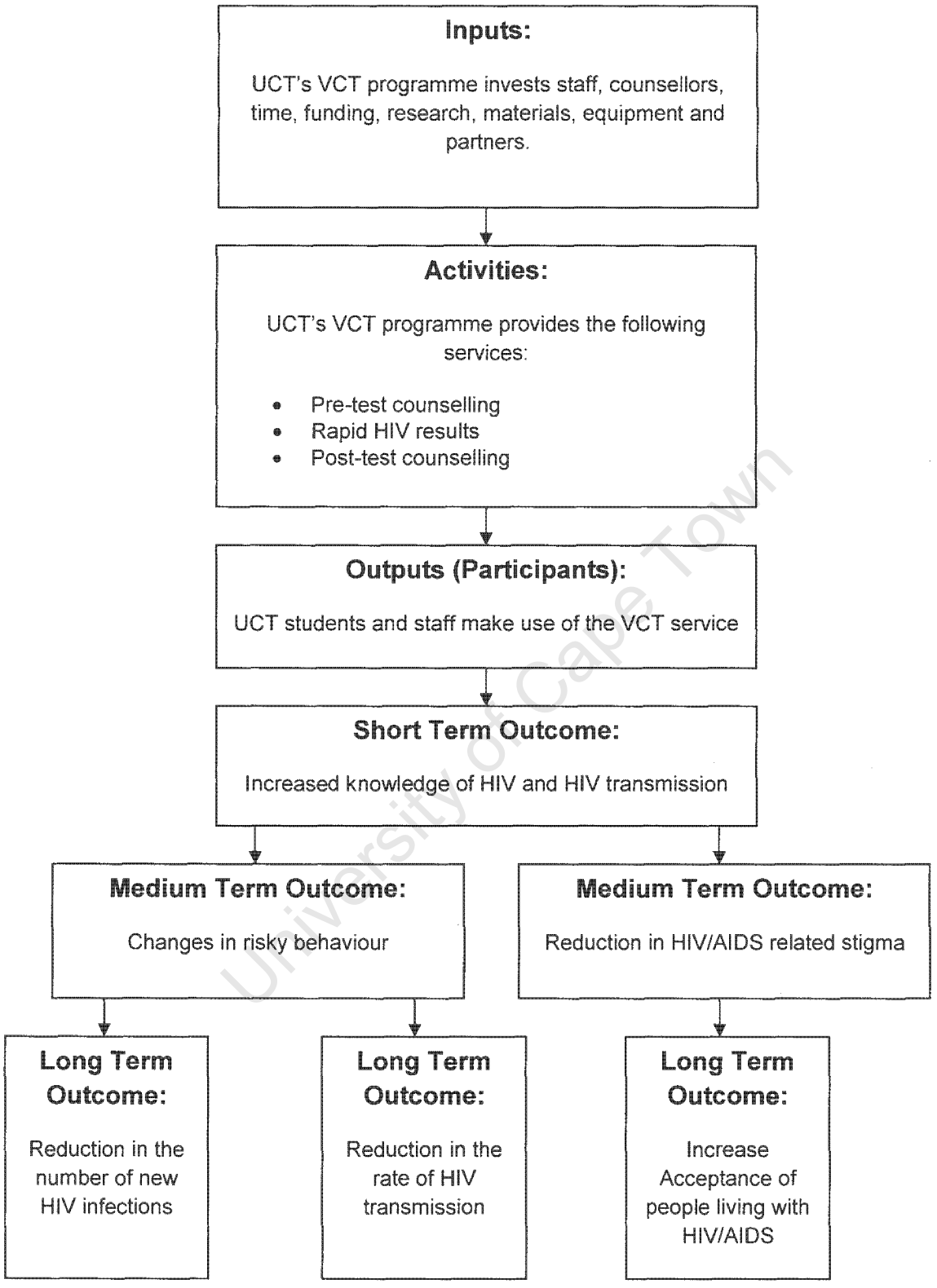

Figure 2. The logic model for UCT's VCT programme

This logic model maps out the VCT programme's inputs, activities, outputs, short-term outcomes, medium-term outcomes, and long-term outcomes, as visualised by the programme stakeholders. From this logic model it is clear that there are a number of important inputs that must be invested into the VCT process in order for it to be implemented successfully. These include staff, counsellors, time, funding, research, materials, equipment and partners. *Activities* refer to the services a programme is expected to deliver (Rossi, Lipsey & Freeman, 2004). The activities that UCT's VCT programme aims to provide include pre-test counselling, a Rapid HIV test and post-test counselling.

In this logic model for UCT's VCT programme, the *participants* are represented as programme outputs. This category defines who will make use of the VCT programme (Rossi et al., 2004). UCT students and staff constitute the participants of UCT's VCT programme. The VCT programme at UCT intends to achieve short term, medium term and long term outcomes. The short term outcomes relate to *learning* and include knowledge about HIV and how it is transmitted. Medium term outcomes are associated with *action* and include changing the risky behaviours of students and staff by promoting safer sexual practices or abstinence as well as the reduction in HIV/AIDS related stigma. The long term outcomes of UCT's VCT programme include contributing to the reduction in the number of new HIV infections, the reduction in the rate of HIV transmission and promoting the acceptance of people living with HIV/AIDS. It is understood that if VCT is able to achieve its short term, medium term and long term outcomes, it will ultimately be perceived to be an effective tool in terms of combating the HIV/AIDS pandemic.

Plausibility of Programme Theory

In 2007, it was estimated that 5.7 million people in South Africa were living with HIV (UNAIDS, 2008). Despite this high prevalence of HIV, very few South Africans have been tested for HIV (Hutchinson & Mahlalela, 2006). According to Njagi and Maharaj (2006) less that 10% of HIV sufferers in South Africa are aware of their status. The Nelson Mandela/Human Sciences Research Council (HSRC) Study of HIV/Aids (2002) determined that only 19% of adults in South Africa over the age of 15 had obtained an HIV test. As a result of this lack of awareness and the reality that there is no cure for HIV/Aids, social science researchers and medical practitioners are of the opinion that it is crucial that VCT be encouraged across all segments of society (Njagi & Maharaj). In the subsections that follow, the plausibility of the UCT's VCT programme theory will be assessed by means of existing social science knowledge and research.

Positive Opinions Regarding VCT

Numerous studies conducted in both developed and developing countries have concluded that VCT programmes can be valuable tools in the fight against HIV and AIDS (Hutchinson & Mahlalela, 2006; Van de Perre, 2000). VCT is considered to be the most targeted and focused strategy with regards to getting people tested for HIV and managing the HIV pandemic (Njagi & Maharaj, 2006; Richter, van Rooyen, Solomon, Griesel & Durrheim, 2001; van Dyk & van Dyk, 2003). As a result, HIV VCT services have become fundamental components of many national Aids programmes worldwide (Ginwalla et al., 2002; Wringe et al., 2008).

Studies conducted in the USA have shown that the acceptance of people living with HIV and AIDS was positively correlated with knowledge of HIV, HIV prevention, and how HIV is transmitted (Okonkwo, Reich, Alabi, Umeike & Nachman, 2007). The pre-test counselling provided during VCT aims to improve knowledge of HIV and HIV transmission in an attempt to reduce stigma associated with HIV and increase acceptance of those living with the disease (Coetzee & Patel, 2000; McCauley, 2004). Post-test counselling helps people to deal with the stress and anxiety they may feel about the results of their HIV test (Ginwalla et al., 2002). In other words, VCT provides important information with regards to HIV and, offers support to those at risk of contracting the HIV virus (Subramanian et al., 2008). Moreover, it creates an opportunity for counsellors to educate participants about HIV and promote strategies for the reduction of risky behaviour (Wringe et al., 2008).

The Influence of VCT on Behaviour Change

VCT aims to promote risk reducing behaviour changes as well as assist in the reduction of HIV transmission (Fako, 2006). Furthermore, VCT services act as gateways whereby HIV positive individuals can access appropriate medical treatment for the management of HIV and AIDS as well as ongoing social support services (Ginwalla et al., 2002; Inrungu, Varkey, Cha & Patterson, 2008; Subramanian et al., 2008; Wringe et al., 2008). VCT assists HIV positive individuals to plan for their futures, and ensures that they are aware of how best to prevent transmission of HIV to others (Irungu et al.; Subramanian et al.).

Many medical practitioners and healthcare workers are acknowledging that VCT plays a significant role in the prevention of HIV and early diagnosis of HIV infection (Fako, 2006). It is an essential service aimed at reducing the

spread of HIV and helping those affected by HIV and AIDS to cope with the disease (Fako). In time, VCT endeavours to increase recognition and understanding of the HIV epidemic (Wringe et al., 2008).

Although some studies (Ho & Loke, 2003; Okonkwo et al., 2007) have associated HIV knowledge with willingness to test for HIV, Fako (2006) concluded that knowledge relating to HIV had no impact on students' willingness to get tested. Hollar and Snizer (1996) and other researchers (Greiger & Ponterotto, 1988; Keeling, 1991; Lema, Katapa & Musa, 2008) report that youth are not adopting precautionary measures against HIV based on their knowledge alone. In fact, Hollar and Snizer concluded that students with good HIV knowledge were more likely to engage in risky sexual behaviour.

Youth and HIV

The youth are perceived to be the most vulnerable and affected sector of the global population when it comes to HIV infection (UNAIDS, 2004). Individuals aged between 15 and 24 account for more than half the HIV infections worldwide with over 50% of adults acquiring the virus before they reach 25 years of age (Steinberg, Kinghorn, Sonderlud, Schierhout & Conway 2001). This situation is even more serious in developing countries where the HIV pandemic is most severe (UNAIDS). Due to the susceptibility of young people to HIV, it is important that they are the focus of HIV and AIDS interventions such as VCT (Njagi & Maharaj, 2006).

Factors Influencing VCT Uptake

Factors such as levels of education, perception of HIV risk and number of sexual partners have been found to be significantly related to whether or not an individual is willing to make use of VCT (Fako, 2006; Subramanian et al., 2008). Wringe et al. (2008) found that the desire for VCT was highest for individuals who are educated. However it was concluded that this desire for VCT did not necessarily lead to these individuals making use of VCT services. This was particularly true for individuals who were HIV positive.

A study by Fako (2006) found that there is a significant relationship between gender and willingness to test among students. Females are more willing to make use of VCT than males. These discrepancies between genders are reiterated in the findings from a number of other studies (Bond, Lauby & Batson, 2005; Pronyk et al., 2002; Subramanian et al., 2008). Fako also found that students whose family homes were located in urban areas were less reluctant to make use of VCT services compared to students who came from rural towns or traditional villages.

Furthermore, students who were not sexually active were twice as likely to test for HIV compared with those students who were sexually active (Fako, 2006). Hutchinson and Mahlalela (2006) found that having multiple sexual partners over a 12 month period was not positively correlated with the use of VCT services. This indicates that individuals who are more in need of VCT programmes are perhaps not the ones making use of such services.

In a study conducted by Subramanian et al. (2008), the most common reason cited for participant's willingness to get tested was the fact that it was good to

know one's status. Seventy five percent of participants who responded to a survey conducted by Irungu et al. (2008) felt that it was important to know their HIV status so that they could protect both themselves and their partners from infection.

Access to VCT has also been shown to have an impact on whether or not an individual chooses to get tested for HIV (Bond et al., 2002; Hutchinson & Mahlalela, 2006; Irungu et al., 2008). Studies relating to the use of on-site VCT services have demonstrated that convenient and accessible VCT programmes appear to be positively correlated with individual's willingness to get tested (Bhagwanjee, et al., 2008; Corbett et al., 2006).

Issues Relating to Voluntary Participation in VCT Programmes

Volunteer subjects tend to respond differently to non-volunteer subjects (Babbie & Mouton, 2001; Rosenthal & Rosnow, 2008). As a result, findings based on voluntary participation may not be transferable to the general population as they are likely to be affected by volunteer bias (Babbie & Mouton; Rosenthal & Rosnow). According to Rosenthal and Rosnow the following characteristics are considered to be most prominent for volunteers:

- They are generally better educated than non-volunteers;
- Are usually of a higher socio-economic status than non-volunteers;
- Tend to be more in need of social approval than non-volunteers and;
- Are often more outgoing than non-volunteers;
- Volunteers tend to be interested in the topic under investigation and;
- Females are more inclined to volunteer for research than males.

Based on the fact that the usage of VCT programmes is voluntary, it could be argued that only a specific group of individuals are choosing to make use of VCT services. As previously mentioned, during the discussion on factors influencing VCT uptake, studies have shown that it is often individuals who possess a number of the abovementioned characteristics of volunteers who choose to make use of VCT services (Fako, 2006; Subramanian et al., 2006). Furthermore, findings of various studies indicate that less than 5% of the South Africa population have made use of VCT (Wilkinson & Wilkinson, 1996). This raises a number of issues pertaining to the effectiveness of VCT in terms of combating the HIV/AIDS pandemic.

Barriers to Testing for HIV

Despite the numerous positive opinions of VCT, there is concern that a considerable number of individuals who may be at risk of contracting HIV are not getting tested (Peltzer, Nzewi & Mohan, 2004). As a result, it is important that the barriers to VCT uptake be examined.

Fear of HIV related stigma, discrimination and disclosure of HIV status are perceived to be the three most prominent barriers to HIV testing (Bhagwanjee, et al., 2008; Fako, 2006; Hutchinson & Mahlalela, 2006; Kachroo, 2006; Matovu & Makumbi, 2007; Wringe et al., 2008). Many people are concerned about how their partners, families and communities will react to an HIV positive result (Irungu et al., 2008; Subramanian et al., 2008). Some even fear domestic violence, loss of social status, abandonment and rejection (Hutchinson & Mahlalela; Irungu et al.). A study conducted by Philips, Coates, Eversley and Catania (1995) found that participants, particularly women in committed relationships, black people, and those in the lower income bracket,

were only prepared to get tested for HIV if they could be convinced that nobody else would have access to their results.

Concerns about confidentiality, a perceived lack of treatment available to those who test HIV positive, as well as the fear of testing positive, are further barriers preventing people from making use of VCT services (Bhagwanjee et al., 2008; Ginwalla et al., 2002; Matovu & Makumbi, 2007; Wringe et al., 2008). Some individuals refuse to get tested on the grounds that they do not perceive themselves to be at risk or as a result of negative attitudes towards VCT (Hutchinson & Mahlalela, 2006; Matovu & Makumbi; Peltzer, et al., 2004; Subramanian et al., 2008).

Based on the available literature and previous studies, it can be said that VCT does effectively improve HIV knowledge and awareness. The extent to which VCT changes risk behaviour and increases safe sexual practices, however, is still an issue on which researchers disagree.

Evaluation Questions

For the purpose of the evaluation of UCT's VCT programme, an implementation evaluation was conducted. According to Scheirer (as cited in Rossi et al., 2004, p.171) an implementation evaluation "verifies what the programme is and whether or not it is delivered as intended to the target recipients". In other words, programme implementation evaluation involves an investigation into whether the programme is operating as it was intended to do (Chen, 2005). Numerous evaluators have emphasised that in order for a programme to be effective, it is essential that it be implemented effectively (Chen, 2005; Rossi et al., 2004). Conducting an implementation evaluation of

the VCT programme offered at UCT allowed information to be gathered pertaining to the quality of service provided as well as the extent to which the VCT programme is implemented as was intended by the programme developers (Lipsey, 2007; Owen & Rogers, 1999; Rossi et al.).

In order to determine who is making use of UCT's VCT programme, the quality of services provided, as well as the extent to which the VCT programme is implemented as was intended, the following evaluation questions were posed in relation to the programme:

Service Utilisation

- How many students and/or staff members are making use of UCT's VCT programme?
- Who is making use of UCT's VCT programme? (with specific focus on age, race, gender, faculty and year of study)

Service Delivery

- Where did the students and/or staff members hear about UCT's VCT programme?
- What were the actual sequence of programme activities and, did all students and staff members receive the same sequence?
- Is the programme delivered in the same manner across all VCT sites in terms of the quality of the pre-test counselling, HIV test and post-test counselling?
- Are students and staff satisfied with the service they received from the VCT programme?

Support

- Is the VCT programme well organized with specific focus on how long students and staff members waited to receive the results from their HIV test?
- Are the students and staff receiving the proper amount, type and quality of counselling with regards to HIV and their specific status in relation to what is stipulated in the VCT programme protocol documentation?

In addition to answering the abovementioned questions, the evaluation offers improvements that can be used to enhance UCT's VCT programme.

CHAPTER TWO: EVALUATION METHOD

This chapter focuses on the data providers, materials used for data collection as well as the procedures used by the evaluator to collect the data relevant to this evaluation.

Data Providers

Table 1 presents the data providers and method of data collection for this implementation evaluation.

Table 1

A Summary of the Data Providers and Methods of Data Collection

Stakeholder	Sample of Data Providers	Method of Data Collection
VCT programme staff	1 x Programme Director 3 x Programme staff 1 x Nursing Sister	Unstructured interviews
VCT beneficiaries	281 x UCT students 4 x UCT staff	Questionnaire

Unstructured Interviews with Programme Staff

The evaluator met with the Director of Student Wellness, who was responsible for the VCT programme, on four separate occasions. Discussions with nurses and medical practitioners involved in the VCT programme were held eight times during the evaluation process in order to fill in any details that the director could not provide.

VCT Beneficiaries

Unfortunately, it was not possible to obtain responses from all students and staff making use of the VCT programme due to the fact that completion of the questionnaire was voluntary. As a result, a convenience sample had to be used. Convenience sampling involves selecting participants who are available or who volunteer for a study (Durrheim & Painter, 2006). It is however not representative of a population and it is therefore advised that caution be used when generalising findings in settings beyond that of the research setting (Durrheim, 2006). This convenience sample comprised 281 students and 4 staff members who chose to complete the questionnaire available at the VCT sites. The demographic information of the sample is presented in Table 2.

Table 2

Gender, Racial and Age Demographics of the Sample

	Students (N = 281)	Staff (N = 4)
Gender		
Male	31.7%	50%
Female	68.3%	50%
Race		
Black	35.9%	25%
Coloured	15.3%	-
Indian	3.6%	-
White	22.4%	25%
International	20.6%	50%
Prefer not to answer	1.1%	-
Age	$\bar{x}$ = 20.5 years	$\bar{x}$ = 27.8 years

Figure 3 presents the distribution of students across faculties. Faculties located on Upper Campus are labelled with an asterisk.

Figure 3. The distribution of student respondents across faculties.

No responses were received from the Centre for Higher Education, or the Graduate School of Business (GSB). The GSB is located at a separate campus which could be the reason why no students from this campus made use of VCT. Most of the student respondents were in their first (32.7%), or second (25.3%) year of study. Few responses (N = 28; 10%) were obtained from postgraduate students.

Materials

For the purpose of the implementation evaluation of UCT's VCT programme, both a variety of programme documents and empirical data were used to gather relevant information.

Programme Records

The VCT programme records kept at the Student Wellness Centre were provided to the evaluator by the VCT programme Director and programme staff. These records included:

- VCT Toolkit (2003) produced by Family Health International.
- HIV/AIDS Training Manual (2002) produced by the Centre for Human Development.
- HIV/AIDS Issues at UCT (n.d.) produced by Dr. T. Davidson.
- Protocol Document: Voluntary Counselling and Testing (2000) produced by N. Cotzee and Dr. B. Patel.
- Programme records for 2007, 2008 and 2009 presenting statistics relating to VCT testing at UCT produced by Dr. C. Landon.
- Protocol for HIV Rapid Tests (2000) produced by B. Smuts.

In order to ensure that the information obtained from these programme records was in fact accurate and complete, informal discussions were held with relevant VCT staff members. These relevant staff members included the programme Director, programme staff and a Nursing Sister who had been a part of the VCT programme during its onset. Making use of the programme records strengthened the findings of the evaluation as it provided a benchmark for implementation of UCT's VCT programme against which comparisons could be made in terms of whether the programme was being implemented as intended.

Unstructured Interviews

Unstructured interviews with the VCT programme Director and staff were conducted to determine the current goals of the VCT programme and to confirm how the service intends to operate. An interview with the Nursing Sister who was involved in the start-up of UCT's VCT service in 1995 was conducted in order to ascertain why the programme was developed, and what its original goals were.

Before the questionnaire for this evaluation was developed, the evaluator met with the Peer Project Coordinator of HIV/AIDS Co-ordination - UCT (HAICU). HAICU had recently conducted a survey as a part of their Higher Education HIV/AIDS Programme. The evaluator had the opportunity to go through HAICU's questionnaire and discuss any specific questions and results with the head of the programme. This experience added value to the process of developing the questionnaire used for this evaluation.

Questionnaire

A questionnaire was constructed from tools 2, 3 and 4 of the UNAIDS *Best Practice Collection* (2000), and the questionnaire developed and administered by HAICU during the evaluation of their HIV/Aids programme. The purpose of the questionnaire was to determine student and staff perceptions of VCT offered by UCT. The first part of the questionnaire (Section A), comprising nine questions, related to student and staff members demographics and included questions about gender, age, race, nationality, faculty and year of study. In Section A students were required to select the box that most accurately reflected their response in relation to the question posed. The second part of the questionnaire (Section B), comprising twenty-six questions, asked questions relating student and staff members' perceptions of the VCT activities. This section was broken down into pre-test counselling, the Rapid HIV test and post-test counselling. Responses to the majority of questions in Section B were on a five point Likert-scale. The remaining questions required respondents to provide specific responses in relation to the sequence of activities they experienced and the timeframes for both their pre-test counselling, Rapid HIV test and post-test counselling. The full questionnaire is included as Appendix A.

Procedure

Access to and Review of Programme Documentation

The data collection process began in March 2009 with a formal discussion with the VCT programme Director. During this discussion the reasons for the implementation evaluation were covered and permission to access the VCT programme and relevant documentation was granted. The aims and objectives of UCT's VCT programme were clarified and the intended programme activities and outcomes were discussed in detail.

Due to the issues of confidentiality surrounding HIV testing, not all documentation could be provided directly to the evaluator without certain aspects being censored by the Director. This confidential information was not of relevance to the evaluation and has not affected the results obtained. In order to clarify any uncertainty that arose in relation to the programme documentation, fact-to-face and telephonic follow-up meetings were held with relevant programme staff between April and September 2009.

Copies were made of the original programme records and the originals were returned to the programme staff. After the programme records had been examined, information was summarised. Information relating to implementation of the VCT service, contained in the Protocol documents, was separated into three categories namely pre-test, Rapid HIV test and post-test counselling. This was then presented in the form of a programme description. The information contained in the programme records was also summarised in relation to the evaluation questions that the implementation evaluation intended to answer. This process of separating information in relation to

evaluation questions assisted when making comparisons between how the VCT programme was intended to operate and how it was being implemented in reality.

Administering the Questionnaire to UCT Students and Staff Members

The collection of data from the students and staff members participating in the VCT programme took place between June 20th and August 15th 2009. Paper-based questionnaires were placed at each of the VCT sites during this period in order to obtain the information needed to determine how the VCT programme was operating in reality. Students and staff members participating in the VCT service were asked if they would take the time to fill in a confidential questionnaire pertaining to their experiences of the VCT service. Each questionnaire contained a notification to respondents that explained the purpose of the evaluation. This notification also stipulated that completion of the questionnaire was both voluntary and confidential. It was requested that these questionnaires be completed directly after they attended VCT to ensure that the data obtained was as accurate as possible. Completed questionnaires could be placed anonymously in the boxes provided at each of the sites. These boxes were sealed to ensure that nobody, other than the evaluator, had access to the completed questionnaires.

The completed questionnaires were collected on a weekly basis by the evaluator from the Student Wellness, Sports Centre and Mobile Bus sites. At the VCT Drive however, the evaluator was present on a daily basis to ensure that the questionnaires were being handed out to those students and staff who were willing to complete them. Once collected, each of these questionnaires was given a number and checked for any missing data. The evaluator also noted which site the questionnaire was collected from. These procedures were

conducted to ensure that a particular questionnaire could be identified at a later stage during the evaluation if needed. Data from these questionnaires was then captured in the statistical programme SPSS.

CHAPTER 3: EVALUATION RESULTS AND DISCUSSION

The results and discussion presented in this section will be dealt with in relation to the evaluation questions presented in Chapter 1.

The measures for the quality of pre-test counselling ($\alpha = 0.867$) and post-test counselling ($\alpha = 0.869$) used for the purpose of this evaluation have a Chronbach's coefficient alpha of greater than 0.8 indicating that these measures have good internal consistency reliability (Pallant, 2007). The Cronbach's coefficient alpha for these two measures combined is 0.871.

Service Utilisation

How Many Students/Staff Members are Making Use of UCT's VCT Programme?

Between February and October 2009, a total of 4939 students and 175 staff members made use of UCT's VCT service.

Who is Making Use of UCT's VCT Programme? (With Specific Focus on Age, Race, Gender, Faculty and Year of Study)

If we generalise from the sample of participants who completed the questionnaire, it seems as if UCT's VCT programme is predominantly being used by females. More than two thirds of the sample was female. This

supports the findings of previous studies on VCT uptake (Fako, 2006; Subramanian et al., 2008) and reinforces the idea that females are more inclined to volunteer than males (Babbie & Mouton, 2001; Rosenthal & Rosnow, 2008).

The racial distribution of the student respondents reflects, in general, the racial distribution of students registered with UCT in 2009. The small percentage of Coloured (15.3%) and Indian (3.6%) student respondents is to be expected based on the fact that they account for only 15% and 7% of UCT's overall student population respectively (UCT, 2009b).

Twenty two point four percent of the student respondents indicated they were White South African. This is of concern because White South Africans account for the largest percentage (37%) of UCT's overall student population. The low uptake of VCT by White South African students could be a result of these students not perceiving themselves to be at risk or because many other racial groups perceive HIV/AIDS as a "Black" disease (Dilraj, Karim & Pillay, 2007; Martin & Alexander, 2006).

Two out of four staff respondents classified themselves as International. The other two staff respondents classified themselves as a White South African and a Black South African. These results suggest that International staff members are more inclined to make use of UCT's VCT service. However, the fact that so few responses were obtained from staff members makes it difficult to state with certainty that this is in fact true.

Seventy three point four percent of the respondents were between 18 and 22 years of age. This range is reflective of the dominant age cohort of UCT.

Furthermore, these individuals fall into the age category that is most susceptible to the contraction of HIV/ AIDS (Njagi & Maharaj, 2006; Steinberg et al., 2001). It can therefore be said that universities are ideally positioned to offer VCT services as they will be able to target the correct age group of individuals.

The sample of respondents comprised only 1.4% staff indicating that the majority of UCT staff are not making use of VCT services offered on campus. This low rate of uptake is concerning and could be attributed to the misconception that HIV/AIDS is a young person's disease and they therefore do not perceive themselves to be at risk of contracting HIV (Altschuler, Katz & Tynan, 2004; Emlet & Farkas, 2002; Ginwalla et al., 2002; Hutchinson & Mahlalela, 2006; Matovu & Makumbi, 2007; Wringe et al., 2008). It could however also be as a result of concerns for confidentiality (Hutchinson & Mahlalela; Matovu & Makumbi; Wringe et al.). A number of UCT staff subscribe to UCT's medical aid, Discovery Health, which includes HIV testing for members at a number of pharmacies and medical centres countrywide. Staff may be choosing to make use of VCT offered through Discovery Health as opposed to that offered by UCT's VCT programme.

The majority of respondents were in their first (32.7%) or second (25.3%) year of study. Very few responses were obtained from postgraduate student (N = 28; 10%). This low response rate from postgraduate students could be a result of the fact that a number of postgraduate courses at UCT are offered after hours and that the VCT programme only operates during working hours. If these postgraduate students are employed off campus, they could be choosing to make use of VCT services within their workplace.

Of the student respondents, the majority were registered in the Humanities (34.4%) and Commerce (29.1%) faculties. These two faculties account for 28.4% and 23.4% respectively of UCT's total student population in 2009 and it is therefore expected that the majority of student respondents will come from one of these two faculties (UCT, 2009b). Furthermore, these faculties are located on Upper Campus resulting in students having easier access to VCT on campus compared with students whose faculties are located on any of the other campuses. The fact that no responses were obtained from students or staff from the GSB could be because the GSB is located approximately ten kilometres away from the main UCT campus. As a result, the VCT programme is not as accessible to these students and staff as they are to others.

Ninety four point seven percent of the total responses to the questionnaire were obtained from students and staff making use of the VCT Drive on Upper Campus on the 11th, 12th and 13th of August 2009. The remainder of the responses came from students and staff making use of VCT services at the Sports Centre (3.7%), Student Wellness (1.4%) and the VCT Mobile Bus (0.7%). Of these 285 (281 students + 4 staff) respondents, 74 indicated that they had not previously received an HIV test while 126 indicated they had been tested in the past 6 months. Of the remaining respondents, 37 had been tested more than six months ago and 48 more than one year ago. The majority (98.2%) of respondents felt it was important to know one's HIV status.

Based on the number of responses obtained from each of the VCT sites, it appears that in general, students and staff are more inclined to make use of the VCT Drive on Upper Campus as opposed to the Sports Centre, Student Wellness or Mobile Bus sites. This could be a result of the VCT Drive being both convenient and easily accessible. Offering HIV testing at a convenient and accessible location usually results in higher uptake (Bond et al., 2005; Corbett et al., 2006). Advertising for the VCT Drive is visible across campus in

the weeks prior to the testing. This advertising could serve as a reminder to students and staff to get tested at the VCT Drive.

Nearly half (44.2%) of the respondents had been tested in the six months prior to this evaluation indicating that a significant proportion of individuals at UCT are getting tested for HIV on a regular basis. This may also be as a result of student's opinions that it is socially acceptable to get tested for HIV. Twenty six percent of the respondents were first time HIV testers implying that VCT on campus is an effective means of ensuring that more students and staff are becoming aware of their HIV status.

Service Delivery

Where Did the Respondents Hear About UCT's VCT Programme?

Table 3 shows how respondents became aware of UCT's VCT programme.

Table 3

How Respondents Became Aware of UCT's VCT Programme

Awareness of VCT on Campus	Percentage
Advertising on campus	63.2%
Referred by a friend	15.1%
Combination of advertising and referral	14.0%
Community Aids Educators (ACE's)	1.1%
UCT Treatment Action Campaign (TAC) organisation	1.1%

Based on these findings, it can be concluded that advertising is an effective means of making students and staff aware of the VCT programme on campus. Word of mouth also appears to play a significant role in getting students and staff at UCT to make use of VCT. It could also be speculated that a number of students making use of VCT on campus are satisfied with the service they received and will, as a result, recommend the service to their colleagues.

What Were the Actual Sequence of Programme Activities and, Did All Respondents Receive the Same Sequence?

All respondents (100%) experienced the same sequence of activities across all four of the VCT sites. These included pre-test counselling, followed by a Rapid HIV test and finally, post-test counselling. This implies that counselling processes are standardised across VCT sites and that students and staff can be certain that they will receive the same sequence of activities regardless of which site they choose to make use of.

Is the Programme Delivered in the Same Manner Across All VCT Sites in Terms of the Quality of the Pre-Test Counselling, HIV Test and Post-Test Counselling?

Pre-test Counselling

The mean scores and standard deviations for the seven pre-test counselling quality measurement items are presented in Table 4. These scores are then discussed in relation to each of the VCT sites. The individual mean scores and

standard deviations for the quality of each of the pre-test counselling items across the four VCT sites are included in Appendix B.

Table 4

Mean Scores and Standard Deviations for the Quality of Pre-test Counselling for each of the VCT Sites

VCT Site	Mean ($\bar{x}$)	Standard Deviation
Sports Centre	4.43	0.371
Mobile Bus	4.29	0.202
VCT Drive	4.05	0.733
Student Wellness	3.96	0.317

Note: For each item, Minimum = 1 and Maximum = 5.

Based on the mean scores presented in Table 4, it is evident that the quality of pre-test counselling differs slightly across the four VCT sites. The lowest of these mean scores do however still rank on the higher end of the five point scale indicating that standards of pre-test counselling are, good to excellent, across all VCT sites.

The Rapid HIV Test

Respondent's opinions relating to who performed their Rapid HIV test are presented in Table 5.

Table 5

Respondent's Opinions Relating to Who Performed Their Rapid HIV Test

Rapid HIV Test Performed by a Nurse or Medical Practitioner	VCT Drive	Student Wellness	Sports Centre	VCT Bus
Yes	34.1%	100%	77.8%	100%
Unsure	64.8%	-	-	-
No	1.1%	-	22.2%	-

Approximately two thirds of respondents making use of the VCT Drive were not sure if their HIV test was performed by a nurse or medical practitioner. This is problematic. According to the programme records, the Rapid HIV test can only be performed by a nurse or a medical practitioner (Coetzee & Patel, 2000). Informing the students and staff making use of UCT's VCT service that their Rapid HIV test is being performed by a nurse or medical practitioner may increase the credibility of the VCT service. It may also reduce any concerns they may have about whether the correct procedures and practices are being followed in relation to the Rapid HIV test.

Post-test Counselling

Table 6 presents the mean scores and standard deviations for the four post-test counselling quality measurement items. The individual mean scores and standard deviations for each of these post-test counselling quality items are included in Appendix C.

Table 6

Mean Scores and Standard Deviations for the Quality of Post-test Counselling for each of the VCT Sites

VCT Site	Mean ($\bar{x}$)	Standard Deviation
Mobile Bus	4.88	0.177
VCT Drive	4.59	0.567
Sports Centre	4.44	0.391
Student Wellness	4.06	0.125

Note: For each item, Minimum = 1 and Maximum = 5.

Mean scores for the post-test counselling quality range from 4.06 (Student Wellness) to 4.88 (Mobile Bus) on a five point scale. This range is not very large indicating that in general, standards of post-test counselling are good to excellent across all four VCT sites.

Performance Across the VCT Sites

The fact that Student Wellness received the lowest mean score for both the pre-test counselling quality measure and the post-test counselling quality measure is unexpected. The VCT process at Student Wellness is the most in-depth compared with any of the other VCT sites. As a result one would expect that the counsellors at this site would discuss HIV knowledge issues in detail. This lower score could however be a result of respondents expecting a higher quality of service from this site in comparison with the others or simply because the quality of service from Student Health was perceived to be lower.

VCT at Student Wellness is performed by either a nurse of medical practitioner employed by Student Wellness while, VCT at the Sports Centre,

Mobile Bus and VCT Drives are outsourced to Quinhealth. At the Sports Centre, Student Wellness and Mobile Bus sites, students and staff receive their pre-test counselling and post-test counselling from the same counsellor. At the VCT Drive however, pre-test counselling is performed by lay counsellors employed by Quinhealth while post-test counselling is provided by nurse practitioners. Outsourcing of the pre-test counselling by Quinhealth may have had an effect on the quality of the service rendered.

It should be noted that very few responses were obtained from the Sports Centre (N = 9), Student Wellness (N = 4) and Mobile Bus (N = 2) sites in comparison with the VCT Drive (N = 270). Caution should therefore be exercised when drawing conclusions based on the comparisons of these sites as so few responses could be the cause of the negatively skewed data rather than the actual standard of counselling offered at these sites. Students and staff making use of the VCT service at the Sports Centre and on the Mobile Bus may have chosen not to complete a questionnaire because there was limited space for them to do this anonymously. The counsellor would have been present at all times which could have resulted in the student or staff member experiencing a lack of anonymity. A submission box for the questionnaires was placed outside the Sports Centre site as a means of attempting to overcome this short-coming but whether or not this made a difference to the number of respondents is unclear.

Are Respondents' Satisfied with the Service they Received from the VCT Programme?

Respondent's ratings of their overall VCT experience are presented in Table 7.

Table 7.

Respondents Ratings of their Overall VCT Experience

Site	Excellent	Good	Average	Slightly Disappointed	Disappointed
Mobile Bus	100%	-	-	-	-
Sports Centre	62.5%	37.5%	-	-	-
VCT Drive	61.7%	35.3%	3.9%	0.7%	-
Student Wellness	50%	50%	-	-	-

Based on these findings it can be concluded that students and staff making use of the VCT programme are, in general, satisfied with the level of service they received.

Support

Is the VCT Programme Well Organised with Specific Focus on How Long Respondents Waited to Receive the Results of Their HIV Test?

On average, the entire VCT process took 40-50 minutes to complete at Student Wellness, 20-30 minutes at the VCT Drive and 10-20 minutes at both the Sports Centre and on the Mobile Bus. Table 8 presents this in more detail.

Table 8

Average Timeframe, in Minutes, for Pre-Test Counselling and Post-Test Counselling as well as the Waiting Period to Receive the Result of the Rapid HIV Test

	Student Wellness	Sports Centre	Mobile Bus	VCT Drive
Pre-test	30.00	7.24	3.30	6.29
Post-test	7.45	4.38	6.00	4.38
Result	15.00	7.53	4.30	14.05

A small proportion of respondents from the VCT Drive (N = 5) were unable to provide an estimate as to how long it took to receive the results from their HIV test because they selected to obtain their HIV test result and post-test counselling later in the day. These students have been excluded from the calculation of the average waiting time to receive the result of the Rapid HIV-test at this site.

Pre-test counselling on the Mobile Bus was brief in comparison with the other VCT sites. Both the respondents from the Mobile Bus were medical students who appear to receive regular HIV testing. As a result, they may have opted not to receive in depth pre-test counselling as a result of already having extensive HIV related knowledge.

The waiting time to receive one's HIV result is much longer at the VCT Drive compared with the Mobile Bus and Sports Centre sites. This could be as a result of the high uptake of VCT at the VCT Drive in comparison with these other sites. The pre-test counselling, Rapid HIV test and post-test counselling are all conducted by different individuals at the VCT Drive whereas one nurse

or medical practitioner performs all three activities at the other sites. This could have impacted on the time it takes to receive the results of one's Rapid HIV test as students and staff at the VCT Drive may have had to wait until a post-test counsellor became available to give them their HIV test result. Furthermore, it should be noted that at the VCT Drive there can be any number of students or staff making use of the service at any given time whereas at the other sites, VCT is conducted on a one at a time basis.

Are the Respondents Receiving the Proper Amount, Type and Quality of Counselling with Regards to HIV and Their Specific Status in Relation to What is Stipulated in the VCT Programme Protocol Documentation?

Out of the 285 respondents, 283 indicated that they had received an HIV negative test result while the remaining two respondents stated that they had tested HIV positive. The majority of HIV negative respondents (57.2%) reported that they strongly agreed with the statement that the post-test counsellor had reinforced strategies for reducing the risk of contracting HIV. Only 1.8% of the negative respondents disagreed with this statement while 4.9% of them remained neutral. Most of these HIV negative respondents (66.1%) also indicated that the post-test counsellor clearly discussed their understanding of the "window period".

The two HIV positive respondents strongly agreed that the implications of an HIV positive result were clearly and simply discussed with them, that the counsellor had discussed their personal risk reduction plan and that referrals in relation to medical, social and psychological support were offered. While the one respondent strongly agreed with the statement that the counsellor had offered follow-up support, the other disagreed. This same opinion was expressed by the respondents when asked if their immediate plans and

intentions had been explored. Both these respondents had previously been tested for HIV.

Based on these findings, one needs to question whether VCT is reaching its intended targets. Research has shown that individuals who are engaging in HIV risk related activities are often those who are not making use of VCT (Fako, 2006; Hutchinson & Mahlalela, 2006; Subramanian et al., 2008). Ninety nine point three percent of the respondents are HIV negative supporting the notion that individuals who are not at risk of contracting HIV are the ones who choose to make use of VCT (Fako). Between February and October 2009 only 13 HIV positive results have been obtained across all UCT's VCT sites (Dr. C. Landon, personal communication, November 20, 2009). The low response rate from HIV positive individuals at UCT however, could be a result of low HIV prevalence. In 2007, it was recorded that the HIV prevalence rate for UCT students was believed to be approximately 10% (HAICU, 2008). Social stigma associated with the disease may also be a factor contributing to whether or not students and staff are choosing to participate in UCT's VCT programme (Kachroo, 2006). UCT is perceived as an elite university and as a result, students and staff who think they may be HIV positive do not make use of VCT on campus for fear of being stigmatised and discriminated against (Dr. C. Landon, personal communication, December 10, 2009).

Limitations to the Evaluation

This section focuses on the limitations of the evaluation and discusses ways in which the evaluator endeavoured to overcome the effects of such limitations.

Level of Commitment to the Evaluation from Programme Staff

The evaluator was fully reliant on VCT staff members to promote the questionnaire at the Sports Centre, Student Wellness and Mobile Bus sites. A number of staff indicated that they forgot to ask students and staff to fill out a questionnaire after they had completed the VCT process. This may have had an effect on the number of responses obtained from these sites.

Low Response Rate Received From HIV Positive Individuals

Only two responses were obtained by HIV positive individuals. As a result, the evaluator could not determine, with any degree of certainty, the quality of counselling in relation to an HIV positive result. As previously mentioned, this could be attributed to the low levels of HIV prevalence at UCT or as a result of fear of stigma and discrimination.

Results from the Questionnaire are Self-Report

The results obtained for the purpose of this evaluation are based purely on self-report data. The accuracy of data obtained from self-reports is limited by the tendency of respondents to give socially acceptable answers (Black, 1999). Misinterpretation of the questions or bias toward either end of a Likert scale can also adversely affect the evaluation results (Black; Riggio, 2009).

University Vacation

The University's June vacation fell during the data collection period for the Sports Centre, Student Wellness and the Mobile Bus sites. This could have contributed to the low levels of responses received from these sites as students were not required to be on campus during this period. There was very little leeway to extend the data collection period as data collection could not begin until ethical clearance was granted and the captured and cleaned evaluation data had to be submitted by a specific date. As a result, the evaluator had to work with the data obtained from the Sports Centre, Student Wellness and the Mobile Bus sites during a shortened data collection period.

Recommendations

Improving the VCT Programme Offered to UCT Students and Staff

There are a number of improvements that could be implemented to improve the effectiveness of UCT's VCT programme. These suggestions are based on the responses to the questionnaire.

Decreasing Waiting Times at the VCT Drive

In order to reduce the waiting time at the VCT Drive it is suggested that more counsellors be made available. This could also result in increased uptake as the VCT process will be less time consuming. Ideally, students should be able to receive VCT during a free period and staff during their lunchtime.

Monitoring and Evaluation of the VCT Service

Monitoring and evaluating the VCT service on a regular basis will ensure that the service is operating at the desired level. Constructive feedback from those who are making use of the service can be used to make improvements. This ensures that the programme is delivering a service in line with the needs and expectations of the students and staff at UCT.

Conclusion

The findings of this implementation evaluation demonstrate that UCT's VCT programme is, in general, offering a quality service to students and staff. It appears as though the majority of programme activities are operating as they were intended to do. The low levels of VCT uptake at a number of the VCT sites, as well as by male students and staff members, does however need to be addressed.

Increasing Male Uptake of VCT

As mentioned in Chapter 1, males are less likely to make use of VCT compared with females (Bond et al., 2005; Pronyk et al., 2002; Subramanian et al., 2008). Based on the findings of previous studies, it appears as though the main barriers to VCT uptake among men include poor access, fear of being stigmatised and discriminated against as well as concerns relating to the confidentiality of services (Bwambale, Ssali, Byaruhanga, Kalyango & Karamagi, 2008; Fako, 2006; Subramanian et al.). Few of these studies go on to present methods for overcoming such barriers which indicates that there is a gap in the literature when it comes to improving VCT uptake among men.

In order to increase the number of male students and staff making use of VCT at UCT, it is suggested that the VCT programme consider making use of a mass communication campaign that specifically targets males. The main objectives of this campaign should be to encourage young men to make use of VCT services, reduce the stigma associated with HIV/AIDS and promote the use of condoms. The VCT programme could make use of a range of

communication channels including UCT radio, music concerts and edutainment.

Mass communication programmes have been demonstrated to be an effective element in HIV prevention programmes and are considered to be a good source of information on the benefits of VCT (Charles et al., 2009; USAID, 2009). Furthermore, exposure to mass communication programmes have been associated with increased uptake of VCT programmes as well as increased HIV knowledge and a reduction in high-risk sexual behaviour (Bertrand, O'Reilly, Denison,Anhang & Sweat, 2006; Marum, Morgan, Hightower, Ngare & Taegtmeyer, 2008). Mass communication campaigns are believed to be most effective in terms of sustaining behaviour change when their messages are reinforced on a continuous basis (USAID, 2009). The VCT programme should therefore consider using of creative pamphlets and posters that can be placed at various locations on campus and at each of the residences. These can serve to reinforce the importance of VCT in the fight against HIV/AIDS.

UCT's VCT programme could run competitions in conjunction with the mass communication campaign. These competitions could provide prizes or benefits for individuals who make use of VCT in an effort to increase VCT uptake. Prizes may be sponsored by corporates and organisations that wish to get involved with the student community. UCT's VCT programme may wish to set challenges or targets for male students and staff during VCT Drives in an attempt to get as many males tested for HIV as possible.

Educating Students/Staff on HIV/AIDS Related Issues

Providing HIV education to students and staff is another tool that may be effective in terms of reducing levels of stigma and discrimination associated with HIV. Education is often used as a means of increasing HIV/AIDS awareness and attempting to reduce the stigma associated with the disease (Ho & Loke, 2003; Okonkwo et al., 2007). A few of the faculties on campus offer courses dealing with HIV awareness to students and staff. The VCT programme could encourage these courses to be introduced across all faculties in an attempt to reduce the stereotypes and stigma associated with HIV/AIDS. One must however bear in mind that increasing HIV awareness alone will not always result in an individual choosing to get tested for HIV (Fako, 2006). It is therefore suggested that such processes be monitored to determine if students and staff members, specifically males, are, after attending these courses, choosing to make use of VCT services.

Expanding Access to VCT

Access to VCT has been directly linked to whether or not an individual chooses to get tested for HIV (Bond et al., 2002; Bhagwanjee et al., 2008; Corbett et al., 2006 Irungu et al., 2008; Hutchinson & Mahlalela, 2006). Ensuring that VCT at UCT is easily accessible is likely to result in more students and staff making use of the VCT services. In an attempt to increase uptake through improved access, UCT's VCT programme should consider utilising their Mobile Bus at residence complexes over weekends or afterhours.

Introducing a Wellness Model

Student Wellness could consider offering UCT students and staff a package of medical services in an attempt to overcome the stigma associated with HIV. This package could include VCT, a cholesterol test, a blood glucose test and a calculation of Body Mass Index (BMI). Incorporating VCT into a package of medical services may reduce the fear of HIV related stigma as students and staff will begin to perceive VCT as a standard component of UCT's Wellness Model.

Evaluation Contribution

The findings of this evaluation reiterate the importance of improving VCT uptake and overcoming the stigma associated with HIV before it is possible for VCT to be perceived as an effective HIV prevention initiative. This evaluation provides information to the VCT programme staff pertaining to the quality of service provided to UCT students and staff by the programme and has offered a number of suggestions for improving the effectiveness of the programme. Furthermore, UCT's VCT programme will be able to use this evaluation as a benchmark against which to monitor future performance.

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APPENDIX A

QUESTIONNAIRE ABOUT THE QUALITY OF UCT'S HIV VOLUNTARY COUNSELLING AND TESTING (VCT) PROGRAMME

Before completing this questionnaire please note the following:

- This questionnaire is both **voluntary** and **confidential**. You will NOT, at any point be requested to make your identity known.
- The information obtained will be used solely for the purpose of a Masters Research Dissertation and for the purpose of making recommendations to improve UCT's VCT service.
- **This questionnaire should not take longer than 5 minutes to complete.**
- If you have any queries, please do not hesitate to contact tarryn.anderson@uct.ac.za

Section A: Demographic Information

1. Gender (please tick)

Male	
Female	

2. Age (please specify)

3. Race group and Nationality (**please tick only one**)

South African Black	
South African Coloured	
South African Indian	
South African White	
International	
Prefer not to answer	

4. Please select if you are a UCT student or staff member

Student	
Staff	
Prefer not to answer	

5. Please indicate in which Faculty you are registered (**Students only**)

Commerce	
Centre for Higher Education Development	
Engineering and the Built Environment	
Graduate School of Business	
Health Sciences	
Humanities	
Law	
Science	

6. Year of study (**Students only**)

1st year	
2nd year	
3rd year	
4th year	
Honours	
Masters	
PhD	
Other (please specify)	

7. Where did you hear about the VCT service? (multiple responses acceptable)

A friend	
Advertising at Student Wellness Service	
Advertising on Campus	
Referred by a medical practitioner	
Other (please specify):	

8. Please indicate when last you received an HIV test:

I have not previously received an HIV test	
I have been tested for HIV in the past 6 months	
I have been tested for HIV more than 6 months ago	
I have been tested for HIV more than 1 year ago	

9. Do you think it is important to know your HIV status?

Yes	
No	
Don't know	

Section B: Quality of the VCT Process

1. Please indicate the sequence of VCT activities you experienced today (1 = first; 2= second; 3 = third):

Pre-Test Counselling	
HIV Test	
Post-test Counselling	

Pre-test counselling

2. Approximately how long did the pre-test counselling process take (in minutes)?

Please indicate to what extent you agree with statements 4 to 10 in relation to the **pre-test counselling** that you received from the VCT service (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree):

3. The counsellor greeted me and explained the counselling procedure

1	2	3	4	5
Strongly Disagree				Strongly Agree

4. The counsellor adequately discussed my knowledge of HIV and modes of HIV transmission

1	2	3	4	5
Strongly Disagree				Strongly Agree

5. The counsellor discussed the meaning of positive and negative test results and possible implications

1	2	3	4	5
Strongly Disagree				Strongly Agree

6. The counsellor assessed my personal risk behaviour

1 Strongly Disagree	2	3	4	5 Strongly Agree

7. The counsellor discussed ways in which I can reduce my personal risk behaviour

1 Strongly Disagree	2	3	4	5 Strongly Agree

8. The counsellor provided adequate time for questions and clarifications

1 Strongly Disagree	2	3	4	5 Strongly Agree

9. The counsellor appeared to have up to date knowledge of HIV

1 Strongly Disagree	2	3	4	5 Strongly Agree

HIV test

10. Was your HIV test performed by a Nurse or Medical Practitioner? (please tick one option)

Yes	
No	
Not Sure	

Post-test counselling

11. Approximately how long did it take from the time blood was taken to receive your HIV result (in minutes)?

12. Approximately how long did the post-test counselling session take (in minutes)?

Please indicate to what extent you agree with the following statements in relation to the **post-test counselling** that you received from the VCT service (1 = Strongly Disagree to 5 = Strongly Agree):

13. The results from my HIV-test were given simply and clearly

1	2	3	4	5
Strongly Disagree				Strongly Agree

14. The counsellor gave me adequate time for the result of my HIV test to sink in

1	2	3	4	5
Strongly Disagree				Strongly Agree

15. The counsellor checked that I understood the result of my HIV test

1	2	3	4	5
Strongly Disagree				Strongly Agree

16. The counsellor gave me the opportunity to ask questions relating to my HIV concerns

1	2	3	4	5
Strongly Disagree				Strongly Agree

17. Please rate your overall experience of the VCT service you received

1	2	3	4	5
Strongly Disagree				Strongly Agree

18. How long did the entire VCT process take to complete?

0 – 10 minutes	
10 - 20 minutes	
20 - 30 minutes	
30 – 40 minutes	
40 – 50 minutes	
50 – 60 minutes	
An hour or longer	

If HIV test was **negative**, continue to questions 19 and 20.

If HIV test was **positive**, continue to questions 21-26.

Negative:

19. The post-test counsellor reinforced strategies for reducing my risk of contracting HIV

1 Strongly Disagree	2	3	4	5 Strongly Agree

20. The counsellor clearly discussed my understanding of the 'window period'

1 Strongly Disagree	2	3	4	5 Strongly Agree

Positive:

21. The counsellor clearly and simply discussed the implications of an HIV+ result

1 Strongly Disagree	2	3	4	5 Strongly Agree

22. The counsellor offered me follow-up support counselling

1 Strongly Disagree	2	3	4	5 Strongly Agree

23. The counsellor discussed a personal risk-reduction plan with me

1 Strongly Disagree	2	3	4	5 Strongly Agree

24. The counsellor offered me assistance in disclosing the result of my HIV test

1 Strongly Disagree	2	3	4	5 Strongly Agree

25. My immediate plans and intentions were explored

1 Strongly Disagree	2	3	4	5 Strongly Agree

26. Referrals were offered in relation to medical, psychological and social support

1 Strongly Disagree	2	3	4	5 Strongly Agree

Thank you very much for taking the time to fill out this questionnaire. Your contribution to my Masters Research Dissertation is greatly appreciated.

APPENDIX B

Mean Scores and Standard Deviations for the Pre-test Quality Measures from Each of the VCT Sites.

Table 9

Mean Scores and Standard Deviations for the Pre-test Quality Measures from the VCT Drive

Pre-test Measure	Mean	Standard Deviation
Counsellor greeted and explained the counselling procedure	4.48	0.789
The counsellor adequately discussed my knowledge of HIV and modes of HIV transmission	4.30	0.911
The counsellor discussed the meaning of positive and negative test results and possible implications	3.74	1.090
The counsellor assessed my personal risk behaviour	3.64	1.141
The counsellor discussed ways in which I can reduce my personal risk behaviour	3.80	1.137
The counsellor provided adequate time for questions and clarification	4.13	0.875
The counsellor appeared to have up to date knowledge of HIV	4.30	0.814

Note: For each item, N= 270, Minimum = 1 and Maximum = 5.

Table 10

Mean Scores and Standard Deviations for the Pre-test Quality Measures from the Sports Centre VCT Site

Pre-test Measure	Mean	Standard Deviation
Counsellor greeted and explained the counselling procedure	4.56	0.527
The counsellor adequately discussed my knowledge of HIV and modes of HIV transmission	4.56	0.527
The counsellor discussed the meaning of positive and negative test results and possible implications	4.56	0.726
The counsellor assessed my personal risk behaviour	4.33	0.707
The counsellor discussed ways in which I can reduce my personal risk behaviour	4.00	1.225
The counsellor provided adequate time for questions and clarification	4.33	0.500
The counsellor appeared to have up to date knowledge of HIV	4.67	0.500

Note: For each item, N= 9, Minimum = 1 and Maximum = 5.

Table 11

Mean Scores and Standard Deviations for the Pre-test Quality Measures from the Student Wellness VCT Site

Pre-test Measure	Mean	Standard Deviation
Counsellor greeted and explained the counselling procedure	4.00	0.000
The counsellor adequately discussed my knowledge of HIV and modes of HIV transmission	4.25	0.500
The counsellor discussed the meaning of positive and negative test results and possible implications	4.25	0.500
The counsellor assessed my personal risk behaviour	3.50	0.577
The counsellor discussed ways in which I can reduce my personal risk behaviour	3.25	0.957
The counsellor provided adequate time for questions and clarification	3.75	0.957
The counsellor appeared to have up to date knowledge of HIV	4.75	0.500

Note: For each item, N= 4, Minimum = 1 and Maximum = 5.

Table 12

Mean Scores and Standard Deviations for the Pre-test Quality Measures from the Mobile Bus VCT Site

Pre-test Measure	Mean	Standard Deviation
Counsellor greeted and explained the counselling procedure	5.00	0.000
The counsellor adequately discussed my knowledge of HIV and modes of HIV transmission	4.00	0.000
The counsellor discussed the meaning of positive and negative test results and possible implications	3.50	0.707
The counsellor assessed my personal risk behaviour	4.00	0.000
The counsellor discussed ways in which I can reduce my personal risk behaviour	3.50	0.707
The counsellor provided adequate time for questions and clarification	5.00	0.000
The counsellor appeared to have up to date knowledge of HIV	5.00	0.000

Note: For each item, N= 2, Minimum = 1 and Maximum = 5.

APPENDIX C

Mean Scores and Standard Deviations for the Post-test Quality Measures from Each of the VCT Sites

Table 13

Mean scores and Standard Deviations for the Post-test Quality Measures from the VCT Drive

Post-test Measure	Mean	Standard Deviation
The result from my HIV test was given simply and clearly	4.71	0.584
The counsellor gave me adequate time for the result to sink in	4.47	0.735
The counsellor checked that I understood the result from my HIV test	4.59	0.638
The counsellor gave me the opportunity to ask questions relating to my HIV concerns	4.58	0.705

Note: For each item, N= 270, Minimum = 1 and Maximum = 5.

Table 14

Mean scores and Standard Deviations for the Post-test Quality Measures from the Sports Centre VCT Site

Post-test Measure	Mean	Standard Deviation
The result from my HIV test was given simply and clearly	**4.67**	**0.500**
The counsellor gave me adequate time for the result to sink in	4.33	0.500
The counsellor checked that I understood the result from my HIV test	4.33	0.500
The counsellor gave me the opportunity to ask questions relating to my HIV concerns	4.44	0.527

Note: For each item, N= 9, Minimum = 1 and Maximum = 5.

Table 15

Mean scores and Standard Deviations for the Post-test Quality Measures from the Student Wellness VCT Site

Post-test Measure	Mean	Standard Deviation
The result from my HIV test was given simply and clearly	4.00	0.000
The counsellor gave me adequate time for the result to sink in	4.00	0.000
The counsellor checked that I understood the result from my HIV test	4.25	0.500
The counsellor gave me the opportunity to ask questions relating to my HIV concerns	4.00	0.000

Note: For each item, N= 4, Minimum = 1 and Maximum = 5.

Table 16

Mean scores and Standard Deviations for the Post-test Quality Measures from the Mobile Bus VCT Site

Post-test Measure	Mean	Standard Deviation
The result from my HIV test was given simply and clearly	5.00	0.000
The counsellor gave me adequate time for the result to sink in	5.00	0.000
The counsellor checked that I understood the result from my HIV test	5.00	0.000
The counsellor gave me the opportunity to ask questions relating to my HIV concerns	4.50	0.707

Note: For each item, N= 2, Minimum = 1 and Maximum = 5.