

African Journal of Education and Practice (AJEP)

PATRONAGE OF HIV/AIDS VOLUNTARY COUNSELLING AND TESTING (VCT) AMONG UNIVERSITY STUDENTS IN GHANA

Sylvester Tenkorang, Kennedy Boe-Doe and Joseph Adu

PATRONAGE OF HIV/AIDS VOLUNTARY COUNSELLING AND TESTING (VCT) AMONG UNIVERSITY STUDENTS IN GHANA

*¹Sylvester Tenkorang

Foso College of Education

*Corresponding author's email: slyten.st@gmail.com

²Kennedy Boe-Doe

Foso College of Education

³Joseph Adu

Atebubu College of Education

Abstract

Purpose: This study investigated the factors influencing patronage of HIV/AIDS Voluntary Counselling and Testing (VCT) among students in the University of Cape Coast.

Methodology: Descriptive survey research design was adopted for the study. Referring from Krejcie and Morgan's (1970) Sample Determination Table, a sample of 376 students was chosen using convenience sampling from a population of 18949 students. Data were collected using questionnaire adapted from the instrument of Kabiri (2016) administered online. Data were analysed using means and standard deviations.

Findings: The study revealed that the students had high level of knowledge about HIV/AIDS VCT and its importance but had low level of knowledge about VCT centres. The study found that the respondents were willing to go to HIV/AIDS VCT Centre to check their HIV/AIDS status and knew of some friends who had gone for HIV/AIDS VCT. However, it was clear that the respondents themselves had not visited VCT centres. Additionally, it was shown in this study by the respondents that willingness, perception of risk associated with their sexual lives, positive perception about VCT, attitude of service provides and ease of access to VCT centres are factors which would influence them to patronize HIV/AIDS VCT.

Unique Contribution to Theory, Practice and Policy: Theoretically, the study has highlighted that having awareness of VCT and its importance was not enough to make students patronize VCT services. This means that knowledge and awareness alone was not enough to influence patronage of services. It can also be said that the theory of planned behaviour reviewed in the study was confirmed because a lot of elements are involved in people deciding to engage in specific behaviours. To improve the patronage of VCT, efforts should be put into making VCT centers easily accessible to students. Policy makers are alerted on the low patronage of HIV/AIDS VCT among university students so they can streamline their policies to aid in increasing patronage of VCT by university students.

Keywords: *HIV/AIDS VCT, Patronage, Students*

INTRODUCTION

The problem of HIV illness, incidence, and mortality continue to be a global and public health concern. In 2021, there were 38.4 million [33.9 million–43.8 million] people living with HIV (UNAIDS, 2022). Out of this number, 36.7 million [32.3 million–41.9 million] were adults (15 years or older). The global efforts towards dealing with HIV have been massive. It has been the same in the African terrain (WHO, 2015; UNAIDS, 2014). The efforts toward reducing HIV/AIDS in Sub-Saharan Africa is because even though HIV/AIDS is a threat to global development and human security, Sub-Saharan Africa remains the region worst affected (Kabiri, 2016).

According to Nuri (2017), the impact of HIV/AIDS goes beyond public health concerns as it undermines the social and economic structures particularly that of developing countries. While the use of Anti-Retroviral drugs has been successful in ensuring HIV patients live longer and healthier lives in many other countries, this progress report has not been seen in sub-Saharan Africa, and the current AIDS-related deaths corroborate this claim (Granich et al., 2015; Puhan, Natta, Palella, Addessi, & Meinert, 2010; UNAIDS, 2012). The unacceptably high number of AIDS-related deaths has been attributed to factors such as reduced access to health care services, ignorance, lack of knowledge of the disease, and infrequent or lack of VCT uptake (Yahaya, Jimoh & Balogun, 2010; Zolopa et al., 2009).

Globally, 85% [75– 97%] of all people living with HIV knew their HIV status while about 5.9 million people did not know that they were living with HIV in 2021 (UNAIDS, 2022). To deal with the issue of people not knowing that they have HIV, Voluntary Counselling and Testing (VCT) was introduced (Hirut, 2014). VCT is the process by which an individual undergoes confidential counselling to make informed choices about learning his or her HIV status and to take appropriate action (UNFPA & IPPF, 2004).

Different studies have shown the effects of VCT to include among others, a decrease in unprotected sexual intercourse, a reduction in multiple partners, an increase in condom use, and more clients choosing abstinence (Nuri, 2017). The advantages of HIV VCT are therefore countless. For instance, VCT services have been found to be important in HIV infection prevention because knowledge of an individual's own HIV status can motivate him or her to practice safer sexual behaviour to avoid transmitting the virus to others (MOH-Kampala & ORC-Macro, 2006). VCT is also the entry point to prevention, treatment and control measure of HIV infection is Voluntary Counselling and Testing (VCT) (Bibiana, Emmanuel, Amos, Ramsey, & Idris, 2018). VCT also aids stigma reduction and also allows for early uptake of services such as counselling for positive living, social support, legal advice and future planning (Wangui, Kikuvu, & Msanzu, 2016).

Even though HIV VCT has several benefits, people have not always patronized VCT services (Teklehaimanot, Teklehaimanot, Yohannes & Biratu, 2016). There are several factors which can influence the utilisation or patronage of VCT services. For instance, while some researchers believed social barriers such as fear of stigmatization and discrimination are scaring people away from the benefits of knowing their HIV serostatus (Iliyasu, Abubakar, Kabir, & Aliyu, 2006; Yahaya et al., 2010), others were of the opinion that if interventions that address accessibility

challenges are put in place, the rise in VCT use will be inevitable (Corbett et al., 2006; Matovu & Makumbi, 2007).

In Ghana, VCT has been identified and adopted as one of the essential components of a comprehensive strategy of preventing new infections (Ghana Health Service, 2010). This is because while undergoing VCT services, individuals learn about their sero-status and gain knowledge on avoiding risky behaviours to protect themselves and others (UNAIDS, 2000; WHO, 2003). Thus, new infections are likely to be prevented. However, fear of coping with the positive test results, low risk perception to HIV, and fear of stigma and discrimination that follows positive test results have been cited as reasons for not utilizing VCT services (Olijira, 2004).

University students have freedom and autonomy which they mostly misuse on risky activities (Mturi & Gaearwe, 2014). Some of these risky activities are usually sexual activities with university students engaging in such activities. This happens because time in the university is seen as the period young people mostly explore or try different activities including their sexual activities (Anyanwu, Goon, & Tugli, 2013; Hoque, 2011; Ngoma & Himoonga, 2010). Also, researchers like Gilchrist, Smith, Magee and Jones (2012) and Olley (2008) have revealed that public activities on campus such as parties are linked with excessive intake of alcohol and drugs which can make students vulnerable to risky sexual acts. All of these point to the fact that students in universities may be vulnerable to contracting sexually transmitted infections like HIV/AIDS. In this sense, VCT needs to be given the needed attention in universities.

Problem Statement

Despite the important of voluntary counselling and testing (VCT) in reducing the spread of HIV/AIDS (Olakunle, 2017), the benefits of VCT are yet to be effectively optimized. In Ghana, several studies have been carried out to investigate the utilization of VCT. Among such studies are those of Gadegbeku, Saka, and Mensah (2013) and Kabiri (2016). Specifically, Gadegbeku, Saka, and Mensah (2013) sought to find the attitude of the youth towards voluntary counselling and testing of HIV/AIDS and found that even though knowledge about HIV/AIDS was high most respondents were unaware of the availability of VCT services and were unwilling to access VCT services for fear of knowing their HIV status. Kabiri (2016) also sought to identify the factors that influence the uptake of VCT services among the youth and found that nearly half of the youth had never tested for HIV and citing lack of confidentiality, lack of privacy, mistrust of the health system, inconvenient facility opening hours, fear of positive results and poor attitude of services providers as barriers to uptake of HIV VCT.

In relation to university students, the study of Banyeh, Kankpi, Zogli and Mohammed (2022) showed that being informed of VCT services, knowing where to access VCT services and knowing someone who has been diagnosed of HIV influenced students to patronize VCT. The current study differs from that of Banyeh et al. in the sense that the current study is more expansive and adopts a mixed approach instead of the purely quantitative nature of the study of Banyeh et al. also, the current study focuses on students in the University of Cape Coast (UCC).

The study of Hooper (2018) revealed that students (particularly female) in UCC mostly engaged in risky sexual behaviours. This together with the abundance of parties and new night clubs that keep springing up in Cape Coast means that students in the University are vulnerable to risky sexual behaviours which makes them susceptible to HIV/AIDS. On this basis, the current study investigated the factors influencing patronage of HIV/AIDS VCT among students in the University of Cape Coast.

Research Questions

1. What is the level of knowledge of HIV/AIDS VCT among students in the University of Cape Coast?
2. What is the extent to which students in the University of Cape Coast patronise HIV/AIDS VCT?
3. What are the factors that influence students' patronage of HIV/AIDS VCT?

LITERATURE REVIEW

Literature is reviewed under different sub-headings. The various sub-headings are theory of planned behaviour,

Theory of Planned Behaviour

Aside this, the theory of planned behaviour was also reviewed. The theory of Planned Behaviour was formulated first as Reasoned Action in the mid-1960s by Fishbein and Ajzen. The Theory of Reasoned Action posits that a person's behaviour is determined by his/her intention to perform the behaviour and the intention is in turn a function of his/her attitude toward the behaviour and his/her subjective norm.

People consider the implications of their actions in a given context at a given time before they decide to engage or not engage in a given behaviour, and that most actions of social relevance are under volitional control (Ajzen & Fishbein, 1980). This Theory of Reasoned Action was related to voluntary behaviour. However, it was realized later that behaviour appeared not to be 100% voluntary and under control, this resulted in the addition of perceived behavioural control. With this addition the theory was renamed the theory of planned behaviour (TpB).

In explaining behaviour using theory of planned behaviour, it can be said that a person's behaviour is determined by his/her intention to perform the behaviour. The intention is a function of his/her attitude toward the behaviour, his/her subjective norm and the perceived behavioural control (Ajzen, 1991). Attitudes towards behaviour needs to assessed. In addition to measuring attitudes toward the behaviour, people's subjective norms – their beliefs about how people they care about will view the behaviour in question- should also be measured. Perceived behavioural control refers to people's perceptions of their ability to perform a given behaviour. These predictors lead to intention. As a general rule, the more favorable the attitude and the subjective norm, and the greater the perceived control the stronger should the person's intention to perform the behaviour in question.

In relation to this study, university students are likely to patronize VCT services if they have a positive attitude towards counselling and testing, if they realise that the norm of the people around them is patronizing VCT and if they realise that they are in control of going for VCT. This means that the intention to patronize the service will come from their attitude, the norm around them and the level of control over their behaviours.

Concept of Voluntary Counselling and Testing (VCT)

According to Kunsu (2010), VCT stands for Voluntary Counselling and Testing and is the procedure one undergoes to be able to know his/her HIV status, be it negative or positive. VCT is the process of giving people professional counselling before and after the HIV test. The role of VCT has been deemed pivotal in achieving the global goals of HIV prevention and care (Odimegwu, Adedini & Ononokpono, 2013). The process helps people prepare for and understand their test results. Those who test negative can learn ways to avoid becoming infected, and those who test positive can learn how to live longer, healthier lives and prevent transmission of the virus to others. In this way, VCT offers an important entry point to early prevention, care, and support.

Voluntary counselling and testing (VCT) has been one of the key policy responses to the HIV/AIDS epidemic, principally as a primary prevention strategy and as an entry point to other HIV/AIDS related services (Denison, O'Reilly, Schmid, Kennedy & Sweat, 2008). Overall, Sulwe (2012) opined that all the activities an individual undergoes counselling to enable him/her to make an informed choice about being tested for the human immunodeficiency virus (HIV). It is deemed voluntary because the decision must be entirely the choice of the individual and he or she must be assured that the process will be confidential.

Benefits of VCT

According to Vajpayee, Mojumdar, Raina, Mishra and Sreeinvas (2009), VCT for HIV enables an individual to make an informed choice about being tested for HIV and to cope with his or her test results. If an individual test negative, he or she will take precautions not to get infected through sexual activities by adopting safe sex practices. Conversely, if an individual tests positive, he or she will adopt safe sex practices, insuring that he does not infect other people, thereby stopping the spread of the virus. VCT is therefore important in order to curb the spread of HIV and AIDS (Botma, Motiki & Viljoen, 2007).

Additionally, Mbengo (2013) indicated that VCT is a key entry point to HIV/AIDS services for people living with HIV (PLWHIV). VCT has been shown to have a role in both HIV prevention and, for people with an infection, as well as an entry to care services such as family planning, support groups, anti-retroviral therapy, planning for the future, treatment of sexually transmitted infections, management of TB and other opportunistic infections as well as the reduction of HIV/AIDS related stigma (Mavhandu-Mudzusi, Netshandama & Davhana-Maselesele, 2007).

Finally, the process of discovering one's HIV status, irrespective of the test result, is an opportunity for education and motivation to modify behaviour aimed at reducing the risk of HIV transmission (Vajpayee et al., 2009). VCT is thus shown to be effective in changing risky sexual behaviour. A study by Mola et al. (2006) in Mozambique revealed that people who chose to participate in VCT,

compared to people from the general clinic population, reported to use condoms significantly more often after VCT. A randomised controlled trial to evaluate the relative efficacy of adding VCT to information dissemination in reducing HIV-related risky behaviours among Hong Kong male cross-border truck drivers revealed that VCT was effective in improving HIV-related knowledge, increasing prevalence of consistent condom use (Lau, Tsui, Cheng & Pang, 2010).

Past Empirical Studies

Kunsu (2010) carried out an interventional study to find out the effect of HIV/VCT education on the uptake of VCT services by in-school adolescents at Nadowli Queen of Peace and Daffiama SHSs. It involved 100 students as intervention group and 100 others as control group in two SHSs in Nadowli district of Ghana. The intervention group was given HIV and VCT education while the control group was given 'placebo' education in personal hygiene before subjecting both groups to VCT services. The study revealed that 90 per cent of the respondents were willing to know their HIV status while still healthy but lacked basic information about VCT and therefore a lot of education should be channeled in that direction.

Yahaya, Jimoh and Balogun (2010) reported that the level of awareness of HIV/AIDS in Nigeria remains low and stressed the need to change the attitudes of most Nigerians regarding voluntary HIV/AIDS counselling and testing. According to a study by Ogaji, Oyeyemi and Ibrahim (2013) on awareness, willingness and use of VCT services by students of a university in south-south Nigeria, 72% of Nigerians desired to have an HIV test; an increase from 43% observed in 2005 according to the HIV/AIDS and Reproductive Health Survey (NARHS) report. The study however reported low uptake of HTC services of 14.4% and 14.7% of females and males respectively.

In addition, Addis et al. (2013) examined knowledge, attitude and practice towards voluntary counselling and testing among university students in Northwest Ethiopia and found that association between higher educational status, being employed and having better income and uptake of HIV testing. The study also found an important association between religion and HTC utilization among men living in urban areas, citing Muslims as being less likely to be tested for HIV. The study attempted to explain that the religious association could be as a result of higher adherence to religious beliefs, which may give protection against the sexual transmission of HIV.

Mbengo (2013) explored the factors influencing the use of voluntary counselling and testing by university students. This was done by undertaking an exploratory and descriptive qualitative study. Focus group discussions and field notes were used to collect data from the participants. Outcomes from the study revealed various factors to the uptake of Voluntary Counselling and Testing (VCT) services by university students namely: the desire to know one's HIV status, illness, pregnancy, blood donation, to get a reward, the influence of significant others, the influence of media, awareness campaigns, compulsion, to get a job, curiosity, to be a positive role model and the positive attitude and professional conduct of the health care provider. The study also revealed various challenges to the uptake of VCT services by university students namely: the fear of being diagnosed HIV positive, HIV/AIDS-related stigma and discrimination, the low perception of risk to HIV infection, the lack of student friendly VCT services, the shortage of human and

infrastructural resources, the inaccessibility of VCT services, the long waiting period for test results, negative perceptions about VCT, the problems with pre-test counselling and ignorance.

According to Yawson, Dako-gyeke, Addo and Dornoo (2014), it has been reported across Africa that HIV testing and counselling (HTC) uptake varied by sex. For instance, females in Southern African countries are reported to be utilizing HTC than males compared to countries such as Ethiopia, Nigeria, Tanzania, and Zambia where male utilization of HTC was higher than females. They found the high female testing to be consistent with previous findings in Ghana, which shows high readiness for HIV testing among pregnant women in Ghana. The study also reported that the limited HIV testing among men is well known in Ghana.

Akhiwu (2012) also sought to determine factors affecting the utilisation of Voluntary Counselling and Testing (VCT) services for HIV/AIDS in Sowa, Botswana. A cross-sectional study was carried out by collecting data from 71 randomly selected participants residing in the community of Sowa, Botswana. Open and close ended questions were used. The study found that about half of the respondents were willing to utilise the VCT services. Willingness to utilise VCT was significantly associated with the respondents' choice of VCT centres, worry about confidentiality at VCT centres, and concern about their partners' being aware of their use of VCT. The expected reactions of their partner, family and community to the use of VCT by the respondents, in addition to the willingness of respondents to inform their partners the result of their HIV test, were other factors associated with the use of VCT. Multivariate regression showed that being "not worried" about confidentiality at VCT centres predicted the willingness to use VCT. In addition, not worried that their partners were aware they had utilised VCT, and readiness to inform their partners about the result of their HIV test, predicted the willingness of respondents to utilise VCT. Similarly, the expectation of a happy reaction from partner and family on being aware the respondent had used VCT, also predicted willingness to use VCT.

According to Kabiri (2016), the National AIDS Control Programme (NACP) data in Ghana between 2007 and 2010 from all HIV tests conducted in the country showed that a total proportion of 16% of the 2010 Ghanaian population have ever tested for HIV. Similarly, the 2008 Ghana Demographic and Health Survey (GDHS) report revealed that the proportion of females and males aged 15-49 years that have ever tested for HIV was 21% and 14% respectively. From the studies reviewed, it can be inferred that patronage of VCT services varies in different societies.

Research gaps

From the literature, it can be realized that the voluntary counselling and testing (VCT) has been well conceptualized. The conceptualization in the literature is that the only means of diagnosing HIV/AIDS is through testing. A significant part VCT is the part where people have to voluntarily patronize the service. Through the literature most of the studies reviewed established that VCT is beneficial. Also, the literature established that knowledge of VCT and its benefits can influence people in patronizing VCT.

A gap in the literature reviewed was that the challenges or barriers hindering the patronage of VCT was left out in most of the studies. Methodologically, most of the studies used quantitative methods

and used mostly frequencies and percentages in reporting their findings. However, in the current study, means and standard deviations were used in analysing and reporting the findings. Finally, Ghanaian studies related to the subject of VCT focused mainly on young adults without a proper demarcation as to which category of young adults. The current study is however specific in terms of its focus on university students in Ghana.

METHODOLOGY

Descriptive survey research design was adopted for the study. Descriptive survey design was considered appropriate for this study because it is used to present facts or current conditions concerning the utilization of voluntary counselling testing among students. A sample of 376 students was selected using convenience sampling from a population of 18949 undergraduates in the University of Cape Coast. The sample was based on Krejcie and Morgan's (1970) Sample Determination Table. Data were collected using questionnaire adapted from the instrument of Kabiri (2016) which was administered online. Content validity was established by experts in the field of research and counselling in the Department of Guidance and Counselling in the University of Cape Coast. Pilot test was done with 50 students from the University of Education, Winneba and Cronbach alpha coefficient of 0.81 was obtained as a measure of reliability. Ethical issues such as informed consent, autonomy, confidentiality and anonymity were ensured. Data for the three research questions were analysed using means and standard deviations.

RESULTS

Knowledge of HIV/AIDS VCT among Students

The knowledge and awareness of the students about HIV/AIDS VCT was assessed. Since the data was on four-point Likert-type scale, a cut-off point of 2.5 was set. Mean scores above 2.5 indicated high knowledge while mean scores below 2.5 indicated low knowledge. The results are shown in Table 1.

Table 1: Knowledge of HIV/AIDS VCT among Students

Statement	Mean	Std. Dev.
I know that HIV/AIDS can only be diagnosed after testing for it	3.95	0.88
I have heard of HIV/AIDS VCT	3.54	0.92
I know where to go for HIV/AIDS VCT	2.45	1.03
Going for VCT can help you know your HIV/AIDS status	3.81	0.96
VCT for HIV/AIDS is optional for everyone	3.76	0.87
Mean of Means	3.50	

Source: Field Data

From Table 1, the respondents had high level of knowledge regarding the fact that HIV/AIDS can only be diagnosed after testing for it ($M=3.95$, $SD=0.88$). the respondents also had high level of knowledge that going for VCT can help know HIV/AIDS status ($M=3.81$, $SD=0.96$) and that VCT was optional ($M=3.76$, $SD=0.87$). The respondents had also heard of HIV/AIDS VCT ($M=3.54$, $SD=0.92$). However, they did not know where to go for HIV/AIDS VCT ($M=2.45$, $SD=1.03$). From the results above, it is clear that the respondents had high level of knowledge about HIV/AIDS VCT and its importance but had low level of knowledge about VCT centres around them. The mean of means which was 3.50 indicated that overall, the respondents had high level of knowledge about HIV/AIDS VCT.

Extent to Which Students Patronise HIV/AIDS VCT

The extent to which students patronized HIV/AIDS VCT. Since the data was on four-point Likert-type scale, a cut-off point of 2.5 was set. Mean scores above 2.5 indicated high patronage while mean scores below 2.5 indicated low patronage. The results are shown in Table 2.

Table 2: Extent to which Students Patronise HIV/AIDS VCT

Statement	Mean	Std. Dev.
I have visited an HIV/AIDS VCT centre before	1.34	0.98
I visit the HIV/AIDS VCT centre occasionally to check my HIV/AIDS status	1.12	0.87
I will like to go to the HIV/AIDS VCT centre to check my HIV/AIDS status	2.86	0.79
I know friends who have gone for HIV/AIDS VCT	2.65	0.96
I discuss with some of my friends to patronise HIV/AIDS VCT services	2.33	1.01
Mean of means	2.06	

Source: Field Data

It is shown in Table 2 that the respondents were willing to go to HIV/AIDS VCT Centre to check their HIV/AIDS status ($M=2.86$, $SD=0.79$). The respondents also knew friends who had gone for HIV/AIDS VCT ($M=2.65$, $SD=0.96$). However, the respondents indicated that they have not visited HIV/AIDS VCT centre ($M=1.34$, $SD=0.98$) and they did not occasionally visit HIV/AIDS VCT centres ($M=1.12$, $SD=0.87$). The mean of means obtained was 2.06 which is below 2.50. This means that overall, patronage of HIV/AIDS VCT was low among the students.

Factors which Influence Students' Patronage of HIV/AIDS VCT

The factors which influence students' patronage of HIV/AIDS VCT were examined. The data was on four-point Likert-type scale and as such, a cut-off point of 2.5 was set. Mean scores above 2.5 indicated high patronage while mean scores below 2.5 indicated low patronage. The results are shown in Table 3.

Table 3: Factors which Influence Students' Patronage of HIV/AIDS VCT

Statement	Mean	Std. Dev.
I would patronize HIV/AIDS VCT:		
If I see HIV/AIDS VCT to be a good thing	3.44	0.84
If I have easy access to VCT centres	3.03	1.01
If I am willing to know HIV/AIDS status	3.61	0.99
If VCT service providers have good attitude	3.12	0.98
If I perceive my sexual life to be risky	3.56	0.77
If I am influenced by significant others (e.g. partner)	2.89	0.95

Source: Field Data

From Table 3, the students revealed that they would patronize HIV/AIDS VCT if they have the willingness to do so ($M=3.61$, $SD=0.99$) and if they perceive their sexual lives to be risky ($M=3.56$, $SD=0.77$). The respondents also noted that they would patronize HIV/AIDS VCT if they see VCT to be a good thing ($M=3.44$, $SD=0.84$). Other influential factors were attitude of service providers ($M=3.12$, $SD=0.98$) and ease of access to VCT centres ($M=3.03$, $SD=1.01$).

Discussion

The study revealed that the students had high level of knowledge about HIV/AIDS VCT and its importance but had low level of knowledge about VCT centres around them. The students knew of HIV/AIDS VCT and knew that HIV/AIDS diagnosis can only be made after testing. Their awareness of VCT centres was however low. The results imply that most students did not know where exactly to go for HIV/AIDS VCT.

The results support the results of Gadegbeku, Saka, and Mensah (2013) aimed at finding out the attitude of the youth towards voluntary counselling and testing of HIV/AIDS. They found that most respondents had knowledge about HIV/AIDS and knew about how diagnosis can be made. They knew that testing was the way to get diagnosis for HIV/AIDS. Similarly, the findings of the

current study are in line with the findings of Iliyasu, Abubakar, Kabir and Aliyu (2006) also conducted a study in a rural community in northern Nigeria, but did not specifically target the youth. The results showed a conscious awareness of HIV and AIDS along with voluntary counselling and testing. In Ghana, Kunsu (2010) revealed that students that 90% of students were willing to know their HIV status while still healthy but lacked basic information about VCT and where to access VCT. It is clear from the results that knowledge about HIV/AIDS VCT is high among students but awareness of where to access VCT in their localities is lacking.

The study found that the respondents were willing to go to HIV/AIDS VCT Centre to check their HIV/AIDS status and knew of some friends who had gone for HIV/AIDS VCT. However, it was clear that the respondents themselves had not visited VCT centres. Overall, the patronage HIV/AIDS VCT was low among the students even though the expressed the willingness to patronize. Since it was earlier found that respondents lacked knowledge of where to access VCT, it was not a surprise that patronage of VCT was low.

The findings give support to the findings of Ikara (2012) that HIV testing was low among young people, quoting just about 21% as young people who have gone for HIV/AIDS testing. Also, Sanga, Kapanda, Msuya and Mwangi (2015) found concerning the uptake of VCT among students in Arusha City, Tanzania that of the 400 study participants, 93.5% were aware of the VCT services, 79.1% had high knowledge on VCT services and 75.9% had positive attitude towards VCT services while only 29.3% had ever tested.

Further, the findings of the current study confirm that of Ogaji, Oyeyemi and Ibrahim (2013) that 72% of Nigerian university students desired to have an HIV test but only 14.4% of females 14.7% of males had patronized HIV/AIDS VCT. Gadegbeku, Saka, and Mensah (2013) also revealed that of the 37% respondents in their study who had heard of VCT, only 6% had actually been to a VCT centre. They concluded that the level of use of VCT services among the youth in Accra was relatively low.

Additionally, it was shown in this study by the respondents that willingness, perception of risk associated with their sexual lives, positive perception about VCT, attitude of service providers and ease of access to VCT centres are factors which would influence them to patronize HIV/AIDS VCT. Before people will patronize VCT services, they must be willing to know their HIV/AIDS status. Regardless of the level of knowledge about HIV and VCT, it will take the willingness of people to make them patronize VCT services. Aside the willingness to know HIV/AIDS status, people must perceive their risk level of contracting HIV/AIDS to be high to make them utilize VCT services. This means that if people think they are not at risk of contracting HIV then they will be less likely to go for VCT. Aside this, people must have positive perceptions about VCT services as well as service providers to patronize the services. Whether VCT centres are easily accessible or not would also impact on students decision to patronize VCT services.

The results of this study support the results of Onyango (2010) that perception of the importance of VCT and willingness to utilize VCT services are factors which influence people to patronize VCT services. Similarly, Mbengo (2013) explored the factors influencing the use of voluntary

counselling and testing by university students and found that the desire to know one's HIV status and the positive attitude and professional conduct of the health care provider were the main factors that influenced use of VCT services. From the evidence of the results of the current study and the other studies discussed, willingness, perceptions of risk level, perceptions about VCT services, attitude of service providers and ease of access to VCT centres are the main factors which influence patronage of VCT services among students.

Conclusions

On the basis of the results, it is concluded that university students are knowledgeable about HIV/AIDS VCT and its importance. However, students lack awareness of VCT centres and ways of accessing the centres. The evidence shows that there is still not a lot being done to make students aware of VCT centres in various localities.

It is also concluded that university students do not patronize HIV/AIDS VCT even though they know the benefits. The perception of risk associated with their sexual lives, positive perception about VCT, attitude of service providers, ease of access to VCT centres along with their own willingness influence students' patronage of VCT services. Any efforts to improve patronage of students in VCT services could be in line with these factors.

Recommendations

The following recommendations are made based on the findings of the study:

1. Ghana AIDS Commission should collaborate with university authorities to intensify the education on HIV/AIDS VCT utilization and make it more contextual by indicating the specific areas that people can access VCT services. This is because the study found that awareness of where to access VCT services was limited.
2. The University Health Services should organize HIV/AIDS VCT awareness activities on university campus for students so that the patronage of VCT services can be improved.
3. It is recommended that the Ghana AIDS Commission work with university authorities to establish easily accessible VCT centres so patronage of VCT can be improved among university students.

REFERENCES

- Addis, Z., Yalew, A., Shiferaw, Y., Alemu, A., Birhan, W., & Mathewose, B. (2013). Knowledge, attitude and practice towards voluntary counseling and testing among university students in North West Ethiopia: A cross sectional study. *BMC Public Health*, 13(1), 1.
- Ajzen, I. (1991). Theory of planned behaviour. *Organizational Behaviour and Human Decision Processes*, 50, 179-211.
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behaviour*. Prentice-Hall.
- Akhiwu, P. (2012). *Factors affecting the utilisation of voluntary counselling and testing (VCT) services for HIV/AIDS in Sowa, Botswana*. <http://hdl.handle.net/10539/10997>
- Anyanwu, C. F., Goon, T. D., & Tugli, A. (2013). “Perception on the severity of unwanted pregnancy among university students”. *Pakistan Journal of Medical Sciences*, 29(4), 923–928.
- Banyeh, M., Kankpi, T., Zogli, K. E., & Mohammed, S. (2022). Determinants of voluntary HIV/AIDS counseling and testing among university students in Ghana. *Asian Journal of Advanced Research and Reports*, 16(1), 46-56.
- Bibiana, N. E., Emmanuel, P. O., Amos, D., Ramsey, Y. M., & Idris, A. N. (2018). Knowledge, attitude and factors affecting voluntary HIV counseling and testing services among women of reproductive age group in an Abuja Suburb community, Nigeria. *Medical Journal of Zambia*, 45(1), 13-22.
- Botma, Y., Motiki, Z. D., & Viljoen, M. C. (2007). Learners’ knowledge and perceptions of voluntary counselling and testing for HIV and AIDS in the Free State Province. *Curationis*, 30(2), 48–57.
- Corbett, E., Dauya, E., Matambo, R., Cheung, Y., Makamure, B., Bassett, M., & Butterworth, A. (2006). Uptake of workplace HIV counselling and testing: A cluster-randomized trial in Zimbabwe. *PLoS Medicine*, 3(7), e238. doi:10.1371/journal.pmed.0030238
- Denison, J. A., O’Reilly, K. R., Schmid, G. P., Kennedy, C. E., & Sweat, M. D. (2008). HIV voluntary counseling and testing and behavioral risk reduction in developing countries: A meta-analysis, 1990–2005. *AIDS Behaviour*, 12(3), 363–373.
- Gadegbeku, C., Saka, R., & Mensah, B. (2013). Attitude of the youth towards Voluntary Counselling and Testing (VCT) of HIV/AIDS in Accra, Ghana. *Journal of Biology, Agriculture and Healthcare*, 3(11), 133-140.
- Gilchrist, H., Smith, K., Magee, C. A., & Jones, S. (2012). A hangover and a one-night stand: Alcohol and risky sexual behaviour among female students at an Australian University. *Youth Study Aust.*, 31, 35-43.

- Granich, R., Gupta, S., Hersh, B., Williams, B., Montaner, J., Young, B., & Zuniga, J. M. (2015). Trends in AIDS deaths, new infections and ART coverage in the top 30 countries with the highest AIDS mortality burden: 1990–2013. *PloS One*, *10*(7), e0131353.
- Hirut, B. M. (2014). Factors influencing HIV voluntary counselling and Testing (VCT) service utilization among youth of Hawassa town: A health belief model Approach, Southern Ethiopia. *Journal of science & development*, *2*(1), 49–58.
- Hooper, A. G. (2018). *Perceptions of risky sexual behaviours among University of Cape Coast female students*. [Unpublished master's thesis, University of Cape Coast].
- Hoque, M. E. (2011). Reported risky sexual practices amongst female undergraduate students in KwaZulu-Natal, South Africa. *African Journal of Primary Health Care Family Medicine*, *3*(1), 281–287.
- Ikara, E. (2012). *Factors influencing uptake of Voluntary HIV Counselling and Testing (VCT) services among school going adolescents in Soroti District, Uganda*. [Unpublished master's thesis, Makerere University].
- Iliyasu, Z., Abubakar, I., Kabir, M., & Aliyu, M. (2006). Knowledge of HIV/AIDS and attitude towards voluntary counselling and testing among adults. *Journal of the National Medical Association*, *98*, 1917-1922.
- Kabiri, M. (2016). *Factors influencing uptake of HIV testing and counselling among the youth in Kintampo South District*. [Unpublished master's dissertation, University of Ghana, Legon].
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, *30*, 607-610.
- Kunsu, R. (2010). *An assessment of knowledge on VCT for HIV among adolescents in SHSs in the Nadowli District of the Upper West Region of Ghana using HIV/AIDS and VCT education*. [Unpublished master's thesis, Kwame Nkrumah University of Science and Technology, Kumasi].
- Lau, T. F., Tsui, H. Y., Cheng, S., & Pang, M. (2010). A randomized controlled trial to evaluate the relative efficacy of adding voluntary counselling and testing (VCT) to information dissemination in reducing HIV-related risk behaviours among Hong Kong male cross border truck drivers. *AIDS Care*, *22*(1), 17-28.
- Matovu, J., & Makumbi, F. (2007). Expanding access to voluntary HIV counselling and testing in sub-Saharan Africa: Alternative approaches for improving uptake, 2001-2007. *Tropical Medicine and International Health*, *12*, 1315-1322.
- Mavhandu-Mudzusi, A. H., Netshandama, V. O., & Davhana-Maselesele, M. (2007). Nurses' experiences of delivering voluntary counselling and testing services for people with HIV/AIDS in the Vhembe District, Limpopo Province, South Africa. *Nursing and Health Sciences*, *9*, 254–262.

- Mbengo, F. (2013). *Factors influencing the use of voluntary counselling and testing by university students*. [Unpublished master's thesis, University of South Africa].
- MOH-Kampala. & ORC-Macro. (2006). *Uganda HIV/AIDS sero-behavioural survey (2004, 2005)*. Ministry of Health (MOH) [Uganda] and ORC Macro.
- Mola, O. D., Mercer, M. A., Asghar, R. J., Gimbel-Sherr, K. H., Gimbel-Sherr, S., Micek, M. A., & Gloyd, S. S. (2006). Condom use after voluntary counselling and testing in Central Mozambique. *Tropical Medicine and International Health*, 11(2), 176–181.
- Mturi, A. J., & Gaearwe, L. (2014). Gender differences in sexual behaviour amongst university students in Mahikeng, South Africa. *African Population Studies*, 28(1), 526-537.
- Ngoma, C. M., & Himoonga, U. M. (2010). Gender differences in sexual behaviours among students at the University of Zambia, Lusaka. *African Journal of Nursing and Midwifery*, 12(2), 27-35.
- Nuri, R. A. (2017). Voluntary counselling and testing utilization and associated factors among teachers in Arsi Negele district, West Arsi zone, Oromia regional state, Ethiopia. *MOJ Public Health*, 6(3), 326–331.
- Odimegwu, C., Adedini, S. A., & Ononokpono, D. N. (2013). HIV/AIDS stigma and utilization of voluntary counselling and testing in Nigeria. *BMC Public Health*, 13(1), 1.
- Ogaji, D. S., Oyeyemi, A. S., & Ibrahim, I. (2013). Awareness, willingness and use of Voluntary HIV testing and counseling services by students of a university in south-south Nigeria. *Journal of Community Medicine and Primary Health Care*, 25(2) 36-44.
- Olakunle, J. O. (2017). *Factors affecting the uptake of voluntary counselling and testing among youth in Rural Nigeria*. [Unpublished master's thesis, University of Lethbridge, Canada].
- Olijira, L. (2004). Utilization of voluntary counselling and testing services, Perceived barriers, and preferences of adolescents 15 to 24 years of age in Harara town, Eastern Ethiopia. *Ethiopia Journal of Health Development*, 18(2), 21–22.
- Olley, N., (2008). Drugs and popular culture: Drugs, media and identity in contemporary society. *British Journal of Criminology*, 48, 415-418.
- Onyango, O. J. (2010). *Psychosocial and demographic factors affecting utilization of voluntary counseling and testing services among secondary school teachers in Nyando District, Kenya*. [Unpublished master's thesis, Kenyatta University].
- Puhan, M. A., Natta, M. L. V., Palella, F. J., Addessi, A., & Meinert, C. (2010). Excess mortality in patients with AIDS in the era of highly active antiretroviral therapy: Temporal changes and risk factors. *Clinical Infectious Diseases*, 51, 947-956.
- Sanga, Z., Kapanda, G., Msuya, S., & Mwangi, R. (2015). Factors influencing the uptake of Voluntary HIV Counseling and Testing among secondary school students in Arusha City, Tanzania: A cross sectional study. *BMC Public Health*, 15, 452. DOI 10.1186/s12889-015-1771-9.

- Sulwe, C. N. (2012). *Factors influencing uptake of voluntary counseling and HIV testing services in Mwense district, Zambia*. [Unpublished master's thesis, University of the Western Cape].
- Teklehaimanot, H. D., Teklehaimanot, A., Yohannes, M., & Biratu, D. (2016). Factors influencing the uptake of voluntary HIV counseling and testing in rural Ethiopia: A cross sectional study. *BMC Public Health*, 16, 239. DOI 10.1186/s12889-016-2918-z
- UNAIDS Joint United Nations Programme on HIV/AIDS. (2000). *Voluntary counselling and testing (VCT)*. Author.
- UNAIDS Joint United Nations Programme on HIV/AIDS. (2012). *Global report: UNAIDS report on the global AIDS epidemic 2012*.
http://www.unicef.org/pacificislands/UNAIDS_Global_Report_2012.pdf
- UNAIDS Joint United Nations Programme on HIV/AIDS. (2014). *The gap report 2014*.
http://www.unaids.org/en/resources/documents/2014/20140716_UNAIDS_gap_report
- UNAIDS Joint United Nations Programme on HIV/AIDS. (2022). *HIV/AIDS report 2021*. Author.
- UNFPA. & IPPF. (2004). *Integrating HIV Voluntary Counselling and testing Service reproductive health settings: Stepwise guidelines for programme planners, managers and service providers*. Author.
- Vajpayee, M., Mojumdar, K., Raina, M., Mishra, S., & Sreeinvas, V. (2009). HIV voluntary counselling and testing: An experience from India. *AIDS Care*, 21(7), 826–833.
- Wangui, J. K., Kikui, G. M., & Msanzu, J. B. (2016). Factors influencing utilization of Voluntary Counseling and Testing Services among Kenya Ports Authority employees in Mombasa, Kenya. *Global Journal of Health Sciences*, 1(1), 27–41.
- World Health Organisation. (WHO). (2003). *Increasing access to HIV testing and counselling: Report of a WHO consultation, 19–21 November 2002*. WHO.
- World Health Organisation. (WHO). (2015). *Global Health Sector Response to HIV, 2000-2015: Focus on innovations in Africa: Progress report*.
<http://apps.who.int/iris/handle/10665/198065>
- Yahaya, L. A., Jimoh, A. A. G., & Balogun, O. R. (2010). Factors hindering acceptance of HIV/AIDS voluntary counselling and testing (VCT) among youth in Kwara state, Nigeria. *African Journal of Reproductive Health*, 14(3), 159-164.
- Yawson, A. E., Dako-gyeke, P., Addo, S. A., & Dornoo, B. T. (2014). Utilization of HIV Testing and counselling in Ghana: Implications for Universal Coverage. *African Journal of Reproductive Health*, 18(1), 145-155.
- Zolopa, A. R., Andersen, J., Komarow, L., Sanne, I., Sanchez, A., Hogg, E., & Powderly, W. (2009). Early antiretroviral therapy reduces AIDS progression/death in individuals with acute opportunistic infections: A multicenter randomized strategy trial. *PLoS One*, 4(5), e5575.