

*Full Length Research Paper*

# **Assessing factors influencing university students to uptake voluntary counselling and testing (VCT) of human immune deficiency virus/acquired immune deficiency syndrome (HIV/AIDS)**

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**This research sought to establish factors that influence students at a university in Tanzania to go for voluntary counselling and testing (VCT) of human immune deficiency virus/acquired immune deficiency syndrome (HIV/AIDS). The study adopted a case study design done under an interpretivist paradigm and employed a qualitative research approach. Sixty seven respondents were selected by using purposive and snowball samplings. Primary data was obtained from semi-structured interviews and focus group discussions. Secondary data was obtained from documentary reviews of reports at the university in which the study was carried out. Data was analysed by using content analysis. It was found that university students recommended VCT services to other people but would not go themselves because of fear of the consequences of HIV positive results such as stigmatization, isolation and stress. Students also do not go for VCT because they are unsure about confidentiality issues, and they have a misunderstanding of benefits of HIV testing and peer pressure. Few students went for VCT as they were influenced by factors such as marriage, the need to know their statuses, encouragement from different organisations and the great role that is played by peer educators. The study concluded that until an effective treatment for HIV/AIDS is discovered and availed to the affected individuals and communities, VCT remains the major strategy for the reduction of the disease. University students' attitudes towards VCT play an indispensable role towards the attainment of the services. The study recommends that sensitization about HIV/AIDS VCT be increased so that students may be able to break the bond of terror and go for HIV testing in order to access life prolonging drugs earlier if they are HIV positive. More HIV/AIDS programmes such as seminars which are related to VCT should be frequently done in universities.**

**Key words:** Human immune deficiency virus/acquired immune deficiency syndrome (HIV/AIDS), voluntary counselling and testing, university students.

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## **INTRODUCTION**

Human immune deficiency virus/acquired immune deficiency syndrome (HIV/AIDS) has become a global disease, spreading rapidly since the first cases were identified in the 1970s. The global summary of the AIDS

epidemic as of December, 2007 states that the number of people living with HIV in 2007 was 33.2 million, the number of people newly infected with HIV in 2007 was 2.5 million and the number of AIDS deaths

in 2007 was 2.1 million people (United Nations AIDS (UNAIDS) and World Health Organization (WHO), 2007). Tanzania mainland has a generalized HIV prevalence, and the primary mechanism for HIV transmission in the country is unprotected heterosexual intercourse, which constitutes about 80% of all new infections (Tanzania Commission for AIDS (TACAIDS), 2008). By early 2008, it was estimated that 1.3 million people, including adults and children in Tanzania mainland were living with HIV, and 10% were children (below 18 years) (United Republic of Tanzania, 2010). Tanzania is currently implementing a national HIV testing campaign that was inaugurated by His Excellency, President Jakaya Mrisho Kikwete on 14 July, 2007. The inauguration was followed by campaigns all over the country to open new testing sites and to encourage people, using the media and posters, to go for voluntary counselling and testing (VCT) (TACAIDS, 2008).

Tanzania responded to the widespread incidence of HIV/AIDS by establishing VCT centres all over the country including in universities. The HIV incidence slowed in the United Republic of Tanzania to about 3.4 per 1000 person in the years between 2004 and 2008. This development was attributed to an increase in testing rates which in 12 months grew from a baseline of 4.9% from 2003 to 2004 to 29.5% in 2010 among women, and from 7.3 to 25.0% among men (World Health Organization (WHO), United Nations AIDS (UNAIDS) and United Nations International Children Education Fund (UNICEF), 2011). According to the UNAIDS (2011), VCT refers to a process that is initiated by the individual(s) who wants to learn his or her status. It differs from provider-initiated testing and counselling because HIV testing should always be confidential, accompanied by counselling, and conducted only with informed consent (a principle that UNAIDS refers to as 'the three Cs').

Counselling is mandatory prior to testing and after testing. Counselling is an interpersonal, dynamic communication process between a client and a trained counsellor who is bound by a code of ethics and practice to resolve personal, social or psychological problems and difficulties. Counselling requires empathy, genuineness, absence of any moral or personal judgment and the respect necessary to assist the client to explore, discover and clarify ways of dealing with a concern (UNAIDS, 2011).

The main objectives of HIV-related counselling is to prevent the risk of exposure for those who are not infected; to minimize the risk of re-exposure for those who are HIV infected; and to provide psychological support to both the HIV infected and those affected by HIV/AIDS (Ministry of Health, 2003). According to the UNAIDS (1997), voluntary testing is beneficial to the people and it should be provided in a non-stigmatizing environment. The services should include pre-testing, informed consent

and post-testing. The UNAIDS and WHO (2007) reported that potential benefits of HIV/AIDS testing and counselling for an individual include improved health status through good nutritional advice and early access to care and treatment for HIV-related illness; emotional support; better ability to cope with HIV-related anxiety; and awareness of safer options for reproduction and blood donation.

Pregnant women who use VCT services can learn early about their sero-positive status benefit in terms of preventing HIV transmission to their newborn babies through the use of anti-HIV drugs, safer breastfeeding practices, replacement feeding or early weaning for babies after birth (UNAIDS, 2000).

Despite all the perceived benefits of HIV testing, only 15% of Tanzanian adults were reported to have ever undertaken an HIV test (Tanzania Commission for AIDS, 2004). The youth, mainly at risk of contracting the virus, were reported by some investigators to be professing ignorance and reluctance to go for VCT in various centres located in the country. Maliyamkono and Manson (2006) assert that it is estimated that less than 5% of the population of Tanzania has accessed VCT services, largely due to the associated stigma and high cost. Njau et al. (2012) argued that fears of negative consequences from knowing one's HIV status, including stigma, blame, physical abuse or divorce, remained a concern and a potential barrier to the successful utilization of VCT centres in Tanzania.

As a way of influencing people to obtain VCT services, the United Republic of Tanzania improved quality of life and well-being by ensuring all people, more particularly the poor and vulnerable, had access to essential services including HIV and AIDS prevention and treatment and social protection programmes (United Republic of Tanzania, 2010). Kisesa et al. (2002) contend that the utilization of VCT services in Tanzania had been low, with client volume ranging from 35 to 155 clients per site every year. African Medical and Research Foundation (AMREF) (2002) found that the reasons given by prospective clients for not accessing VCT services included fear of positive results, not perceiving the benefits of having an HIV test, perceiving VCT services as not being customer friendly, a lack of confidentiality of the service providers and poor quality of services offered. The Ministry of Health and Child Welfare (2008) in Zimbabwe explicitly revealed that there is massive under-utilization of VCT centres scattered all over the country. The common reasons which were cited by centres had to do with stigma and discrimination, fear of testing positive and a negative attitude towards the offer of services. In some countries, VCT centres are under-utilized because they offer inadequate services which do not meet client needs (UNAIDS, 2001).

Many studies about VCT have been conducted in

Tanzania; however, none of these studies seems to have been done about factors influencing university students to uptake HIV/AIDS VCT. The lack of knowledge in this area is the problem which this study addresses. University students have been targeted because the majority of them have negative attitudes towards HIV testing, and those who are training to become teachers will have the responsibility of teaching children about VCT.

The conceptual framework underlying this study was based on the ideas of Kosslyn and Rosenberg (2001) who argued that attitudes towards VCT can be positive, negative or ambivalent. What influences a person to go or not to go for VCT is whether the attitude is positive, negative or neutral. People with a positive attitude towards VCT comprehend the benefits of knowing their status. Their behavior causes them to have strong beliefs that VCT is essential and is the principle preventative criterion which enables people to prolong their lives. As a result of that positive attitude, they are influenced to go for HIV testing. People with negative attitudes towards VCT have a misconception of the benefits of the services. They are afraid of knowing their HIV test results and they think that knowing their status simply means knowing how soon they are going to die. They do not want to go for VCT because they think that when they find out that they are infected, they will suffer from psychological torture that will result from stigmatization. Such negative attitudes causes a behaviour of strong belief against the provision of VCT services, and the end result will be shunning the services. An ambivalent attitude sees people understanding the benefits and shortcomings of VCT. They believe that VCT is beneficial and at the same time scary. Their actions, therefore remain ambivalent and results in not knowing whether they should be tested or not.

## MATERIALS AND METHODS

The study employed a qualitative approach and its paradigmatic position is interpretivism. According to Lapan et al. (2012), all qualitative research has an interpretive perspective which focuses on uncovering participants' views. The interpretive paradigm was preferred because it could allow respondents to explain their views about HIV/AIDS VCT. Schultz and Hatch (1996) contend that the interpretive paradigm seeks to understand and explain meaningful social actions and it creates opportunities for the researcher to comprehend meanings of the phenomenon. A qualitative research approach was used mainly because it could allow the researcher to collect data by interacting extensively and closely with participants during the study.

Leedy and Ormrod (2001) said that qualitative research enables a researcher to interact with respondents in order to gain insight into the nature of a particular phenomenon; the research design that was used is a case study of Fox University (pseudonym). The sample of this study comprised three groups of people: (i) The HIV/AIDS VCT counsellors, (ii) peer educators and (iii) undergraduate students in the Faculty of Education [Bachelor of Arts with Education (BA Ed) and Bachelor of Science with

Education (BSc Ed)]. The 'sample size' was as follows: Three HIV/AIDS VCT counsellors; four peer educators and 60 Faculty of Education undergraduate students (30 BA Ed and 30 BSc Ed). This makes the total of 67 respondents. Purposive sampling, which is characterized by deliberate targeting of respondents, was used to select the university, HIV/AIDS counsellor, peer educators and undergraduate students.

Fraenkel and Wallen (2000) argued that in almost all qualitative researches, purposive sampling is adopted, in which researchers use their judgment to select a sample that they believe, based on prior information, to provide the data they need. Only Bachelor of Education undergraduate students were selected purposively because they comprise the largest population at Fox University and they are prospective teachers who will be teaching children about HIV testing in their life skills classes. Four prominent peer educators who deal with HIV/AIDS-related issues were selected by using snowball sampling. Snowball sampling was ideal to use as the researcher did not know the four peer educators who exclusively dealt with HIV/AIDS and VCT at the university. Thus, the dean of students directed the researcher to a student who was the head of peer educators. The head of peer educators recruited another three peer educators who dealt with HIV/AIDS matters at Fox University. Data was collected by using interviews (with VCT counsellors and peer educators), focus group discussions (FGDs) (with students) and documentary review (surveillance reports). There were six FGDs in total. Each FGD had ten students. According to Greenbaum (1993), a FGD consists of approximately six to twelve people in each group.

Validity and reliability of the study were enhanced by trustworthiness and triangulation of data collecting instruments. Both face and catalytic validity were employed to further ensure maximum validity. Data was analysed by using content analysis. Interviews and FGDs were recorded on an audio tape. Data was organised, transcribed and analysed. The researcher read the data thoroughly, divided it into segments of information and labeled each segment with codes. The researcher searched for patterns in coded data to categorize them, and information overlapping as redundancies was removed from codes. Lastly, codes were collapsed into themes and each theme was discussed in detail. Ethical clearance was obtained from the university prior to commencement of the study. All participants were informed that their involvement was voluntary. They were free to withdraw at any point of the study. Pseudonyms were used, participants' confidentiality was maintained and they all signed consent forms.

## RESULTS

### Students' reasons for going for VCT

The HIV/AIDS counselor pointed out that some students may be driven towards VCT because they would be eager to know whether they are HIV positive or negative. The rationale behind that would be to know whether they should take life-prolonging drugs or not. Students from the FGDs raised a lot of ideas relating to wanting to know their status as the reason for VCT. They brought out the aspect of relationships, suggesting that some of them might want to know their status after having a relationship with an unfaithful partner. One student from FGD 1 said:

*'I went for VCT because a condom burst during sexual*

*intercourse with my boyfriend whom I suspected to be having a secret relationship with somebody else'.*

All students in FGDs reported that people are influenced to go for VCT after risky sexual intercourse. Some might wish to know their status after suspecting an activity they were involved in could cause them to contract HIV. For example, one might want to know his/her status after being pierced by a sharp object that might have cut someone else or because of an accident in which other people's blood splashed over their wounds. One student from a FGD said:

*'I am scared to go for HIV testing because friends and relatives will discriminate against me. However, I will have no choice but to go for HIV testing when I fall victim to sexual abuse, when someone's blood comes into contact with my body or when a sharp object pierces me.'*

All FGDs brought up the idea that some of their fellow students might be influenced to go for VCT because of health problems. They may suffer from some unknown diseases and decide to go for VCT to find out whether they are infected with HIV or not. Students reported that they will be influenced to go for VCT when the time comes. In this case, the "time comes" when one experiences health problems in which he/she will go to find out about their status. Some students highlighted that in spite of the fact that they might be ill, they will still remain steadfast against VCT. They think that if they go for VCT to find out about their status, their health conditions might deteriorate if they learn that they are infected with HIV/AIDS. One student said:

*'I am afraid of going for HIV testing because if I find out that I am infected, I will be affected more.'*

Members of all FGDs and all interviewed people indicated that in Tanzania, some religious leaders encouraged couples to go for HIV testing before they got married. Thus, 'marriage' is one of the factors that influenced Fox University students to go for VCT. Some people may decide to go for VCT before or shortly after their marriage, especially in the case of women. One student from a FGD said:

*'I will go for VCT when I am pregnant. This will enable me to give birth to an uninfected baby. It is through VCT that Mother to Child Transmission (MTCT) can be prevented by not breastfeeding.'*

Going for HIV testing for marriage purposes and because of pregnancy was reiterated by all groups as advantageous because when people got tested, it was a sign of care for the future. This will mitigate the rampant spreading

of HIV and help people plan for the future, according to their HIV test results. One student said:

*'I will not have a choice but to go for HIV testing when I am pregnant so that I may not infect the baby if I am HIV positive.'*

Two peer educators and all FGDs were unanimous in echoing the sentiments of different organisations in encouraging people to go for VCT. A notable example that was reiterated by all groups and seems to be famous in Tanzania is the Kiswahili quotation from the President of the United Republic of Tanzania, Honourable J. Kikwete: *Tanzania bila ukimwi inawezekana* (Tanzania without HIV/AIDS is possible). The president's words have been acknowledged by the respondents as a great factor which influences people towards attaining VCT. Some government and non-government organisations which give assistance to people suffering from HIV/AIDS have also been taken as sources that influence university students and many other people to go for VCT. One peer educator specifically mentioned the African Medical and Research Foundation (AMREF), Tanzania Commission for AIDS (TACAIDS) and UNICEF as notable organisations which give assistance to HIV positive people. The assistance could be in the form of food, medication or payment of school fees for dependent children. Such help is obtainable by people who know their status through VCT. Thus, respondents made a point that the influence of organisations through advertisements and by offering to help infected people greatly influenced university students to go for VCT. One Student said:

*'Universities and colleges should offer some grants and loans to students in order to encourage them to go for VCT.'*

This view was supported by all students as a noble point that may be used to encourage them to utilize VCT centres. The role played by peer educators at the university has been recognized as a significant factor that influences students to go for VCT. HIV counselors reported that peer educators play a vital role in making students uptake VCT at Fox University. Peer educators at the university strived to promulgate HIV testing and encourage students to go for counselling so that they could live and be able to plan for the future. Some students from FGDs said that they knew of the availability of VCT services at the university campus because of peer educators. A student from FGD said:

*'The work of peer educators is very significant because some students find it easy to seek counselling, advice and strength to go for VCT from their fellow college mates and peer educators rather than to go to professional*

*counselors who they hardly know and trust.'*

One anonymous peer educator interviewed said that:  
*'The more the number of peer educators, the more information about HIV/VCT is broadcast, and the more the numbers of students who uptake VCT.'*

Accessibility, affordability, reliability and dependability are factors which were brought up by the participants from FGDs. Students had different views in regards to accessibility of VCT centres. Some argued that nearness of VCT centres make it easier for students to uptake the services at their convenience. Others claimed that if a VCT centre was located near the university; few students would go because they would not want people who know them to see them visiting the facility. One unidentified student from a FGD said:

*'If the VCT centre is located very near, like on campus as it is at Fox University, few students from that institution will go for testing because nobody likes his/her class mates to know that he/she has gone for VCT otherwise people seeing you going for VCT will jump to false judgments.'*

Students agreed that VCT centres must be scattered all over the country so that they could have a wider choice of centres to go to. One HIV counsellor at the university reported that there were very few students who went for services at the centre on campus. The VCT centre's surveillance report showed that there were very few students who used the facility on campus and centres around. One HIV counsellor claimed that the majority of people who utilized the VCT centre at Fox University were people from outside the university especially pregnant women.

### **Students' reasons for not going for VCT**

The greatest factor that was reiterated by all students which made them not want to go for VCT was fear. Students are afraid of the perceived consequences of HIV positive results, such as dying earlier, fear of losing everything that they worked for including their family and stigmatization. One student said:

*"I cannot go for VCT because I am afraid of dying and losing my family."*

Another student said:

*"There is a lot of stigmatization which is associated with HIV testing. I am afraid of people knowing that I went for HIV testing, later on to be diagnosed HIV positive, they*

*will stigmatize me."*

From all the FGDs, the major point that was raised was that it was not only the Fox University VCT centre that students were unwilling to go to, but that they just did not want to associate themselves with VCT as it brings about stigmatization. All three counselors reported that the VCT centre at the university campus was under-utilized because students were afraid of stigmatization associated with HIV testing. As a result of fear of stigmatization and unfavorable HIV testing results, students felt that living without knowing their status was better because they would not be worried about HIV/AIDS whenever they were ill. One student said:

*"It is better not to go for VCT because if you are diagnosed positive, you will live a miserable life."*

Students did not want to use VCT centres because they were not sure about confidentiality issues. They were worried that many counselors may disclose statuses of people who go for testing. One student from a group discussion said:

*"I do not trust some of the HIV counselors in VCT centres. I am afraid that they may disclose my identity and status to people and everybody will ostracize me."*

Some students showed lack of comprehensive knowledge about benefits of HIV testing. They showed a misunderstanding of benefits of VCT. They thought that once a person was contaminated with HIV/AIDS, there was no hope for living longer. Others thought that pregnant women who have the virus will definitely pass it to their unborn babies. Consequently, students thought that it was pointless to go for HIV testing because every person who is infected will die soon since there is no cure. One student said:

*"I don't see the benefits of going for VCT because every infected person will die since HIV/AIDS is not curable. I don't believe that Anti-Retroviral drugs can prolong life of an infected person."*

Another student said:

*"I don't think it is possible for an HIV positive woman to give birth to a baby who is HIV negative."*

Some students generally did not believe that VCT is one of the effective strategies of curbing the occurrence of AIDS. That is why they were not going for HIV testing. Some students were not going for VCT because of a misconception that only promiscuous people go for HIV testing. One student said:

*"I have never cheated on my boyfriend and I don't think I am infected with HIV. Hence there is no need for me to go for VCT."*

Another student said:

*"VCT is used by people with many sexual partners."*

Students thought that HIV/AIDS is only transmitted by sexual intercourse which is a misconception shared by some students. They linked VCT to sex and claimed that those who are faithful to their partners need no VCT. Some students stayed away from VCT because of peer pressure. One student said:

*"My friends and I agreed not to go for VCT."*

Students do not see potential benefits of knowing their status which is why they agree among themselves not to go for testing. The assumption here is since HIV/AIDS is incurable there is no point of knowing your status. One student said:

*"If I go for testing and then a counsellor tells me that I am HIV positive, then what? I will never go there."*

Some students stated they would like to go for HIV testing with their spouses. This issue was debatable among students. Some argued that going for VCT with your partner makes your relationship stronger because you will both know your status and what to do to live longer. Other students argued that going for VCT with your partner destroys marriages because if one is diagnosed with HIV/AIDS, the other one may reject him/her.

## DISCUSSION

HIV/AIDS is creating a host of problems that threaten to overwhelm the very fabric and structure of educational organisation, management and provision as we have traditionally known it (Kelly, 2000). There is no cure for the disease and it is only through the use of preventative measures that it can be minimized. VCT is one of the principal criteria that can be used to ease the widespread incidence of HIV/AIDS. Despite the good things that come with VCT, people are quite skeptical about knowing their status. The study found that students did not go for VCT due to fear of testing positive with HIV/AIDS. AMREF (2002) postulates that the reasons given by prospective clients for not accessing VCT services included fear of positive results and not perceiving the benefits of having an HIV test when there is no treatment. Fear associated with self-diagnosis of HIV based on mere signs and symptoms presumably

related to HIV creates anxiety, which could be a hindrance to accessing HIV testing (Mugisha et al., 2011).

It also emerged from the study that students did not go for VCT because of stigma and discrimination associated with HIV positive people. Such a finding is consistent with the observation by the Zimbabwe Ministry of Health and Child Welfare (2008) that there is massive under-utilization of VCT centres scattered all over the country because of stigmatization and discrimination. People are afraid of stigmatization and discrimination which are associated with HIV/AIDS (Keikelame et al., 2010). Thus, there is a need for influencing people to obtain VCT services. Musemwa (2011) states that factors that influence university students to obtain VCT include improving current VCT campaigns, introducing rewards for attending VCT and to introduce couple's VCT as many students are in relationships and are sexually active.

Burke et al. (2002) argued that it is expected that with education and preventative medicine available, demand for VCT services could increase VCT in Tanzania. It is assumed that more education, more counselors and free testing would encourage people to go for VCT. Nations should strive to increase AIDS awareness programmes and avail medication such as antiretrovirals (ARVs) so that people can be influenced to go for HIV testing. Musemwa (2011) asserts that factors that influenced students' decisions to go for VCT include the understanding of perceived benefits of VCT concerning reducing this impact and also comprehending the perceived severity of HIV, particularly the impact HIV would have on the families.

Similarly, Sebudde and Nangendo (2009) claim that parental guidance and support should be encouraged because it leads to access and utilization of VCT services.

Zachariah (2003) maintains that the main reason why people accept VCT was because they engaged in unprotected sex. Some people had to go for HIV testing because a condom broke while having sex. Similarly, Wang et al. (2011) contended that people who do not use condoms frequently go for VCT. Some students at Fox University reported that VCT is obtained by people who practice unsafe sex. According to Killewo (1998), 96% of people who went for VCT in Tanzania utilized the services because they wanted to know about their status. Some people were about to be married and some lost their spouses, so they went for VCT to find out about their HIV status. University students are scared of getting tested. They would rather postpone testing to a later date. Nuwaha (2002) stated that people opt for VCT at a later date. The later date could be when they are about to be married or when they are pregnant. VCT is viewed as something that is scary, but helps to stabilize marriages and childbirth (Wang et al., 2011).

Accessibility and confidentiality are the prime factors

that influence university students to go for HIV testing. Butterworth (2003) argues that easy access to VCT centres has a major impact on VCT uptake. Confidentiality is taken seriously by people when it comes to HIV testing. Many people are afraid of seeking VCT services because they feel that if their statuses are known, they will suffer discrimination from families and their community. If people doubt the confidentiality at the centre offering the services, then uptake will be very low (Sibanda, 2008). Kisesa et al. (2002) maintained that in order to promote use of VCT services, VCT sites have to be confidential, client-centred and user-friendly since the majority of clients get to know about VCT services through word of mouth. The word could be coming from peer educators who strive to promulgate VCT or from clients who might have been tested. Thus, in order to influence many clients, VCT services have to be designed to focus on the needs of clients so that they will be enthusiastic about using the services.

## Conclusion

The increasing HIV infection and AIDS problem calls for intensive and innovative approaches towards preventing further transmission of the virus. Until an effective treatment for the disease is discovered and availed to the affected individuals and communities, VCT remains the major strategy for the reduction of HIV. This study can reasonably conclude that university students' attitudes towards VCT play an indispensable role towards the attainment of the services. University students are influenced to go for VCT because of their desire to know their status, for marriage purposes, through encouragement from different stakeholders and the availability and accessibility of the services. They do not uptake VCT because of the perceived effects of an unfavorable result. Students are afraid of stigmatization, losing their friends and family members and dying soon when they learn that they are HIV positive. Some students do not want to uptake VCT because they doubt confidentiality in the centres. Some students do not uptake VCT because of peer pressure and they lack comprehensive knowledge about the benefits of knowing their status.

## RECOMMENDATIONS

University students are not going for HIV testing mainly because of fear and lack of knowledge about potential benefits of knowing their status. This study therefore recommends that sensitization about HIV/AIDS VCT be increased so that students may be able to break the bond of terror and go for HIV testing. Peer educators should be encouraged to broadcast more information about VCT to

university students. More HIV/AIDS programmes such as seminars and workshops related to VCT should be frequently done at universities. The school curriculum should also include teaching about HIV/AIDS so as to educate children about the virus at a tender age. This will encourage students to have a better conception of HIV/AIDS and have a positive attitude towards knowing their status. All tertiary institutions should have an HIV/AIDS course in their curricula. The course should be made compulsory to all students. This could be a catchment area for educating university students and that would help produce qualified teachers who are fully aware of teaching about this incurable disease.

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