

Perception and Willingness of Students towards HIV Counseling and Testing at a Higher Learning Institution in South Africa

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KEYWORDS Attitude. Fear. Barrier. Stigma. Discrimination

ABSTRACT The study focuses on perception and willingness towards HIV Counseling and Testing (HCT) amongst a sample of twenty-five third-year social work students at a higher learning institution in South Africa. The study aimed at describing the perceptions and willingness of students towards HIV counseling and testing at the institution of higher learning. A descriptive, non-probability sampling was used to select the 25 students that took part in the interview schedule and Thematic Content Analysis was used to analyze qualitative data. There were thirteen female students and twelve males aged from 19-27. The results showed that students had a negative attitude and were unwilling to undergo HIV counseling and testing due to personal fear and self-efficacy, stigma and discrimination and lack of positive support from partners, family and friends. It was concluded that such findings serve as a barrier for students towards undergoing HIV counseling and testing.

INTRODUCTION

Understanding how to prevent transmission is the first step to avoid eradicating HIV infection (United Nations 2010b). HIV Counseling and Testing (HCT) is a service provided to people who wish to know their HIV status. HCT is a process wherein individuals or couples undergo counseling to enable them to make informed choices about being tested positive for HIV. The decision to be tested must be entirely upon the couples or the individuals being tested (Shangula 2006). HCT is recognized as one of the few potentially effective and affordable methods for reducing the transmission of HIV in developing countries (Family Health International 2004). Taking an HIV test can be very traumatic and an emotionally overwhelming event for people getting tested for the first time.

According to Madiba and Mokgatle (2015), models of HIV testing, including voluntary counseling and testing (VCT), provider-initiated testing and counseling (PITC), home-based HIV counseling and testing (HBCT) and HIV self-testing, have been proposed and implemented over time, with the aim of increasing the uptake of HIV testing. Even though VCT has been the dominant model globally as argued by Bayer and Edington (2009) and Angotti (2012), its utilization remains low (WHO 2007). It seems this is more difficult for especially students as they are

more sexually active and in the state of identity versus role confusion. It is essential that the testing be accompanied by counseling (UNAIDS 2006). The counseling component of HCT provides the counselor with an opportunity to deal with the extreme emotions felt by the client as well as to assess the client's lifestyle and suggest safer behavior in the future or if the client is found to be negative to maintain their HIV negative status. The process of HCT has come under much investigation for its efficacy in changing behavior, and the financial cost to the patient and barriers that might affect its uptake (UNAIDS 2006). The HIV counseling and testing involves the process, which includes pre-test counseling, the HIV test and post-test counseling (UNAIDS 2006). A study conducted by Buzdugan et al. (2012) highlighted that students believed that there is a need for young people to go through HIV counseling and testing before getting married. HIV testing offers a forum to start a conversation about HIV preventative behaviors and increasing HIV knowledge (Njau et al. 2014). According to Meiberg et al. (2008), students believed that testing is important because HIV is not immediately causing death and that it can be possible for persons living with AIDS (PLWA) to live a normal life. Students are comfortable using HCT services irrespective of their friends' opinion and generally most of students have positive attitudes towards HCT (Museve et al. 2013).

Theoretical Framework

The Health Belief Model (HBM) is one of the most widely used theoretical frameworks, which attempt to explain and predict people's health-related behaviors. Core Assumptions and Statements of the HBM is based on the understanding that firstly, a person will take a health-related action that is, use condoms, if that person feels that a negative health condition such as HIV can be avoided. Secondly, if a person has a positive expectation that by taking a recommended action he will avoid a negative health condition (that is, testing for HIV will improve his health condition) and lastly, when he believes that he can successfully take a recommended health action. The Health Belief Model has been used to understand why people take certain health preventive behavior such as, undergoing HIV counseling and testing. According to Strecher and Rosenstock (1997), the primary assumption of the health belief model is that an individual is motivated to take positive health actions in order to avoid negative health consequences. Therefore, this model was adopted for this study.

Problem Formulation

The more people think that they might have contracted HIV, the more they acknowledge the advantages of testing and the more familiar they are with using healthcare services, the more likely it is that they will go for a test (Orisakwe et al. 2015; Meiberg et al. 2008). People who engage in sexual intercourse are aware that it is risky, hence their readiness to go for HIV testing regardless of whether it is free or not (Adekeye et al. 2011). A study conducted by Hara (2007) highlighted that students who had not been tested revealed that they did not attend VCT due to fear of stigma, especially social isolation and be subjected to gossip and rumors. They believed that they would be stigmatized by fellow students especially if they were HIV positive. According to Strauss et al. (2015), stigma is a major barrier, identified as a factor, which disables or hinders the uptake of HCT.

Unfortunately, stigmatizing attitudes toward persons with AIDS (PWAS) may reduce people's willingness to have them tested for HIV and socially isolate those with known HIV infections (Peltzer and Promtussananon 2005).

UNAIDS Global report 2010 maintains that HCT can reduce the stigma and discrimination towards people living with HIV (UNAIDS Global Report 2010). According to Nqojane et al. (2012), someone who is known to be HIV positive is accepted while still healthy but when they become sick they are socially ostracized. Due to the kind of discrimination a person living with HIV is given, an individual may find out that most youths will not have the courage to go for HIV testing, even when there are youth friendly centers situated in their universities. Furthermore, if a student does not know his/her HIV status and does not want to know because of the fear of discrimination and stigmatization, such a person is likely to spread the disease amongst other youths in the university (Ebeniro 2010).

According to Nqojane et al. (2012), it is vital that all aspects of knowledge, attitudes and behavior of young South Africans towards the pandemic HIV/AIDS are investigated. A study conducted by Molloy (2009) cited in Nqojane et al. (2012) indicates that students at tertiary institutions have good knowledge about the different modes of HIV transmission but that there are important gaps in their knowledge, this may influence not only their personal sexual behavior, but also their attitude and willingness towards HIV counseling and testing.

A study by Strauss et al. (2015) found that confidentiality is a major concern affecting HCT uptake and people expressed concerns that the HIV counselor would reveal their HIV status to partners or parents/family. Students are of the opinion that the HIV test result should be disclosed to the person tested alone. In the same vein, students do not think they would feel comfortable discussing the result of the HIV test with others if the results were positive (Presheni and Jose 2011). The perceived lack of confidentiality is a primary barrier for low testing rates for HIV testing in developing countries (Njau et al. 2014).

Some students have serious worries about the confidentiality of HCT and feared that test results would be shared with the community. In addition, some questioned the capability of the healthcare workers to do adequate testing (Meiberg et al. 2008). According to Madebwe et al. (2012), the willingness of students to undergo HCT is a challenge because of the fear pertaining to confidentiality of the results among

those who might choose to take the HIV/AIDS test on campus. Asante (2013) found that the unwillingness of students to take the HIV test could be attributed to fear, anxiety and stigma as well as discrimination associated with the counseling and testing and AIDS respectively, fear of stigma have been shown to influence young adults to become less likely to engage in preventive behaviors. Furthermore, many people believe that if they test positive it would end all their future plans, and some thought that they might commit suicide when tested HIV positive.

Meiberg et al. (2008) found that people might be too scared to have an HIV test because of the risks they might have taken in the past, other people believe that life is easier when they are ignoring the disease and the risks that are running. Furthermore, people believe that it is better to be unaware of their HIV status, so that they can just go on with their life and do not have to face the fact that they will die young. The belief that HIV could happen to some people and not themselves is a prevalent thought amongst the students (Elbeniro 2010).

Fear of being identified with HIV often keeps people from seeking to know their HIV status, discussing prevention, changing unsafe behavior, and supporting care for people living with HIV and AIDS (Meiberg et al. 2008). Within the general population and student population barriers to HIV/AIDS testing include fear of a positive result, fear of stigmatization and having a false sense of security (Madebwe et al. 2012). In Mujyambere (2012), fear was reported to be a significant barrier to testing. Fear of the negative social consequences of a positive diagnosis stigma, discrimination and rejection was highlighted as being more important than fear of death or illness. According to Harlambos and Holborn (2005), cultural and traditional practices have a role to play in the way people behave and respond to social issues in the society. Men superiority had a negative influence on the HCT seeking behavior and also felt that once their sexual partners tested for HIV, they did not need to seek HCT because their results would be the same as those of their partners (Bwambale et al. 2008).

According to Petros et al. (2006), culture and racial attitudes determine the perceptions of individuals who stigmatize those who are HIV infected or who have AIDS. In addition, Asante (2013) found that the relative impact of religion

on HIV counseling and testing has been reiterated by some religious groups, for instance, making HIV testing a pre-requisite for the celebration of marriage ceremonies, and therefore encouraging members to get tested for HIV and they believed that HCT services can facilitate behavior change. Sethosa and Peltzer (2005) found that the limitations on HIV testing is the narrow focus on individual related factors that affect the uptake of HIV counseling and testing with little attention being paid to how interpersonal factors play a role in one's willingness to test for HIV, and women in particular lack social support from family, friends and partners in matters of HIV testing. Furthermore, fear of parents' and partners' reactions is a barrier to going for HIV testing and the uncertainty of getting support for the decision to go for HIV testing often leads to the continued secrecy of HIV. According to Njau et al. (2014), students feared that their neighbors and extended families would distance themselves if they test positive, they also fear that their families may have difficulties in developing new social relationships and friends are always supportive when taking an HIV test. Students fear negative social reactions when tested positive, especially from their family and they expected that their family would not react very nicely, and that it would be very likely that they would be rejected and excluded by their family after testing positive. In addition, the students also feared the reactions of their friends. Most expected that their friends would react in a negative way, and that their friends would not like to be associated with someone who is HIV positive (Meiberg et al. 2008).

Aim of the Study

The study aimed to describe the perceptions and willingness of students towards HIV Counseling and Testing at an institution of higher learning.

Objectives of the Study

The objectives of the study were:

1. To assess the attitude and whether students go for HIV counseling and testing in the institution.
2. To determine the extent of stigma and discrimination towards HIV counseling and testing among students at a higher learning institution.

3. To assess the level of confidentiality on testing among HIV counselors at higher learning institution.
4. To gather information about the extent of personal fear and self-efficacy among students at a higher learning institution.
5. To find out about the influence of culture and religion towards HIV and AIDS counseling and testing among students at a higher learning institution.
6. To determine the extent of social support from family, friends and partners of students at a higher learning institution.

METHODOLOGY

Type of Research

In achieving the purpose of this study, a qualitative approach of making social observations or methods for examining empirical information without converting them to a numerical format was followed as asserted by Babbie (2007).

Research Design

A research design relates directly to the answering of a research question. Because research is a project that takes place over an extended period of time, it is unthinkable to embark on such an exercise without a clear plan or design, a sort of blue print (Bless et al. 2013). The researchers used a descriptive method, which according to Babbie (2011), serves the purpose to describe situations and events through carefully observations since it is typically more precise than casual ones. The descriptive design was directed towards obtaining information on the perception and willingness of students towards HIV counseling and testing at higher learning institution in South Africa.

Population and Sampling

According to Bless et al. (2013), a sample is a subset of the population. The researchers used the purposive sampling technique because the researchers had predetermined issues to find out. The sample comprised of 25 social work students at a higher learning institution who are doing third level, both male and females. According to Babbie and Mouton (2011) the, pur-

posive sampling technique is based on the researcher's judgment, purpose of the study, knowledge of the population, its element and the nature of the research aims.

Data Collection Method

The researchers used an interview schedule as an instrument for collecting data and it consisted of open-ended questions so as to allow the participants to express themselves freely. According to Evans and Rooney (2011), open-ended questions allow the respondent to provide his or her answer in his or her own words.

Data Analysis Method

Thematic Content Analysis was used to analyze qualitative data. Data was analyzed on the bases of themes or categories in relation to the research objectives. The researchers followed Tesch's method of analysis. According to Hesse-Biber and Leavy (2010), Tesch's method of analysis includes the following:

1. Read carefully through all the transcripts to get a sense of the whole.
2. Pick any transcript file and read through the questionnaire on what the respondents thought they were.
3. Read the completed questionnaire and identify major categories.

FINDINGS AND DISCUSSION

The findings are presented according to themes:

Reasons for Testing

The respondents consisted of 13 females and 12 males aged 19-27 years. The researchers found out that social work students were not certain about their health status after several occasions of having unprotected sex and other students were encouraged by the campaigns that were held in the institution to go for counseling and testing this was expressed in the following, "*Yes, I wanted to know my status so that I can practice non-risky behavior.*" This is similar to a study conducted by Ikechebelu et al. (2006) in Nigeria, which found that the majority of students who went for HIV testing just wanted to know their status.

Reasons for Refusal to Test

Social work students stated that the reason of failing to undergo testing was due to the fear of being tested positive, some stated that they do not have sexual partners around the campus so they did not see the importance of undergoing HIV counseling and testing. One of the comments from the participant was, *"No I never tested because I don't believe that it is of any benefit to my life at this time of stage in my life, handling the pressure is not a priority since I have enough pressure on my academics."* According to a study conducted by Foster (2010), cited in Nqojane et al. (2012) who stated that fear is likely to prevent some people from attending HCT.

Attitude of Students Towards HIV Counseling and Testing

Social work students who had a positive attitude towards HIV counseling and testing (HCT) believed that students have a positive attitude due to the high number of students who go for HIV counseling and testing at the health center and some stated that they have witnessed students in long queues during the testing campaigns held at the institution. One of the participant commented, *"Yes they do, I see it when the health center is hosting events, they go in numbers for testing."* According to a study conducted by Meiberg et al. (2008), the more people think that they might have contracted HIV, the more they acknowledge the advantages of testing and the more familiar they are with using healthcare services, the more likely it is that they will go for a test. This implies that the social work students see a need of testing since they think that they might have contracted HIV and acknowledge the advantages of testing. However, this level of awareness did not necessarily reflect the understanding of how HIV can be transmitted or prevented. Even though students were well informed about HIV, there was a knowledge gap on transmission and protective practices and this was confirmed by Sisay et al. (2014). Social work students indicated that students have a negative attitude towards HIV Counseling and Testing because they were told by the staff that only few students take the initiative to go and get tested because of different reasons. This indicates that students have a negative attitude

towards HCT in the institution because of the uncertainty of their confidentiality towards their status or results and professionalism in the institution. One of the comments from a participant was, *"No, I think students have a negative attitude toward HIV Counseling and Testing because they keep on saying that counseling is not conducted in a good way"*. Another comment was, *"No, majority have negative attitude towards HIV Counseling and testing, because they believe that if you know your status you will get stressed and feel depressed now and then."* Nguyen et al. (2008) reviewed literature on barriers to VCT among pregnant woman and found the most important barrier to use the services was fear towards the stigma attached to the interpretation by the community and discrimination.

Stigma and Discrimination

Majority of social work students believed that there is still stigma and discrimination attached to HIV counseling and testing because they believed that those who undergo HCT are living a careless life, such as engaging in unsafe sexual activities with multiple partners. One of the participants said, *"Yes, students still believe that those who go for HIV counseling and testing are those ones who practice unsafe sex always"*. Another reason was, *"If only people with HIV/AIDS were not treated badly I would go for testing but I am afraid that tomorrow it will be me"*. This is similar to a study conducted by Nqojane et al. (2012). Someone who is known to be HIV positive is accepted while still healthy, but when they become sick they are socially ostracized. The results showed that students might be afraid to go for HCT since they are afraid of being socially excluded if they find themselves positive.

Social work students believed that stigma and discrimination is a serious issue that discourages students from undergoing HIV Counseling and Testing. One of the comments from a participant was, *"I think students do not want to associate themselves with a person who does testing often as they think that person suspects if he/she is HIV positive."* A study conducted by Strauss et al. (2015) found out that stigma is a major barrier, identified as a factor, which disables or hinders the uptake of HCT.

Views of Students about Confidentiality

Social work students stated that some health professionals are friends with students therefore they believe that health professionals will divulge the information of students who tested positive to other students. One of the participant commented, *"Yes, I am afraid as well I know that health professionals as they are so called, they talk too much, do not act professional and I think it would be better if we test our self alone in our private place."* The findings in the study are similar to a study conducted by Meiberg et al. (2008) wherein their results revealed that students have serious worries about the confidentiality of HCT results and feared that test results would be shared with the community. These results serve as a barrier that prevents students from taking an initiative to undergo HIV counseling and testing.

Personal Fear and Self-efficacy

Social work students reported that students fear undergoing HIV counseling and testing because if they found themselves positive they will stress a lot and it will affect their academic performance since they will be thinking that they are wasting their time about studying because anyway they are going to die. One of the participant comments was, *"Yes, because some sleep around or some have multi partners or because of their partners who have multiple partners this make them no to go for HIV counseling and testing."* Another reason was, *"Yes, one of the reasons is the fact that if you find yourself being positive what are you going to do, asking yourself many questions, for example, now am I going to tell my parents now that my life need to change."* This is similar to a study conducted by Asante (2013) where people believe that if they test positive it would end all their future plans, and some thought that they might commit suicide when tested HIV positive.

Cultural and Religious Beliefs

Social work students believe that HIV/AIDS is a curse or punishment of the gods for wrongdoing, so they do not believe in HCT although some cultures support HCT because they believe that through HIV counseling and testing it is a way that they can know their status and able

to take actions as early as possible. One of the participant comment was, *"In my culture there is a believe that HIV/AIDS can be healed culturally so, moreover they do not believe in HIV counseling and testing, they only believe in drinking traditional medicine of which can result in spreading of AIDS as they are not treating it well."* According to a study conducted by Haralambos and Holborn (2005), it was found that cultural and traditional practices have a role to play in the way people behave and respond to social issues in the society.

Although some social work students stated that their religious belief promotes and encourages people to undergo HIV counseling and testing so that if they find themselves positive preventive majors will be taken early. One of the participant comments was, *"Testing should be condoned, my religion holds the belief that people should take care of themselves. So knowing the status is essential for an individual to live a healthy lifestyle."* This was asserted by Asante (2013) who revealed that relative impact of religion on HIV counseling and testing has been reiterated by some religious groups. For instance, making HIV testing a pre-requisite for the celebration of marriage ceremonies, and therefore encouraging members to get tested for HIV and they believed that HCT services can facilitate behavior change.

Social Support from Family, Friends and Partners of Students

Social work students stated that their family, friends and partners react positively when they inform them about undergoing HIV counseling and testing because they believed that prevention is better than cure and they think it is a good thing so that an individual will know his or her status and be able to protect themselves and those around them. One of the participants asserted that, *"They support testing and counseling, they encourage me and tell me that irrespective of the results I get, I am still their best and they will always be there when I need them."* A similar response was found in a study by Fako (2006) cited in Hara (2007) where students who had quality interaction with family, which included emotional, psychological bonding and sex was discussed with family members were more willing to get tested.

Some social work students stated that they lack support from their friends, partners and families because if they tell them that they want to go for HCT they react in an unusual way, sometimes they ignore them and end up as if they are talking alone especially partners go to an extent of telling them to go for HCT alone without bothering them. This was supported by one of the participants, “*They become shocked because they believe that once a person thinks of HIV testing there is something wrong about that person or maybe the person has practiced unsafe sex.*” This was similar to a study conducted by Meiberg et al. (2008) where students fear negative social reactions when tested positive, especially from their family and they expected that their family would not react very nicely, and that it would be very likely that they would be rejected and excluded by their family after testing positive. In addition, the students also feared the reactions of their friends. Most expected that their friends would react in a negative way, and that their friends would not like to be associated with someone who is HIV positive.

Undergoing Counseling and Testing with Partners

Social work students stated that they never tested with their partners because they were not supportive and refused to go and test with them as they use their partner’s results to identify if they are HIV negative or positive. Some said their partners are not even dreaming of being tested soon. One of the participant comments was, “*No, the time I got tested I was alone my partner refused to go with me.*” Another comment was, “*No, my partner tested and I haven’t tested as I use my partner’s results to determine my results.*” This is similar to a study conducted by Bwambale et al. (2008), where the findings revealed that men superiority had a negative influence on the HCT seeking behavior and also felt that once their sexual partners tested for HIV, they did not need to seek HCT because their results would be the same as those of their partners.

CONCLUSION

Research on the perception and willingness of students towards HIV counseling and testing among third-year social work students at

higher learning institution in South Africa is ongoing. Social work students’ perception towards HIV counseling and testing was negative, which led to the low rate of students undergoing HIV counseling and testing. Overall, the findings revealed that stigma and discrimination in the higher learning institution is likely to have a negative impact on the willingness of students to undergo HIV counseling and testing. However, personal fear and uncertainty of confidentiality is also likely to have an impact on the perception of students towards HIV counseling and testing. It appears that students are aware of the HIV counseling and testing but unwilling to undergo HCT with their sexual partners. It can be concluded that the HIV counseling and testing is likely not to be taken by students due to the perceptions they have.

REFERENCES

- Adekeye O, Ebiai A, Adeusi SO 2011. Psycho-cultural variables predicting attitude of students’ towards HIV counseling and testing in selected tertiary institutions in Lagos state, Nigeria. *Journal of Research in National Development*, 9(1): 431-440.
- Angotti N 2012. Testing differences: The implementation of western HIV testing norms in sub-Saharan Africa. *Cult Health Sex*, 14(4): 365-378.
- Asante KO 2013. HIV/AIDS knowledge and uptake of HIV counselling and testing among undergraduate private university students in Accra, Ghana. *Reproductive Health*, 10: 1-8. doi:10.1186/1747-4755-10-17
- Babbie E 2007. *The Practice of Social Science Research*. 11th Edition. USA: Sage Publications.
- Babbie E, Mouton J 2011. *The Practice of Social Science Research*. 12th Edition. South Africa: Oxford University Press.
- Bayer R, Edington C 2009. HIV testing, human rights, and global AIDS policy: Exceptionalism and its discontents. *J Health Polit Policy Law*, 34(3): 301-323.
- Bless C, Hangson-Smith C, Sithole LS 2013. *Fundamentals of Social Research Methods: An African Perspective*. 5th Edition. Zambia: Lusaka.
- Buzdugan R, Watadzaushe C, Dirawo J, Mundida O, Langhaug L, Willis N et al. 2012. Positive attitudes to pediatric HIV testing: Findings from a nationally representative survey from Zimbabwe. *PLoS ONE*, 7(12): e53213. doi:10.1371/journal.pone.0053213
- Bwambale FM, Ssali SN, Byaruhanga S, Kalyango JN, Karamagi C 2008. Voluntary counselling and testing among men in Western Uganda: Implications for HIV prevention. *BMC Public Health*, 8: 1-8. doi:10.1186/1471-2458-8-263
- Ebeniro CD 2010. Knowledge and beliefs about HIV/AIDS among male and female students in Nigerian Universities. *Journal of Comparative Research in Anthropology and Sociology*, 1(1): 121-131.

- Evans AN, Rooney BJ 2011. *Methods in Psychological Research*. 2nd Edition. London: Sage Publications.
- Fako T 2006. Social and psychological factors associated with willingness to test for HIV infection among young people in Botswana. *AIDS Care*, 18(3): 201-207.
- Family Health International 2004. *Adolescents Orphaned and Vulnerable in Time of AIDS*. YOUTH-NET, USAID.
- Foster C 2010. *An Exploration of Voluntary Counseling and Testing: A Port Elizabeth Based Study*. Master's Thesis, Unpublished. Port Elizabeth: NMMU.
- Hara RJ 2007. *Perceptions and Attitudes of First Year Student Nurses Towards Voluntary HIV Counseling and Testing at the Western Cape College of Nursing*. A Mini-thesis Submitted in Partial Fulfillment of the Requirement for the Degree of Master in Public Health. Faculty of Health Sciences. South Africa: University of the Western Cape.
- Haralambos M, Holborn M 2005. *Sociology- Themes and Perspectives*. Oxford, England: Oxford University Press.
- Hesse-Biber SN, Leavy P 2010. *Handbook of Emergent Methods*. United States of America: Guilford Press.
- Ikechebelu IJ, Udigwe GO, Ikechebelu N, Imoh LC 2006. The knowledge, attitude and practice of voluntary counseling and testing for HIV/AIDS among undergraduates in a polytechnic in south-east Nigeria. *Nigeria Journal of Medicine*, 15(3): 245-249.
- Madebwe V, Madebwe C, Pazvakavambwa LM, Kudakwashe CR 2012. Taking the test: Voluntary Counseling and Testing (VCT) among midlands state university students. *Education Research Journal*, 2(1): 7-3.
- Madiba S, Mokgatle M 2015. "Students want HIV testing in schools" a formative evaluation of the acceptability of HIV testing and counselling at schools in Gauteng and North West provinces in South Africa. *BMC Public Health*, 15(388): 1-9.
- Njau B, Ostermann J, Brown D, Mühlbacher A, Reddy E, Thielman N 2014. HIV testing preferences in Tanzania: A qualitative exploration of the importance of confidentiality, accessibility, and quality of service. *BMC Public Health*, 14(838): 1-9.
- Meiberg AE, Bos AER, Onya HE, Schaalma HP 2008. Fear of stigmatization as barrier to voluntary counselling and testing. *East African Journal of Public Health*, 5(2): 49-54.
- Molloy SB 2009. HIV Knowledge in Nicaraguan Students of Nursing. From <<http://gradworks.umi.com/33/62/3362284.html>> (Retrieved on 31 October 2015).
- Mujyambere P 2012. *Barriers to HIV Voluntary Counseling and Testing among Refugees and Asylum Seekers from African Great Lakes Region Living in Durban*. Master Degree, Unpublished. Cape Town: University of Stellenbosch.
- Museve JG, Gongera E, Labongo CL 2013. An analysis of uptake in HIV voluntary counselling and testing services: Case of Mount Kenya University Students. *Kenya Public Policy and Administration Research*, 3(4): 16-32.
- Njau B, Ostermann J, Brown D, Mühlbacher A, Reddy E, Thielman N 2014. HIV testing preferences in Tanzania: A qualitative exploration of the importance of confidentiality, accessibility, and quality of service. *BMC Public Health* 2014, 14(838): 1-9.
- Nqojane V, Tebele C, Nel K, Zezi M 2012. Perceptions towards HIV and AIDS, condom use and Voluntary Counseling and Testing (VCT) amongst students at a previously disadvantaged South African tertiary institution. *Journal of Social Sciences*, 37(1): 1-7.
- Nguyen TA, Oosterhoff P, Ngoc YP, Wright P, Hardon A 2008. Barriers to access prevention of mother-to-child transmission for HIV positive women in a well-resourced setting in Vietnam. *AIDS Research and Therapy*, 5: 1-7. doi:10.1186/1742-6405-5-7
- Orisakwe E, Ochiogu S, Ocholla P 2015. Perceptions of the HIV counselling and testing programme by patients in a rural regional hospital in South Africa. *South African Family Practice*, 1(1): 1-7.
- Peltzer K, Promtussananon S 2005. HIV/AIDS knowledge and sexual behaviour among Junior Secondary School students in South Africa. *Journal of Social Sciences*, 1(1): 1-8.
- Petros G, Airhihenbuwa CO, Simbayi L, Ramlagan S, Brown B 2006. HIV/AIDS and 'othering' in South Africa: The blame goes on. *Culture, Health and Sexuality*, 8(1): 67-77.
- Presheeni R, Jose F 2011. HIV/AIDS knowledge, behaviour and beliefs among South African university students. *SAHARA Journal of Social Aspect of HIV/AIDS Research Alliance*, 8(4): 166-170.
- Sethosa E, Peltzer K 2005. Evaluation of HIV counselling and testing, self-disclosure, social support and sexual behavior change among a rural sample of HIV reactive patients in South Africa. *Curationis*, 28(1): 29-41.
- Shangula MN 2006. *Factors Affecting Voluntary Counselling and HIV Testing Among Pregnant Woman in Tsumeb District, Oshikoto Region, Namibia*. Thesis submitted in Partial Fulfillment of a Masters of Public Health Degree, Unpublished. South Africa: University of the Western Cape.
- Sisay S, Erku W, Medhin G, Woldeyohannes D 2014. Perception of high school students on risk for acquiring HIV and utilization of Voluntary Counseling and Testing (VCT) service for HIV in Debre-berhan Town, Ethiopia: A quantitative cross-sectional study. *BMC Research Notes*, 7(518): 1-10.
- Strauss M, Rhodes B, George G 2015. A qualitative analysis of the barriers and facilitators of HIV counselling and testing perceived by adolescents in South Africa. *BMC Health Services Research*, 15(250): 1-12.
- Strecher VJ, Rosenstock IM 1997. The Health Belief Model. In: KL Glanz, FM, Rimer, BK (Eds.), *Health Behavior and Health Education: Theory, Research and Practice*. 2nd Edition. San Francisco: Jossey-Bass.
- United Nations. 2010b. *The Millennium Development Goals Report*, pp. 41-46.
- UNAIDS 2006. Report on the Global AIDS Epidemic. From <<http://www.unaids.org>> (Retrieved on 15 June 2015).
- WHO 2007. *Guidance on Provider-Initiated HIV Testing and Counselling in Health Facilities*. Geneva, Switzerland: World Health Organization.