Global Journal of
Health Science
(GJHS)

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IPRJB
INTERNATIONAL PEER REVIEWED JOURNAL AND BOOK PUBLISHING

Global Journal of Health Sciences
ISSN 2519-0210 (Online)
Vol.1, Issue 1 No.1, pp 27- 41, 2016

www.iprjb.org

Factors influencing utilization of Voluntary Counseling and Testing Services among Kenya Ports Authority employees in Mombasa, Kenya

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ABSTRACT

Purpose: HIV and AIDS remains to be a problem of public health importance worldwide. About 36.9 million people were living with HIV and AIDS by the end of 2014. The greatest burden of the epidemic with about 25.8 million people living with HIV was in Sub-Saharan Africa which also accounted for 66% of the global total of new HIV infections. In Kenya, HIV burden stands at 1.6 million. Early access to testing and treatment would facilitate containing the pandemic and thus achieving 90-90-90 targets by 2020 and end AIDS epidemic by 2030. Voluntary Counseling and Testing (VCT) aids stigma reduction and also allows for early uptake of services such as counseling for positive living, social support, legal advice and future planning. The objective of this study was to determine factors influencing utilization of voluntary counseling and testing services among Kenya Ports Authority employees in Mombasa.

Methodology: The study participants were drawn from the 32 departments using probability proportion to size sampling method (PPS);respondents within departments were randomly selected. Quantitative data was collected using semi-structured questionnaires. Data was analyzed using the Statistical Package for Social Sciences Version 16 (SPSS 16). Descriptive statistics were used to analyze quantitative data. Regression andcorrelation analysis were used to analyze the associations between dependent and independent variables.

Results: The prevalence of VCT utilization among the KPA, Mombasaemployees was 91.2%. Utilization of VCT services by the employees was supported by marital status, education level and religion, among other factors. Employees were keen to know their status but the majority felt uncomfortable being tested for HIV by someone they knew. Although majority had taken the HIV test more than once, some still declined due to no apparent reason, felt it not necessary, feared positive results or thought there was no cure for AIDS. However, those who tested received feedback promptly and communicated the test results to their partners, although majority did not

accompany them. Fewer females disclosed their HIV results compared to males. Regression analysis on data from 295 respondents indicated a positive relationship between the factors analyzed and VCT uptake ($R^2 = 0.600$). Being married was significantly positively associated with VCT utilization among employees (p=0.015), so was being accompanied by a partner (p=0.017), and communication of results (p=0.034). The respondents agreed that ARVs improved immunity and made one stronger. More male than female respondents used condoms during sex and also more male than female respondents disclosed their HIV status. The study further indicated that there was a marginal relationship between VCT utilization and the aspect of being denied recruitment or promotion because of HIV status (odds ratio at 95% CI: 0.982, 2.886; p=0.057).

Unique contribution to practice and policy: From the study findings, employees were keen to know their status but the majority felt uncomfortable being tested for HIV by someone they knew and thus a significant number attended VCT outside KPA. A program to help support those who attend VCT outside KPA should be implemented so that such facilities do not run short of VCT program requirements. Although majority had taken the HIV test more than once, those who declined should be encouraged to take the test in order to know their status for prevention and early treatment. Since more male than female respondents disclosed their HIV status and more male than female respondents used condoms during sex, more innovative methods should be devised to encourage female employees to disclose their status and use condom. Special attention should be given to married employees and females

Key words: *HIV, Voluntary counseling and testing (VCT), Utilization, Kenya Ports Authority*

1.0 INTRODUCTION

Statistics on HIV by UNAIDS indicate that by2014, approximately 36.9 million people were living with HIV that causes AIDS, up from 35 million in the preceding year (UNAIDS, 2015). In 2014, about 2 million people became newly infected with HIV and 1.5 million died of AIDS related causes worldwide (UNAIDS, 2015). About half of the 35 million people who were living with the virus did not know their status, therefore they were likely to pass the virus to others (UNAIDS, 2014). Early access to testing and treatment would facilitate containing the pandemic. Medical evidence showed that people under treatment were unlikely to pass on the virus to partners (UNAIDS, 2014). Twenty five point eight million (25.8 million) people were living with HIV in sub-Saharan Africa who accounted for 66 percent of the global total of new HIV infections (UNAIDS, 2014). In 2012 alone, approximately 1.6 million people in the region became newly infected and approximately 1.2 million adults and children died of AIDS, thus accounting for 75 percent of the world's AIDS deaths in 2012 (UNAIDS, 2013).

Kenya is in the fourth position in terms of HIV epidemic in the world with 1.6 million people living with HIV (UNAIDS, 2013).Heterosexual exposure is the primary mode of transmission in Sub-Saharan Africa and accountsfor 80 percent of new infections globally (UNAIDS, 2010). The first HIV case was diagnosed in Kenya in 1984 and by 2012, an estimated 1.6 million people were living with HIV, with approximately 57,000 people dying from AIDS-related illnesses (UNAIDS, 2013). Kenya has both a generalised HIV infectionaffecting all sections of society and a concentrated epidemic among key populations who include sex workers and their clients, men having sex with men, and people who inject drugs, among others (KAIS, 2012). Kenya declared

HIV a national disaster in 1999 when only three voluntary counseling and testing sites were operating (NASCOP, 2011). VCT centers rose to more than 1,000 in 2010 and 4,438 health facilities offered the services (NASCOP, 2011). In 2011, 65 percent of all health facilities, including more than 78 percent of public sector facilities, offered HIV counseling and testing services (NACC & NASCOP, 2012). HIV testing and counseling services are offered free of charge at all public health facilities (NACC & NASCOP, 2012).

According to UNAIDS (2014), AIDS epidemic is expected to come to an end by 2030. This can be achieved if HIV testing is accessed by all. In Kenya, the levels of HIV testing have recently increased to 72 percent of adults aged 15 to 64 having been tested (KAIS, 2012). However, this is far less than the UNAIDS set "90-90-90" targets; aiming to diagnose 90 percent of all HIV positive people, provide antiretroviral therapy to 90 percent of those diagnosed and achieve undetectable HIV RNA for 90 percent of those on treatment by 2020. Over half of (53%) of HIV-infected persons in Kenya still do not know they are HIV infected because they have never been tested for HIV or had been tested but did not receive the results, or believe to be HIVuninfected based on their last HIV test results (KAIS, 2012). According to KNBS (2015), testing especially among men is low. In 2014, only 45percent men were tested for HIV and received the results compared to over 53 percent women.

Voluntary Counselling and Testing (VCT) was identified by KNASP III as a cornerstone of Kenya's efforts to address HIV (NACC & NASCOP, 2012). VCT facilitates early referral to care and support services, including access to antiretroviral therapy, and was an important linkage with Prevention of Mother to Child Transmission (PMTCT), Sexually Transmitted Infection (STI), and Opportunistic Infection (OI) services (NASCOP, 2012). It also assists in stigma reduction and allows for early uptake of services such as social support, legal advice, counselling for positive living and future planning (NASCOP, 2010). Thus effective HIV testing strategies were noted as a critical strategy for the UNAIDS's goal of "getting to zero" and achieving an "AIDS free generation" (WHO, 2014).The VCT initiative was important because it also promoted and maintained behavior change (Fonner*et al.*, 2012).

The target group for this study was the employees of Kenya Ports Authority (KPA) in Mombasa County with a workforce of more than 7000 employees who are mostly male. According to International Transport workers' Federation (ITF) (2011) report, most of the 34 million people living with HIV (PLHIV) around the world were workers, and transport was one of the most heavily affected sectors. Most port workers are non-mobile transport workers butcome into daily contact with many mobile workers such as truckers, and seafarers, and thus have increased the risk of contracting HIV. Studies in some port cities such as Vancouver in Canada, Tema in Ghana, Mumbai in India and Mombasa in Kenya were found to have higher prevalence rates of HIV than the national population (ITF, 2011).By mid 1990s, approximately 27 percent of all employees in KPA were HIV positive and about 12 staff and/or dependants were dying each week (ITF, 2011).This led to loss of skilled and experienced manpower due to deaths, loss of man-hours due to prolonged illnesses, absenteeism and hence reduced production. KPA embarked on HIV education and established an HIV and AIDS policy in 2009 (ITF, 2011). The policy was to guide in prevention, care, treatment and support for the infected and affected employees, including VCT services. However, there is no data on how port workers are utilizing the VCT services.The

objective of the study was to determine factors influencing utilization uptake of voluntary counseling and testing services among Kenya Ports Authority employees in Mombasa.

2.0 MATERIALS AND METHODS

A descriptive cross-sectional study design was carried out. The study was conducted at Kenya Port Authority Mombasa with a population of 6690 employees aged between 20 and over 49 years. The study population included all employees working at the KPAMombasa, at the time of the study. The sample size was calculated using Cochran (1977) method. Probability Proportional to Size (PPS) sampling was employed in selection of study respondents. A list of all employees in KPA Mombasa was sought from the General Manager, human resource and administration and formed the sampling frame. The list was arranged according to the 8 divisions with 32 departments and a target population of 6690 employees. A calculated sample size of 385 was proportionately distributed to each of the 32 departments depending on the population of employees. Respondents within each department were then randomly selected.

Quantitative data was collected using semi-structured questionnaires which were administered to the employees by the researcher and through the administrators for the employees who were on night shift. The questionnaire was in both English and Kiswahili since not all employees were conversant with English. Before the actual data collection, the questionnaire was pre-tested on 10 employees of Kenya Maritime Authority who were not involved in the study but also in the transport industry like KPA, to ensure the validity and reliability of the data. The result was used to ascertain homogeneity and clarity of the questions. The questionnaire was also administered at two different times to check for consistency in response.

Data generated from the questionnaires was coded and analyzed using the Statistical Package for Social Sciences Version 16 (SPSS 16). Descriptive statistics were used to analyze quantitative data while regression and correlation analysis was used to analyze associations between independent and dependent variables. Level of significance was fixed at p=0.05, with a 95% confidence interval. Findings were presented using frequency tables as percentages.

Ethical approval was obtained from the Ethical Review Committee at Pwani University. The nature and scope of the study was disclosed fully to respondents before they provided their informed consent verbally. Participation was on voluntary basis and the respondents were free to withdraw from the study at any time without giving notice and were not to be penalized. The respondents were assured of confidentiality and privacy during research. Permission to conduct this study was obtained from Kenya Ports Authority, Jomo Kenyatta University of Agriculture and Technology, and Kenya Maritime Authority.

3.0 RESULTS

3.1 Socio-demographic characteristics and Response rate of KPA-Mombasa employees

Out of 385 respondents who had been recruited into the study 295 respondents returned adequately completed the questionnaires. This represented 76.6 percent response rate. Male participants comprised of 60.3 percent (178/295) while female were 39.7 percent (117/295). Most (40%) of the respondents were aged between 40 - 49 years and 75.6 percent were married. Approximately thirty

seven percent (36.9%) of respondents had secondary education and were affiliated to the Christian religion (75.9%: 224) as indicated in Table 1.

Table1. Socio-demographic characteristics and Response rate of KPA-Mombasa employees

Socio-demographic characteristics		
Age	**Frequency (n)**	**Percentage (%)**
20-29	25	8.5
30-39	91	30.9
40-49	118	40.0
49& Above	61	20.7
Marital status		
Single	52	17.6
Married	223	75.6
Divorced	09	03.1
Widow/Widower	11	03.7
Education level		
Primary	21	07.1
Secondary	110	37.3
Middle level	107	36.3
University	57	19.3
Religion		
Muslim	57	19.3
Christian	224	75.9
Others	14	04.8

3.2 Reasons for not utilizing VCT services among the study respondents

The main reasons listed for not taking the HIV test included fear of positive results (19.2%), not seeing it necessary (23.1%) while 46.2 percent of the respondents did not respond to this question (Table 2).

Table 2: Reasons for not utilizing VCT services among study respondents

Reason	Frequency (n)	Percentage (%)
No cure for HIV	02	7.7
Fear of positive results	05	19.2
It is not necessary	06	23.1
My partner was unwilling to accompany	01	3.8
No answer	12	46.2
Total	**26**	**100**

3.3 Proportion of employees utilizing VCT services andassociated factors

Majority (91.2%) of the respondents had ever taken an HIV test with more than 70 percent taking it more than once. However, majority (61.8%) of the respondents took the HIV test outside KPA facility with over 70 percent having their HIV test results communicated back to them. Even though 82.2 percent of the respondents disclosed their HIV test results to their partners, only 37.9 percent accompanied their partners to VCT centre. More males (62.4 %) than females (37.6%) disclosed their status. More than sixty percent (62.8%) of the respondents reported change in their lives after taking HIV test. Majority of the respondents (75.3) reported having used condom but fewer female (33.1%) compared to men (66.9%) used condom despite of knowing the benefits. However, only slightly above half (54.3%) of the respondents conceded that they could be at risk of HIV infection (Table 3).

Table 3: Proportion of employees who utilize VCT services and associated factors

Variable (Factor)	Response	VCT Utilization (n)	Percentage (%) number of respondents	Odds ratio (95% CI)	PValue
Proportion of respondents ever had an HIV test	1.YES 2. NO	269 26	91.2 8.8	1.076(0.476, 2.432)	0.859
Frequency of VCT	1.Once 2. More than once	65 204	24.2 75.8	1.12(0.63,1.00)	0.698
Place where test was done	1.VCT in KPA 2.VCT outside KPA 3.While admitted hospital	72 160 37	26.8 61.8 13.8	0.742(0.430, 1.280)	0.283
Partner accompanied during test	1.YES 2. NO	102 167	37.9 62.2	1.872(1.116, 3.139)	0.017
Change in life style after test	1.YES 2. NO	169 100	62.8 37.2	1.433(0.868, 2.367)	0.159
Disclosure of results to partner	1.YES 2. NO	221 48	82.2 17.8	1.965(1.047, 3.688)	0.034
Condom use	1.YES 2. NO	222 73	75.25 24.75	1.975(1.069, 3.762)	0.039
Being at the risk of HIV infection	1.YES 2. NO	146 149	54.3 45.7	0.940 (0.589, 1.499)	0.794

3.4 Factors influencing utilization of Voluntary Counseling and Testing Services

Majority (84.8%) of the respondents knew someone who was living with HIV at the workplace and on ARVs. Majority (85.4%) of the respondents and also acknowledged that ARVs restored the immunity and prolonged life (85.4%). More than seventy percent (72.5%) of respondents also indicated that they will be unhappy if their partner tested HIV positive. Majority (86.8%) would still take the HIV test even if they were faithful. Even though majority (87.8%) indicated that the VCT sessions were confidential and private (87.8%), and adequate information about HIV infection, transmission and prevention was provided during the session (85.1%), only a few (36.6%) were comfortable being tested by someone they knew. Majority (76.6%) of the respondents indicated that there was an HIV/AIDS program at the workplace (76.6%) and over sixty percent (61.4%) stating that no employee had been screened (45.4%) or denied recruitment or promotion due to HIV status (61.4%). The employer recognized the rights of HIV employees (75.9%) and majority (92.9%) of the respondents indicated that AIDS patients should not be isolated from the society (92.9%) (Table 4).

Table 4: Factors influencing utilization VCT servicesamong KPA employees

Variable (Factor)	Response	VCT utilization (n)	Percentage (%) number of respondents
Knowledge of someone living with HIV at your work place	1.YES 2. NO	250 45	84.8 15.3
Reaction if your partner tested HIV positive	1.Happy 2.Unhappy 3.Do not know	09 214 72	03.1 72.5 24.4
Employer recognition of the rights of the employees living with HIV	1.YES 2.NO 3.Not sure	224 09 62	75.9 3.1 21.0
Denial of recruitment or promotion because of HIV status	1.YES 2.NO 3.Do not know	11 181 103	03.7 61.4 34.9
Whether VCT is done in a private session where strict confidentiality is assured	1.YES 2.NO	259 36	87.8 12.2
Whether adequate information about HIV infection, transmission and prevention provided during the session	1.YES 2.NO	251 44	85.1 14.9
Whether AIDS patient should be isolated from the society	1.YES 2.NO 3.Do not know	13 274 08	04.4 92.9 2.7

4.0 DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

4.1 Discussion

More male respondents participated in the study compared to females. This was expected because majority of the employees in KPA are males. The study indicated that majority of the employees were married, Christians and had secondary school level of education.Over ninety percent (91.2%) of the respondents who utilized the VCT services were mostly male. In most African countries men control resources which may be important in HIV prevention and care and they are the main decision makers, hence by men utilizing the VCT they may influence women directly or indirectly in utilizing the service (Demissie *et al.,* 2009). Majority of the respondents had middle level (post-secondary) education. Education level may also influence the utilization of VCT services. For instance, the study done in Mwanza Tanzania, indicated that utilization of VCT services increased with the level of education (Wringe *et al.,* 2008). Individuals with higher levels of education were more knowledgeable on VCT and HIV hence more confident to take the HIV test and also had adequate skills on prevention of HIV. Majority (of the respondents were either Christians (75.9%) or Muslims (19.3%), which could have influenced their utilization of VCT services. Religious beliefs significantly shape individuals' outlooks on living with HIV and have been cited by PLHIV as major strategies for coping with HIV/AIDS (Makoae *et al.,* 2008). Most (31.9%) of the respondents took the HIV test within a year while only a few (8.6%) could not remember when they took the test. More than sixty eight percent (68.8%) of the respondents re-tested for HIV, with an aim of knowing their status (61.7%). Other reasons given included poor health, blood donation, planning for future, unprotected sex with untrustworthy partners, influence from friends and influence from partners and media. According to CDC (2010), people should be tested at least once and those at high risk of infection, for instance those engaging in unprotected sex, having many partners, men having sex with men (MSM) and those injecting drugs and sharing needles should get tested for HIV more often. Testing for HIV at least once in a year could prevent 5% of new infections, even if there will be no behavior change because of early initiation of ART, or up to 18% if risky behaviour is halved (Long *et al.*, 2014). In this study, majority of the respondents were motivated to take the HIV test so as to know their status. Another study conducted among 520 fishermen at Dunga, Usoma and Asat beaches in Kenyaindicated that majority of the fishermen (58.8%) utilized VCT because they wanted to plan for the future (Okiriamu *et al.*, 2013). However, in a study conducted in Shenyang, China, 75.2% of the respondents indicated that recent knowledge on HIV motivated them to take the HIV test (Zhou *et al.*, 2009).

The main reasons for declining the HIV test were; the test being considered not necessary and fear of positive results which contributed to 84.9%. A routine opt-out HIV testing study was carried out in an urban community health centre in Bronx, New York. Out of 319 eligible patients, 105 (35%) took the HIV test. The commonest reason for declining the test was perceived low risk (54.4%) and self-reported HIV testing done previously (45.1%) (Cunningham *et al.*, 2009).In another study conducted at George Washington University hospital Emergency Department, patients who declined to take the HIV test were found to be almost three times more likely to be HIV positive than those who took the HIV test (ICAAC, 2009).

The study found out that the respondents (86.8%) would take the HIV test even when they were faithful to their partner but were uncomfortable being tested by someone they knew. They were however, in agreement that the VCT sessions were private (87.8%) and that adequate information

was provided during testing (85.1%). More male respondents (63.7%) compared to female (36.3%) indicated that they would attend VCT outside KPA facility. This means that they were not free with the people offering services at KPA. According to Durojaiye *et al.,* (2013), fear of stigma from co-workers and employers, such as social isolation and ridicule, or experience discriminatory practices, such as denial of promotion would deter the employee from visiting the VCT at their workplace. However, majority (92.9%) of the respondents indicated that HIV patients should not be isolated and 76.6% agreed that there was an HIV/AIDS workplace program and employer recognized the rights of the employees living with HIV/AIDS (75.9%).

Over 70% of the respondents had their results communicated back to them. According to the study conducted in Brussels, Belgium between 1996 and 1999, results were mostly conveyed by phone (41.9%) especially to the anxious clients. The study concluded by emphasizing that only in a face to face conversation can the service provider offer effective post counseling to the client (Devroeya *et al.*, 2001). This should be done in a way that would enable the client to understand the meaning of the result, respond appropriately and importantly, obtain relevant test confirmation, prevention, care, support and treatment services (NASCOP, 2012). This study found out that only 34.6% of the respondents were accompanied by their partners to VCT centre while 56.6% were not; and more females (54.2%) than males (45.8%) did not communicate their HIV test results to their partners. According to Kalichman *et al.,* (2003), fear of discrimination, abandonment, depression and loss of economic support and disruption of family relationship might make the females not to disclose their HIV status to their partner. Nevertheless, 74.9% of the respondents in this study communicated the results to their partner and 57.3% acknowledged that their life changed after the test. According to Kadowa *et al.,* (2009) disclosure of HIV status helps in increasing support for an HIV positive person, increases self-esteem, and lowers levels of depression and facilitated initiation and adherence to HIV treatment. It could also help in protecting the discordant couple, though sometimes it could lead to rejection, discrimination or violence (WHO, 2012). A 2014 study conducted in Harare, Zimbabwe on 1951 postnatal women who had tested HIV positive and negative and their experience after disclosure of their HIV status. Of these, 93% disclosed their HIV test results to their partners and 32.8 % reported intimate partner violence (Shamu *et al.*, 2014). Similarly, a 2014 study carried out in Mwanza Tanzania among 270 HIV positive adult patients attending the Care and Treatment clinic where the majority (72.5%) were female and married. Over sixty nine percent (69.3%) of those who disclosed reported some form of relationship to the person they disclosed their HIV status, 79.4% reported being supported emotionally while 29.7% indicated having received financial support, 34% reported being discriminated, and 12% reported being divorced after disclosure (Yonah *et al.,* 2014).

Majority (68.1%) of the respondents indicated that the employees who tested HIV positive were commenced on ARVs while 24% did not know what happened to the employees who tested positive. Even though, 50.5% of the respondents did not consider themselves at risk of HIV infection, 78.3% indicated that having multiple partners would predispose them to HIV infection. More than ninety five percent knew the importance of condom in HIV prevention and 74.9% acknowledged having used condom. Condom use among male was higher (66.9%) than female (33.1%), 59.5% of female compared to 40.5% male have never used condom. This was largely because 75.6% of the respondents were married. According to Agha (1998), condom use was significantly associated with extra marital sexual activity and women were likely to be stigmatized

and viewed negatively for suggesting condom use and in some instances led to instability or dissolution of relationships (Soskolne *et al.,* 1991). Married men on the other hand were much more likely than married women to engage in extramarital sex and among males such activity was often socially and culturally condoned (Smith, 2010). According to the study conducted by Walusaga *et al*., (2012), men (48.1%) reported to have used condoms consistently during sex compared to female (31.8%).

The respondents knew someone living with HIV at work place (84.7%) and that they were on ARVs (85.4%) which improved the immunity (85.4%). When respondents were asked what their reaction would be if their workmate tested HIV positive, 51.9% said they would be unhappy and 40.3% and 7.8% indicated they would be shocked and happy respectively. When the partner was found to be HIV positive, many respondents indicated they would take care of the partner (28.1%), go for HIV testing (28.1%) and use condom respectively (26.1%). However, only 7.8% indicated they would stop having sex and only 3.1% indicated they would divorce their partner or avoid any contact (3.1%). In a study conducted among slum dwellers who had taken the HIV test during antenatal care in Kampala Uganda, 47% of the 408 women who participated in the study indicated that they would be uncomfortable sharing a house with someone living with HIV, 56% would be uncomfortable eating food prepared by an HIV positive person, 87% indicated they would be uncomfortable having sexual contact while 83.8% reported that they disclosed their HIV status to their partners. Disclosure was notably higher in women whose partners had taken the HIV test (Batte *et al.,* 2015).

4.2 Conclusions

Majority of the respondents reported having had an HIV test but a few declined. Marital status, education level and religion were important in utilization of VCT services. Although majority of KPA staff had taken the HIV test more than once, most had lasted more than one year since the last test, some could not remember. Although a majority took the VCT test to know their status, many still held back without any apparent reason, felt it was not necessary, feared positive results or thought there is no cure for AIDS. Fewer females disclosed their HIV results compared to males. However, they received feedback promptly, and communicated the test results to their partner. However, majority did not accompany them. Disclosing the HIV status would increase support and empathy from the partner who tested HIV positive and protect the discordant partner however even though the VCT sessions were confidential and private employees preferred attending VCT outside KPA, and not attended by a person they knew. This was despite the fact that there was less stigma and discrimination at the workplace. Employees knew that they were at risk of HIV infection, understood that there is no cure and would be unhappy knowing their workmate or partner was HIV positive. Majority stated that the employer is concerned with HIV positive people and there was an HIV policy and people are immediately started on ARVs. Employees were aware of how HIV was transmitted, the efficacy of ARVs and acknowledged knowing someone who was on ARVs. Condom use among male respondents was higher than females despite knowing the benefits.

4.3 Recommendations

KPA employees should be encouraged to know their HIV status. Different strategies should be used to encourage employees to test for HIV, especially those who declined. These include HIV self- testing, offering HIV testing outside normal working hours and by people unknown to the employees and new methods of motivating people to utilize VCT services. Health and non-health care workers can be equipped with the relevant skills so that they encourage employees to take up VCT services anytime they come into contact with them. Since a majority of the respondents were found to prefer utilizing VCT facilities outside KPA, a program to help support those who attend VCT outside KPA should be implemented so that such facilities do not run short of VCT program requirements. Women should be empowered to negotiate for safer sex with partners by teaching them assertive skills and promoting the correct, consistent use of both male and female condoms and provide them with adequate comprehensive knowledge on HIV/AIDS, including comprehensive sexual education. Many respondents were over 40 years and married, this group felt that awareness programmes did not target them because they were in stable relationships. Awareness strategies should be tailored to fit the needs of this group and VCT providers who were more mature should be engaged in the VCT, moreover the employees should be involved in designing the VCT programme.

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