

Sources of Information and Knowledge on HIV/AIDS for Construction Workers in Selected Sites in Tanzania

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ABSTRACT

Construction sites attract many people with varying skills and thus are appropriate workplaces to provide HIV/AIDS related information as well as acquire knowledge on HIV/AIDS preventive measures as a means of supplementing efforts towards attaining “zero new HIV infection”. The objective of the study was to assess sources of information and knowledge of HIV/AIDS preventive measures on selected construction sites in Tanzania. The study adopted cross section research design. The population of the study was all active construction sites employing more than fifty workers. The sample size of 20 construction sites was taken and sites studied were selected using purposive sampling method. A self-administered questionnaire and literature review were used in data collection. Data was analysed using descriptive statistics, Relative Agreement Index (RAI) and Independent- Samples T-Test. Findings reveal that information on HIV/AIDS for construction workers somehow came from billboards, books and fliers; TV programmes and mobile phones or social networks. Besides, access to sources of HIV/AIDS between age groups of 15 to 24 and over 24 years old differ significantly in television programmes, daily or weekly site meetings, social awareness programmes and mobile phones or social networks. On the other hand, knowledge of HIV/AIDS preventive measures among construction workers is relatively high for most of the measures assessed. Similarly, on the basis of sex, male and female knowledge differs significantly on being faithful to one uninfected partner. The study concludes that sources of HIV/AIDS information on construction sites are limited while knowledge of HIV/AIDS preventive measure is generally high. The study recommends that Contractors Registration Board, Occupational Safety and Health Authority and Local Government Authorities should include HIV/AIDS issues in the checklist of items to be inspected on construction sites, and, clients and their consultants should provide for HIV/AIDS information and educative programmes in tender documents.

Key words: HIV/AIDS, information sources, knowledge, preventive measures, construction workers.

INTRODUCTION

HIV/AIDS are both health and developmental issues which concern any nation at all levels of performance and Tanzania is no exception. In Tanzania, the HIV/AIDS epidemic was first reported in 1983, with the diagnosis and reporting of three cases in Kagera region (TACAIDS *et al*, 2013). By 1986, all administrative regions in Tanzania had reported cases of HIV/AIDS (THMIS, 2013). The HIV/AIDS pandemic is a serious threat to Tanzania’s social and economic development. According to UNAIDS Fact Sheet (2015) by the end of 2014 globally, 36.9 million people were living with HIV; 2 million people became newly infected with HIV compared to 3.1 million in

2000; and 1.2 million people died from AIDS related illness compared to 2 million people in 2005. UNAIDS vision is to achieve zero new HIV infections, zero discrimination and zero AIDS related deaths through universal access to effective HIV prevention, treatment, care and support. In Tanzania it is estimated that over 2.0 million people are living with HIV/AIDS (TACAIDS *et al*, 2013). According to TACAIDS *et al* (2013) comparing to TACAIDS *et al* (2008), the national HIV prevalence in Tanzania declined from 6% to 5%. Similarly, HIV prevalence has also modestly declined among women, from 7% to 6%, and among men, from 5% to 4% in the year 2013, (NMSF III, 2013).

According to TACAIDS *et al* (2013) HIV/AIDS prevalence in Tanzania is 5.3% of the general population. Although the two studies (TACAIDS *et al*, 2008 & 2013) did not establish HIV/AIDS prevalence by sector, studies elsewhere (Bowen *et al*, 2008, Mabika, 2011, ILO, 2008) indicate that the construction industry significantly

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contributes to the spread of the infection. The nature of construction activities compel workers to spend long hours at work and at times to live in camps or areas in the vicinity of the site and thus create an avenue engaging in sexual relationship leading to HIV/AIDS infection. Studies done in Africa and elsewhere reveal that construction industry is one of the sectors prone to HIV/AIDS spread. Bowen *et al* (2008) disclose that the South African construction industry has one of the highest prevalence rates of any economic sector. The study further reveals the highest HIV/AIDS prevalence rate among permanently employed, semi-skilled, operators and drivers, and skilled employees comparing to casual labourers. Mabika (2011) reports that the construction industry has the third highest HIV/AIDS prevalence in the country after the mining and transport industries. Construction sites are mobile in nature and every new project ends with formation of a new team of workers. ILO (2008) identified construction workers as risk group because many of them are mobile workers, with poor living and working conditions, and often separated from their partners. This was also observed by World Bank (2007) that rail or road construction projects bring thousands of migrant workers together, often in isolated areas. However, Kanda *et al* (2009) concludes that the construction workers in Sri Lanka were not specially at higher risk of HIV at the time of their study.

Sources of HIV and Information

Construction workers need to have access to HIV/AIDS information for them to take appropriate measures to prevent the spread of the infection. On the other hand employers must ensure various sources of information are available at workplaces. Several studies have disclosed a number of HIV/AIDS information sources for workers. Rawstorne & Worth (2007) reveal that the most highly cited sources of HIV/AIDS information for both male and female factory workers were television, newspapers and school. Landesberg (2014) investigated source of HIV/AIDS information for gold miners and established that they access such information through books and healthcare professionals. A study by Radingwana (2014) reveals that most of respondents knew about HIV through the media and reading materials. Similarly, Kanda *et al* (2009) state that television or radio was the most common source of information on HIV/AIDS and only a half of the respondents (51.6%) had read materials about AIDS. Quet *al* (2008) reveal that media (television, newspaper and radio) and

family and friends were the sources of HIV/AIDS information of construction workers in China. Generally, the media is a leading source of HIV/AIDS for people working in various sectors including construction. However, construction sites have other avenues that can serve as sources of information on HIV/AIDS such as inclusion of HIV/AIDS agenda in daily and weekly meetings; and inclusion of HIV/AIDS issues in health and safety programmes.

Knowledge HIV/AIDS preventive measures

Knowledge on modes of HIV/AIDS transmission and prevention is pertinent to supplementing efforts for attaining “zero new HIV infection”. TACAIDS *et al* (2008) assessed knowledge on preventive measures using three preventive measures namely using condoms, limiting sexual intercourse to one uninfected partner and abstaining from sexual intercourse. The study reveals that over 80% of women and men agree that abstaining from sexual intercourse and limiting sexual intercourse to one uninfected partner can reduce the chances of being infected with the AIDS virus. TACAIDS *et al* (2013) focused on two measures that is having just one faithful sexual partner and using a condom every time one has sexual intercourse and found that 63% of women and 71% of men know that using condoms and limiting sexual intercourse to one uninfected partner are ways of reducing the risk of getting the AIDS virus. As cited in Nakathingoet *al* (2017), Studies in Nigeria, Cameroon, Uganda, Zambia and Tanzania found that, in general, older men are less aware of effective preventive measures and are less knowledgeable about HIV-prevention measures than men aged 15 to 49 years. For example, in Nigeria, 68.9% of men aged 15 to 49 years knew that using condoms and having only one sexual partner are effective measures as opposed to only 58.3% of men aged 50 to 59 years (Negin & Cumming, 2010). Landesberg (2014) assessed knowledge of HIV prevention among gold miners and established that wearing condoms during sex was the most commonly cited correct method of prevention (83.57%), followed by not sharing needles (78.49%) and blood safety (61.93%). In the contrary Rawstorne & (2007) HIV/AIDS Surveillance Survey report shows that despite the good level of education of the respondents their knowledge about HIV was amazingly poor. Almost all knew that HIV was transmitted sexually, only 63% of men and 41.3% of women knew that condoms protected them from HIV; 41.7% of men and 45.3% of

women thought they could get HIV from mosquito bites and less than half of male and female workers agreed that a person with HIV could look healthy (*ibid*). HIV/AIDS prevention measures are perceived differently by the society. Some societies believe that a man having multiple sex partners is a sense of pride. The study by USAID Project Search (2011) determines that socially prescribed gender norms accept men to engage in multiple partnerships.

Knowledge of HIV/AIDS prevention measures is of prime importance to ensure the infection is not transmitted among new formed work groups. A paucity of studies done on this area across the globe reveals varying knowledge on HIV/AIDS prevention measures. Kanda *et al* (2009) assessed knowledge, attitude and practice of construction workers in Sri Lanka found that only about half of the workers knew that condom use and abstaining from sex were ways to prevent HIV/AIDS and they had poor knowledge regarding drug injection. Quet *al* (2008) revealed lack of awareness regarding HIV prevention among Chinese construction workers. Stulhofer (2006) examined HIV/AIDS and Croatian migrant workers and found that knowledge of the modes of HIV protection, levels in marine officers exceeded that of both sailors and construction workers.

The construction industry is one among the sectors employing sexually-active workers aged 15-49 years which calls for appropriate sources of HIV/AIDS information as well as correct knowledge of HIV/AIDS preventive measures. Though researchers have fairly written about HIV/AIDS, there is no evidence of published work in Tanzania on HIV/AIDS in the construction industry. This study aims at filling that gap, specifically to assess available sources of HIV/AIDS information and knowledge of HIV/AIDS preventive measures among construction workers on the selected construction sites in Tanzania.

RESEARCH METHODOLOGY

The study adopted a cross section research design. The population of the study was all

active construction sites employing more than fifty workers. Purposive sampling method was used to select sites for the study. The study was carried out in three regions of Tanzania including Dar-es-Salaam, Morogoro and Dodoma. Major reasons for selecting the three cities were the diversification and nature of construction sites, activities available in the selected areas and the easy access by the researchers. A sample size of 20 construction sites was chosen and 5 respondents from each site were expected to fill the questionnaires. Out of 100 distributed questionnaires, 58 were fairly filled for the analysis which equates to 58%.

The study used adapted standard questionnaires developed by UNAIDS, Family Health International (FHI) and Demographic and Health Surveys (DHS). The questionnaires were translated from English to Swahili and self-administered during the study. The major variables for the study include: individual (age, sex, marital status, experience, occupation and current relationship); knowledge indicators (awareness of HIV/AIDS and knowledge of HIV/AIDS preventive measures); and sources of HIV/AIDS information. Access to sources of information and knowledge on HIV/AIDS were assessed using 5-Likert scale: 5=quite often, 4=often, 3=somehow, 2=rare and 1=none; and; 5 = very good; 4 = good; 3 = average; 2 = low; and 1 = none respectively. No other personal information such as name and address was obtained. Permission to conduct the study was provided by the Higher Degrees Research and Publication Committee (HDRPC) of Ardhi University.

The collected data was analysed using the Statistical Package for Social Sciences (SPSS) software version 16.0. Methods of data presentation included descriptive statistics and Independent-Samples T Test which were used to compute the respondents' profiles and testing the significance of differences in results in terms of age group and sex. Furthermore, for ranking purposes, the Relative Agreement Index (RAI) was used. The Relative Agreement Index (RAI) is calculated as follows:

$$RAI = \Sigma W/A \times N$$

Where; W = weight given to each variable by respondents

A = highest weight

N = total number of respondents.

For the purpose of this study A=5 and N=58

However, for the purpose of this study, amongst 58 returned questionnaires some of the sources of information and preventive measures were not assessed thus N varies from 58 to 32.

Relative Agreement Indices (RAI) comparison table was used to assess the results by taking into account the average scores and the RAI as follows:

Table 1: Relative Agreement Index (RAI)

Average Score	RAI	Source access / knowledge level
4.0 to 5.0	0.80 to 1.00	High (H)
3.0 to < 4.0	0.60 to < 0.80	Medium (M)
1.0 to < 3.0	0.20 to < 0.60	Low (L)

Source: Adapted from Chileshe, Haupt and Fester (2007)

Ethical considerations

The study was an anonymous one. A self-administered questionnaire comprised of a paragraph requesting the consent of the respondent. Return of a completed questionnaire indicated approval of participation in the study. No identifying information was contained in the questionnaire. The participation in the survey was totally voluntary. Participants had the option of declining to answer specific questions or leaving the entire questionnaire blank if they wished to. However, respondents were requested to provide genuine answers if they are to participate.

respondents. The importance of this section is to provide information of construction workers covered by the study. Results of sex, marital status, age group and experience are summarized in Table 2.

Results indicate that respondents comprised of 36.2% female and 63.8% male. Furthermore, their marital status was analysed and reveals that more than a half (57.1%) were married followed by single (28.6%). The age was grouped into those between 15 to 24 and over 24 years old. The results indicate that slightly more than fifty per cent (56.9%) were over 24 years old. Regarding experience, slightly more than one-third (36.2%) were aged between 20-24 years followed by 25-29 (32.8%).

RESULTS AND ANALYSIS

Respondents' profile

This section covers sex, marital status, age group, occupation and experience of

Table 2: sex, marital status; age group and experience of respondents

Sex of respondents	Frequency	Per cent
Female	21	36.2
Male	37	63.8
Total	58	100.0
Marital status of respondents		
Married	32	57.1
Separated/Divorced	4	7.1
Widowed	4	7.1
Single	16	28.6
Total	56	100.0
Age group of respondents		
15-24 years old	25	43.1
Over 24 years old	33	56.9
Total	58	100.0
Experience		
15-19 years old	2	3.4

20-24 years old	21	36.2
25-29 years old	19	32.8
30-39 years old	12	20.7
40 years and above	4	6.9
Total	58	100.0

Construction sites accommodate people who perform different tasks including those with special and normal skills and even those with no skills. These groups are divided into skilled labourers (painters, steel fixers, tillers, glaziers, joiners, electricians and plumbers), unskilled labourers and others (drivers, operators, food vendors etc.). Respondents were requested to

indicate their occupations and results are summarized in Figure 1.

In terms of occupation, more than one third was skilled labourers (41% (2+2+4+7+7+2+4+13)) followed by unskilled labourers (34%) and others (27%) as presented in Figure 1 below.

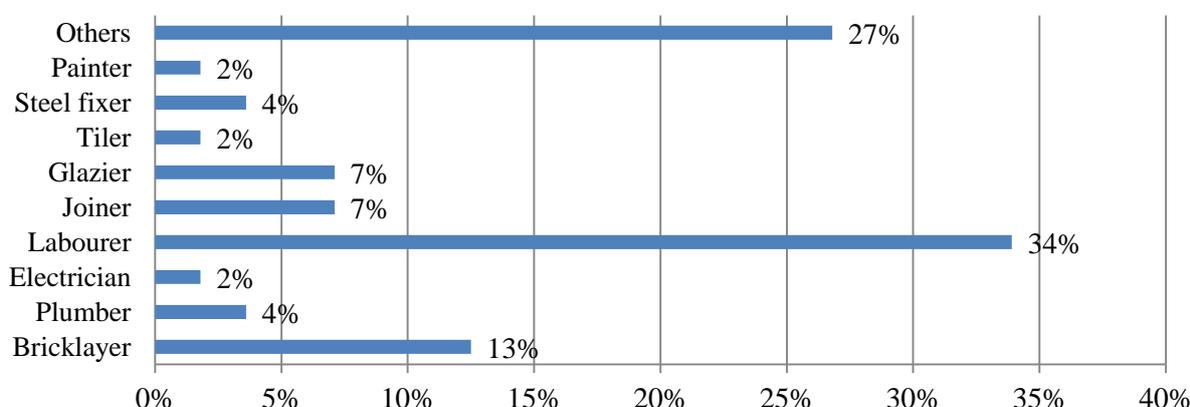


Figure 1: Trades of construction workers

Regarding current relationship, about one-half the respondents (48.3%) at the time of the study were married and living with their spouses followed by those who were not married and not

living with partners (34.5%). A few of them (1.9%) were currently married and living with other sexual partners. Other details are as presented in Figure 2.

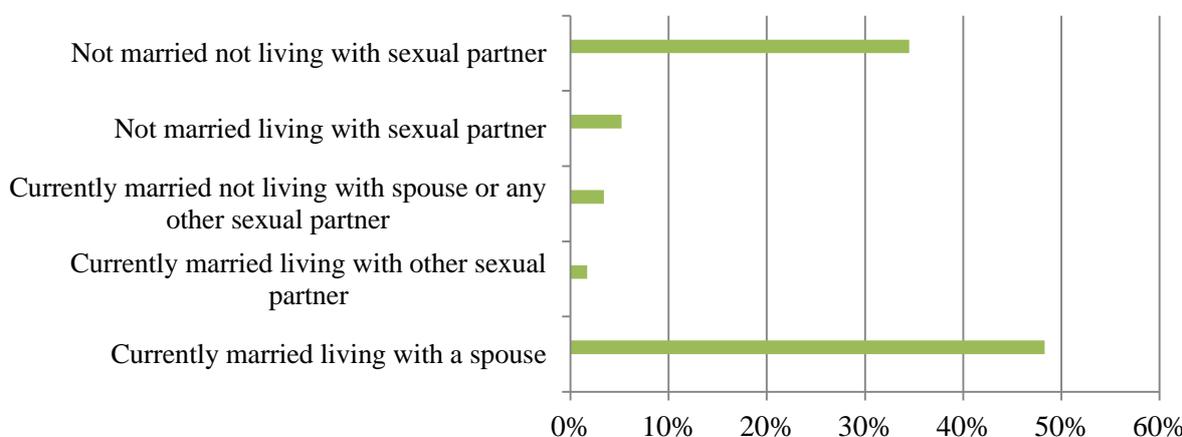


Figure 2: Respondents current relationship

Access to information and knowledge of HIV/AIDS

In order to understand the general picture on information access and knowledge of HIV/AIDS at workplaces, respondents were asked if they

are aware of HIV/AIDS and whether they have access to HIV/AIDS related information. Majority (98.2%) indicate that they are aware of HIV/AIDS. Furthermore, 71% pointed out that they have access to HIV/AIDS information as presented in Figure 3.

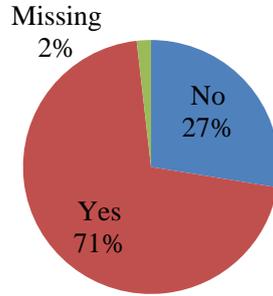


Figure 3: Respondents Access to HIV/AIDS materials

Sources of HIV/AIDS information

However, it was necessary to understand how and where the construction workers get their information on HIV/AIDS. Seven sources of information on HIV/AIDS appropriate for construction workplaces were extracted from literature and listed for respondents' assessment. Results are summarized in Table 3.

programmes and through mobile phones or social networks such as Blog, WhatsApp, Facebook and Instagram (0.60 to <0.80). These three sources have attained a medium rank as sources of HIV/AIDS information accessed by construction workers. The remaining sources which include seminar and conferences, social awareness programmes, daily and weekly site meetings and invited guests' presentation scores are as presented in Table 3.

Results in Table 3 reveal that HIV/AIDS information is somehow accessed through billboards, books and fliers; television

Table 3: Respondents' sources of HIV/AIDS information

Source of information	N=58	Mean score	Std. Dev	RAI	Source access level
Through billboards, books and fliers	35	3.40	1.288	0.68	M
Television programmes	36	3.08	1.461	0.62	M
Through mobile phones or social networks such as Blog, WhatsApp, Facebook and Instagram	32	2.97	1.492	0.61	M
Seminars and conferences	33	2.64	1.475	0.59	L
Social awareness programmes related to HIV/AIDS	35	2.63	1.395	0.53	L
Daily or weekly site meetings	33	2.15	1.372	0.43	L
HIV/AIDS invited guests open meeting presentations	35	2.14	1.240	0.43	L

HIV/AIDS information access by age

The study sought to establish if there was a significant difference in information access by

age group of between 15 to 24 and over 24 years old using group statistics and Independent-

Samples T-Test. The results are summarized in Table 4

Using group statistics, results reveal that those aged over 24 years old were accessing information slightly than those between 15 to 24 years old in four out of seven variables. These are through: billboards, books and fliers; daily or weekly site meetings; social awareness

programmes; and HIV/AIDS invited guests open meeting presentations. Analysis using Independent- Samples T-Test reveals that access to information for those in the age group of 15 to 24 differ significantly with those of over 24 years old in television programmes (sig.=0.000), daily or weekly site meetings (sig.=0.012), Social awareness programmes (Sig.=0.027), and Mobile phones or social networks (Sig. = 0.023)

Table 4: HIV/AIDS information access by age Group

Group statistics					Independent-Samples T Test	
ITEM	Age group	N=58	Mean score	Std. Dev.	F-Value	Sig.
Seminars and conferences	15-24 years old	12	2.67	1.371	4.036	.054
	Over 24 years old	21	2.62	1.564		
Television programmes	15-24 years old	13	3.15	.899	15.014	.000
	Over 24 years old	23	3.04	1.718		
Through billboards, books and fliers	15-24 years old	13	3.15	.987	1.862	.182
	Over 24 years old	22	3.55	1.438		
Daily or weekly site meetings	15-24 years old	12	1.92	.996	7.233	.012
	Over 24 years old	21	2.29	1.554		
Social awareness programmes related to HIV/AIDS	15-24 years old	12	2.58	.900	5.404	.027
	Over 24 years old	23	2.65	1.613		
HIV/AIDS invited guests open meetings presentations	15-24 years old	12	2.00	.953	2.047	.162
	Over 24 years old	23	2.22	1.380		
Mobile phones or social networks such as Blog, WhatsApp, Facebook and Instagram	15-24 years old	11	3.27	1.191	5.785	.023
	Over 24 years old	21	2.81	1.632		

Significance (Sig. \leq 0.05): At 95% Confidence interval

Knowledge of HIV/AIDS preventive measures

Construction workers meet in big numbers on sites and as such knowledge of HIV/AIDS preventive measures is important in curbing the infection. HIV/AIDS prevention measures were deduced from various literatures and about seven areas of prevention were listed for respondents' assessment. The results are summarized in Table 5.

Results indicate that knowledge of HIV/AIDS preventive measures among construction workers is generally high (0.8 to 1.0) for most of the measures listed. Furthermore, respondents rated avoiding unsafe blood transfusion as very good (ms 4.56) while abstinence scored average (ms 3.47).

Table 5: Knowledge of HIV/AIDS preventive measures

Preventive measure	N=58	Mean Score	Std. Dev	RAI	Knowledge level
Avoid unsafe blood transfusion	48	4.56	.873	0.912	H
Avoid multiple sex partners	48	4.27	1.067	0.850	H
Avoid casual sex	48	4.25	1.101	0.854	H
Avoid sharing needles and related sharp objects	49	4.22	1.066	0.861	H
Being faithful to one uninfected partner	50	4.22	1.234	0.844	H
Use condom during sexual intercourse	53	3.98	1.394	0.796	M
Abstain from sex	49	3.47	1.459	0.694	M

Knowledge of HIV/AIDS preventive measures by sex

The study sought to establish if there was a significant difference in knowledge of preventive measures between male and female respondents using group statistics and independent-Samples T Test. The results are summarized in Table 6.

Using group statistics, results reveal that female were slightly more knowledgeable than their

male counterparts in four out of seven variables. These are: use condom during sexual intercourse, abstain from sex, avoid sharing needles and related sharp objects and avoid casual sex. Analysis using Independent-Samples T Test reveals that male and female knowledge significantly differ on being faithful to one uninfected partner (sig = 0.022)

Table 6: Knowledge on HIV/AIDS preventive measures by sex

Preventive measure	Group statistics				Independent-Samples T Test	
	Sex	N	Mean Score	Std. Dev.	F-Value	Sig.
Use condom during sexual intercourse	Female	20	3.95	1.572	3.143	.082
	Male	33	4.00	1.299		
Abstain from sex	Female	17	3.65	1.693	3.494	.068
	Male	32	3.38	1.338		
Being faithful to one uninfected partner	Female	16	3.88	1.544	5.586	.022
	Male	34	4.38	1.045		
Avoid multiple sex partners	Female	16	4.19	1.276	1.629	.208
	Male	32	4.31	.965		
Avoid sharing needles and related sharp objects	Female	16	4.31	1.014	.389	.536
	Male	33	4.18	1.103		
Avoid casual sex	Female	14	4.43	1.089	.067	.797
	Male	34	4.18	1.114		
Avoid unsafe blood transfusion	Female	15	4.53	1.060	.720	.401
	Male	33	4.58	.792		

Significance (Sig. ≤ 0.05): At 95% Confidence interval Knowledge of HIV/AIDS preventive measures by age group

The study sought to establish if there was a significant difference in knowledge of preventive measures in age group of between 15 to 24 and over 24 years old using group statistics and independent-Samples T Test. The results are summarized in Table 7

Using group statistics, results reveal that those aged over 24 years old were slightly more knowledgeable than those between 15 to 24

years old in four out of seven variables. These are: use condom during sexual intercourse, being faithful to one uninfected partner, avoid multiple sex partners and avoid unsafe blood transfusion. On the other hand, Independent-Samples T Test reveals that in terms of age group there is no significant difference in HIV prevention knowledge between the two groups (all variables sig > 0.05).

Table 7: Knowledge of HIV/AIDS preventive measures by age group

Group statistics					Independent- Samples T Test	
Preventive measure	Age groups	N	Mean Score	Std. Dev.	F - Value	Sig.
Use condom during sexual intercourse	15-24 years old	25	3.92	1.470	.008	.927
	Over 24 years old	28	4.04	1.347		
Abstain from sex	15-24 years old	24	3.50	1.474	.000	1.000
	Over 24 years old	25	3.44	1.474		
Being faithful to one uninfected partner	15-24 years old	23	4.17	1.230	.108	.744
	Over 24 years old	27	4.26	1.259		
Avoid multiple sex partners	15-24 years old	23	4.13	1.254	1.974	.167
	Over 24 years old	25	4.40	.866		
Avoid sharing needles and related sharp objects	15-24 years old	23	4.35	.982	.440	.511
	Over 24 years old	26	4.12	1.143		
Avoid casual sex with many people	15-24 years old	21	4.29	1.102	.000	.987
	Over 24 years old	27	4.22	1.121		
Avoid unsafe blood transfusion	15-24 years old	22	4.55	.912	.090	.766
	Over 24 years old	26	4.58	.857		

Significance (Sig. ≤ 0.05): At 95% Confidence interval

DISCUSSION

The group of construction workers studied is sexually-active youths and adults majority aged between 20-39 years old. The study shows that 63.8% of the workers are male and 36.2% are female. This is a fair distribution considering that the construction industry is male dominated. The male domination in construction works is also echoed in the works of Quet *et al* (2008) that all participants were male (100%) and Kanda *et. al*

(2009) that majority (96.9%) were male. Most of the workers in the studied sites were skilled labourers (41%) followed by unskilled labourers (34%). This group of unskilled labourers is characterized by low skills, low education and associated low income. Most of these workers do not have much alternative in choice of work to make a living. They are seasonal workers who work where there is a construction site (Kanda *et al.*, 2009; Mabika, 2014). Kanda *et al.*, (2009) point out that in Asia construction workers were

generally characterized as male, less educated, young, single, and mobile. With such kind of life style, these workers start a home whenever they arrive; they are more likely to engage in casual sex encounters.

The study also shows that more than half of the respondents are married and approximately half are currently living with spouses. This correlates with the findings of *Quet al (2008)* and *Kanda et al (2009)* that majority of construction workers are married. Looking at the mobility nature of the construction industry, construction workers must be provided with adequate sources of information on HIV/AIDS as well as being informed on HIV/AIDS preventive measures. The study reveals that approximately one-third of respondents do not have access to HIV/AIDS related information.

There are many sources of HIV/AIDS information adequate for construction workers. These can be made available during meetings, special arranged programmes and during breaks. Findings reveal that to a certain extents workers were accessing HIV/AIDS information through billboards, books and fliers; television programmes and mobile phones or social networks such as Blog, WhatsApp, Facebook and Instagram. This supports findings of other researchers such as *Quet al (2008)* and *Radingwana (2012)*. This is also partly in consistence with the findings of *Kanda et al (2009)* that construction workers in Sri Lanka were commonly accessing HIV/AIDS information through television or radio programmes and reading materials. These programmes are expected to be organized by the employers at workplaces but information from the respondents discloses that HIV/AIDS related information is mostly accessed through individual efforts. Generally, sources of HIV/AIDS information are limited on construction sites. This implies that construction sites management are not dealing with HIV/AIDS matters adequately.

Examination of access to sources of HIV/AIDS information in terms of age group, reveal that, those aged over 24 years old were accessing information slightly more than those between 15 to 24 years old in four out of seven variables. Furthermore, the two age groups differ significantly in accessing information in television programmes, daily or weekly site meetings, social awareness programmes and mobile phones or social networks. This indicates

that two groups have different ways of accessing HIV/AIDS related information influenced by their ages.

Regarding knowledge of HIV/AIDS preventive measures, findings reveal that it is generally high in most of the variables assessed. Furthermore, respondents rated avoiding unsafe blood transfusion as high while use of condom during sexual intercourse and abstinence were rated medium. This finding is slightly different from the work of *Kanda et al (2009)* who found that knowledge on AIDS prevention was fairly good on condom use and abstaining from sex but poor knowledge regarding drug injection. Similarly, *Quet al (2008)* report lack of awareness on HIV prevention among Chinese construction workers. The difference in knowledge of these studies from the above finding are due to the fact that HIV has impacted East African region more than Asia and thus knowledge on preventive measures is widely spread. However, current level of knowledge need to be constantly upgraded because of the temporary nature of the construction activities. *TACAIDS et al (2013)* discloses that HIV prevalence was higher among respondents who slept away from home one or more times during the 12-month period before the survey than among those who had not been away at all. Therefore, it is of utmost importance that construction workers are very knowledgeable on preventive measures in order to prevent HIV/AIDS spread when they are working away from home.

Comparing knowledge of HIV/AIDS preventive measures on the basis of sex, findings indicate that female were slightly more knowledgeable than their male counterparts in four out of seven variables. This finding contradicts the results of *TACAIDS et al (2013)* which found that female knowledge of three HIV preventive measures studied was lower than their male counterparts. On the other hand the study found that male and female knowledge significantly differs on being faithful to one uninfected partner. This is in consistent to the findings of *TACAIDS et al (2013)* which determined that 84% of women and 87% of men know that the chance of becoming infected with the AIDS virus is reduced by limiting sexual intercourse to one uninfected partner who has no other partners.

Knowledge of HIV/AIDS preventive measures basing on age group results reveal that those aged over 24 years old were slightly more knowledgeable than those between 15 to 24

years old in four out of seven variables. Nevertheless, finding reveals that in terms of age group there is no significant difference in HIV/AIDS prevention knowledge between the two groups. This supports the findings of TACAIDS *et al* (2008) and TACAIDS *et al* (2013) that those in the age group of 15 to 24 have significantly lower levels of knowledge on preventive than those of above 24 years old.

CONCLUSION AND RECOMMENDATIONS

Construction projects sites are vulnerable to HIV/AIDS due to their temporary or seasonal character. Consequently, access to HIV/AIDS related information as well as knowledge of HIV/AIDS preventive measures are areas of priorities towards attaining “zero new HIV infection”. The study therefore concludes that construction workers on the selected sites have fair access to HIV/AIDS information but the sources are limited. Similarly, age groups of between 15 to 24 and over 24 years old differ significantly in accessing information in television programs, daily or weekly site meetings, social awareness programmes and mobile phones or social networks. On the other hand, the knowledge of HIV/AIDS preventive measures is generally high among construction workers. Likewise, in terms of sex, knowledge of HIV/AIDS preventive measures differs significantly among male and female on being faithful to one uninfected partner than female.

The findings of this study might be useful to alert the construction stakeholders’ including regulatory bodies on what is happening on construction sites. This is in particular on access and availability of HIV/AIDS related information at workplaces and the level of knowledge of HIV/AIDS preventive measures among construction workers. The study therefore, recommends the following:

- Regulatory bodies such as Contractors Registration Board (CRB), a Occupational Safety and Health Authority (OSHA) and Local Government Authorities should include HIV/AIDS issues in the checklist of items to be inspected on construction sites;
- Clients and their consultants should provide for HIV/AIDS information and educative programmes in tender documents.
- Construction companies should invest in HIV/AIDS educative programmes on preventive measures at workplaces.
- Construction sites must be equipped with adequate HIV/AIDS related information such as presentations from health experts, daily or weekly meetings with HIV/AIDS topics and/or slogans, fliers, and, seminars and conferences should be organized more frequent.

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