

HETEROSEXUAL COUPLES' RISK PERCEPTION ON HIV INFECTION MANAGEMENT IN KAKAMEGA COUNTY, KENYA

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Abstract

The principal form of Human Immunodeficiency Virus transmission is through sexual intercourse with an infected person. Globally 36.9 million people are living with HIV. Sub-Saharan Africa hosts 70% of all people living with HIV. Statistics show that of all HIV infections, heterosexual contact accounts for 80- 90%. Thus programs designed to slow the spread of HIV need to focus on reducing transmission through sexual intercourse. The main objective of this research was to investigate heterosexual couples' risk perception on HIV infection management. The study area was Kakamega County. The study utilised cross-sectional survey research design. The study population comprised of 1180 heterosexual couples randomly selected from 32 villages in four sub counties in Kakamega County. Study data was collected using structured questionnaire and desk review of journals, text books and reviewed papers. The data was analysed descriptively through cross- tabulations and inferentially by using Chi- square test and presented in tables. The study established that heterosexual couples perceive their risk of acquiring HIV as small or nil. The study recommends need to intensify sensitization campaigns to boost couples' knowledge on HIV pandemic so as to make informed risk perception of acquiring HIV.

Keywords: HIV, Risk Perception, HIV infection, management, heterosexual couples

1. Introduction

HIV risk perceptions are a key determinant of HIV testing (Brendan & Atheendar, 2017).

Globally, there has been increasing optimism around achieving an AIDS-free generation (Fauci & Folkers, 2012). The Joint United Nations Programme on HIV/AIDS has done so by: ensuring that 90% of persons living with HIV/AIDS know their status; initiating 90% of these individuals on treatment; and achieving viral load suppression in 90% of this group (UNAIDS, 2014).

Reaching these targets requires strengthening the entire HIV care programme, which starts with generating demand for HIV testing services which is necessitated by HIV risk perception.

Incorrect risk perceptions may impede efforts to diagnose and treat afflicted individuals

According to the AIDS risk reduction model, knowledge of AIDS is a prerequisite to recognizing risky behaviour and taking action to change it (Catania *et al.*, 1990). If knowledge of HIV/AIDS means knowing how it is transmitted and prevented, then knowledge and risk perception might in fact be inversely related assuming that the knowledge of transmission and prevention is assimilated in a context backed by the ability to engage in the preventive behaviour.

Kenya as a member state of United Nations is committed to implement the 2011 political declaration on HIV and AIDS which is in line with Kenya's vision 2030 which targets to achieve zero new HIV infection by the year 2030. This led to the development of Kenya AIDS Strategic Framework 2014/15 - 2018/19 whose aim was to reduce the number of new HIV infections by 75% and its vision was to have a Kenya free of new HIV infection by the year 2030 (UNAIDS, 2013). New HIV infections in Kenya are estimated at 88,620 for adults annually and prevalence is still increasing in many parts, despite efforts made to prevent them (NAS COP, 2014).

Kenya AIDS Strategic Framework's objective one was to reduce new HIV infections by 75% by 2019. However, the Country achieved 20% reduction on sexual transmission of HIV (NASCO, 2015) against set targets for 2019.

Research has shown that about 44% of all new HIV infections occur as a result of unprotected sexual intercourse between regular partners who are in union (UNAIDS, 2011). Kenya AIDS Indicator Survey 2012 has evidence of heterosexual couples being HIV infected either concordantly 3.2% or discordantly 4.8% (KAIS, 2012). These discordant couples are at high risk for new HIV transmission (NACC, 2009; World Bank, 2009; WHO/ UNAIDS/UNICEF, 2011). According to KAIS 2012, awareness of a partner's status remained as low as 48% for women and 61% for men, aged 25-64 years. Besides, persistent condom use was low among partners of discordant and unknown status, at 5% for women and 14% for men, aged 25-64 years (KAIS, 2012). Kenya HIV County Profiles of 2016 indicated that over 80% of the total new HIV infections in Kenya are among adults with 49% among women and 37% among men, with casual heterosexual sex contributing 20% and heterosexual sex among people in marriage relationships contributing 44% to new HIV infections.

Regional, 65% of the new HIV infections occur in 9 of the 47 counties in Kenya and Kakamega County is ranked eighth nationally contributing 3.4% to the total number of People Living with HIV (NACC, 2016). This large contribution lowers the progress of Kenya towards achieving zero new HIV infection by the year 2030. By 2014, new HIV infections in Kenya had stabilised at 89,000 averagely among adults annually, a high level, thus presenting a challenge to reversing it.

Hence, the Government initiated Education and Awareness, Couple HIV Testing and Counselling (CHTC), Disclosure Counselling, Antiretroviral Therapy (ART), Post Exposure

Prophylaxis (PEP), Pre Exposure Prophylaxis (PrEP), Voluntary Medical Male Circumcision (VMMC), Condom use and Prevention with the Positives programs directed at couples to prevent HIV infection (KAIS, 2012).

1.2 Research Objective

The objective of the study was to investigate the influence of heterosexual couples' risk perception on HIV infection management in Kakamega County, Kenya.

2. Theoretical Framework and Literature Review

2.1 AIDS Risk Reduction Model (ARRM)

This research was guided by AIDS Risk Reduction Model which was introduced by Catania *et al.*, in 1990. ARRM explains and predicts people's efforts to avoid contracting HIV through sexual transmission. ARRM is composed of three stages through which an individual goes regarding HIV prevention. The first stage involves recognition and labelling of one's behaviour as high risk for contracting HIV. The second stage is making a commitment to reduce high risk sexual contacts and increase low risk activities, and stage three is seeking and enacting strategies to obtain these goals. Thus, heterosexual couples could use knowledge of AIDS Risk Reduction Model to examine their sexual activities in order to label their behaviour as high or low risk. This would enable them to commit themselves to reduce their high risk sexual activities or maintain their low risk state and guard against any activities that would put them at risk of HIV infection.

To avoid HIV infection, people exhibiting high risk activities must typically perceive that their sexual behaviours place them at risk for HIV infection and are, therefore, problematic.

Simply labelling one's sexual behaviour as a problem may not lead to behavioural change without making a strong commitment to changing one's activities. This commitment process may require deciding if the behaviours can be altered and whether the benefits of change can

outweigh the costs. In addition, enactment of solutions may require complex negotiations with one's sexual partner(s), who may not have the same degree of commitment to pursuing change.

2.2 Risk Perception of acquiring HIV by heterosexual couples

According to Weinhardt et al.,(1999), people who receive HIV Counselling and Testing are not likely to engage in behaviours that put them at risk of contracting HIV while Brendan & Atheendar, 2017 found that people's HIV risk perceptions will determine their desire for HIV testing.

2.2.1 Knowledge and HIV Risk Perception

Various studies have found an association between knowledge and risk perception of HIV. One study by (Johnston *et al.*, (2011) reported that it was actually participants who scored low on knowledge who also scored low on risk perception. This agrees with (Wildavsky & Drake, 1990) who postulate that knowledge precedes perception of risk; hence, if knowledge is low, risk perception will be low. Women generally have low knowledge about HIV/ AIDS as supported by studies done in Malaysia (Munusamy and Fadzil, 2017 and Saudi Arabia (Alwafiet *et al.*, 2018). A positive relationship has been identified between levels of knowledge on HIV/ AIDS, HIV risk perception and the education level of a woman of which the higher the level of education a woman has the highest her level of knowledge about the perception of HIV/ AIDS risk.

Steven *et al.*,(2012) assessing both correct and incorrect knowledge of HIV/AIDS found that although both groups of people who had high correct and those who had high incorrect knowledge perceived themselves to be at risk, those with higher levels of incorrect knowledge on HIV/AIDS were the ones most likely to be uncertain whether they were at risk or not.

Kenyon (2010) documented that married respondents are significantly less concerned about contracting HIV compared to unmarried respondents. A woman with proper knowledge of HIV

transmission and in a committed relationship she describes as faithful has no reason to perceive a risk of contracting HIV from her partner. Elizabeth *et al.*, (2004) found that having more knowledge about HIV did not correlate significantly with risk perception for HIV because it was discovered that women who stated that they were at no or low risk for HIV infection were HIV infected. Therefore, understanding how knowledge of HIV relates to personal risk perception and avoidance of risky behaviours is critical to devising effective HIV prevention strategies.

2.2.2 HIV Prevalence and HIV Risk Perception

The prevalence of HIV may be particularly important in influencing risk perception and in turn, risky behaviours related to it. If HIV is not prevalent in an area, an individual's actual risk for it lessens, regardless of risky sexual behaviour.

People who live in areas with high HIV prevalence and engage in behaviours that expose them to HIV are at greater risk for infection than people who live in lower HIV prevalent areas and who engage in the same risk practices (Kalichman and Cain 2005).

The prevalence of HIV may also determine risk practices. Kalichman and Cain (2005) examining the relationship between perceived HIV prevalence and risk sexual practices for HIV, found that individuals who perceived a relatively lower HIV prevalence reported a larger number of sex partners and engaged in more unprotected and protected sexual intercourse than those who perceived higher HIV prevalence. As at 2016, HIV prevalence in Kakamega County was 4.0% which was lower than the national prevalence at 5.9% and that of other counties such as Busia with 6.7%, Kisumu with 19.9%, Homa Bay with 26.0% and Siaya with 24.8% (NACC, 2016). This lower HIV prevalence in Kakamega County could easily influence heterosexual couples to perceive their risk for HIV infection as low and engage in risky sexual practices.

2.2.3 Sexual Behaviour and HIV Risk Perception

Understanding the relationship between risk perception and a person's sexual behaviour is important in preventing HIV infection because risk perception will influence a person's risky sexual behaviour which includes early age at marriage, first sexual intercourse, multiple sexual partners and unprotected sexual intercourse. Priscilla *et al.*, 2014, found a strong positive relationship between perceived risk of HIV and risky sexual behaviour for both men and women, whereas Akwara, Madise and Hinde (2003) pointed out that a person's perception of risk may not necessarily be based on his or her previous sexual behaviour because sexual intercourse is a twin activity. Therefore the link between perception of risk and sexual behaviour can work in both directions.

Individuals may perceive their risk of getting HIV to be high or low depending on their previous sexual behaviour or that of their partners. In which case, risky sexual behaviour is the influencing factor on perception of risk.

Ford *et al.*, (2004) found that adolescents accurately perceived their risk as high as a result of their risky sexual behaviours. A high perception of risk can easily lead to modification of sexual behaviour; however, Idele, (2002) in Kenya found that although HIV was perceived as a great threat to people in focus group discussions, individuals never perceived themselves to be at risk.

2.2.4 Social forces and Perception of HIV infection

Thomas (2006) studied social forces that enhance the transmission of sexually transmitted diseases. They discovered that reduced access to health care resulted in more chances for HIV transmission, further fuelling the epidemic. Adimora and Schoenbach, (2005) observed that socioeconomic forces, for instance, racial discrimination, low ratios of men to women, and deprivation of economic opportunities which inhibit stable sexual partnering can increase the

likelihood of concurrent partnerships and influence sexual risk behaviour and increase the spread of HIV.

Physical location of an individual can determine his level of access to information, which in turn influences sexual behaviour and perception of risk. For instance, Eberhardt and Pamuk, (2004) found that residents of rural areas had worse outcomes on some key measures of health as compared to residents of more urbanized areas.

Social norms at community level are influenced by Policy and social norms determine what society considers a “good woman”. In many societies, a good woman is one who is ignorant of sex and inactive in sexual encounters. Gender roles and ideals can mould an individual’s identity and self-concept and therefore, influence sexual decision making. Rickert, Sanghvi, and Wiemann (2002) in a study on 904 adolescents and women aged 14 to 26 revealed that 20% of the sample felt they had no right to be sexually assertive. This demonstrates that social norms have a strong influence on the management of sexual relationships and behaviours. Studies have demonstrated an association between sexual assertiveness and HIV risk, among them was the study done by Onuoha and Munakata in 2005 that confirmed that sexual assertiveness can be a significant predictor of condom use.

Langen (2005) argued that age, economic dependence on a partner and history of abuse are important determinants of powerlessness and the ability of a woman to negotiate condom use with her partner. These studies indicate that risk perception alone is not enough to predict HIV protective behaviours, and the fact that women are socialized to submit to their sexual partners and give priority to male pleasure and control in sexual relationships contributes greatly to women’s inability to negotiate, when, where and how sexual intercourse takes place. The society

puts man in a strong and uncontrollable sexual position that develops feelings of powerlessness among women in sexual encounters.

2.2.5 Socio-Demographic and Psychosocial Factors and HIV Risk Perception

A large number of people are infected with HIV through sexual intercourse. Early sexual debut in most cases is linked to longer periods of exposure to sexual activity, which in turn leads to contact with more sexual partners and therefore increases the probability of contracting HIV. Several studies have explored the impact of early sexual initiation on health outcomes. Sneed (2009), in a study to explore the effect of early sexual debut as a sexual risk behaviour found that early initiators of sexual intercourse were significantly more likely to report having four or more lifetime partners. In their study, males who were classified as early initiators of sexual intercourse were 5.85 times more likely to report four or more sexual partners in their lifetime when compared to later initiators, Sneed (2009). Therefore, early initiation of sexual intercourse can lead to an increased risk for HIV through the exposure of multiple sexual partners.

Besides, marriage can influence how risk of HIV infection and sexual behaviour is perceived. Married women find it challenging to negotiate for safer sex due to the fear of being thought of as promiscuous by their spouses (Akwaru, Madise, and Hinde 2003).

Thus heterosexual couples may have the fear of bringing up the topic of safer sex in fear of offending their spouse, so they keep quiet to avoid conflict.

2.2.6 The role of Heuristics on HIV Risk Perception

HIV is believed to be the disease of “high-risk” groups which include sex workers; long distance truck drivers, drug addicts and Men Who have Sex with Men. This belief can influence how heterosexual couples perceive their risk for HIV infection and their sexual behaviour.

Kowalewski, Henson, and Longshore, (2015) suggested that framing risks of HIV infection in terms of risk groups rather than risk behaviours may influence the perception of risk because people who do not fall into a risk category may not perceive their risk behaviours as risky, even though they may actually be at high risk.

Therefore, every person is at risk for HIV infection through any of the modes of HIV transmission. Married couples should categorize themselves as a group at risk of HIV infection because a large percentage of HIV infection occurs through sexual intercourse.

Brown, Outlaw and Simpson (2000) found a consistent perceptual bias in risk estimation when they compared female college students to female HIV negative injecting drug users. The finding was that both groups used the cognitive coping strategies of denial, distancing, and downward comparison to minimize their risk of HIV infection. Therefore, risk assessments of HIV infection may be biased for people who identify HIV as a problem of risk groups but not directly related to their own risky behaviours. By separating one's self from the "high risk" groups, one can perceive his/her risk to be low (Kowalewski, Henson, and Longshore 2015).

2.2.7 Partner Dynamics and HIV Risk Perception

Risky sexual behaviour can be viewed in terms of the number of sexual partners, type of marriage partnerships and sexual acts. The risk for HIV infection, whose transmission is accelerated by sexual intercourse, is influenced by the behaviour of each of the two sexual partners. The length of stay in the relationship and the type of partnership developed usually promotes feelings of trust and safety, that results in a false sense of protection which can ultimately lead to a misperception of risk. Just like a heterosexual couple that has been in partnership for a longer time can develop a lowered sense of HIV risk. According to Ellen *et al.*,

(2003), many persons falsely perceive their partner's present and past risk behaviours and fail to take appropriate HIV preventative action.

Mehrotraet *al.*, (2009) examined whether there was any difference in risk perception of contracting HIV in the case of casual versus main sexual partners. They found that casual sexual partners were perceived to be more risky compared to main sexual partners for HIV infection. Kelly and Kalichman (2012) identified that in a relationship where an individual has a close loving feeling towards their partner; such individuals are never threatened by HIV infection. This literature shows that there are many factors that influence sexual behaviour and perception of risk of HIV infection. Therefore, recognizing individual partner's risky behaviour and taking action to change it would be a very essential step in protecting heterosexual couples from HIV infection.

3. Research Design

The study adopted a cross-sectional research design because it aimed at obtaining information on the current state of the influence of heterosexual couples' risk perception on HIV infection management in Kakamega County as cross-sectional research provides an accurate profile of situations, people or events (Rahi, 2017) and enables description of existing status of events, such as HIV Counselling and Testing, condom use, number of sexual partners and ART use in managing HIV, at a specific point in time as was the case with this study (Seremet *al.*, 2013).

3.1 Study Area

The study was carried out in Kakamega County of former Western Province of Kenya. Former Western Province currently exists as Kakamega, Bungoma, Busia and Vihiga Counties. Kakamega County was purposively selected for the study due to its high HIV prevalence and being with the highest number of adults living with HIV.

In Kakamega County 48,533 adults are living with HIV compared to Bungoma with 26,093, Busia with 16,065 and Vihiga with only 9,853. Kakamega County also has the highest number of adults with new HIV infection annually (NACC, 2014). Kakamega County had 154 adults newly infected with HIV in 2014, whereas Bungoma County had 83, Busia had 51 and Vihiga had 31 new HIV infections. Kakamega County is leading among the four Counties in the former Western Province of Kenya that increased their new HIV infections by more than one thousand fold (NACC, 2016). The number of new HIV infections in Kakamega County in 2013 was 154 (0.2%) which increased to 1935 (2.7%) in 2015 (NACC, 2016). Comparatively, Bungoma County had 83 new HIV infections in 2013 that increased to 1,145 and Busia had 51 new HIV infections in 2013 which increased to 1,467 in 2015 (NACC, 2016). These statistics show that the increase in new HIV infections in Kakamega County and its contribution to Kenya's HIV prevalence is alarming.

3.2 Study Population

The study population were heterosexual couples aged between 15 to 64 years from monogamous family set up. Heterosexual couples were targeted because HIV infection is best characterized as a sexually transmitted disease. Globally, more than 90% of new HIV infection among adults is acquired through sexual activity (Gouiwset *al.*, 2006)

3.3 Sampling Techniques

The study used both probability and non- probability sampling techniques. Kakamega County was purposively selected because of its high HIV prevalence and the highest number of adults living with HIV.

3.4 Data Analysis

The data collected by questionnaires was analysed using the SPSS computer software version 17, the results were presented by the use of descriptive and inferential statistics where cross

tabulations of variables were computed bringing out important information. Quantitative data was presented in form of frequency tables and percentages.

4. Findings and Discussion

4.1 Risk Perception of getting infected with HIV by heterosexual couples

The study assessed the level of risk perception of getting infected with HIV by heterosexual couples in Kakamega County. Heterosexual couples were asked to indicate how they perceive their risk of getting infected with HIV.

The findings in Table 4.1 show that 358 (30.3%) of the heterosexual couples say they have no risk of getting HIV, 396 (33.6%) say they have only a small chance, and thus 754 (63.9 %) say they have no risk or only a small risk of getting infected with HIV.

Table 4.1: Chances of getting infected with HIV by Heterosexual Couples in Kakamega County

			What are your chances of getting HIV					Total
			No risk at all	Small	Moderate	Great	Has HIV	
Gender	Male	Count	135	208	101	79	14	537
		% within What are your chances of getting HIV	37.7%	52.5%	47.2%	42.0%	58.3%	45.5%
		% of Total	11.4%	17.6%	8.6%	6.7%	1.2%	45.5%
	Female	Count	223	188	113	109	10	643
		% within What are your chances of getting HIV	62.3%	47.5%	52.8%	58.0%	41.7%	54.5%
		% of Total	18.9%	15.9%	9.6%	9.2%	.8%	54.5%
Total		Count	358	396	214	188	24	1180
		% of Total	30.3%	33.6%	18.1%	15.9%	2.0%	100.0%

Variation in the perception of risk of getting HIV by respondents, $\chi^2=19.403$, $p=0.001$, $df=4$

Chi- square value is statistically significant if $p < 0.05$ (Source: Field data, 2016)

The calculated chi-square value was 19.403 at 4 degrees of freedom and $p < 0.05$ indicating a highly significant variation in heterosexual couples' risk perception of getting HIV.

The results in Table 4.1 show that 214 (18%) of the heterosexual couples feel they have a moderate risk of getting infected with HIV whereas 188 (16%) think they have a great chance of getting HIV and 24 (2%) of the respondents have HIV.

More female heterosexual couples 223 (62.3%) feel they have no risk of getting infected with HIV than males 135 (37.7%). Likewise, more female couples 109 (58%) than male couples 79 (42%) perceive their chances of getting infected with HIV as great.

Therefore a majority (654) 63.9% of the heterosexual couples say they have no risk or only a small risk of getting infected with HIV. These findings agree with those of Tham, who investigated the perceived risk of getting infected with HIV among women in Malaysia and found that female respondents did not perceive to have the high risk of contracting HIV, whereby 51.7% of the respondents did not think that they could be at risk of HIV infection (Tham, 2018). Thus, to most people HIV is seen as a distant rather than an immediate threat, a disease that affects other people rather than self.

These findings corroborate a part of the cognitive approach called Optimistic Bias theory which suggests that many people think of AIDS and other life-threatening conditions as 'something that cannot happen to them' which eventually leads to many of them underestimating their risk in comparison with the actual risk (Macintyre *et al*, 2003). The determinants of the optimistic bias towards underestimation of risk of HIV infection would lead to the difficulty in realizing that an illness that may affect an individual many years later may need to be prevented today, and therefore it is not taken seriously (Macintyre *et al*, 2003). Therefore, in countries like Kenya, with very high HIV prevalence in certain regions it is important that a balance must be reached

where people develop realistic ideas about their own personal risk perceptions of infection and make informed decisions of adopting behavioural change (Sheppard *et al*, 2002).

4.2 Reasons for the perception of no risk/ small chance of having HIV infection

Heterosexual couples were asked to indicate reasons for perceiving no risk or small chance of getting infected with HIV. Their responses were as shown in Table 4.2.

Table 4.2: Reason for perception of small/no risk of getting infected with HIV

		Why do you think you have no risk/small chance of getting HIV							
		Is having sex	not	Uses condom	Has only one partner	Limits the number of partners	Partner has no other partners	Others	Total
Gender	Male	Count	14	114	151	46	15	7	347
		% within Why do you think you have no risk/small chance of getting HIV	51.9%	56.7%	34.9%	76.7%	38.5%	70.0%	45.1%
		% of Total	1.8%	14.8%	19.6%	6.0%	1.9%	.9%	45.1%
	Female	Count	13	87	282	14	24	3	423
		% within Why do you think you have no risk/small chance of getting HIV	48.1%	43.3%	65.1%	23.3%	61.5%	30.0%	54.9%
		% of Total	1.7%	11.3%	36.6%	1.8%	3.1%	.4%	54.9%
Total		Count	27	201	433	60	39	10	770
		% of Total	3.5%	26.1%	56.2%	7.8%	5.1%	1.3%	100.0%

Variation in the reason for perception of risk of getting HIV as nil or small by respondents,

$\chi^2=19.403, df=4, p= 0.000.$

Chi- square value is statistically significant if $p < 0.05$ (**Source: field data, 2016**)

The calculated chi- square value was 57.095 at 4 degrees of freedom and $p < 0.05$ indicating a highly significant variation in people's perception of risk of getting HIV. Analysis by gender shows that abstinence is rarely used by both men and women. More men (114) 15% than women (87) 11%, use condoms during sexual intercourse. A larger per cent age of women (282) 65% than men (151) 35% has only one sexual partner. More men 46 (6%) than women 14 (2%) limit the number of sexual partners.

Basing on these results it can be deduced that more women 24 (62%) usually believe that their husbands have no other sexual partners as compared to their male counterparts who are represented by 15 (39%).

Heterosexual couples had various reasons to explain their varied risk perception of getting infected with HIV. To answer the question, "why do you think you have no risk/ small chance of getting infected with HIV?" Sixty- five per cent (770) of the heterosexual couples perceived their risk of getting infected with HIV as nil or as small because they had had only one sexual partner. Had only one sexual partner was cited by 433 (56%) of the heterosexual couples, while 60 (8%) indicated that they limited the number of sexual partners and 60 (5%) said their partner had no other partners. These findings are in agreement with Priscilla *et al.*, 2014 who found a strong positive association between perceived risk of HIV and risky sexual behaviour among which was multiple sexual partners.

The other reason cited for small perception of getting infected with HIV was that heterosexual couples were using condoms. Two hundred and one (26%) of the heterosexual couples said they use condoms to prevent HIV infection. This finding is in agreement with Priscilla *et al.*, 2014 which includes unprotected sexual intercourse among risky sexual behaviours.

Condoms, when used consistently and correctly, are highly effective in preventing the sexual transmission of HIV. Research among sero discordant couples shows that consistent condom use significantly reduces the risk of HIV transmission both from men to women and women to men (Smith, 2015). The least cited reason for low or nil risk perception for HIV infection was abstinence which was cited by 27 (3.5%) of the heterosexual couples.

Among the reasons provided for small or no risk for HIV infection, condom use is the most reliable as male and female condoms are the only devices that reduce the transmission of HIV (UNFPA, WHO & UNAIDS, 2015). Laboratory studies show that condoms provide an impermeable barrier to HIV (UNAIDS/ WHO, 2001).

Having only one partner is not the surest way of protection because we are not sure of the HIV status of this partner or whether this partner has other partners. Limiting the number of sexual partners is not the surest protection because even having only one partner whose HIV status is not known to you is risky. These findings are similar to those from Kenya AIDS Indicator Survey which revealed that among the respondents who said they are HIV positive, quite a large number had not disclosed their HIV status to their partners (KAIS, 2012). Such partners are at high risk of contracting HIV yet they may have only one partner.

4.3 Reasons for perception of moderate or great risk of getting infected with HIV

Heterosexual couples were asked to indicate reasons for perceiving moderate or great risk of getting infected with HIV. Table 4.3 shows the distribution of respondents who believe they are at moderate or great risk of getting infected with HIV by reason for this perception. When asked, “Why do you think you have moderate or great risk of getting infected with HIV?”

Thirty- five per cent (410) of the respondents perceived their risk of getting infected with HIV as moderate or great with various reasons. One hundred seventy seven (43 %) of the respondents

have moderate or great risk of HIV infection because they do not use condoms. This is a more reliable reason because it is measurable. This also serves as evidence to prove that people recognize condom use as an effective means of protecting against HIV infection yet they may not use it.

Table 4.3: Reasons for Perception of moderate / great risk of getting HIV infection by Heterosexual Couples in Kakamega County

Gender			Why do you think you have moderate/great chances of getting HIV					Total
			Does not use condom	Has more than one sex partner	Partner has other partners	Homo sexual contacts	Had blood transfusion/injection	
Male	Count		87	55	19	4	17	182
	% within		49.2%	62.5%	17.1%	66.7%	60.7%	44.4%
	Why do you think you have moderate/great chances of getting HIV							
	% of Total		21.2%	13.4%	4.6%	1.0%	4.1%	44.4%
Female	Count		90	33	92	2	11	228
	% within		50.8%	37.5%	82.9%	33.3%	39.3%	55.6%
	Why do you think you have moderate/great chances of getting HIV							
	% of Total		22.0%	8.0%	22.4%	.5%	2.7%	55.0%
Total	Count		177	88	111	6	28	410
	% of Total		43.2%	21.5%	27.1%	1.5%	6.8%	100%

(Source: Field data, 2016)

Another reason heterosexual couples provided for their moderate or great perception of HIV infection was that one's partner has other partners 111 (27%), followed by having more than one sexual partner with 88 (21.5%). This therefore indicates that couples usually fear that their

sexual partner could have another sexual partner; this is a good indicator of multiple sexual partnerships in marriage.

For men, it is the failure to use condoms (87) 21.2% and having more than one sexual partner (55) 13.4% that puts them at risk for HIV infection. For women, it is the failure to use condoms (90) 22.0%, and the fear that the partner has other partners with (92) 22.4% that puts them at risk. This result is in agreement with KAIS, 2012 among respondents who reported having a moderate or great perception of HIV risk, the reason most commonly cited by women was that their partner has other sex partners (27.9%). Whereas the reason provided most frequently by men was having more than one sex partner (29.6%).

Furthermore, only 5.9% of men in KAIS, 2012, cited the belief that their partner has other sex partners as a reason for being at moderate-to-great risk which is lower than the finding from the current research that had 11%. In both female and male heterosexual couples the number of those who feel they have no risk of getting infected with HIV is higher than those who feel they have great risk.

These results corroborate those of Mehrotra *et al.*, (2009) which found that gender was a predictor for risk perception. Females reported a stronger association for HIV risk for both main and casual partners compared to males. Liverpool *et al.*, (2002) found similar results. Females reported higher perceived risk for contracting HIV than males.

They speculated that since the females believed that males were less likely to wear condoms, they felt they were at an increased risk for HIV and STIs (Liverpool *et al.*, 2002). Conard & Blythe (2003) revealed that adolescent females face special risk for increased STI risk, including both physiological and individual factors. Physiological factors such as cervical ectopy can place females at greater risk for HIV and other STIs.

Individual factors such as consensual and non-consensual choice of an older partner, incorrect condom use, and limited disease knowledge can also put females at an increased risk for infection (Crosby & Bounse, 2012).

In a study, Perceived Risk for HIV among High Risk Individuals in 2002, Idele found that most individuals perceived themselves as having a low risk of contracting HIV. The self-reported behaviours of many of the individuals in that study suggested that they might in fact be underestimating their risk because many had engaged in behaviours that would place them at risk for HIV infection.

5. Conclusion

The study concludes that heterosexual couples in Kakamega County perceived their risk of getting HIV as small or none with the reason that they have had only one sexual partner. This puts them at increased risk of getting infected with HIV given that multiple sexual partnerships are high among heterosexual couples in Kakamega County.

6. Recommendation

Basing on the findings and conclusion of this study, the researchers recommend Couple HIV Counselling and Testing in order for heterosexual couples to improve their assessment of risk of HIV infection.

To reduce HIV transmission, heterosexual couples need to know their joint HIV status and have access to information which would enable them to reduce the risk of infection both within and outside union.

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