



Let us talk about AIDS: Sexual Health Communication among Kenyan Women about HIV/AIDS Risk Prevention

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Abstract

Objective: The current trends continue to show a disproportionate increase of HIV infections among women mostly in sub-Saharan Africa. This study focuses on multi-dimensional factors such as social elements, cultural beliefs, cognitive and psychosocial norms, and self-efficacy that influence sexual health communication among Kenyan women in preventing HIV/AIDS.

Methods: This exploratory study uses cross-sectional KDHS dataset (2008/2009). It utilizes chi-square significance test to propose for a parsimonious and fit model to determine the odds of respondents' sexual health communication behavior using multi-stage hierarchical logistic regression.

Results: Self-efficacy and HIV testing was significant predictor of sexual health communication implying that women who have autonomy and who are likely to make individual decision in HIV testing are also more likely to communicate with their husband or sexual partner about ways to prevent getting the HIV/AIDS virus. Education and regional factors are also predictors of sexual health communication among women of Kenya.

Conclusion: Sexual health communication is key in sustaining and supporting prevention efforts of HIV/AIDS in Kenya where cultural beliefs and preset cognitive and psychosocial norms overpower self-efficacy in women's decision making for sexual health.

Keywords

Prevention; Self-efficacy; Cultural beliefs; Sexual health; Communication; HIV/AIDS; Kenya; Sub-Saharan

Introduction

Roughly 25 million people were living with HIV; 1.6 million infected, and 1.2 million died in 2012 alone [1]. Among those infected, women are particularly impacted and account for nearly 80% of the global total [1]. The current trends continue to show a disproportionate increase of HIV infections among women mostly in sub-Saharan Africa [1]. The newly released Kenya AIDS Indicator Survey [2] indicates that 5.6% of persons aged 15-64 were living with the HIV virus (1.2 million people) in Kenya. According to the Joint United Nations Program on HIV/AIDS [1], an estimated 65,000 people died due to AIDS in 2012 alone, and more than a million

children have been orphaned. Although we have had great success in death reduction from HIV, primarily attributable to antiretroviral therapy, gaps still remain in how to manage the disease through behavior change [3]. In fact, some have noted that although deliberate efforts have been made in Kenya through mass media and other interventions to inform and educate the public about HIV, there is a huge discrepancy between awareness and behavioral change. Furthermore increased HIV testing as a prevention measure has increased in the recent past, yet, 53% of those tested for HIV in 2012 did not know that they were infected [2]. Recent pharmacological advancements have cut HIV infections among children for example, to 52% since 2001, and contributed to a 30% drop in HIV deaths since 2005 [1]. That said, the character of HIV and the social burden caused by HIV continues to vex the research community [1]. The current study focuses on multi-dimensional factors including cultural beliefs, cognitive and psychosocial norms and self-efficacy on sexual health communications and HIV among Kenyan women.

Literature Review

Because of the high rate of HIV among couples in many sub-Saharan African countries, prevention efforts that involve spousal communication, among others is encouraged [4]. The present study argues that the lower status in relationships of women relative to their male partners might contribute to women's inability to communicate or confront their spouses about risky sexual practices. Yet, health communication is an important component in HIV prevention [5]. Communicating prevention takes into account behavioral, biomedical and structural approaches to health communication, to prevent HIV/AIDS. Individual health communications (e.g. spousal communication) and health communications (e.g. individual and group counseling in clinical setting) may facilitate behavioral change [6-8].

Evidence suggests that African couples may experience difficulties to freely discuss infidelity and condom use [9,10]. Similarly, others [10] have observed that spousal communication on reproductive health and HIV is a difficult subject to discuss, yet, sexual communication enhances condom use to avoid HIV/AIDS [11]. A qualitative study on the perspectives of older adults about HIV in Kenya revealed that participants were concerned that HIV infected individuals were spreading the disease either because of bitterness, revenge and/or fear of stigma associated with disclosing seropositive status [12]. In this context therefore, HIV prevention efforts might focus on improving sexual communication to bring needed awareness.

Consensus on the role of multiple and concurrent sexual partnerships (MSP/CP) in HIV transmission is still a touchy proposition. Multiple sexual relationships appear to contribute to HIV risk, especially for men who report having sex with more than one partner (30%) compared to women (4%) [2]. Some have argued that having sexual relationships that overlap in time [13]; a lack of consistent condom use; lack of sexual communications [14] and the practice of serial monogamy [15] have a significant impact on HIV prevalence in sub-Saharan Africa. Furthermore, individuals who report informal sexual practices outside marriage or formal relationships are relatively at risk for contracting HIV [16].

Partner support, especially from a male partner positively impacts family communications about condom use and general reproductive

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health [17]. Dialogue between partners, therefore, is a necessary supportive component in family planning service utilization as well as HIV risk reduction [18]. Spousal communication increases the likelihood of contraceptive use [19,10]; increases mutual communication between the spouses, and alleviates gender imbalance in relationships [20-22].

Gender autonomy is additional component that enhances women's communications power to prevent sexual risky behavior. Although women's control of their reproductive rights is important, they seldom make decisions that pertain to their reproductive health, child bearing, and number of children [23]. Thus, implementing HIV prevention strategy to include female condom is an important component to improve a woman's health [23]. According to Kaler [23], women autonomy over her sexuality would require an empowered woman who would have the choice to say "if you want to have sex with me we are going to use this thing; otherwise no sex". One who does not just says, "what do you want to use?" ...but would take the risk that the man might say "no to have sex with her".

To what extent women in Kenya communicate with their partners about the danger of contracting HIV is an important line of inquiry because empirical data show that having sexual relationships with multiple partners; living in a culture that embraces social norms, which implicitly promote relationship infidelity, are some of the reasons for the high HIV prevalence in Kenya. Caldwell, an Australian demographer with decades of experience working in Africa, has written about a culture of "a pervasive belief that one cannot confine sex to marriage only..." [24]. It is thus, important to have governmental policies that encourage sexual education, discourage early sexual debut and promote fidelity in relationship. Yet, as recently as 2012, and after the release of KAIS data [2], the Republic of Kenya affirmed and validated a long standing cultural customary law on polygamy when it officially enacted the "polygamy bill" into law. This affirmation by the Kenyan legislators could have health implications to have long-term social and economic ramifications. Meta Theory of Health Communication is used in the study to understand factors that promote sexual communication. Although many behavioral interventions efforts have been suggested, a health communication framework that incorporates multi-dimensional and cultural components in spousal communication is yet to be investigated.

Meta Theory of Health Communication

We utilize the Meta Theory of Health Communication [25] to understand the multi-dimensions of HIV prevention. According to the multi-theoretical framework, HIV prevention behaviors encompass a set of related factors to include social factors, cognitive and psychosocial norms, cultural beliefs and self-efficacy and its emotional impacts in interpersonal communication. It argues that communication interventions to prevent HIV have focused primarily to increase people's knowledge through education to prevent HIV [25]. The objective of this knowledge dissemination is to affect health outcomes to intercede in cognitive, emotional and social ideation underlying a given health issue (e.g. HIV/AIDS). That said, for these health communications to be efficacious, the environment must exist to support, rather than constrain communications between persons. This paper argues that the success of a multi-dimensional HIV communication prevention succeeds in the presence of various factors.

Social demographic factors and sexual health communication

Social demographic factors such as marriage status, wealth, highest education and living in either urban or rural, show impact

on sexual health communication. Empirical research reveals that spousal communication increases the likelihood of contraceptive use [19,10,26] and HIV prevention to include condom use [27]. Average age however, was found to have no significant relation with sexual communication in a Swiss study [28]. In patriarchal societies such as Kenya, age and education gaps between partners can affect the extent of sexual negotiations and sexual behaviors [3,29-31].

Cultural beliefs and sexual health communication

Cultural beliefs related to sex can also hinder or promote health sex communications [32]. In Kenya, cultural communication is understood within a specific socio-cultural context including cultural attitude. There is a gendered sexual script (i.e. sexual communication itself) on how individuals think and talk about sex [32]. A cultural expectation script, for example, dictates that sexual decision making is controlled by men. It is a script that implicitly conveys that women should not talk about sex or express a need for sex because it is an "awkward" or "uncomfortable" topic. Such a script could obscure sexual health communication between couples for the need of condom use, discussions about safe sex, and/or submission to her partner's request for forced sex notwithstanding [33,34]. Further, inability to communicate about sex can be due to the social and cultural norms that create asymmetrical relationship where men assume a dominant status than their female spouse. In addition, to the extent to which women participate in household activities, decision making and child rearing, it may also reflect their position of power relative to men affecting sexual communication [4].

Furthermore, sexual communication may be still a taboo in rural parts of the country as opposed to urban areas where education and awareness may be more prevalent. A study in rural Kenya found that spousal communication about HIV remains limited in rural couples, despite widespread dissemination of HIV-related mass media messages [3].

Cognitive and psychosocial norms and sexual health communication

Former UN Secretary General Kofi Annan famously declared, "the face of HIV/AIDS is a woman's face" [35]. A disparity of HIV exists among female gender (United Nations Population Fund, [UNFPA]) [36] particularly in sub-Saharan Africa. Women are 60% more likely to be infected with the HIV virus than men, and in the 15-49 age range, they are 80% likely to die from AIDS related illness [1,37]. A critical observation for the situation is the ideation and perceptions regarding sexual relationships in Kenya and the normative acceptance of having multiple sexual relationships particularly among couples in Kenya. For example, 2012 KAIS report [2] indicate that 30% of Kenyan men reported having engaged in sexual relationship with more than one partner compared to only 4% of women. A qualitative study [33] cited a lack of discussions of cultural norms and its influence on HIV prevention to influence this gender disparity. Further, a study funded by the Department of Health, the United States Agency for International Development (USAID) through the President's Emergency Plan for AIDS Relief (PEPFAR) and the Global in South Africa Fund [38] found that a large proportion of South Africans believed that having more than one sex partner was their cultural norm. In fact, in Kenya, as in many other sub-Saharan African countries, men generally have fewer sexual restrictions than do women [4]. Polygamy is also a commonly practiced norm in Kenya [39,40], while extramarital sexual relations is seldom a serious family communication issue particularly among married men who usually are the principal wage earners in the household [22,39].

Self-efficacy and sexual health communication

Communication about sex enables partners to discuss safer sexual practices including use of condoms [41] discussion about the means of spreading HIV, better means to reduce the transmission and spread of HIV, and other risk reduction measures that include fidelity in sexual relationships [42]. However, where there are internalized problems and perceptions about the role of a woman, there might be internalized fear on the part of a woman to communicate to her partner about safe sex. In the United States, for example, both internalizing and externalizing problems have been associated with high-risk sexual behavior [43]. The risk mechanisms may involve compromised decision-making, maladaptive coping, and low self-efficacy [43]. More research is needed to make these associations for women in Kenya.

Kenya

The study tests the efficacy of health communication model in a married, cohabitating or dating female partners in Kenya. Kenya is an important country to study because it is one of the highest HIV infected countries in sub-Saharan Africa (Ministry of Kenya, Kenya AIDS Indicator Survey [2]. The KAIS report [2] for example, indicates that about 1.2 million Kenyans aged 15-64 years are living with HIV/AIDS (a prevalence rate of 5.6%). Women in Kenya are disproportionately infected (6.9%) compared to men (4.4%). Further, married and/or cohabitating couples report higher HIV prevalence rates (5.3%) compared to their unmarried or cohabitating counterparts (1.8%). Researchers have examined factors that predict safe sex and condom use among young adults, e.g. [42], but few studies examine the extent through which women in marriage or cohabitating with a partner communicate about their sexual health and sexual risk to avoid HIV.

Methodology

Dataset

This exploratory study uses cross-sectional couple's data from the most recent Kenya Demographic and Health Surveys (KDHS) 2008/09 [44]. Demographic Health Surveys (DHS) have been administered to people from more than 85 countries by their national institutions in collaboration with ICF Macro International and the United States Agency for International Development (USAID). The current study uses the KDHS collected between 2008 and 2009 [44], conducted by the Kenya National Bureau of Statistics (KNBS). Information on sampling design, data collection procedures, and ethical, or consent concerns can be found in the final KDHS 2008/09 (KNBS) (2010).

Sample

The study uses a total of 660 (weight adjusted for DHS survey) women who responded to KDHS questionnaire on contraception use. We use the sample of women for a number of reasons. First, women are 60% more likely to be infected with the HIV virus than men; in the 15-49 age range, they are 80% likely to die from AIDS related illness [1,37] compared to their male counterparts. Second, use of female contraception almost always carries connotations for sexual autonomy and women's power status [23]. And, third, interventions that promote condom use have focused on building the women's "negotiating power" within sexual relationships [45] to prevent HIV transmission. Thus, promoting the effectiveness of communication among females and their partners is an important area to study.

Measures

Outcome variable for this exploratory study uses the important sexual health communication related question "Have you ever talked with (your husband/the man you are with) about ways to prevent getting the virus that causes AIDS?" Responses to this question were dichotomized to "Yes" or "No" answers. This is an important question to show how sexual communication empowers a woman to negotiate sexual health behavior. For the predictor variables, based on the theoretical framework, four predictor variables created are socio-demographic factors, cultural beliefs, cognitive and psychosocial influences and self-efficacy. For socio-demographics, participants were asked questions regarding their age, marital status, and wealth status and education level. Since cultural beliefs can be influenced by social contexts such as where people live, their ethnic background and their religion, the proxies used for this variable include type of residence (rural versus urban), residential region in Kenya, religion and ethnicity. Cognitive and psychosocial norms can be framed by unchallenged social norms such as patriarchal decision making power and polygamy, the study uses number of other wives, whether or not condom was used during last intercourse and whether the husband knows that respondent is using contraception. Self-efficacy is measured by last tested for HIV and decision maker for using contraception. This is important because previous research indicates that lack of, or low levels of sexual communications are associated with lower levels of condom use and inability to negotiate safe sex [46].

Data analysis

Statistical Package for Social Sciences (SPSS) version 21.0 for Windows was used to analyze the data for the study. Chi-square non-parametric tests was used to assess the association between whether women in marital or in-a-relationship ever talk with their husband or partner about ways to prevent getting the virus that causes AIDS and other multi-dimensional constructs that influences this sexual health communication. A multi-stage hierarchical logistic regression was used further using the predictors from the Chi-square analysis for a parsimonious and fit model to determine the odds of respondents' sexual health communication behavior. Model A examined the relationship between socio-demographic variable "highest levels of education" with the outcome variable. Model B looked at sexual health communication variable and its relationship with level of education and region; Model C assessed the outcome variable with the components of Model B in addition to the self-efficacy variables, "last tested for HIV" and "decision making for using contraception", and finally, Model D looked at all of the above as well as cognitive and psychosocial norm variable "husband knows that respondent is using contraception".

Results

Sample population

Among the 660 (KDHS weight adjusted) sample for women respondents, 81.4% (n=537) responded that they have ever talked with their husband or the man they are with about ways to prevent getting the virus that causes AIDS. More than half (56.53%) reported to having primary education, while slightly less a third (30%) reported secondary or higher education. As expected, approximately 70% live in the rural area and 93.3% are married. The majority of sample population for this study reside in the Rift Valley (29.8%) and the least populated region was Northeastern, which is a representative of country demographic. More than half (56.7%) responded that

they are rich based on the relative wealth index for the country and 61.8% were within the age range of 25 and 39. In terms of religion, an overwhelming majority of the respondents consider themselves Christians (96.7%). All respondents identified themselves as being one of eleven different ethnic groups (Table 1).

Chi-square results

Among individuals who responded “yes” to the question, “Have you ever talked with (your husband/the man you are with) about ways to prevent getting the virus that causes AIDS?” (n=615), more than half (54.3%) had primary education [χ^2 (3, N=659)=15.168, p=0.002]. Half of the respondents (50%) who reported testing for HIV/AIDS virus within 12 months or less also responded that they have talked about ways to prevent getting the virus [χ^2 (2, N=493)=14.569, p=0.001]. A significant number of respondents from the Rift Valley region (52.0%) said they haven’t talked about ways to prevent getting the virus that causes AIDS with their husband or the man they are with [χ^2 (7, N=660)=37.436, p=0.000]. compared to the next higher sampled Eastern region (12.2%). Among the women who responded that they have never talked about ways to prevent getting the AIDS virus with their partner, 55.7% responded making joint decision for using contraception and 36.1% made their own decision [χ^2 (3, N=659)=8.451, p=0.038]. Interestingly, among the same respondents, 78.8% responded that their husband knows that the respondent is using contraception [χ^2 (2, N=617)=15.639, p=0.000]. Of those respondents who responded yes to the sexual health communication question and who lived in urban areas (29.7%) and those who lived in rural areas (70.3%), approximately 80% said yes they have talked about ways to prevent getting the AIDS virus [χ^2 (1, N=660)=0.306, p=0.580]. Similarly, wealth [χ^2 (2, N=659) = 1.867, p=0.393], religion [χ^2 (4, N=659)=2.430, p=0.657], age [χ^2 (6, N=659) = 8.028, p = .236], ethnicity [χ^2 (12, N=657)=13.454, p=0.337], marital status [χ^2 (1, N=659)=0.118, p=0.731] results showed no differences in responses to the prevention question. Use of condom during last intercourse [χ^2 (6, N = 658) = 1.740, p = .187] and number of wives [χ^2 (1, N=660)=1.568, p=0.210] also showed no difference in responses to the sexual health communication question (Table 2).

Logistic regression results

For a parsimonious model fit test, the study used predictor variables that were significant in the chi-square statistics in Table 2. Model A showed that those who are educated at primary and higher level are more likely to talk with their partners about ways to prevent getting the virus that causes AIDS than those who are not educated (OR 2.10; CI 95% 1.38-3.21). Model B depicted that norms based on educational knowledge and regional beliefs are significant predictors for prevention talk. However, the odds of those who would talk about prevention in Rift Valley is less likely compared to the Coastal region of Kenya (OR 0.75; CI 95% 0.6 -0.87). In Model C, other than educational level and region, self-efficacy measures “last tested for HIV” and “decision making for contraception” were added to the model. All, except for the decision making for using contraception was a significant predictor (OR 1.02; CI 95% 0.77 -1.35). Compared to those who tested in the last 12 months, the odds of those who tested for their sero-status longer than 12 months ago are less likely to talk with their husbands or partners about ways to prevent getting the AIDS virus (OR 1.02; CI 95% 0.77 -1.35). Similarly, in Model D, other than educational level (OR 1.88; CI 95% .19-2.95), region (OR 0.75; CI 95% 0.65-0.87) and last tested for HIV (OR 0.71; CI 95% 0.53-0.94) are significant predictors of sexual health communication talk; however,

decision making for using contraception for self-efficacy measure and husband knows about using contraception are not the predictors of sexual health communication talk. Overall, variables in the equation explained approximately 13.7% of the variance and omnibus tests of

Table 1: Demographic representation of women in the study (weight adjusted).

Characteristics	Representations n=660	(%)
<i>Marital Status</i>		
Married	616	(93.3)
Not Married	44	(6.7)
<i>Highest Education Level</i>		
No Education	10	(1.5)
Primary Education	373	(56.5)
Secondary Education	228	(34.6)
Higher Education	49	(7.4)
<i>Type of Place of Residence</i>		
Urban	196	(29.7)
Rural	464	(70.3)
<i>Region</i>		
Nairobi	60	(9.0)
Central	93	(14.1)
Coast	36	(5.5)
Eastern	118	(17.9)
Nyanza	93	(14.1)
Rift Valley	196	(29.8)
Western	61	(9.3)
Northeastern	2	(0.3)
<i>Wealth Index</i>		
Poor	168	(25.5)
Middle Class	117	(17.8)
Rich	374	(56.7)
<i>Religion</i>		
Roman Catholic	133	(20.2)
Protestant/Other Christian	505	(76.5)
Muslim	16	(2.5)
No Religion	2	(0.3)
Other	4	(0.6)
<i>Age</i>		
15-19	12	(1.9)
20-24	106	(16.0)
25-29	185	(28.0)
30-34	142	(21.5)
35-39	91	(13.8)
40-44	79	(12.0)
45-49	45	(6.8)
<i>Ethnicity</i>		
Embu	22	(3.4)
Kalenjin	82	(12.4)
Kamba	51	(7.7)
Kikuyu	190	(28.8)
Kisii	68	(10.4)
Luhya	90	(13.7)
Luo	61	(9.2)
Masai	3	(0.4)
Meru	61	(9.3)
Mijikenda/Swahili	17	(2.5)
Taita/Taveta	7	(1.0)
Other	7	(1.2)

Table 2: Chi-square results (percent) for “Have you ever talked with (your husband/the man you are with) about ways to prevent getting the virus that causes AIDS” within and between groups (Adjusted).

	Between Groups		Within Groups		χ ²	p value
	Yes	No	Yes	No		
Socio demography						
<i>Age(n=660)</i>						
15-19	1.7	2.4	75.0	25.0	8.028	0.236
20-24	16.2	15.4	82.1	17.9		
25-29	27.0	31.7	78.8	21.2		
30-34	22.2	19.5	83.2	16.8		
35-39	15.3	7.3	90.1	9.9		
40-44	11.5	14.6	77.5	22.5		
45-49	6.1	8.9	75.0	25.0		
<i>Marital Status(n=659)</i>					0.118	0.731
Married	93.5	92.6	79.5	20.5		
Not Married	6.5	7.4	81.6	18.4		
<i>Wealth Index (n=659)</i>					1.867	0.393
Poor	25.7	24.6	82.1	17.9		
Middle Class	18.6	13.9	85.5	14.5		
Rich	55.7	61.5	79.9	20.1		
<i>Highest Education Level (n=659)</i>					15.168	0.002**
No Education	1.3	2.4	70.0	30.0		
Primary Education	54.3	66.7	78.0	22.0		
Secondary Education	30.9	90.9	83.3	16.7		
Higher Education	9.0	0.0	100.0	0.0		
Cultural Beliefs						
<i>Type of place of Residence (n=660)</i>					0.306	0.580
Urban	30.2	27.6	82.7	17.3		
Rural	69.8	72.4	80.8	19.2		
<i>Region(n=660)</i>					37.436	0.000***
Nairobi	9.7	6.5	86.7	13.3		
Central	15.3	8.9	88.2	11.8		
Coast	6.1	2.4	91.7	8.3		
Eastern	19.4	12.2	87.4	12.6		
Nyanza	15.1	8.9	88.0	12.0		
Rift Valley	24.8	52.0	67.5	32.5		
Western	9.3	8.9	82.0	18.0		
Northeastern	0.4	0.0	100.0	0.0		
<i>Religion (n=662)</i>					2.430	0.657
Roman Catholic	19.9	21.8	79.9	20.1		
Protestant/Other Cristian	76.6	75.0	81.6	18.4		
Muslim	2.6	2.4	82.4	17.6		
No Religion	0.2	0.8	50.0	50.0		
Other	0.7	0.0	100.0	0.0		
<i>Ethnicity (n=657)</i>					13.454	0.337
Embu	3.4	3.3	81.8	18.2		
Kalenjijin	11.6	15.6	76.5	23.5		
Kamba	8.4	5.6	88.2	11.8		
Kikuyu	29.5	4.9	82.7	17.3		
Kisii	9.0	8.3	70.6	29.4		
Luhya	13.6	27.0	80.2	19.8		
Luo	9.0	16.4	80.0	20.0		
Masai	0.6	14.8	100.0	0.0		

Meru	9.9	9.8	86.9	13.1		
Mijikenda/Swahili	2.8	0.0	93.8	6.2		
Taita/Taveta	1.1	0.8	100.0	0.0		
Other	1.1	7.7	85.7	14.3		
Cognitive and Psychosocial Norms						
<i>Number of Other Wives (n=659)</i>					1.568	0.210
No Other Wives	94.8	91.9	81.8	18.2		
More than One Wives	5.2	8.1	73.7	26.3		
<i>Last intercourse used condom (n=658)</i>					1.740	0.187
No	94.8	97.6	80.9	19.1		
Yes	5.2	2.4	90.3	9.7		
<i>Husband knows that respondent is using contraception (n=617)</i>					15.639	0.000***
No	8.8	21.2	63.8	36.2		
Yes	90.2	78.8	82.9	17.1		
Don't Know	1.0	0.0	100.0	0.0		
Self-efficacy						
<i>Last Tested (n=493)</i>					14.569	0.001***
Less than 12 months	50.0	42.7	84.2	15.8		
12-23 months	25.2	13.5	89.5	10.5		
2 years or more	24.8	43.8	71.9	28.1		
<i>Decision Maker for Using Contraception (n=659)</i>					8.451	0.038*
Mainly Respondent	23.6	36.1	74.3	25.7		
Mainly Husband/ Partner	11.7	8.2	86.3	13.7		
Joint Decision	64.4	55.7	83.6	16.4		
Other	0.2	0.0	100.0	0.0		

*p ≤ 0.05, **p ≤ 0.01, ***p ≤ 0.001

model coefficients were significant for the final model. The model predicted 81.5% of the classification correctly. Since the latter two measures are significant in the chi-square test, interaction effects for decision making for using contraception and husband knows that respondent is using contraception were tested. Results show both measures interact with the proxy self-efficacy variable last tested for HIV (Table 3).

Discussion

The results indicate that education has a significant influence on women’s communication with their partners about HIV. Women respondents with primary or higher education reported higher rates of communicating with their partners about HIV prevention compared to those with no education. A good amount of research has been devoted to understanding the relationship between education and risky behaviors and HIV in sub-Saharan Africa. Although a decade ago researchers had found that increases in education were associated with higher incidence of HIV [47-49] women with more education were more likely to contract HIV/AIDS than those who did not. This may be because they were the ones more likely to get HIV test. However, the relationship between higher education and high HIV infections appears to be reversing with educated women especially likely to engage in less riskier sex-related behaviors [50].

The study also shows that there are regional differences in how women communicate with their partners about ways to prevent

Table 3: Logistic Regression for “Have you ever talked with (your husband/the man you are with) ways to prevent getting the virus that causes AIDS?”

	Model A	Model B	Model C	Model D
Sociodemography				
Highest Level of Education	2.10 (1.38-3.21)***	2.02 (1.3-3.13)**	1.92 (1.23-3.01)**	1.88 (1.19-2.95)**
Cultural Beliefs				
Region	-	-0.75 (0.6 -0.87)***	-0.75 (0.64-0.87)***	-0.75 (0.65-0.87)***
Self-efficacy				
Last tested for HIV	-	-	-0.71 (0.54-0.94)*	-0.71 (0.53-0.94)*
Decision Making for Using Contraception	-	-	-1.02 (0.77-1.35)	-0.87 (0.62-1.22)
Cognitive and psychosocial norms				
Husband knows that respondent is using contraception	-	-	-	2.16 (1.00-4.68)
Interaction effects				
Decision Making for Using Contraception *Highest Level of Education				1.23 (1.11-1.37)***
Decision Making for Using Contraception *Last tested for HIV				0.95 (0.87-1.03)
Decision Making for Using Contraception *Husband knows that respondent is using contraception				1.27 (1.07-1.51)**
Husband knows that respondent is using contraception *Highest Level of Education				1.77 (1.35-2.33)***
Husband knows that respondent is using contraception *Last tested for HIV				1.04 (0.84-1.30)

OR= Odds ratio (CL= Confidence interval); *p ≤ 0.05, **p ≤ 0.01, ***p ≤ 0.001

HIV. Women in the Rift Valley for example, reported a reluctance to communicate with their partners about HIV prevention compared to those in the Coast region. In the context of Kenya, there are regional differences in the prevalence of HIV. The Rift Valley region as well as coastal region has relatively similar HIV prevalence rates (10-15%) [51] and thus further investigation is needed to understand communication discordance between the two regions.

Self-efficacy and HIV testing were significant predictor of sexual health communication implying that women who have autonomy and who are likely to make individual decision in HIV testing are also more likely to communicate with their husband or sexual partner about ways to prevent getting the HIV/AIDS virus. Our study outcome is in accord with Kamau [52], who also found that self-efficacy is a good predictor of adherence to Antiretroviral Therapy in men and women living with HIV in Kenya. Thus, efforts aimed at building self-efficacy are likely to improve and maintain HIV testing, prevention communication and adherence to HIV medication.

Interestingly, time at what respondents tested for HIV differentiated those who communicated with their partners and those who did not. For example, those who had tested for HIV longer than 12 months were less likely to communicate ways of preventing HIV than those who did test within 12 months. This could make intuitive sense in that communicating to ones partner about prevention means that one would be ready to test for HIV if challenged to do so by their partner. If however, they have not been tested in the recent past and have had relationships that could potentially be risky, it is plausible that such an individual might not be inclined to communicate to their partner about HIV testing as a precautionary prevention method.

An overwhelming majority of Kenyan women (81.4%) reported that they have communicated to their partners about the need to prevent against the virus that causes HIV, yet in another study, in the same sample of women, almost a third state that they would keep their HIV status a secret [53]. This is a dissonance that requires further investigation if HIV cases are to be reduced particularly among women.

Conclusion

Sexual health communication is key in sustaining and supporting prevention efforts of HIV/AIDS in Kenya where cultural beliefs and

preset cognitive and psychosocial norms overpower self-efficacy in women’s decision making for sexual health. Education efforts also need to be continued while regional and cultural beliefs and practices that prevent the important sexual health communication need to be closely assessed to prevent women from getting HIV/AIDS. Furthermore, when women are encouraged and empowered to act on improving [self-efficacy], they challenge or destabilize the existing beliefs and roles for an altered social contract between women and men that can change the experiences of each gender [23]. According to the Meta Theory of communication, knowledge dissemination is crucial in achieving healthy outcomes for HIV prevention; however there has to be an efficacious environment conducive to communicate prevention concerns. Self-efficacy and empowerment in regards to getting periodically tested for HIV/AIDS and communicate with her sexual partner about prevent getting the virus that causes AIDS are few of the key factors that may support the fight against HIV/AIDS, especially in Kenya where there are exponentially higher rates of infection [1]. Future research and policies need to promote interventions that are effective in increasing self-efficacy among women, open communication between sexual partners in preventing new HIV infections.

Limitations and Future Recommendations

This study uses cross-sectional data and therefore the outcome of this study cannot be used for causal inferences. The nature of secondary data limited the study design, sample selection, and variables in this study to compromise on the data quality and generalizability to other populations. KDHS excludes the contraception question to be implemented to majority of the Muslim population in Kenya and therefore the study outcome cannot be generalized towards this population. This study recommends using culturally sensitive data collection procedure to extract data from this important population in Kenya. Also, in a patriarchal society such as Kenya, it is plausible that the respondents to the KDHS survey gave socially desirable responses, particularly to questions related to sex which is a topic seldom discussed in public in Kenya.

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