Knowledge of HIV prevention and casual sex among sexually active persons in Ghana

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Abstract

This study examined the effects of knowledge of HIV prevention and other factors associated with casual sex among sexually active persons in Ghana in the fight against HIV and AIDS. The study uses a cross-sectional sample of 6,027 individuals 12-59 years randomly surveyed in all ten regions of Ghana. Binary logistic regression was employed to analyse the predictors of having a casual sexual partner. The results showed that sex, religion, and marital status were significantly related with casual sex. Males and the never married, living together, separated or divorced had higher odds of engaging in casual sex compared to the currently married. However, engaging in casual sex was not associated with knowledge of HIV prevention among the respondents. HIV prevention knowledge alone is not enough in reducing casual sex. A comprehensive education on the effects of casual sex on HIV and AIDS should be promoted among sexually-active Ghanaians.

Key Words: Knowledge, HIV prevention, casual sex, sexually active persons, Ghana

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Background

In Ghana, the use of condom as protection against HIV infection has been low. The results of the most recent Ghana Demographic and Health Survey (GDHS) conducted in 2008 show that only 20.2% of all women and 19.4% of all married women aged 15-49 years have ever used the male condom in Ghana. The respective percentage for all men and all married men was, however, 45.5% and 53.2% respectively. Also, higher percentages of all sexually active unmarried women (43.5%) and their sexually active men (77.7%) have ever used the male condom. The percentages for current users were, however, extremely low: only 3.0% among currently married women and 17.6% among the sexually unmarried women. The female condom was also used by a negligible percentage: 1.2% of all sexually active unmarried women and 0.7% and 0.9% respectively of all women and all married women aged 15- 49 years (Ghana Statistical Service et al., 2009).

In fact, the proportion of the sexually active population that uses any contraception in the country has been low (Baiden and Rajulton, 2011; Darteh and Nnorom CCP, 2012). The generally low reported prevalence rate of condoms and other contraceptives in Ghana, particularly among married men and women has been attributed mainly to a socio-cultural environment that cherishes large family size, despite the benefits of family planning in terms of promoting the health of the mother and child. Myths and misconceptions about family planning abound in Ghanaian society. There has also been the erroneous thinking by many people in Ghana that family planning is only meant to control childbearing among women. Again, family planning practice is considered to be synonymous with sexual promiscuity, especially when used by young people.

Furthermore, continuous contraceptive use is perceived as capable of resulting in sterility, especially among young persons. Some of the misconceptions are even reduced to the absurdity that condoms could even enter the womb of the woman when used. Religious reasons have also been associated with the non-use of modern contraceptives, including condom use, particularly among Christians who are affiliated with the Catholic denomination (Kwankye 2007, Nabila et al. 1999). These are some of the major reasons that explain the moderate achievement of Ghana's family planning/reproductive health programme. Gaps between knowledge and use of modern contraceptives have remained a major obstacle to improving reproductive health of the sexually active population and increased use of condoms in Ghana in the era of HIV and AIDS that are related to high fertility.

In the advent of HIV and AIDS, the condom (both male and female) is the only known preventive method apart from abstinence against sexually-related HIV infection. In addition to HIV prevention, accurate use of condoms is protective against unwanted or unintended pregnancy. Yet, there is low use of condoms in Ghana which in 2008 stood at 3.6%, 2.4% and 17.6% respectively among all women, currently married women and sexually active unmarried women of 15-49 years (Ghana Statistical Service et al., 2009). It suggests that while condom use is much higher among women who are sexually active, it is quite low among their counterparts who are not married. Perhaps, married women are under a false sense of security probably because they see themselves in stable unions. This could pose challenges in the nation's efforts towards sustaining the steady reduction in HIV infection so far achieved in Ghana as well as further reduce maternal and infant mortality. In a situation of low use of contraception especially

condoms, HIV prevention programmes have relied more on educating people on how to avoid infection through provision of right and accurate information in the hope that when individuals have a high knowledge about HIV prevention, they will adopt lifestyles to are less prone to exposing them to the risk of HIV infection. One of the lifestyles that expose people to HIV infection is casual sex especially when it is unprotected.

Against this background, this study examines the relationship between respondents' knowledge about HIV prevention and other factors associated with casual sex among sexually active persons in Ghana in the fight against HIV and AIDS. It is founded on the hypothesis that a good knowledge of how to prevent HIV infection would contribute to reduction in casual sex among sexually active people.

METHODOLOGY

Sample Design

The study is based on a nationally representative sample survey in Ghana in 2011. The quantitative approach involved the selection of a representative sample from all 10 regions in the country. The sample selection was in three stages. At the first stage, the 2000 Census Enumeration Areas (EAs) were used as the sampling frame for the selection of EAs and households in each of the 10 administrative regions. This was because the 2010 EA sampling frame was not accessible at the time of the survey. The study was, however, mindful of the inadequacies that the use of the 2000 Population and Housing Survey (PHC) EA sampling frame was likely to present.

The EAs were first stratified by region and by rural and urban areas. The EAs were then selected proportional to the number of households in each region such that regions with a large number of

households had more EAs selected compared to others with fewer households. A sample of 3,200 households was randomly selected for survey of females 12-49 years and males 12-59 years in all 10 regions in Ghana.

To select the sample of households, a household listing exercise was undertaken in all the selected EAs in the 10 regions in the country to determine the number of eligible persons in each household. This provided an effective basis for the selection and interview of eligible respondents in the quantitative survey in each selected EA. Based on the estimated sample of 3,200 households, we randomly selected 30 households from each selected EA guided by the household listing exercise. A total of 107 EAs were randomly selected nation-wide from our stratified EAs by region and rural/urban places of enumeration. Selecting at random 30 households from each of the 107 EAs, however, increased the total number of households to 3,210. On the assumption that each household would contain at least one eligible woman, we hoped to achieve a female individual sample of at least 3,210 throughout Ghana to be used in the analysis. For every household that was selected with an eligible woman, all eligible men in that household were to be interviewed in addition to all other eligible women present in that household at the time the interviewers called to interview each household. In the field, however, enumerators enumerated one eligible male in each household in addition to all the eligible women. At the end of the survey, a total of 6,027 respondents were interviewed, made up of 2,074 males and 3,953 females.

Data Analysis

The question on casual sexual focused on how many sexual partners the respondents have engaged on casual sex in the last four weeks. Those who did not have a casual sexual partner in the last four weeks were coded as "0" and those with one or more were coded as "1". Hence,

casual sexual partner was treated as a dichotomous variable. Three questions were used to assess the knowledge of HIV prevention. They included questions on whether HIV can be prevented through abstinence, use of condom and being faithful to one's partner. An index score was created for knowledge of HIV prevention and a higher score indicates a higher knowledge on HIV prevention. Descriptive statistics like frequency tables were used to describe the characteristics of the respondents. A binary logistic regression was used to determine the predictors of having a casual sexual partner within the context of knowledge of HIV prevention.

Ethical Considerations

The research instruments and protocols were presented to the Noguchi Institute for Medical Research's Ethical Review Committee and secured ethical approval before the commencement of the study. In addition to the research instruments and protocols, informed consent statements were developed for various categories of respondents that took care of all categories of respondents for the study including adult males and females as well as minors below age 18 years for whom parental consent was sought before their participation in the study. Service providers, chiefs, queen mothers, pharmacists, etc., were also interviewed using in-depth interview schedules.

RESULTS

Background Characteristics

The background characteristics of the respondents are shown in Table 1. The table shows that more than two in three of the respondents were females. As regards level of education, the highest proportion of the respondents (33.7%) had middle/JHS education and vocational/technical education recorded the least proportion (2.4%). However, more than one-fourth (26.8%) of them had no formal education. About one-fourth of them were made up of

youth (12-24 years) and the respondents were almost split with about the same proportion resident in rural and urban areas (50.3% and 49.7% respectively). In terms of religious affiliation, a higher proportion of them were represented by Christians (75.8%) among whom Charismatic/Pentecostal Christians recorded the highest proportion (42.5%). Muslims made up a little more than 10% of the sample while traditionalists/spiritualists constituted the smallest in terms of numbers (about 4%). On the other hand, with respect to ethnicity, the Akan constituted the largest ethnic group (46.3%) with the Guan (2.9%) representing the smallest proportion. Furthermore, the table shows that about six out of six of the respondents were currently married, a little more than one-fifth (21.7%) were never married and less than three per cent were widowed.

Table 1 Background Characteristics of Respondents

Background characteristics	Number= 3731	Percentage
Sex		
Male	1102	29.5
Female	2629	70.5
Level of education		
No education	998	26.8
Primary	703	18.8
Middle/JHS	1259	33.7
Secondary/SHS	409	11.0
Vocational/Technical	89	2.4
Higher	273	7.3
Age Group		
12-19	290	7.8
20-24	664	17.8
25-29	678	18.2
30-34	652	17.5
35-39	601	16.1

40-44	476	12.7
45-49	370	9.9
Place of residence		
Rural	1875	50.3
Urban	1856	49.7
Religion		
No religion	211	5.7
Catholic	547	14.7
Protestant/Anglican	716	19.2
Charismatic/Pentecostal	1200	32.2
Other Christian	361	9.7
Muslim	528	12.0
Traditional/spiritualist/Other	165	4.4
Ethnic group		
Akan	1728	46.3
Ga-dagme	268	7.2
Ewe	487	13.1
Mole-dagbani	698	18.7
Guan	109	2.9
Other Ghanaian	441	11.8
Marital status		
Never married	809	21.7
Currently married	2275	60.9
living together	335	9.0
Separated	89	2.4
Divorced	133	3.6
Widowed	90	2.4

Source: Barriers to Condom Use Survey, 2011.

Casual Sexual partners and index of Knowledge of HIV Prevention

Table 2 shows the proportion of people who had casual sexual partners as well as the index of knowledge of HIV prevention. From the table, less than 10 per cent of the respondents had casual sexual partners. In addition, less than five per cent had no form of knowledge of HIV prevention, more than one-third had one or two forms of knowledge (37.7% and 36.3% respectively) and about one-fifth had complete knowledge of HIV prevention.

Table 2 Casual Sexual partners and index of Knowledge of HIV Prevention

Variable	Number = 3731	Percentage
Causal Sex		
No	3474	93.1
Yes	257	6.9
Knowledge		
0	169	4.5
1	1407	37.7
2	1355	36.3
3	800	21.5

Determinants of casual sexual partner

A binary logistic regression, as shown in Table 3, was used to examine the relationship between knowledge of HIV prevention, socio-demographic characteristics and having a casual sexual partner. Model 1 looks at the unadjusted effect of knowledge of HIV prevention on having a casual sexual partner. In model 2, the socio-demographic characteristics are controlled for in order to bring out the independent effect of knowledge of HIV prevention on having a casual sexual partner.

From model 1, knowledge of HIV prevention is not significantly related statistically to having a casual sexual partner. This means that one's decision to have a casual sex partner is not related to his/her knowledge about HIV prevention. Also, when the socio-demographic characteristics were controlled for, the results did not show any statistically significant relationship between knowledge of HIV prevention and having a casual sexual partner. However, the results suggest that a unit increase in the knowledge of HIV prevention reduces the odds of having a casual sexual partner by 6.1%. In contrast, differences in sex, religion and marital status showed

statistically significant relationship with having a casual sexual partner. The table shows that males were 4.1 times more likely to have a casual sexual partner compared to females. Also, those who were Charismatic/Pentecostal Christians and those who belonged to other Christians had lower likelihood of having a casual sexual partner compared to those with no religion (43.8% and 63.7% respectively). Further, those who were never married, living together, separated and divorced were more likely to have a casual sexual partner than those who were currently married (1.5 times, 1.0 times, 3.4 times, and 2.7 times respectively).

Table 3 Predictors of having a casual sexual partner

	Model 1		**Model 2**	
Background characteristics	**Odds ratio**	**Standard error**	**Odds ratio**	**Standard error**
Knowledge	1.055	0.081	0.939	0.081
Sex				
Female (RC)			-	-
Male			5.132***	0.768
Level of education				
No education (RC)			-	-
Primary			0.820	0.192
Middle/JHS			1.103	0.230
Secondary/SHS			0.750	0.219
Vocational/Technical			1.578	0.659
Higher			0.975	0.312
Age Group				
12-19 (RC)			-	-
20-24			0.810	0.250
25-29			1.368	0.922
30-34			1.547	1.502
35-39			1.217	1.552
40+			1.891	3.200
Place of residence				
Rural (RC)			-	-
Urban			0.768	0.228
Religion				
No religion (RC)			-	-
Catholic			0.790	0.119
Protestant/Anglican			0.858	0.244

Charismatic/Pentecostal	0.562*	0.157
Other Christian	0.363**	0.136
Muslim	0.874	0.260
Traditional/spiritualist/Other	1.023	0.367
Ethnic group		
Akan (RC)	-	-
Ga-dagme	0.621	0.209
Ewe	1.06	0.367
Mole-dagbani	1.349	0.304
Guan	1.984	0.726
Other Ghanaian	1.053	0.268
Marital status		
Currently married		
Never married	2.566***	0.553
living together	2.007**	0.506
Separated	4.374***	1.626
Divorced	3.669***	1.240
Widowed	1.853	1.001

*Pseudo R-Squared= 0.1255 ***P<0.001 **P<0.01 *P<0.05*

Source: Barriers to Condom Use Survey, 2011.

DISCUSSION

This study has shown that sex, religion, and marital status have statistically significant relationship with having a casual sexual partner. Specifically, our results showed that males were more likely to have casual sexual partner compared to females. Studies have shown that women are mostly affected by unsafe sexual behaviour even though men practise unsafe sex more. The finding is consistent with the reasoning that gender inequalities place women in subordinate positions and the belief that men have stronger sexual drives than women (Reid, 1999; Kenya *et al*., 1998; Cohen & Trussell, 1996; Ocholla-Ayayo & Schwarz, 1991). Furthermore, our knowledge about the Ghanaian society tends to support the perception that it is quite acceptable socio-culturally for males to have multiple sexual partnerships (including casual ones) compared to females. This may, therefore, explain why males had higher likelihood of

having casual sexual partners. Again, that shows why HIV prevalence among females has over the years been higher than males (although the gap is steadily closing) such that one male who may be HIV-infected and has several casual and regular sexual partners could infect all of them at the same time.

The results also suggested that respondents, who were never married, living together, separated and divorced were more likely to have a casual sexual partner than those who were currently married. This is expected because anecdotal evidence has shown that marriage has a reducing effect on casual sex most especially for the woman because of the culturally acceptable expectation that the woman can have sex with only her husband unless there is divorce or upon the death of the husband. Married women, therefore, try as much as possible to be faithful to their sexual partnership with their husbands with often no reciprocal response from their husbands, thereby resulting in their infection with the AIDS virus. Stable marital situation could, thus, provide some kind of false protection of women against HIV infection especially as these women are unable to insist on their husbands using condoms as a form of protection.

Charismatic/Pentecostal professing Christians and those who belong to other Christian denominations had lower likelihood of having a casual sexual partner compared to those with no religion. This may be the result of the contribution that belonging to certain religious faiths could make regarding people's sexual behaviour. This is consistent with findings from studies that have shown that religion reinforces morality which regulates sexual behaviour, and prevent premarital and extramarital affairs (Odimegwu, 2005; Isiugo, 2001). It was, however, noted that there was no significant difference between Muslims and others who profess no religion with respect to having a casual sexual partner. Perhaps, this could be explained by the fact that while Christianity insists on monogamy and outlaws premarital or extramarital sex, Islam encourages

polygyny. This means that if Christians truly abide by the teaching on monogamy, their likelihood to having casual sex may go down.

Contrary to the hypothesis that a high level of knowledge about HIV prevention could reduce incidence of casual sex, the results suggested no statistically significant relationship existed between the two phenomena i.e., knowledge of HIV prevention and casual sex partnership. Although knowledge of HIV prevention is considered as one of the most important weapons for fighting the AIDS epidemic (Kiragu, 2001), it does not always translate into positive sexual behaviour (Odebiyi, 1992; Cleland, 1995). A plausible explanation is that high-risk sexual behaviours are too complex to be changed by simply increasing education or providing health-related information (Campbell, 2003). This is because rather than being a matter over which an individual can exercise rational control, sexuality is shaped by a complex process of identity formation nested within the dynamic web of cultural, psychological and social factors (Campbell, 2003). Other studies have also shown that knowledge of HIV prevention does not necessarily translate into appropriate sexual behaviour (Awusabo-Asare et al., 1999; Odebiyi, 1992). Another explanation of why knowledge may not lead to appropriate behaviour may be because people's susceptibility to HIV and AIDS and the perceived severity of the disease may be lower than the perceived benefits of engaging in casual sex (Brown DiClemente and Park, 1992; DiClemente et al., 1992; Rosenstock, 1990; Rosenstock, Strecher and Becker, 1994; Baiden and Rajulton, 2012). Further, Findings by Fapohunda et al, (1999) and Idele (2002) may provide a possible explanation for the weak link between knowledge, perceived risk and behaviour. In their studies, respondents had a fatalistic attitude towards AIDS. The expression 'after all you have to die of something' was cited to justify high-risk behaviour. This fatalistic attitude has been noted in other studies where participants are aware of modes of transmission

and prevention of HIV and yet continue to engage in risky sexual practices (Obbo, 1993). Other studies have, however, unearthed positive associations between knowledge and condom use (Basen-Engquist, 1992; Baiden and Rajulton, 2012).

The outcome of this study may, therefore, not be conclusive and may depend on the attitude of people to programmes that aim at educating the public on the effects of casual sex on the incidence and spread of HIV. In Ghana, the "Heart-to-Heart" Campaign has been very visible in the fight against HIV transmission. The campaign has been led by a group of persons who have openly declared their HIV-positive status urging people to seek voluntary HIV testing to be able to take advantage of anti-retroviral therapy as treatment for HIV in order to prolong their lives. The actors of the "Heart-to-Heart" Campaign are seen as very healthy-looking persons due to the anti-retroviral treatment they receive. It is possible that the healthy appearance of the "Heart-to-Heart" campaigners have presented a wrong perception in some minds about the impact of HIV on infected persons, thereby giving a rather false sense of security for persons who may want to indulge in casual sex. This could explain why in the analysis no statistically significant relationship was found between respondents' knowledge about HIV prevention and their likelihood to engage in casual sex, a finding that would still require further investigation.

CONCLUSION

This study showed that sex, religion, and marital status had statistically significant relationship with the likelihood of an individual having a casual sexual partner. However, knowledge of HIV prevention, which is the main focus of the study, did not have such a statistically significant relationship with having a casual sexual partner. The implication of the findings is that the acquisition of HIV prevention knowledge alone may not be enough to equip the individual to

want to avoid engaging in casual sex. This calls for the need for a comprehensive education on the effects of casual sex on HIV and AIDS to be promoted among sexually active Ghanaians. Such comprehensive sex education has been shown to work in helping people make healthy decisions about sex and in adopting a healthy sexual behaviour (Harrison, 2009). It is also important to adopt programme interventions on behavioural change about HIV and AIDS in Ghana based on multidimensional approaches with a likelihood of further reducing HIV infection/spread in the country.

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