Determinants of unprotected casual heterosexual sex in Ghana

Introduction

Although available evidence points to considerable increases in knowledge on HIV infection and prevention in Ghana, both in terms of quality and quantity (Luginaah, 2008; Yeboah, 2007; Bosompra, 2001; Mill, 2001), this seems not to have translated in behaviour. Available literature indicates that behaviour change is yet to correspond with the amount of information and education provided (Baiden & Rajulton, 2011). Ever since consistent condom use became popular as the most effective behavioural method for protection against HIV transmission among the sexually active (Asante & Doku, 2010; Coats, 2007), condom promotion has been the main theme for most intervention programmes. Despite the heavy campaigns on condom use in Ghana, available evidence points to relatively low condom use, especially in high risk sexual encounters and among most at risk populations (Ghana AIDS Commission, 2012; Anarfi, 2005; Bosompra, 2001). This study, therefore, assesses the socio-demographic, economic and spatial factors associated with unprotected sex, particularly casual heterosexual sexual encounters using the PRECEDE model, which was first published in 1974 (Green & Krueter, 1999) for health promotion programme planning. The PRECEDE model integrates constructs from Andersen’s behavioural model, health education, behavioural change and maintenance principles, culturally sensitive strategies, social action, and social learning theory (Green & Krueter, 1999).

The model considers individual psychological process such as attitudes and beliefs, the social environment, as well as structural and environmental concerns which are important in studying behaviour. This paper adapts the fourth phase of the PRECEDE model which identifies three categories of factors that play key roles in health related behaviour namely predisposing factors, enabling factors, and reinforcing factors. The conceptual framework assumes that the predisposing factors may be influenced by other factors operating beyond
the individual level such as exposure to mass media (news papers or magazines, radio and television). These are classified as enabling factors that may influence background factors that predispose an individual to consume alcohol before casual sex. To account for the influence of socio-cultural factors at the community level ethnicity and religion are considered as reinforcing factors in the conceptual framework.

**Data and source**

The study draws on data from the 2008 Ghana Demographic and Health Survey (2008 GDHS), which has measures on sexual behaviour. The 2008 GDHS utilized a two-staged stratified sampling procedure. The first stage involved selecting clusters using systematic sampling with probability proportional to size. The second stage involved the systematic sampling of 30 of the households listed in each cluster.

A total of 11,778 eligible households were interviewed with the Household Questionnaire. In half of the households selected for the survey, all eligible women aged 15-49 and all eligible men aged 15-59 were interviewed with the Women’s and Men’s Questionnaires, respectively. A total of 4,916 women aged 15-49 and 4,568 men aged 15-59 from 6,141 households were interviewed over a three-month period, from early September to late November 2008. The analysis in this paper is based on 752 women and 995 men who reported having engaged in unprotected casual heterosexual sex in their sexual encounter preceding the survey. The dependent variable (unprotected casual heterosexual sex) was derived from information on whether a condom was used in the last sexual intercourse. Respondents whose last sexual intercourse was with a married or cohabiting partner were excluded.

As informed by the conceptual framework, pertinent factors that may influence unprotected casual heterosexual sex were conceptualized as independent variables and
organized as predisposing, enabling and reinforcing factors. Age, educational level, marital status, rural-urban residence, region of residence, employment status and wealth status were considered as predisposing factors to unprotected casual heterosexual sex. Exposure to mass media (print, radio and television) was considered as an enabling factor, while ethnicity and religion were the factors considered in the analysis as reinforcing factors of unprotected casual heterosexual sex.

Binary logistic regression was used, since the dependent variable was constructed to be a binary outcome. With the conceptual framework as a guide, a sequential approach was adopted by running three models in succession.

**Results**

In the model (M1), the odds of men engaging in unprotected casual heterosexual sex were lower as level of education (66%, $p = 0.000$ for middle/JSS; 84%, $p = 0.000$ for secondary/higher) increased. In Model 1 for women, those aged 30-34 and 35-39 years were about 178% ($p = 0.024$) and 238% ($p = 0.046$) more likely to engage in unprotected casual heterosexual sex respectively, with reference to their counterparts aged 15-19 years. Women with secondary/ higher education were about 78% ($p = 0.004$) less likely to engage in unprotected casual heterosexual sex, compared to their counterparts with no education. With reference to Western Region, women in Greater Accra (67%, $p = 0.023$) and Eastern Regions (71%, $p = 0.004$) were significantly less likely to engage in unprotected casual heterosexual sex.

With the inclusion of enabling factors (exposure to mass media) in Model 2, the association between education (66%, $p = 0.000$ for middle/JSS; 81%, $p = 0.000$ for secondary/higher), and unprotected casual heterosexual sex weakened, but remained significant for men. In contrast, education (secondary/higher) was no longer a significant
predictor of unprotected casual heterosexual sex for women. The odds of having unprotected casual heterosexual sex decreased (162% p = 0.034) for women aged 30-34 years, but rather increased (280%, p = 0.030) for women aged 35-39 years, with the inclusion of the mass media in Model 2.

When the reinforcing factors (religion and ethnicity) were fitted in the Model 3, for women, Greater Accra Region which was significant in the previous models became statistically insignificant. However, Eastern Region remained significantly less associated with women (62%, p = 0.028) engaging in unprotected casual heterosexual sex. While the association between unprotected casual heterosexual sex and women aged 30-34 became statistically insignificant in Model 3, a stronger significant positive association emerged for those aged 35-39 years (316%, p = 0.027). Women with exposure to print media remained (46%, p = 0.008) significantly less associated with unprotected casual heterosexual sex.

Conclusion

In a country with a generalised HIV/AIDS epidemic as in the case of Ghana, understanding the factors that influence high-risk sexual behaviours is very important in strengthening efforts to promote behaviour change. It emerged from the study that there are both factors that facilitate, as well as inhibit the practice of unprotected casual heterosexual sex in Ghana, and they vary between and among men and women. The paper has also demonstrated that women in Ghana are more prone to the risk of STIs and HIV through unprotected casual heterosexual sex, with higher probabilities among those aged 35-39. This mirrors the apparent ‘feminisation’ of the HIV epidemic in sub-Saharan Africa and therefore emphasises the need to empower women with condom negotiation skills.