

EXTRAMARITAL SEX AMONG MEN IN ZAMBIA

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Abstract

Using data from the 2001-2002 Zambia Demographic and Health Survey, our research is the first to examine the implications of wealth on men's extramarital sexual behavior in Zambia. Following an evolutionary perspective, we hypothesized that wealthier men are more likely to engage in extramarital sex than poor men because resources attract women and also wealthier men can afford subsequent costs of such sexual relations. Although 19% of married men had extramarital sex during the 12 months before survey, the results from logistic regression analyses do not support the evolutionary hypothesis. Instead, we found that net of the effects of socio-demographic variables and timing of first intercourse, region of residence was the strongest predictor of men's extramarital sexual behavior. Such findings suggest that extramarital sexual behavior is embedded in local norms and values specific to each geographic area. Therefore, sexual health research and programs should take these locally patterned cultures seriously.

Introduction

In 2000, Zambia's population was more than 10 million. Of this estimated population, 830,000 Zambians over the age of 15 were believed to be living with HIV/AIDS (Panos/UNAIDS 2000). In urban areas of Lusaka and Ndola one in every four sexually active adults is HIV positive. In rural areas, one in seven sexually active adults has the virus. The main channel of transmission is heterosexual sex and almost all the children with the virus contracted the virus from their mothers.

The HIV/AIDS pandemic has brought the once taboo topics for research to the forefront. Now, researchers are studying sexuality, sexual practices and sexual behavior not only as major public health issues but also as demographic issues. Before the International Conference on Population and Development (ICPD) held in Cairo in 1994, in spite of men's role as responsible partners and also their prominent sexual and reproductive role, men had not received much attention in research. Most demographic research had concentrated on women and paid scant attention to men. However, as noted by UNAIDS (2000) and also at the HIV/AIDS conference in Durban, South Africa in 2000, male sexuality, sexual practices and behavior have gained importance particularly in sub-Saharan Africa where, more women than men are being infected often by their husbands or long term partners. Yet, as noted by Abrahamsen (1997), there is a tendency to blame the women for the transmission of the HIV/AIDS virus, which provides an indication of how HIV/AIDS is bound up with gender roles and gender struggles.

In Zambia as in many other countries, knowledge about sexually transmitted infections (STIs) and HIV/AIDS is very high. However, this knowledge has not translated into safer sexual practices. In both the Zambia Sexual Behavior Survey (ZSBS 2000) and the Zambia Demographic Health Survey (ZDHS 2001-2002) on average, over 90 percent of all adolescents

and adults had heard of HIV/AIDS. Also, most respondents in the two surveys indicated that HIV infection can be avoided. Some of the commonly cited measures that the respondents thought could be used to avoid the infection were condom use during sexual intercourse, being faithful to one partner or limiting the number of partners and abstinence. In the 2000 ZSBS men (71%) and women (65%) indicated that using condoms during sexual intercourse could prevent the transmission of STIs and the virus causing HIV/AIDS. The proportion of men and women indicating faithfulness or sticking with one sexual partner was 84 percent for men and 82 percent for women. The ZDHS (2001-2002) data show that 48 percent of the women and 62 percent of the men cited condom use as a method that could be used to prevent HIV/AIDS infection. Forty six percent of women and 33 percent of men indicated that being faithful to only one sexual partner or limiting the number of partners could also prevent the virus that causes AIDS. Furthermore, 44 percent of women and 53 percent of men cited abstinence as a preventative measure.

This study examines the prevalence and correlates of extramarital sex among men in Zambia. According to recent estimates, nearly 16 percent of the sexually active population is HIV-positive, with the majority of infections occurring through heterosexual sex. Like in all societies, men are the key agents of heterosexual transmission because they act as bridge population that links the outside sexual health to their household environment. This leads, among other things to infection among women and children born to infected mothers. This paper seeks to provide the level and determinants of extramarital sexual relations in Zambia through an evolutionary perspective. According to this perspective, men's extramarital sexual activity is a function of the existing gender inequality in society. Hence, men with higher socio-economic

status are expected to have more extramarital sexual relations than their counterparts at the lower level of the economic ladder.

Theoretical Perspective and Research Hypothesis

Sexuality is a central factor of reproduction for many species. For example, Darwin (1871) explained the evolution of species through the thesis of survival of the fittest. For species that rely on sexual reproduction, Darwin argued that males could best maximize their fitness by mating with many females. However, because this mating scheme is subject to struggle between males, only the fittest ones would have access to more females.

Many scholars have studied this mating phenomenon among several species (see Heath and Hadley 1998 for a concise summary). In a study of *Drosophila*, Bateman (1948) discovered that only a limited number of males gained the majority of females and this insured the passing of their genes to the next generations. A similar result was obtained in a study of red-winged black-birds known as *Agelaius phoeniceus*. In this latter study, Muldal, Moffat, Roberston (1986) discovered that the males that had more female mating partners were those with larger harems. Such findings led to two important concepts that help describe differences in mating and reproductive strategies between males and females.

The first interesting concept emerging from the evolutionary perspective on mating strategy is the “male as provisioner.” This concept derives from literature on hunting-gathering societies (Diamond, 1997; Hawkes, 1990; Hill and Hurtado, 1996), as well as nonhuman primate studies (Van Schaik and Paul, 1996). The basic argument is that the greater male’s ability to possess or acquire and provide resources in a population, the higher his chance of gaining access to more females. The second important concept from the evolutionary model of mating strategy is known as “high quality male.” Several studies have shown that males with more resources to

their disposition have more access to females. High-quality males, it is said, gain access to more females in two non-exclusive ways. First, such males attract more females because females need resources to survival (Anderson, 1994; Buss, 1989; Cashdan 1996). Second, high-quality males out-compete other males who do not have enough resources to provide for or help females (Hawkes, 1994).

These two concepts and their related hypotheses have been examined only in few studies of mating and reproductive behaviors of human populations. In a study using data from 1850, 1860, and 1870 U.S. censuses for the Utah territory, Heat and Hadley (1998) found that wealthier men attracted and married more wives than less wealthier ones. Their study confirmed findings from previous work, which showed that men who control more resources and sometimes those with higher social capital (e.g., having brothers who can inherit one's wife and children after the death) have more access to female sex partners (Borgerhoff Mulder, 1990; Hewlett, 1988, 1991; Hill and Kaplan, 1988). However, no study has examined the implications of wealth on men's extramarital sexual behavior.

As noted earlier, this study looks at the impact of men's resources on their mating behavior, with a special focus on their extramarital sexuality. Borrowing from the evolutionary concepts of male as provider and high-quality male, we posit that resources lead to more extramarital mating. More specifically, our research hypothesis is that wealthier men will be more likely to engage in extramarital sex than poor men. This is because resources attract women and also wealthier men can afford subsequent costs that would be associated with their sexual acts.

Methods

Data

This study is based on the 2001-2002 Zambia Demographic and Health Survey (ZDHS), a survey carried out by the Zambian Central Statistical Office and Zambian Central Board of Health. ORC Macro, a U.S. based research firm, provided financial and technical assistance for the survey through the USAID-funded MEASURE DHS+ program. The 2001-2002 ZDHS is a nationally representative sample of women and men. Like in other countries, the ZDHS collected information on various aspects of health, sexuality, nuptiality, as well as household characteristics. Detailed information about sampling methods, survey, and basic results of this survey has been published elsewhere (see Central Statistical Office [Zambia], Central Board of Health [Zambia], and ORC Macro. 2003).

During the 2001-2002 ZDHS, 7,658 women age 15-49 and 2,145 men age 15-49 were interviewed. Among the 2,145 men interviewed, about 38 percent were single (never married), 59 percent were married, the rest (about 7 percent) were either formerly married or in cohabitation. Our analysis is limited to married men. The term “married” used in this paper refers to legal or formal marriage as described in the 2001-2002 ZDHS report (Central Statistical Office [Zambia], Central Board of Health [Zambia], and ORC Macro. 2003: 93). We did not include cohabitation in the present paper because this kind of union is rare in Zambia (less than 1 percent) and also its definition is usually controversial.

Variables

Our main dependent variable is extramarital sexuality defined as having had sexual intercourse with a woman other than one’s own wife in the last 12 months. Additional questions were asked to determine the number of such extramarital sex partners, the length of the

relationship with each of these extramarital sex partners, and whether condoms were used in these relations. Following previous research (Hill, Cleland, and Ali, 2004; Knodel, Low, Saengthienchai, and Lucas, 1997) and our research hypothesis, we selected the following variables as predictors of extramarital sexuality: age, education, occupation, wealth index, religion, type of place of residence, region of residence, household headship, and age at first sexual intercourse.

Among these variables, education, occupation, and wealth index were used as proxy for wealth. As hypothesized earlier, we expect married men with higher education, those who hold higher occupational status (e.g., professional), and those in household with more instrumental means (as measured by wealth index) to be more likely to have had extramarital sexual relations in the last 12 months. Similarly, those who scored higher on these three variables are expected to have more extramarital sex partners than their counterparts with lower wealth attributes. These wealth variables and all other predictors of extramarital sexuality are described below.

Age is usually a strong predictor of sexuality (Djamba, 1997, 2003). Its effect was also found in studies on extramarital sexuality (Hill, Cleland, and Ali, 2004; Wiederman, 1997). We distinguish three age groups (15-29, 30-39, and 40+) in order to examine the effect of age on the risk of extramarital sexuality. Previous research showed that education is correlated with extramarital sexual behavior (Hill, Cleland, and Ali, 2004) so we include it here to assess its influence on extramarital sexuality of *Zambian* men. Due to low educational attainment among *Zambians*, we divided respondents in four educational categories: none and incomplete primary, complete primary, incomplete secondary, complete secondary and more. From an evolutionary perspective, occupation and wealth are important predictors of mating in general and extramarital sexuality in particular. From the original occupational distribution which contains 9

categories, we constructed a new occupation variable with four categories: professional, service and skilled, agriculture and self-employed, and other. The last category (“other”) includes some 3.5 percent of men who were unemployed at the time of the survey.

We created another measure of wealth called wealth index from information on household properties. This index is a combination of information on household ownership of selected amenities. We initially examined all amenities from the quality of house flooring material to ownership of car/truck. However, an exploratory analysis of these items showed that only six of them are useful for assessing the level of wealth in this data set. These items are: radio receiver, television set, refrigerator, bicycle, car/truck, and electricity. At least one percentage of the households reported having each of these items. Ownership of each of these items was scored 1 and 0 otherwise. By adding the scores on all these items, we obtained a household wealth index. The highest value of this index is 6 for those households that had all six items and 0 for those without any of the items.

We also included religion in our analysis because previous studies showed that religious affiliation is an important predictor of extramarital sexuality (Hill, Cleland, and Ali, 2004). We distinguished three main religious categories: Catholic, Protestant, and other. The last category includes also those without religious affiliation. Given the influence of urbanization in human behavior, we considered the type of place of residence as a predictor of extramarital sexuality. We made a distinction between urban and rural residence. Similarly, we included the region of residence to capture the influence of local culture on extramarital sexuality. Another key predictor was household headship. This variable was found significant of extramarital sexuality in Brazil (Hill, Cleland, and Ali, 2004) and we expect it to have a similar effect in Zambia. Our last key predictor of extramarital sexuality was age at first intercourse. Research has shown that

first sexual initiation at an early age is a predictor of extramarital sex and risk sexual behavior during adolescence and adulthood (White 2000; Hill, Cleland and Ali 2004; Bakken and Winter 2002).

Analytical approach

We analyzed these variables in three steps. First, we obtained the univariate statistics showing the distribution of respondents along the key variables. Second, we conducted bivariate analyses between each predictor and the dependent variable. Third, we examined the net effects of these predictors in the logistic regression model. This model is based on the following equation:

$$EMS = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n + \varepsilon$$

where EMS is the probability of having had extramarital sex during the 12 months preceding the survey, $X_1 \dots X_n$ represent the independent variables used to predict the EMS, and ε is an error term assumed to be normally distributed.

Results

Characteristics of the Sample

Table 1 shows the socio-demographic characteristics of married men in Zambia. Among these men, 30 percent were 15-29 years, 36.5 percent were 30-39 years, and nearly 34 percent were over 40 years. Slightly over 35 percent had no education or had attended primary school but not completed. Almost 25 percent had completed primary schooling and slightly over 25 percent had attended secondary school but did not complete it. Slightly over 14 percent had more than a secondary education. Almost six percent (5.9%) of the married men were in professional occupations and almost 24 percent (23.9) were in service/skilled occupations. The majority of

the married men, 53 percent were in the agricultural/farming occupations or self employed and slightly more than 17 percent reported other or were unemployed.

The majority of the respondents, about 63 percent did not own any of the six household amenities included in the measure of the wealth index. Almost 18 percent (17.8%) owned one item and almost 19 percent (18.9%) owned more than two items. The overwhelming majority of the respondents seem to be Christians. The common denominations reported by the respondents were Protestants (71.5%), Catholics (24.2%) and the other minor denominations including those who did not belong to any denomination (4.3%). The distribution of respondents by type of place of residence shows that Zambia is largely a rural country. About three-fourths (72%) of married men in the sample lived in rural areas and only about one-fourth (28%) lived in urban centers. The sample was almost evenly distributed across the different regions, ranging from nearly 7 percent in the Western region to slightly over 16 percent in the Northern region.

Slightly over 92 percent (92.3%) of the respondents were head of household. Thirty five percent of the respondents had their first sexual intercourse before the age of 16, slightly over 37 percent (37.3%) between the age of 16 and 19 and almost 28 percent reported their sexual debut at over age 20.

Bivariate Analyses

In Table 2, we show the relationship between extramarital sex and each of the independent variables. The results show that nearly 19 percent of married men had extramarital sexual relations in the 12 months before the survey. As for the direct effects of the independent variables, age, occupation, type of place of residence, region of residence and age at first sexual intercourse are statistically significant correlates of men's extramarital sex in Zambia.

The association with age shows that the prevalence of extramarital sex is higher among younger married men and decreases consistently with age. This result is consistent with that of frequency of sexual activity in other countries (Hill, Cleland, and Ali, 2004), suggesting that men's tendency to have multiple sex partners tend to be higher at younger age. In terms of occupations, our data show that extramarital sex is the least prevalent in jobs that are performed around the home, or where husband and wife (wives) can be together (e.g., agricultural and self employed occupations). Also, data in Table 2 show that those in urban areas are more likely to have extramarital sexual relations than their counterparts in rural areas. This is probably because city life provides more opportunities for meeting and mating as the number of potential mates is usually higher than in rural areas. Interestingly, there are large variations in extramarital sex across the regions. For example, whereas nearly 38 percent of married men in the Western region had extramarital relations in the 12 months before the survey, only about 7 percent of those in the Northern region did so. These results suggest that there are some locally specific norms and values that affect married men's sexual behavior in each region.

We also found a strong association between age at sexual debut and extramarital sex. It is shown here that those who had their first intercourse at younger age were more likely to have extramarital relations than those who had their first sexual experience later in life. Contrary to other research (Hill, Cleland, and Ali 2004), religion had no effect on extramarital sex. Likewise, education, wealth index and household headship have no significant effect on men's extramarital sex in Zambia.

We also looked at the mean number of extramarital sex partners among those who did have extramarital sex during the 12 months before the survey. The results are generally consistent with those discussed above. Overall, married men, who had engaged in extramarital

intercourse in the 12 months before the survey, had 1.34 extramarital partners. However, across the independent variables, only two variables have significant differences in terms of number of extramarital sex partners. First, data on occupation showed that those who worked in agricultural jobs and self-employed workers had fewer extramarital sex partners. Second, those in urban areas have more extramarital sex partners.

Multivariate Analyses

We conducted multivariate logistic regression analyses using two models and a third full model that includes all independent variables. These models show the net effects of age, education, occupation, wealth index (0-6), religion, place of residence (rural/urban), region, head of household and age at first sexual intercourse on men's extramarital sexual intercourse in the last 12 months before the survey (see Table 3). Many of our results are consistent with those obtained in a recent study of Brazilian men (Hill, Cleland, and Ali, 2004). In model 1, we assess the effects of age, education, occupation and wealth on extramarital sex. We found that age and occupation were significant predictors of extramarital sexual intercourse. Married men age 40 and older were significantly (at $p < 0.001$) less likely to engage in extramarital sexual intercourse than younger married men aged 15-29 years. Similarly, although not significant, married men aged 30-39 years were also less likely to have extramarital sex than younger men aged 15-29 years. Furthermore, in model 1, occupation has a significant effect on extramarital sex. Married men in professional occupations (at $p < 0.05$), married men in service/skilled occupations (at $p < 0.01$), and married men in agricultural sector and/or self employed ($p < 0.10$ level approaching significance) were more likely to engage in extramarital sex than married men in other/none category. In our hypothesis, we expected that married men who scored high on the three measures of wealth as defined in this study (education, occupation and wealth index) would be

more likely to engage in extramarital sex than their counterparts with lower wealth attributes. In this model, education and the wealth index are not statistically significant. Lacking significant associations on two of the proxy variables for wealth, our hypothesis is not fully supported.

In model 2, when we added religion, place of residence and the regional variables, age maintained its significance level while the effect of occupation disappeared. Occupation is significant as shown in Model 1 only when we do not account for the place of residence including the regional location, which accounts for the cultural influence. Furthermore, education and the wealth index showed little change. But the place of residence was significant (at $p < 0.05$). Thus, married men who resided in urban areas were more likely to engage in extramarital sex than their counterparts in rural areas. Similarly, compared to those in the Central region, Southern and Western region residents were significantly more likely to engage in extramarital sex. In contrast, those in the Northern region were significantly less likely to engage in extramarital sex. Other regions (Copperbelt, Eastern, Lusaka, and North-Western) were not statistically significant to the reference group, the Central region.

Upon controlling for all the variables in Model 3, we found that age category including the age at first sexual intercourse was important in predicting extramarital sex. The younger the individuals the more likely they were to engage in extramarital sex. Those respondents older than 40 years were significantly (at $p < 0.01$) less likely to engage in extramarital sex. This finding confirms other research on extramarital sex (Hill, Cleland, and Ali 2004; Wiederman, 1997) and risky sexual behavior (Feldman et al 1997; Ndubani and Hojer 2001). Those respondents who had experienced sexual debut between age 16 and age 19 and respondents who had experienced later sexual debut at age 20 or more in the last 12 months of the survey were significantly (at $p < 0.05$) less likely to have engaged in extramarital sex than those respondents who had

experienced sexual debut before 16 years of age. As noted earlier, the wealth index variable did not have an effect on extramarital sex; therefore, our hypothesis was not fully confirmed. These patterns require further discussions to which we turn to in the section.

Discussion

Our main research hypothesis that wealth leads to extramarital sexual relations was not fully supported by the data. More specifically, our contention that education attainment, occupation, and wealth index variables will be significantly associated with men's extramarital sexual behavior was not confirmed. Instead, we found that the effect of occupational status was significant only in the short model that included age, education, occupation, and wealth index. This effect disappeared once residence and regional variables were introduced in the equation, but the pattern of the association remained in the expected direction. That is, although not significant in subsequent logistic regression models, occupational coefficients indicate that being in a higher occupational position increases the risk of extramarital sex.

Nonetheless, the fact that education and wealth index were not statistically significant suggests that these variables are not good predictors of extramarital sex in Zambia. In many African countries, sexual behavior is embedded in local cultures. As some previous studies have shown, ethnic norms that are found in regional areas of countries are very strong correlates of sexuality (Addai, 1997; Djamba, 2003). The influence of local culture is changing, especially in cities, but for many African people, ethnic affiliation means shared language, normative behavior, and reproductive and mating strategies.

Therefore, the findings of this research support the view that sexual behavior in Zambia is locally defined based on values and norms proper to each region. Hence, the evolutionary

perspective that wealthy men would embrace a more permissive sexual strategy is not supported by the current data. Nonetheless, several of our findings are in line with results of previous studies.

According to the findings in this study, both age at first sexual intercourse and age at survey are associated with the probability of engaging in extramarital sexual intercourse. Married men who reported sexual experience before age 16 were more likely to engage in extramarital sex than married men who postponed sexual experience until age 20 or more. These findings are consistent with similar studies in different populations (White 2000; Konings et al. 1994). Because early sexual initiation may potentially lead to exposure to numerous sexual partners during one's lifetime, it is arguable that young married men who experienced early sexual initiation have a higher risk of STIs and HIV infections. Married men's extramarital sexual behaviors place their families at risk of being infected. Their wives become more susceptible to being infected and passing on the virus to the children.

Furthermore, our study results indicate that young age is associated with extramarital sex among married men, which is contrary to research that reports cross-generational sex (Luke & Kurz 2002) because of the wealth factor. These researchers argue that older age and higher economic status are resources held by men in cross-generational relationships that allow men to have extramarital relationships, especially with young girls and women, who are in most cases in these relationships for economic reasons, hence, the association of extramarital sex with greater wealth of the male partner.

Contrary to this assumption, we found that occupation, as a proxy for wealth was only significant when we did not control for place of residence and region. We found that married men in professional occupations were significantly more likely to engage in extramarital sex

followed by those in service/skilled occupations than those who were in agricultural/farming occupations. An explanation for the significant positive effect of occupation on extramarital sex may be that married men with full-time professional jobs have access to monetary resources and therefore are more likely to spend on their extramarital sex partners. Occupation is closely linked to earnings and is reflective of a person's wealth. Since this study did not examine the effect of transactional sex on extramarital sex, this explanation should be taken with caution and there is need for further research to determine the relationship between transactional sex and extramarital sexual behavior. Nonetheless, these results suggest that without the place of residence and the region variables, occupation does have an effect on extramarital sex.

In Model 2 after we controlled for place of residence and region, the significant effect of occupation disappeared while the place of residence and some regions in Zambia were significantly associated with extramarital sex. This phenomenon may be explained by the fact that in most developing countries, most professional occupations are found in urban centers and thus, as migration from rural areas to urban centers in search for wage employment has increased, this may have also increased the likelihood of engaging in extramarital sex. As this study has shown, married men in urban centers are more likely to engage in extramarital sex than their counterparts in rural areas. This may be because urbanization leads to the declines in traditional customs and decreased cohabitation with spouses, especially for married men who leave their spouses in rural areas or the homestead while they pursue wage employment in urban centers. Furthermore, if the married men were in polygamous unions, this practice although in most cases less likely to be found in urban areas, it is continued through its informality. Other studies have also noted this phenomenon (Wood et al. 1998; Vos 1994; Ulin 1992).

It is interesting to note regional differences in Zambia on extramarital sexual practice. Extramarital sexual practices were found to be much more common among married men from the Central, Southern and Western provinces than among married men from other regions. These findings may be explained by the traditional culture about marriage and sexual behavior that prevails in these regions. Socially defined marriage forms and sexual behavior for both men and women in these regions can shed light on how patterns of sexual behavior are structured and may contribute to the understanding of extramarital sex and perhaps the spread of STIs and HIV/AIDS.

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Table 1. Socio-Demographic Characteristics of Married Men, Zambia, DHS 2001-2002

Characteristic	Number of cases	Percent
Age		
15-29	372	30.0
30-39	452	36.5
40+	415	33.5
Education		
None & incomplete prim.	439	35.4
Complete primary	307	24.8
Incomplete secondary	315	25.4
Complete secondary+	178	14.4
Occupation		
Professional	73	5.9
Service/skilled	295	23.9
Agric-self employed	655	53.0
Other/none	212	17.2
Wealth index (0-6)		
0	785	63.4
1	221	17.8
2+	233	18.8
Religion		
Catholic	299	24.2
Protestant	885	71.5
Other or none	53	4.3
Residence		
Urban	347	28.0
Rural	892	72.0
Region		
Central	133	10.7
Copperbelt	139	11.2
Eastern	176	14.2
Luapula	123	9.9
Lusaka	131	10.6
Northern	199	16.1
North-Western	132	10.7
Southern	126	10.2
Western	80	6.5
Head of household		
Yes	1143	92.3
No	96	7.7
Age at first intercourse		
Before 16 years	433	35.0
16-19	462	37.3
20+	342	27.6
All	1239	100.0

Notes: Total may not add up to 1239 cases for some variables, due to missing data. Likewise, percentages may not add up to 100, due to rounding.

Table 2. Extramarital Sex by Socio-Demographic Characteristics of Married Men, Zambia, DHS 2001-2002

Characteristic	% had extramarital sex in last 12 months (N=1237)	Mean number of extramarital partners during the last 12 months (N=229)
All	18.5	1.34
Age		
15-29	24.0***	1.38
30-39	20.2	1.24
40+	11.8	1.45
Education		
None & incomplete prim.	18.0	1.29
Complete primary	17.3	1.23
Incomplete secondary	21.0	1.33
Complete secondary+	17.5	1.68
Occupation		
Professional	20.5**	1.27***
Service/skilled	23.8	1.31
Agric-self employed	15.1	1.16
Other/none	21.2	1.80
Wealth index (0-6)		
0	19.1	1.37
1	14.9	1.12
2+	19.8	1.39
Religion		
Catholic	18.8	1.23
Protestant	18.2	1.36
Other or none	22.6	1.58
Residence		
Urban	23.9**	1.54*
Rural	16.4	1.23
Region		
Central	16.5***	1.23
Copperbelt	14.4	1.20
Eastern	18.2	1.22
Luapula	8.9	1.36
Lusaka	27.5	1.69
Northern	6.6	1.00
North-Western	21.2	1.21
Southern	29.4	1.49
Western	37.5	1.30
Head of household		
Yes	18.0	1.34
No	25.0	1.33
Age at first intercourse		
Before 16 years	24.3***	1.39
16-19	17.1	1.37
20+	13.2	1.18

Notes: Total may not add up to 1239 cases for some variables, due to missing data.

*** $p \leq 0.001$ ** $p \leq 0.01$ * $p \leq 0.05$

Table 3. Logistic Regression Results Predicting the Likelihood of Having Had Extramarital Sex, Married Men, Zambia, DHS 2001-2002

Characteristic	Model I		Model II		Model III	
Age						
15-29	--	(1.000)	--	(1.000)	--	(1.000)
30-39	-0.244	(0.784)	-0.248	(0.780)	-0.231	(0.794)
40+	-0.897***	(0.408)	-0.931***	(0.394)	-0.857***	(0.424)
Education						
None & incomplete prim.	--	(1.000)	--	(1.000)	--	(1.000)
Complete primary	-0.008	(0.992)	0.031	(1.031)	0.009	(1.009)
Incomplete secondary	0.067	(1.069)	0.113	(1.119)	0.111	(1.117)
Complete secondary+	-0.407	(0.666)	-0.414	(0.661)	-0.345	(0.708)
Occupation						
Professional	0.753*	(2.124)	0.447	(1.563)	0.501	(1.650)
Service/skilled	0.571**	(1.770)	0.366	(1.442)	0.399	(1.491)
Agric-self employed	0.396+	(1.486)	0.103	(1.108)	0.095	(1.099)
Other/none	--	(1.000)	--	(1.000)	--	(1.000)
Wealth index (0-6)						
0	--	(1.000)	--	(1.000)	--	(1.000)
1	-0.215	(0.806)	-0.132	(0.876)	-0.120	(0.887)
2+	0.125	(1.134)	0.215	(1.240)	0.243	(1.275)
Religion						
Catholic			--	(1.000)	--	(1.000)
Protestant			-0.329+	(0.720)	-0.299	(0.742)
Other or none			-0.098	(0.907)	-0.070	(0.933)
Residence						
Urban			0.482+	(1.619)	0.456+	(1.578)
Rural			--	(1.000)	--	(1.000)
Region						
Central			--	(1.000)	--	(1.000)
Copperbelt			-0.537	(0.584)	-0.497	(0.608)
Eastern			0.140	(1.150)	0.170	(1.185)
Luapula			-0.709+	(0.492)	-0.677+	(0.508)
Lusaka			0.200	(1.221)	0.262	(1.299)
Northern			-1.051**	(0.350)	-0.924*	(0.397)
North-Western			0.311	(1.365)	0.264	(1.302)
Southern			0.738*	(2.092)	0.828**	(2.289)
Western			1.266***	(3.547)	1.251***	(3.493)
Head of household						
Yes					--	(1.000)
No					0.069	(1.072)
Age at first intercourse						
Before 16 years					--	(1.000)
16-19					-0.423*	(0.655)
20+					-0.534*	(0.586)
Constant	-1.414***		-1.292***		-1.281***	
- 2 Log-Likelihood	1146		1077		1067	
Number of cases	1233		1231		1229	

Notes: *** $p \leq 0.001$ ** $p \leq 0.01$ * $p \leq 0.05$ + $p \leq 0.10$

Odds ratios in parentheses