Determinants of extramarital sex by men in Tanzania: A case study of Mbeya region

Maurice CY Mbago, Francis J Sichona

Abstract

This paper attempts to identify some factors associated with extramarital sex by men in the Mbeya region of Tanzania using data from a survey conducted in 2003/2004. The choice of Mbeya region was prompted by the fact that it has been found by previous studies to be one of the regions with the highest HIV prevalence rate in Tanzania. Correlates of extramarital sex that were considered include current age, education, residence, age at first sexual intercourse, age at first marriage and sex before marriage. A bivariate analysis of the survey data, which comprised a sample size of 568 married men aged between 15 and 62 years revealed statistically significant association between extramarital sex with current age, education, age at first intercourse and sex before marriage. The effect of these variables was tested through a multivariate logistic regression analysis and all the four independent variables were found to be statistically significant predictors of extramarital sex in Mbeya region.

Keywords: *extramarital sex, correlates, logistic regression, HIV/AIDS, Tanzania.*

Résumé

En utilisant des données d'une enquête menée en 2003/2004, cet article tente d'identifier des facteurs associés aux relations sexuelles hors mariage d'hommes de la région de Mbeya en Tanzanie. Le choix de la région de Mbeya a été motivé par le fait que des études précédentes ont constaté que cette région avait l'un des taux de prévalence du VIH les plus élevés de Tanzanie. Les corrélats des rapports sexuels hors mariage qui ont été examinés comprennent l'âge actuel, le niveau d'éducation, le lieu de résidence, l'âge lors du premier rapport sexuel, l'âge lors du premier mariage et s'il y a eu ou non des relations sexuelles avant le mariage. Une analyse à deux variables réalisée à partir des données de l'enquête, qui comprenait un échantillon de 568 hommes mariés âgés de 15 à 62 ans, a révélé une association statistiquement significative entre les relations sexuelles hors mariage et l'âge actuel, le niveau d'éducation, l'âge lors du premier rapport sexuel et s'il y a eu des relations sexuelles ou non avant le mariage. L'effet de ces variables a été testé au travers d'une analyse de régression logistique multivariable. Indépendamment des autres, chaque variable s'est révélée être un indice statistiquement significatif de relations sexuelles hors mariage dans la région de Mbeya.

Mots clés: *relations sexuelles hors mariage, corrélats, régression logistique, VIH/SIDA, Tanzanie.*

Introduction

Knowledge of the factors associated with sexual behaviour is important if necessary interventions are to be undertaken to slow down the spread of HIV/AIDS. In Tanzania, as in many other countries, HIV/AIDS is spread mainly through heterosexual activities. The risk of heterosexual transmission of HIV is largely determined by either premarital or extramarital unsafe sex with an HIV-infected person (Ahlburg *et al.*, 1997). Information pertaining to the HIV/AIDS situation in Tanzania shows that 6% of Tanzanian adults aged 14 - 49 years were infected with HIV (National Bureau of Statistics, 2008). The prevalence is higher among women (7%) than men (5%). For both sexes, urban residents have higher (9%) levels of HIV infection than rural residents (5%). The highest HIV prevalence rates are found in the Iringa region (16%), followed by Dar es Salaam (9%) and Mbeya region (9%).

In this paper we attempt to identify some factors associated with extramarital sex by married men in the Mbeya region, Tanzania. Two main factors have led us to confine our study to men rather than women. Firstly, studies on sexual behaviour and other topics related to HIV/AIDS established that extramarital sex is much higher among men than among women (Forster & Furley, 1989, Carael *et al.*, 1994, Isiugo, 1994, Tveit *et al.*, 1996, O'Connor, 2001). Secondly, as a result of social norms, self-reporting of extramarital affairs is likely to be more reliable for men than for women. Bernadette *et al.* (1992) argue that this could be a reflection of the actual levels of such activity by women but may also be a result of under-reporting due to social norms.

The choice of Mbeya region is appropriate for this type of study mainly because Mbeya has been found by previous studies to be

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one of the regions with the highest HIV prevalence rate in the country. For example, the 2003 - 2004 Tanzania HIV/AIDS Indicator Survey (THIS) reports that HIV prevalence rate in Mbeya is almost twice the national average. Also, the WHO Assessment of the Epidemiological Situation in Tanzania carried out in 2004 reports that in 2001 nearly 70% of sex workers tested in Mbeya were HIV-positive. The assessment further points out that outside Dar es Salaam, the majority of data on HIV prevalence among STI clinic patients come from Mbeya, where the HIV prevalence among STI patients tested there increased from 22.5% in 1988 to 27% in 1997.

The motivation for this study arises from the fact that unprotected extramarital sex for married people is the root cause of deaths due to HIV/AIDS, resulting into orphans who, in turn, face psychological and social problems. USAID has estimated that by 2010 the number of AIDS orphans in Tanzania will be roughly 1.8 million if an effective and inexpensive treatment is not developed by that time. This means that more than one in ten children in Tanzania under the age of 15 will be orphans (Novartis Foundation for Sustainable Development, 2003). It is also reported (op.cit) that in the schools in Kagera District of Tanzania, between one-third and one-fifth of the children had lost one or both parents to AIDS.

An interesting theory of extramarital affairs has been provided by Fair (1978) through an economic model that explains the allocation of a married person's time among work, spouse and paramours. The model is built around the idea that people like variety in their lives. In Uganda Kisekka (1989) found that Baganda men engage in extramarital affairs looking primarily for variety. Some of the approaches proposed by Fair (1978) for modelling extramarital affairs include:

(a) Borrowing from the literature on the economics of crime and considering the decision whether or not to have an affair to be analogous to the decision on whether or not to commit a crime. It is argued that in making the decision an individual would weigh the gains from the affair against the expected loss where the expected loss is the probability of being caught times the cost if caught.

(b) Borrowing from the job-search literature and interpreting extramarital affairs as a form of search for an alternative spouse. Here the factors that induce a worker to search for an alternative job could be postulated as inducing a person to search for an alternative spouse.

Objectives of the study

The main objective of this study was to investigate the role of men in family planning. Specifically, the study examined the sexual behaviours of married men that facilitate the spread of HIV/AIDS.

Data collection methodology

Data for this study were obtained from the survey conducted by the authors in 2003/2004 in the Mbeya Region. The survey intended to collect information from 500 married men, 250 each from the rural and urban districts. Mbeya rural and Mbeya urban districts were chosen so as to allow comparison between rural and urban respondents. Married men aged between 15 and 59 were eligible for the interview. The selection procedure was a combination of multi-stage and systematic sampling procedures. A multi-stage sampling procedure was used at the district levels where using the 2002 Population and Housing Census enumeration area maps, one rural and one urban ward was selected. The second sampling stage involved selection of three villages from the selected rural ward and three streets in the selected urban ward. The third stage was the selection of ten cell leaders from each of the selected villages/streets. A systematic sampling procedure was then used to pick married men eligible for the interview in each village/street until the desired sample was obtained.

Both quantitative and qualitative data were collected. A structured questionnaire was used to collect quantitative data through face-to-face interviews which were entirely voluntary. In the interviews, respondents were assured that the collected data were going to be used entirely for research purposes and that their names would remain anonymous. Focus group discussions were used to collect qualitative information using open-ended questions. Respondents were assured that their participation in these group discussions was voluntary.

In the survey the respondents were asked, among other things, if they had ever had sex with other women apart from their wives since marriage.

Modelling extramarital sex

Our dependent variable was whether or not a married man had ever had sex with other women apart from his wife since they got married. The independent variables included age, education, residence, age at first sexual intercourse, age at first marriage, and sex before marriage. The theoretical arguments for including the above variables are as follows:

1. As the age of a married man increases the desire for extramarital sex decreases due to several factors such as decreased sexual stamina.

2. As a husband's education increases, involvement in extramarital sex decreases since more educated men may have lower demand for risky sex than less educated men (Philipson & Posner, 1995:835).

3. Married men in urban areas are potentially more likely to engage in extramarital sex than those in rural areas due to availability of many hiding places in the urban areas, thus reducing the chances of being detected by their wives (see also Ahlburg *et al.*, 1997).

4. The earlier the age at first sexual intercourse, the more likely married men will be involved in extramarital sex. Furthermore, men who marry too young are not likely to have had many sexual partners before marriage and this may increase their likelihood of being involved in extramarital affairs with time.

5. Men who have had sexual relationships with women before marriage may be likely to continue those relationships even after marriage.

Data capture, editing and analysis

The collected data were entered into the computer using the SPSS software. Frequencies were then run to check the presence of any errors in the data set. After ensuring that the entered data were error-free, frequency distributions of the independent variables were produced. A bivariate analysis was then done involving cross-tabulations of the dependent variable with each independent variable considered and assessing whether or not the associations are statistically significant by means of the Chi-square test. Only the variables that were significantly associated with the dependent variable at 5% level were then included in the logistic regression. SPSS software was used for the analysis and estimation of the logistic regression model.

Results and discussion

Background characteristics of the respondents

Age composition, education level and residence

A total of 568 married men aged between 15 and 62 were interviewed in the Mbeya Region. As Table 1 shows, only 2.3% were below 20 years of age, 26.6% between 20 and 29, 38.0% between 30 and 39, 22.9% between 40 and 49 and only 9.9% older than 50 years. Most (74.5%) of the respondents had primary education and 11.1% had secondary education but 5.6% had no education. The sample consisted of 40.5% urban and 59.5% rural. Initially we had planned a 1:1 rural-urban sample. The results show a slight deviation from the planned proportion because urban respondents were less responsive compared with their rural counterparts, as indicated in Table 1.

Table 1. Profile of the study population (*N*=568)

Characteristic	Frequency (*N*)	Percentage (%)
Age		
<20	13	2.3
20 - 29	151	26.6
30 - 39	216	38.0
40 - 49	130	22.9
50+	58	9.9
Not stated	2	0.4
Education		
Nil	32	5.6
Adult	33	5.8
Primary	423	74.5
Secondary	63	11.1
Post secondary	3	0.5
Not stated	14	2.5
Residence		
Urban	230	40.5
Rural	338	59.5

Premarital sexual relations

About 51% of the respondents reported to have had their first sexual intercourse at the age of between 15 and 19 years. Under normal circumstances this would be treated as premarital sex since men of this age would usually be single. Indeed the findings in Table 2 show that by the age of 24 more than three-quarters of the respondents appear to have had sexual intercourse. We also note that the prevalence of premarital sex is quite high, as 76.2% of the respondents had sex with a woman before marriage and 58.3% reported to have had sex with more than one woman before marriage.

Extramarital sex and its correlates

The respondents were asked if they have ever had sex with other women apart from their wives since marriage. As indicated in Table 3, approximately 39% said 'yes', 59% said 'no' and 2% did not respond. Out of the 221 respondents who said 'yes' we also wanted to know the number of women that they had had sex with. From Table 3 we see that the majority (36.2%) had sex with 1 woman, 20.4% had sex with 2 women, 9% with 3 women, 10% with 4 women and 19% with 5 or more women. The striking feature here is that about 58% of the respondents had sex with at least 2 women since they got married. This is an indicator of the level of promiscuity in Mbeya, which ranks second among the most affected HIV/AIDS regions in Tanzania.

The factors associated with extramarital sex are shown in Table 4, which gives a cross-tabulation of extramarital sex by age, education, age at first marriage, residence and age at first sexual intercourse.

From the bivariate analysis (Table 4) we see a statistically significant relationship between extramarital sex and current age (p=0.0013), education level (p=0.0034), age at first sexual intercourse (p=0.0002) and sex before marriage or premarital sex (p=0.0000).

In particular the results show that sex outside marriage tends to increase with increasing age. For example, 29% of the respondents aged less than 29 years reported to have had extramarital sex since marriage compared with nearly 51% for those aged 40 - 49 years.

For education the results show a lower percentage of extramarital affairs for those with primary education than those with no education, adult education and secondary education. This shows no clear direction of the relationship between extramarital sex and education. It is reported by other researchers that although education is associated with the risk of extramarital sex the findings are mixed. For example, Treas & Giesen (2000) found lower education to be associated with an increase in the cumulative incidence of extramarital sex for married couples. Also, a study in India by Schensul *et al.* (2006) showed that men with lower education are more likely to engage in extramarital sex than those with higher education. Although the findings in Table 4 indicate a strong association between extramarital affairs and age at first intercourse the pattern is again not very clear. Respondents who had their first sexual intercourse between 15 and 19 years of age seem to be more promiscuous than those who had their first sexual intercourse at the age of below 15 and above 19 years.

Sex before marriage appears to be very strongly associated with extramarital affairs. A higher percentage (46.1%) of respondents who had practised premarital sex seems to be more promiscuous than those who had not done so before (17.1%). This finding is also supported by other researchers such as Forste & Tanfer (1996), Treas & Giesen (2000), and Whisman & Snyder (2007).

Table 2. Indicators of premarital sex prevalence

Question	Frequency (*N*)	Percentage (%)
Have you ever had sex with a woman before marriage?		
Yes	433	76.2
No	124	21.8
Not stated	11	1.9
How old were you when you first had sex with a woman?		
10 - 14	33	5.8
15 - 19	291	51.2
20 - 24	112	19.7
25 - 29	32	5.6
30+	8	1.4
Don't remember	79	13.9
Not stated	13	2.3
Have you had sex with more than one woman before marriage?		
Yes	331	58.3
No	224	39.4
Not stated	13	2.3

Table 3. Indicators of extramarital sex prevalence

Question	Frequency (*N*)	Percentage (%)
Have you ever had sex with another woman apart from your wife since marriage?		
Yes	221	38.9
No	335	59.0
Not stated	12	2.1
Total	**568**	**100%**
How many women apart from your wife have you had sex with since you got married?		
1	80	36.2
2	45	20.4
3	20	9.0
4	22	10.0
5+	42	19.0
Don't remember	11	5.0
Not stated	1	0.5
Total	**221**	**100%**

The four variables that showed significant association ($p<0.05$) with extramarital affairs, namely current age, education, age at first sexual intercourse and sex before marriage, were all tested in the multivariate logistic regression analysis to assess their effect. The results are given in Table 5. Interestingly, all four independent variables considered in the regression were statistically significant correlates of extramarital sex. Of the four variables the strongest correlate of extramarital sex was sex before marriage whereby the odds ratios show that respondents who had not engaged in sex before marriage are roughly 4 times (1/0.2300) less likely to engage in extramarital affairs than those who had practised premarital sex. Ahlburg *et al.* (1997) found a similar result in a study of determinants of extramarital sex in the Phillipines.

Current age of the respondents seems to have a linear effect on extramarital affairs. From Table 5 we see that, compared with the respondents aged 30 - 39 years, those aged less than 30 years are less likely to engage in extramarital affairs while those aged 40 and more years are more likely to do so.

With regard to age at first intercourse the results show that the respondents whose age at first intercourse was below 15 and above 19 years were less likely to engage in sex outside marriage than those who had their first intercourse at the age of between 15 and 19 years. A study conducted in Nigeria by Mitsunaga *et al.* (2005) also found age at sexual debut to be a significant predictor of extramarital sex. Finally, with regards to education the findings show that the odds of engaging in extramarital affairs are higher for respondents with nil, adult and secondary education than those with primary education.

Conclusion

This study revealed that the incidence of premarital sex was quite high in the Mbeya region, as 76.2% of the 568 interviewed married men had had sex with a woman before marriage and 58.3% reported to have had sex with more than one woman before marriage. The findings also show a relatively high prevalence of extramarital sex in Mbeya. About 39% of the respondents reported to have had sex with women other than their wives since

Table 4. Relationship between extramarital sex and other variables

Variable	Percentage who had extramarital sex	Percentage who had no extramarital sex	Sample size (*N*)	X^2-value	*p*-value
Age					
<30	29.0	71.0	162		
30 - 39	39.2	60.8	209	15.71	0.0013
40 - 49	50.8	49.2	128		
50+	47.4	52.6	57		
Education					
Nil	48.4	51.6	31		
Adult	57.6	42.4	33	13.65	0.0034
Primary	36.0	64.0	414		
Secondary +	54.7	45.3	64		
Residence					
Urban	40.6	59.4	224	0.12	0.7286
Rural	39.2	60.8	332		
Age at first intercourse					
10 - 14	30.3	69.7	33		
15 - 19	50.5	49.5	201	19.68	0.0002
20 - 24	36.0	64.0	111		
25+	20.0	80.0	40		
Age a first mariage					
<20	37.3	62.7	75		
20 - 24	38.9	61.1	234	0.66	0.8821
25 - 29	40.1	59.9	167		
30 - 34	43.9	56.1	57		
Sex before marriage					
Yes	46.1	53.9	432	33.63	0.0000
No	17.1	82.9	123		

Table 5. Estimated logistic regression equation for extramarital sex

Variable Background variables	Coeff	SE	Odds ratio	95% CI for Odds ratio
Age		(*p*=0.0147)		
<30	-0.5699*	0.2573	0.5656	(0.342,0.936)
30 - 39	0	(Reference)	1	
40 - 49	0.3278	0.2609	1.3879	(0.833,2.315)
50+	0.2177	0.3669	1.2432	(0.606,2.551)
Education		(*p*=0.0146)		
Nil	0.6592	0.5188	1.9332	(0.699,5.348)
Adult	1.0990*	0.4921	3.0011	(1.144,7.874)
Primary	0	(Reference)	1	
Secondary+	0.7172*	0.3086	2.0486	(1.119,3.745)
Age at first intercourse		(*p*=0.0235)		
10 - 14	-0.6886	0.4184	0.5023	(0.221,1.140)
15 - 19	0	(Reference)	1	
20 - 24	-0.6565*	0.2511	0.5187	(0.317,0.848)
25+	-0.7235	0.5023	0.4850	(0.181,1.299)
Sex before marriage		(*p*=0.0014)		
Yes	0	(Reference)	1	
No	-1.4697**	0.4601	0.2300	(0.093,0.567)
Constant	-0.0059			
Model χ^2	59.819			
p-value	0.0000			

* Significant at 5% level.
** Significant at 1% level.

marriage. Significant factors associated with extramarital sex include current age, education level, age at first sexual intercourse and sex before marriage. These were also verified in the logistic regression analysis.

Of the four variables the strongest correlate of extramarital sex was sex before marriage, where the odds ratios showed that respondents who had not engaged in sex before marriage are roughly 4 times less likely to engage in extramarital affairs than those who had practised premarital sex. This result tends to reinforce the current efforts by the government to persuade teenagers to refrain from sex until they get married.

Current age of the respondents seems to have a linear effect on extramarital affairs. Compared with the respondents aged 30 - 39 years the findings show that those aged less than 30 years are less likely to engage in extramarital affairs while those older than 39 years are more likely to do so.

Regarding age at first intercourse the results show that the respondents whose age at first intercourse was below 15 and above 19 years were less likely to engage in sex outside marriage than those who had had their first intercourse at the age of between 15 and 19 years.

On education the findings show that the odds of engaging in extramarital affairs are higher for respondents with nil, adult and secondary education than those with primary education.

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