

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

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Abstract

This paper attempts to identify some factors associated with extramarital sex by men in Mbeya region-Tanzania using data from a survey conducted in 2003/2004. The choice of Mbeya region has been prompted by the fact that it has been found by previous studies to have the highest HIV prevalence rate in the country. 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 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.

1.0 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 like in many other countries HIV/AIDS is mostly spread through heterosexual activities. The risk of heterosexual transmission of HIV is largely determined by sex outside stable relationship, which may be either premarital or extramarital (Ahlburg et al 1997) since HIV is not spread in monogamous relationship between uninfected partners.

In this paper we attempt to identify some factors associated with extramarital sex by married men in Mbeya region, Tanzania. Two main factors have led us to confine our study to men rather than women. Firstly, it has been found out in studies on sex behaviour and other topics related to HIV/AIDS that extramarital sex is much higher among men than among women (See e.g. Forster and Furley, 1989, Carael et al, 1994, Isiugo, 1994, Tveit et al, 1996 and O'Connor, 2001). Secondly, according to African culture 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 seems to be appropriate for this type of study for one major reason that it has been found by previous studies to have 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 percent 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 comes from Mbeya where the HIV prevalence among STI patients tested there increased from 22.5 percent in 1988 to 27 percent in 1997.

The motivation for this study arises from the fact that extramarital sex for married people is the root cause of orphans who have lost their parents through HIV/AIDS and thus creating big psychological and social problems to the orphans. 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 the Kagera district of Tanzania between one-third and one-fifth of the children have 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 paramour. The model is built around the idea that people like variety in their lives. In Uganda Kisekka (1989) has found out 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 economics of crime and consider 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 interpret 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;
- (c) Ignoring the assumption that the decisions of a married individual i have no effect on the spouse's decisions, and either set up the problem as a game theory problem or else postulate explicitly how i 's decisions affect spouse's decisions.

2.0 Data source and methods

Data for this study were obtained from a survey conducted by the authors in 2003/2004 whose broad objective was to investigate the role of men in family planning. The survey

also addressed sexual behaviours that may have impact on fertility levels. In particular it 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.

In the survey the respondents were asked, among other things, if they have 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 has ever had sex with other women apart from their wives 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 and increased family responsibilities.
2. As 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 and 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 early the age at first intercourse the more likely that the married men will be involved in extramarital sex.
5. Men who marry while 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.
6. Men who have had sexual relationships with other women before marriage may be likely to continue those relationships even after marriage.

A logistic regression model of the form:

$$\ln\left(\frac{p}{1-p}\right) = \beta_0 + \sum_{j=1}^k \beta_j X_j$$

where p is the probability of a married man being involved in extra-marital sexual relationships, X_j , $j = 1, \dots, k$ are the independent variables and β_j , $j = 0, 1, \dots, k$ are the respective regression parameters to be estimated.

A bivariate analysis was carried out first before fitting the models. This involved cross-tabulations of the dependent variable with each independent variable considered and assessing whether or not the associations are statistically significant using the Chi-square test. Only the variables that were significantly associated with the dependent variable at 5% level were included in the logistic regression. SPSS software was used for the analysis and estimation of the logistic regression model.

3.0 Results and discussion

3.1 Background characteristics of the respondents

3.1.1 Age composition, Education Level and Residence

A total of 568 married men aged between 15 and 62 were interviewed in Mbeya Region. As Table 1 shows, only 2.3 percent were below 20 years of age, 26.6 percent were between 20-29, 38.0 percent were between 30-39, 22.9 percent between 40-49 and only 9.9 percent above 50 years. Most (74.5 percent) of the respondents had primary education and 11.1 percent had secondary education but 5.6 percent had no education. The sample consisted of 40.5 percent urban and 59.5 percent 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 to their rural counterparts as indicated in Table 1.

Table 1: Profile of the study population
(Total number of respondents=568)

Characteristic		
Age	Number of respondents	%
<20	13	2.3
20-29	151	26.6
30-39	216	38.0
40-49	130	22.9
50+	58	9.9
NS	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

3.2 Pre-marital sexual relations

About 51% of the respondents reported to have had first sexual intercourse at the age of between 15-19 years. Under normal circumstances this would be treated as pre-marital 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. From the Table we also note that the prevalence of pre-marital 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. This is an indication of how difficult it is for people to change their sexual behaviour in this era of HIV/AIDS.

Table 2: Indicators of pre-marital sex prevalence

Question.	Frequency	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

3.3 Extra-marital sex and its correlates

The respondents were asked if they have ever had sex with other women apart from their wives since marriage. 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 have had sex with. From Table 3 we see that the majority (36.2%) had sex with one 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 incidentally ranks second among the most affected HIV/AIDS regions in Tanzania.

Table 3: Indicators of extra-marital sex prevalence

Question.	Frequency	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
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

Now what factors are associated with pre-marital sex? Table 4 shows a cross-tabulation of extramarital sex by age, education, and age at first marriage, residence and age at first sexual intercourse.

From the bivariate analysis (Table 4) we see very statistically significant relationship between extramarital sex with 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 tend 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 to 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. Though 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 at the age of between 15 and 19 years 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 practiced premarital sex seem to be more promiscuous than those who had not done so before (17.1%).

Table 4: Relationship between extramarital sex and other variables.

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

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 the 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 extra-marital affairs than those who have practiced 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 to the respondents aged 30-39 years those aged less than 29 years are less likely to engage in extramarital affairs while those aged 40 and more years are more likely to do so.

As regards 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 15-19 years. 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.

Table 5: Estimated logistic regression equation for extramarital sex.

<u>Variable</u>	<u>Coeff</u>	<u>SE</u>	<u>Odds ratio</u>
<i>Background variables</i>			
Age		(p=0.0147)	
<29	-0.5699*	0.2573	0.5656
30-39	0	(Reference)	1
40-49	0.3278	0.2609	1.3879
50+	0.2177	0.3669	1.2432
Education		(p=0.0146)	
Nil	0.6592	0.5188	1.9332
Adult	1.0990*	0.4921	3.0011
Primary	0	(Reference)	1
Secondary+	0.7172*	0.3086	2.0486
Age at first intercourse		(p=0.0235)	
10-14	-0.6886	0.4184	0.5023
15-19	0	(Reference)	1
20-24	-0.6565*	0.2511	0.5187
25+	-0.7235	0.5023	0.4850
Sex before marriage		(p=0.0014)	
Yes	0	(Reference)	1
No	-1.4697**	0.4601	0.2300
Constant	-0.0059		
Model χ^2	59.819		
P value	0.0000		

* Significant at 5% level, ** Significant at 1% level

4.0 Conclusion

This study has revealed that pre-marital sex was quite high in Mbeya region as 76.2% of the 568 interviewed married men had sex with a woman before marriage and 58.3% reported to have sex with more than one woman before marriage. This shows how difficult it is for people to change their sexual behaviour in this era of HIV/AIDS. The findings have also shown relatively high prevalence of extra-marital sex in Mbeya. About 39% of the respondents reported to have sex with other women apart from their wives since marriage. Significant factors associated with extra-marital sex include current age ($p=0.0013$), education level ($p=0.0034$), age at first sexual intercourse ($p=0.0002$) and sex before marriage ($p=0.0000$). 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 extra-marital affairs than those who have practiced premarital sex. Ahlburg et al (1997) found a similar result in a study of determinants of extramarital sex in the Phillipines. 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 to the respondents aged 30-39 years the findings show that those aged less than 29 years are less likely to engage in extramarital affairs while those aged 40 and more years are more likely to do so.

As regards 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 15-19 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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