

ORIGINAL ARTICLE

Multiple Sex Partner and Risk Behaviour Among Secondary School Students in Kilimanjaro, Tanzania

Ernest J. Karata¹ and Stelyus L. Mkoma²

ABSTRACT

Tanzania is realizing increase in adolescents engaged in multiple sex partner behaviour and premarital sex. The objective of this study was to assess the awareness of multiple sex partner behaviour and risk factors among secondary school students in Moshi, Tanzania. Anonymously, questionnaires were completed by 360 students in six secondary schools randomly selected by gender and students' grade. The items captured in the questionnaire include sexual influence, and student sex-related knowledge and attitudes. Statistical analyses were performed using descriptive statistics when appropriate. Of 360 students, 55% reported ever having sexual intercourse, and 18% reported having multiple sex partners. Of students who had engaged in sexual intercourse, about 60% reported having a single sexual partner and 40% reported having multiple partners. Demographics, family, peer influences, and student performance, knowledge, and attitude toward sex were risk factors for students having sex. However, risk factors for multiple sex partners included working in a places of entertainment, having current close friends falling in love, and positive attitudes toward premarital sex and multiple partners. Such students were also more likely to practice masturbation, start having sex at a younger age, have sex with married people and/or people who are not their "boy/girl friends" at first coitus. The study concluded that small but important subset of Moshi secondary school students are engaged in unprotected sex with multiple sex partners. We therefore recommend interventions to save at risk students.

Keywords: Adolescence, Sexual practice, Partners, Risk factors, STDs

INTRODUCTION

In recent years, Tanzania has experienced dramatic social changes associated with economic growth and reform. The susceptibility and vulnerability to sexually transmitted diseases (STDs) including Human Immunodeficiency

Virus (HIV) infection have been reported to increase in some populations and places signalling a potential for further risks (Mwaluko et al., 2003, TACAIDS, 2005; Mwakibete and Zephania 2006; Mmbaga et al., 2007; UNAIDS, 2007).

¹ *Development Studies Institute, Sokoine University of Agriculture (SUA), P.O. Box 3024, Chuo Kikuu, Morogoro, Tanzania*

² *Department of Physical Sciences, Faculty of Science, Sokoine University of Agriculture (SUA), P.O. Box 3038, Chuo Kikuu, Morogoro, Tanzania*
Corresponding author. Tel: +255 23 260 3404; Fax: +255 23 260 3404
E-mail address: stelyusm@gmail.com (S.L. Mkoma)

Sexuality and sexual behaviours differ in context because of cultural and social or environmental differences that exist in the society. In sub-Saharan countries, there is a great variability in sexual behaviour, which are always considered to go together with taboos and cultures (Mayaud and Mabey, 2004; Paul-Ebhohimhen et al., 2008). Traditional attitudes towards sex, marriage and family in most communities have changed. At least, 50% of young people are estimated to be sexually active by the age of 16 years, and 32% of secondary schools students have shown to be sexually experienced (Mwakibete and Zephania 2006; Masatu et al., 2009).

Adolescents typically engage in short-lived relationships that make them more likely to have sex with multiple partners, thereby placing them at a high risk of acquiring STDs including HIV infection (Mwakagile, 2001; Mmbaga et al., 2007). In Tanzania, limited quantitative researches have been published on prevalence, trends, attitude, and risk behaviours among different social groups and much of these were conducted in urban areas (Msuya et al., 2006; Lema et al., 2008; Kazaura and Masatu, 2009, Mkumbo, 2010). The increase of incidences of premarital sex and STDs/HIV infection among adolescents in secondary schools has made it urgent for this study to be conducted to assess the prevalence of multiple sex partners as a behavioural risk factor for sexually transmitted diseases including HIV and AIDS among secondary school students in Moshi rural district, Tanzania. Knowledge on the risk factors associated with sexual practices among students may be useful in the design and implementation of

appropriate measures towards improving adolescents' reproductive and sexual health.

METHODOLOGY

Sampling protocol

This study was conducted from October to December 2010 in government and owned secondary schools in Moshi rural district, namely, Bishop Moshi, Darajani, Marangu, Mteresini, Mweka and St. Magreth secondary schools. The schools were randomly selected to select representative proportions of students across the four academic years of secondary school education (Form 1 to form IV). Sampling for the number of students for each school was purposive and to be eligible, the students needed to be unmarried, less than 25 year old and needed to provide consent. Students were informed about the study and its purpose, assured the participation was voluntary, and reminded that the survey was anonymous. Students who participated in the study were given 30 minutes to complete the questionnaire in classrooms with proper seating arranged to ensure privacy.

The questionnaire was developed from the relevant literature, which identified several factors associated with sexual behaviour in Tanzania with some addition and modification (Lema et al., 2008; Kazaura and Masatu, 2009). The questionnaire was divided in four areas: (1) demographic; (2) family and peer influences; (3) student knowledge, attitudes, and situation in school; and (4) sex-related behaviours. Before the main survey, the questionnaire was pre-tested with 60 students in one of the non-participating secondary schools. According to the pilot study, 57% of the students affirmed on the involvement of students in multiple sex partnership and

some questions were challenged about the setting of questions and they requested on the use of euphemisms instead of direct questions about sexuality according to the cultural setup.

Statistical analysis

The coded data obtained through structured questionnaire were subjected to preliminary descriptive analysis using SPSS for Windows statistical software, version 17.0 (SPSS Inc., Chicago, IL) and excel. Significant variables were included in multiple logistic regression analysis to assess relative influences of demographics, family and peer factors on the two dichotomous dependent variables of single sex and multiple sex partners. The odds ratios and 95% confidence intervals summarizing the association between the selected sexual behaviour and ever had sex, single and multiple sex partners were calculated for each category. Student's T-test and Chi square test were used when appropriate.

Ethics

The study research protocol, including the questionnaire was approved by the Sokoine University of Agriculture (SUA), Moshi Rural District authorities, the regional and

district educational officers and the relevant school management. Consent was obtained from all students who participated in the study.

RESULTS

Table 1 shows socio-demographic characteristics of the respondents among secondary school students in Moshi Rural District. Of the total 360 students, nearly 37% were males and 63% were females with the majority aged below 18 years old and lived in urban area before secondary school in the northern part of the country. About 90% of the students reported that their parents had average economy, that 8.6% were divorced, that 12.5% had a strict disciplinary style, and that 84.4% were disapproving of premarital sex. Less than 50% had close secondary school friends who had either fallen in love or living with boyfriends. About 87% and 82% of the students reported disapproval to premarital sex and multiple sex partnership respectively. While nearly 19% worked at a place of entertainment. About 72% reported feeling generally happy to be at school with nearly 67% had very good academic performance.

Table 1: Socio – democratic characteristics of respondents among secondary school Students at Moshi Rural District

Variable	Female (N=228)		Male (N=132)		Total (N=360)	
	N	%	N	%	N	%
School						
Bishop Moshi secondary school	34	14.9	26	19.7	60	16.7
St. Magreth secondary school	60	26.3			60	16.7
Darajani secondary school	37	16.2	23	17.4	60	16.7
Marangu secondary school	31	13.6	29	22.0	60	16.7
Mteresini secondary school	30	13.2	30	22.7	60	16.7
Mweka high school	36	15.8	24	18.2	60	16.7
Age (Years)						
< 18	205	89.9	102	77.3	307	85.3
19-22	23	10.1	24	18.2	47	13.1
> 22			6	4.5	6	1.7
Form						
I	60	26.3	30	22.7	90	25.0
II	56	24.6	34	25.8	90	25.0
III	57	25.0	33	25.0	90	25.0
IV	55	24.1	35	26.5	90	25.0
Regions/zones						
Northern	177	77.6	111	84.1	288	80.0
Others	51	22.4	21	15.9	72	20.0
Residence before secondary school						
Rural	80	35.1	65	49.2	145	40.3
Urban	148	64.9	67	50.8	215	59.7
Current residence						
Boarding/hostel	98	43.0	30	22.7	128	35.6
Others	130	57.0	102	77.3	232	64.4

Awareness of sexual behaviour

Sexual attitudes, awareness of sex, exposure to pornographic media (book/novel, magazine, video), and using internet to meet a boy/girl friend are compared between genders in Table 2. Students of both genders reported becoming aware of sex during primary school. The rate declined from 45% in primary school to an average of 39% in

secondary school students. The proportion of students who were exposed to pornographic media before the age of 16 years was the same for females and males. The Internet was also actively used to find sex friends.

About twenty three (22.7%) and 0.7 percent 22.7% of male respondents and 25.4% of female respondents reported

having found a girl/boy friend over the Internet. Up to 89% of females and 82% of males disapproved the issue of secondary school students having sex and also, on average, equal percentages of students from form I to form IV and both gender

disapproved sex before secondary school education. Premarital sex and commercial sex were considered unacceptable by 89 vs 94% of females and 79% vs 88% of male students respectively.

Table 2: Awareness of sexual practice among secondary school student at Moshi Rural District

Variable	Female (N=228)		Male (N=132)		Total (N=360)	
	N	%	N	%	N	%
Period became aware of sex						
Before primary school	38	16.7	20	15.2	58	16.1
Primary school	103	45.2	60	45.5	163	45.3
Secondary school	87	38.2	52	39.4	139	38.6
Sexual experience						
Yes	89	39	50	37.9	139	38.6
No	139	61	82	62.1	221	61.4
First exposure to pornographic media						
Early (≤ 16 year)	103	45.2	61	46.2	164	45.6
Late (≥ 17 year)	74	32.5	44	33.3	118	32.8
Age unknown/missing	41	18.0	27	20.5	68	18.9
Meet a girl/boy friend over the internet (yes)	58	25.4	30	22.7	88	24.4
Approve of sex during secondary school (yes)	25	11.0	24	18.2	49	13.6
Approve premarital sex (yes)	26	11.4	28	21.2	54	15.0
Approve of commercial sex (yes)	14	6.1	16	12.1	30	8.3
Approve multiple sex partners (yes)	38	16.7	23	17.4	61	16.9

Sexual partners and risk factors

Table 3 shows 161 students who had sex and examines differences in risk behaviours between those with single and multiple sexual partners. It can be observed from Table 3 that students who had one sexual partner and those with 2 or more sexual partners, the most at risk are the residence not being in boarding or school hostels. Most students (66-90%) were from

average economy family, average discipline style parents, having close classmates, friends and parents that

do not support premarital sex and working in place of entertainment. About 73-90% of the students reported having regular sex partner only and not using or rarely using condom during sexual intercourse. Many students with multiple sex partners than

those with single sex partner reported to work at place of entertainment, approve premarital sex and multiple sex partner, had sex with married man/women, have history of pregnancy or abortions of partner or themselves and having diagnosed with STDs in their life time.

Table 3: Sexual practices and their risks among sexually active secondary school students

Variable	Single sex partner (N=96)		Multiple sex partner (N=65)	
	N	%	N	%
Current residence				
Boarding/hostel	42	43.8	19	29.2
Others	54	56.3	46	70.8
Family economic status				
Poor	7	7.3	10	15.4
Average	86	89.6	55	84.6
Rich	3	3.1		0.0
Parent disciplinary style				
Strict	15	15.6	13	20.0
Average	79	82.3	49	75.4
Relaxed	2	2.1	3	4.6
Parents disapproving of premarital sex (yes)	78	81.3	55	84.6
Close classmates and friends disapproving of premarital sex	73	76.0	43	66.2
Close friends falling in love	52	54.2	42	64.6
Current close friends living with boyfriend (yes)	56	58.3	38	58.5
Work at place of entertainment (yes)	18	18.8	26	40.0
Approve premarital sex (yes)	18	18.8	27	41.5
Approve multiple sex partners (yes)	20	20.8	25	38.5
Age of partner at first sexual intercourse				
Early (<17)	55	57.3	43	66.2
Late (>17)	41	42.7	22	33.8
The partner at first coitus was a boy/girl friend (yes)	58	60.4	35	53.8
Ever had sexual intercourse with a married man/woman (yes)	21	21.9	46	70.8
History of pregnancy of	12	12.5	23	35.4

partner or themselves (yes)				
History of being diagnosed as having STDs (yes)	4	4.2	9	13.8

Sexual characteristics of respondents

Sexual characteristics for the studied secondary students are shown in

Table 4. Of 360 students, 55.3% reported ever having sexual intercourse, and 18.1% reported having multiple sex partners. Of students who had engaged in sexual intercourse, 59.6% reported having a single sexual partner and 40.4% of them reported having multiple partners. Those with single sex partners were more likely to report masturbating than those with multiple sex partners (24% vs 17%). These percentage

of students practicing masturbation are higher by a factor of 2 to 3 times than those reported by Mkumbo (2010) for primary and secondary school students in Dar es Salaam and Mwanza. They were younger at first coitus (4.5 vs. 26.2%). The prevalence of multiple sex partners among those who first had sex at age 15 or younger was 26.2%, while it was only 12.3% among students who first had sex at age older than 20 years. Those with multiple partners were also more likely to have had sex with a married man and about 25% had partners not being their boy/girl friend at first coitus.

Table 4: Sexual behavior variables (%) for students who ever had sex, and students with multiple sex partners

Sexual behaviour	Full sample (N=360)	Ever had sex (N=199)	Single sex partner (N=96)	Multiple sex partner (N=65)	Odd ratios (95% CI)
Ever had intercourse (yes)	55.3	100	100	100.0	
Single sex partner (yes)	26.7	48.2	100	100	
Had multiple sex partners (yes)	18.1	32.7	67.7	100	
Practice masturbation (yes)	17.2	1.5	23.9	16.9	0.48 (0.24-0.97)
Age at first coitus					
11-15 years		4.5	29.3	26.2	0.61 (0.34-1.10)
16-20 years		93.5	38.5	61.5	1.08 (0.69-1.68)
above 20 years		2.0	32.3	12.3	0.26 (0.12-0.55)
Partner at first coitus not being boy/girl friend		90.5		24.6	0.21 (0.12-0.35)

(yes)		81.3		
Had sex with married man				2.19
(yes)	18.1	21.9	70.8	(1.31-3.65)

DISCUSSION

In the present study, 44.7% of the surveyed students were sexually active and thought premarital sex was acceptable. This prevalence is higher than that reported in other studies (Kazuara and Masatu,

2009). Of the 161 students who had engaged in sexual intercourse, the majority (59.6%) reported having a single sexual partner and 40.4% having multiple partners. The prevalence of (sexual behaviour) multiple sex partner behaviour among secondary school students in Moshi Rural is relatively low than reported in other developing and developed countries (Eaton et al., 2003; Lydie et al., 2004; Weinstock et al., 2004; Paul-Ebhohimhen et al., 2008), possibly due to their conservative attitude to multiple sex partner behaviour (16.9% approve of this behaviour).

The results show that those who reported having multiple partners were more likely to have started sex at younger age than those with only one partner. Other investigators have found that younger age is a risk factor for HIV infection (Mmbaga et al., 2007). This may reflect a tendency towards longer-term, monogamous relationships at older ages. Earlier initiation of sexual intercourse among youth is associated with greater frequency of sexual activity, larger number of sex partners, the advent of teen pregnancy at younger ages, and increase in frequency of STDs in youth (Nyanzi et al., 2001; Palen et al., 2008; Mkumbo, 2010). In this study, students who first had sex at age ≤ 20 years were more likely to have multiple sex partners

than students who first had sex at age > 20 years, thereby significantly increasing their risk of STDs including HIV infections and unplanned pregnancy. This suggests that secondary school students should be targeted with preventive interventions as youth to discourage premature initiation of sexual activity. Also, there is clearly a need for more sex education in Kilimanjaro Region if not the whole country.

The results confirm that students who agree or accept multiple sex partner behaviour are more likely to report more sex partners. Peer influences are important, and students whose friends fall in love and who work at places of entertainment (where alcohol and sex are likely present) are also likely to report sex partners. Several variables that differentiate students who do and do not engage in premarital sex were identified, and additional interventions can be developed targeting these students. For example, students coming from richer families and from divorced families can be identified upon admission to school.

CONCLUSION

This is the first study that examines multiple sex partner behaviour and its risk factors among secondary school students in Tanzania. The study concludes that, early initiation of sexual practices, peer group influences, living near or close to places of entertainment and poverty are likely to be associated with multiple sex behaviour among students. We also observed that the risk of being infected with STD's is associated with multiple sex partner behaviour, commercial sex, exposure to pornographic media and lack of knowledge about sex education. It is therefore

suggested that the government should initiate sex education in primary to tertiary level curricula. This raise awareness about the risk of STD's including HIV/AIDs and various ways of protection. We recommend that interventions must attempt to address attitudes and peer influences.

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