Prevalence and Determinants of Risky Sexual Behaviour among Youth in Chamwino District, Central Tanzania

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Abstract

Sexually Transmitted Infections including HIV/AIDS are among the major sexual and reproductive health problems facing Tanzania. This study was carried in Chamwino District in Central Tanzania to determine prevalence of high-risk sexual behaviour and identify the correlates of high -risk sexual behaviour among youth. Data were collected from a random sample of 600 youth aged between 15 – 24 years using a structured questionnaire with closed-ended and open-ended questions. Data were analyzed using Statistical Package for Social Sciences (SPSS) version 18. The results indicate that 31.8% were engaged in high-risk sexual behaviour (e.g. having more than two partners in the past 12 months and not using condom). Chances for engaging in high-risk sexual behaviour by youth increased with lack of comprehensive knowledge on HIV/AIDS (OR = 1.94; 95% CI = 1.23 – 3.09), but decreased with having secondary education and above (OR = 0.77; 95% CI = 0.70 – 0.84). The Likelihood also increased with having close friends that are sexually active (OR = 1.72; 95% CI = 1.32 – 2.26), if used alcohol (OR = 2.82; 95% CI = 1.53 – 5.27), and if engaged in transactional sex (OR = 4.68; 95% CI = 3.30 – 6.65). Overall, findings show that a substantial proportion of youth in the study population are engaged in high-risk sexual behaviour. It is recommended that more education on HIV/AIDS among youth should be emphasized in the study area.

Key words: Youth, HIV/AIDS, risky sexual behaviour

1. Introduction

HIV/AIDS is one of the major health challenges in the world claiming the lives of a substantial number of people. Sub-Saharan Africa is the most affected region in the world, accounting for over two thirds of all people living with HIV and for nearly three quarters of AIDS-related deaths (UNAIDS, 2003). Youth account for 60% of people living with HIV/AIDS and 40% of new infections in Africa (Okonta, 2007; Bankole *et al.,* 2007).

Studies in Sub- Saharan Africa have indicated that youth are the most affected by the pandemic (Pettifor *et al*., 2005; Kalichman *et al.,* 2007; Michielsen et *al*., 2010). In Tanzania, 2.0% of young women and men age 15-24 are HIV positive (URT, 2012). Risky sexual behaviour among youth is known to be responsible for the observed pattern (Lema *et al*., 2008). However, the health of young people has been largely neglected in global public health partly because this age group is perceived as healthy.

In Tanzania, UNICEF (2013) estimated that nine percent of females and ten percent of males aged 15-24 years report having had sexual intercourse for the first time before age 15. The same study reported that fifty percent of women and 43 percent of men aged 18-24 years have had sex before age 18. Not only can unprotected sex in adolescence lead into unwanted pregnancies, but also to sexually transmitted infections and reproductive health problems including infertility (Engelbert, 2009). Little is known about the correlates for risky sexual behaviour among youth in the study area. Knowledge of the factors for risky sexual behaviour among youth is, therefore, a pre-requisite for designing effective campaigns to promote safer sexual behaviours to decrease HIV transmission. Therefore, this study was carried out to determine prevalence of high-risk sexual behaviours and identify the determinants for high-risk sexual behaviour among youth in the study area.

2.0 Study Area and Methodology

This study was conducted in Nzali, Mahamha, Mvumi Makulu and Muungano villages in Chamwino

district, central Tanzania in January 2013. The district is located between latitude 4° and 8° South and longitude 36° and 37° East. The district covers an area of 7870 square kilometers with a population of 260, 841 people. The area is semi- arid that receives annual rainfall of between 500 to 800mm. A study by Lwelamira *et al.,* (2012) indicated high level of premarital fertility among female youth and suggested high chance of risky sexual behaviour among youth. This study was therefore a follow up to the previous investigations.The study employed a cross-sectional survey which involved a random sample of 600 youth aged between 15–24 years. Data for the study were collected using a structured questionnaire with closed-ended and open-ended questions. During data collection, informed verbal consent was obtained from the respondents before the interviews.

2.1 Analytical framework

In this study, it was conceptualized that high risk sexual behaviour and, hence, vulnerability to HIV/AIDS by a youth are due to direct influence of cognitive/psychosocial and behavioural factors; and indirect influence of cognitive/psychosocial, socio-economic and demographic factors through their influence on attitudes and perceptions towards the pandemic. Cognitive/psychosocial factors included comprehensive knowledge on HIV/AIDS and perceived level of risk for contracting HIV/AIDS. Socio-economic and demographic variables included age and education level. Behavioural factors included alcohol abuse, engagement in transactional sex (individual behaviour) and sexual activity of close friends (peer pressure).

Based on the work by Kibombo *et al*., (2007), in this study, the level of risky sexual behaviour among youth was considered to be 'low' when the respondent never had sex or had sex but not in the last 12 months prior to survey; had one (1) partner in the last 12 months, married/in a union; not married/ not in a union but used condom; had two (2) or more sexual partner in last 12 months but used condom. Conversely, the level of risky sexual behaviour was considered to be

'high' when she/he had one (1) partner in last 12 months prior to survey , not married/not in a union, non-use of condom; two (2) or more sexual partners in last 12 months prior to survey, did not use condom. Based on previous works (e.g. Kibombo *et al*., 2007; Molla *et al*., 2009), a youth was considered to have comprehensive knowledge on HIV/AIDS when she/he knew all three ABC methods for preventing the spread of the infection (i.e. Abstinence, Be faithful, Use condom), agreed that a healthy looking person can be HIV positive and correctly rejected all the other two common misconceptions about the infection (transmission through sharing utensils and shaking hands).

2.2 Statistical analysis

Data were analyzed for descriptive statistics such as frequencies and percentages using Statistical Package for Social Sciences (SPSS) version 18. Furthermore, Binary Multiple Logistic Regression analysis was run to identify the factors associated with high-risk sexual behaviour among youth using the following statistical model (Hosmer and Lemeshow, 2000).

$$\ln\left(\frac{P_i}{1-P_i}\right)=\alpha+X_i\beta$$

Whereby P_i the estimated probability for is engaging in high-risk sexual behaviour by a youth; α is a regression constant, β is a vector for estimated regression coefficients, and X_i is a vector for explanatory variables. Whilst the dependent variable was "If engaged in high risk sexual behaviour" (binary) (1 = yes, 0 = no), the independent variables were: Comprehensive knowledge on HIV/AIDS (high, low); Perceived risk for contracting HIV infection (low, high); Age of the respondent in years (15 - 17, 18 – 20, ≥ 21); Sex of the respondent (female, male); Education level of the respondent (None or primary, secondary and above); If close friends are sexually active (no, yes); If the respondent uses alcohol (no, yes); If ever received money or material gift in exchange for sex 12 months prior to survey (no, yes).During analysis, the first category for each explanatory variable was used as a reference category. Further, it was hypothesized that the likelihood of engaging in high

risk sexual behaviour by youth decreases by having comprehensive knowledge on HIV/AIDS and higher education level; and increases with perception that the risk for contracting the infection is low; increase in age; sex of respondent being female. The risk also increases if the youth uses alcohol; has close friends that are sexually active (peer pressure) and engages in transactional sex (i.e. ever received money or material gift in exchange for sex in the past 12 months prior to survey).

3.0 Results and Discussion

3.1 Socio Demographic Characteristics of Respondents

Most of the respondents (70%) were males and 76% were aged between 18 – 24 years indicating that the majority of youth were already mature enough and, hence, more likely to engage in sexual activity. The majority of respondents (80%) were single;very few (2%) had no formal education, reflecting high literacy level by youth in the study area and, hence, more likely to possess good ability to process information such as health promotion materials including HIV/AIDS prevention packages (Mgabo *et al*., 2010).

Table 1: Distribution of respondents by socio- demographic characteristics (n = 600)

Variable	Frequency	Percent
Sex		
Male	421	70.2
Female	179	29.8
Age (years)		
15-17	144	24.0
18-20	282	47.0
21-24	174	29.0
Schooling status		
None	12	2.0
Primary school	438	73.0
Secondary school	132	22.0
College	18	3.0
Marital status		
Married/cohabiting/living together	121	20.1
Single	479	79.9

3.2 Prevalence of High-Risk Sexual Practices among Youth

The results in Table 2 indicate that the majority of respondents were sexually active in the last 12 months prior to the survey. About 71% of interviewed youth have had sex in that period, a situation reflecting high sexual activity among youth in the study population and, hence, high risk of contracting HIV infection. This observation is in line with the findings from elsewhere in Tanzania (e.g. Lema *et al*., 2008;

Zakayo and Lwelamira, 2011). Furthermore, about 40% of the respondents had multiple sexual partners while 59% of them did not use condom consistently in the last 12 months before the survey. Overall, based onsexual experience (If ever had sex), number of sexual partner and condom use in last 12 months before survey, as well as marital/ union status as criteria for classification (Kibombo *et al*., 2007). Findings of our study revealed that about one- third of the respondents (31.8%) were engaged in high-risk sexual behaviour (Table 2). This situation requires concrete interventions to increase adoption of safer sexual behaviours and reduction of risk taking behaviours including increased initiatives of educational materials for in and out of school youth.

Table 2: Distribution of respondents by sexual practices in last 12 months prior to survey

Variable	Frequency	Percent
Ever had sex in last 12 months prior to survey (n = 600)		
Yes	423	70.5
No	177	29.5
Number of sexual partners in last 12 months prior to survey (n = 423)		
one	255	60.2
two	99	23.4
Three and more	69	16.4
If condom was used in all sexual encounters in past 12 months prior to survey (n = 423)		
Yes	174	41.1
No	249	58.9
Level of risk sexual behaviours (n = 600)*		
Low	409	68.2
High	191	31.8

*Low = Never had sex or had sex but not in last 12 months; 1 partner in last 12 months, married/in a union; 1 partner in last 12 months, not married/ not in a union, used condom; 2+ partner in last 12 months, used condom. High = 1 partner in last 12 months, not married/not in a union, no condom; 2+ partners in last 12 months, did not used condom

3.3 Determinants for High-Risk Sexual Behaviour among Youth

Binary Multiple Logistic Regression analysis was used to identify the factors associated with high-risk sexual behaviour among youth in the study population. The results in Table 3

indicate that low comprehensive knowledge on HIV/AIDS increased significantly chances for engaging in high-risk sexual behaviour (OR = 1.94; 95% CI = 1.23 – 3.09). The result is in line with reports from some other previous studies (e.g. Maswanya *et al*., 1999; Wagbatsoma and Okojie, 2006; Molla *et al*., 2009; Nguyen *et al*., 2010). The findings underscore the importance of knowledge as valuable cognitive factor and power to bring behavioural change in the study population. This means that interventions to control the spread of the infection among youth should among other things focus on increasing youth knowledge on HIV prevention. Perception of being at risk of contracting HIV often leads to protective behaviour (Meekers and Klein, 2002; Ekanem *et al*., 2005; Haque and Soonthorndhada, 2009). Furthermore, increase in age has been reported in previous studies to be associated with increased likelihood to engage in risky sexual behaviour (Adu-Mireku, 2003; Seifu *et al*., 2006; Seme and Wirtu, 2008). However, contrary to the results of these previous works, the results of present study reveal lack of significant association between risk perception and high- risk sexual behaviour (OR = 0.93; 95% CI = 0.82 – 1.03), as well as between age (OR = 1.16; 95% CI = 0.99 – 1.36) and high-risk sexual behaviour (Table 3), implying that they are not important factors in predicting sexual behaviour among youth in the study population.

The results in Table 3 also indicate that being male was associated with increased odds for engaging in high-risk sexual behaviour (OR = 3.74; 95% CI = 3.41 – 4.07), while having secondary education and above reduced odds for engaging in high-risk sexual behaviour (OR = 0.77; 95% CI = 0.70 – 0.84).The effect of sex on high-risk sexual behaviour observed in the present study contradicts the findings of Bankole *et al.,* (2007) in which females were found to be two times more likely to report risk sexual behaviour than males.

However, our findings are in line with a number of other studies also conducted in Africa (e.g. Kibombo *et al*., 2007; Seme and Wirtu, 2008; Morhason-Bello *et al*., 2008). As shown in the

current study, protective effects of increased education level on risk sexual behaviour among youth as reported by Guiella and Madise (2007). In this regard, there is a need to put emphasis on formal education as one of the strategies for achieving positive sexual and reproductive health outcomes.

Consistent with the results of the present study (Table 3), several studies have indicated that alcohol abuse increases the likelihood of an individual to engage in risky sexual behaviour (Setshed and de la Monte, 2011**;** Tegang *et al*., 2011). In this study, we found that youth that take alcohol were three times more likely to report high risk sexual behaviour compared to their counterparts (OR = 2.82; 95% CI = 1.53 – 5.27).

Table 3: Results for Multiple Logistic Regression Analysis to indicate Odds ratios (OR) for reporting high- risksexual behaviour among youth against predictor variables

Predictor Comprehensive Knowledge on HIV/AIDS	β	Standard Error (S.E)	Odds ratio (OR)	95% Confidence interval (CI) for Odds ratio
High (Ref.)			1	1
Low	0.68	0.24	1.94	(1.23 – 3.09)*
Perceived risk for contracting HIV infection				
Low (Ref.)			1	
High	-0.09	0.05	0.93	(0.82 – 1.03)
Age (Years)				
15-17 (Ref.)			1	1
18-20	0.16	0.07	1.16	(0.99 – 1.36)
21 and above	0.19	0.15	1.20	(0.91 – 1.54)
Sex				
Female(Ref.)			1	1
Male	1.32	0.03	3.74	(3.41 – 4.07)*
Highest Education Level				
None or primary (Ref.)			1	1
Secondary and above	-0.31	0.06	0.77	(0.70 – 0.84)*
If close friends are sexually active				
No (Ref.)			1	1
Yes	0.53	0.16	1.72	(1.32 – 2.26)*
If use alcohol				
No (Ref.)			1	1
Yes	1.05	0.34	2.82	(1.53 – 5.27)*
If ever received money or material gift in exchange for sex in last 12 months prior to survey				
No (Ref.)			1	1
Yes	1.56	0.19	4.68	(3.30– 6.65)*

Cox and Snell R^2 = 0.63; Ref. = Reference category; * = Significant at $P<0.05$.

This observation stresses the need to have campaigns that discourage alcohol abuse. Peer pressure was also observed in this study to be among of the factors responsible for high-risk sexual behaviours among youth. The results indicate that youth with close friends

that are sexually active were almost two times more likely to engage in high risk sexual behaviour compared to their counterparts (OR = 1.72; 95% CI = 1.32 – 2.26). These findings are in agreement with most of other studies in some African countries including Tanzania, which found peer pressure to have a great influence on adolescents' sexual behaviour (Seifu *et al*., 2006; Zakayo and Lwelamira, 2011).

High poverty levels in Sub- Saharan African countries have forced several female youth to engage in transactional sex including having multiple sexual partners. This is evident from a study by Atuyambe (2008) in Uganda, as in other African Countries (e.g. Amuyunzu-Nyamongo *et al*., 2005; Moore *et al*., 2007; Madise *et al*., 2007). In addition, results in Table 3 show that youth who ever received money or material gift in exchange for sex were more likely to report high risk sexual behaviours compared to their counterparts (OR = 4.68; 95% CI = 3.30 – 6.65). These results suggest that females possibly find it harder to negotiate for safer sex such as use of condom if they receive money or material gift in exchange for sex.

4. Conclusion and Recommendations

This study has shown that a substantial proportion of youth in the study population are engaged in high-risk sexual behaviour and therefore, predisposed to HIV/AIDS infections. Several factors are associated with high-risk sexual behaviour among youth. These include lack of comprehensive knowledge on HIV/AIDS, low level of formal education, peer pressure, alcohol abuse and engagement in transactional sex. The future direction of this pandemic depends largely on consequent changes in sexual behaviour. It is therefore recommended that more education on HIV/AIDS among youth should be emphasized in the study area. Interventions against risky behaviour such as alcohol abuse, engagement in transactional sexual, and non-use of condoms are needed in order to provide a core package of HIV prevention services supported by mass media campaigns. The HIV prevention initiatives should put more emphasis on the use of peer educators in providing life skills -based HIV education.

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