

Multiple Sexual Partnership and Perception of Risk of HIV Infection among Out-of-school Youths Aged 15-24 in Cameroon: A Short Communication

Elvis Enowbeyang Tarkang

Department of Population and Behavioural Science, School of Public Health, University of Health and Allied Sciences (UHAS), Ho, Ghana

Email address:

ebeyang1@yahoo.com

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Abstract: Cameroon has a high concentration of out-of-school youths. Therefore research relating to out-of-school adolescents and HIV/AIDS is imperative. The aim of the study was to investigate the perception of risk of contracting HIV/AIDS and its association with multiple sexual partners among out-of-school youths in Kumba, the Southwest region of Cameroon. A cross sectional study was adopted using a self-administered pretested questionnaire to collect data from a multistage probability sample of 405 consenting (208 male and 197 female) out-of-school youths, aged 15-24 years in July 2013. Chi square statistics were calculated using the Statistical Package for Social Sciences (SPSS) version 20 at the level 0.05. Only few out-of-school youths, 84 (20.7%) perceived themselves at high risk of contracting HIV. Of the sexually active respondents, the majority, 129 (57.3%) reported having had multiple sexual partners in the last one year before this study, and 62 (27.7%) reported having multiple concurrent sexual partners at the time of this study. Sexually active respondents who agreed that having multiple sexual partners is a sexual risk behaviour were less likely to have had multiple sequential sexual partners in the one year preceding this study than those who disagreed ($p=0.022$). Out-of-school youths manifested low perception of risk of contracting HIV/AIDS, with youths having low perception, likely to engage in multiple sexual partnerships, and therefore are at high risk of HIV/AIDS transmission. Targeted programs towards out-of-school youths should focus more on promoting safe sexual practices.

Keywords: Cameroon, HIV/AIDS, Multiple Sexual Partners, Out-of-school Youth, Perception of Risk

1. Introduction

Sub-Saharan African (SSA) remains the region most heavily affected by HIV, accounting for 68% of all people living with HIV/AIDS. This region also accounts for 70% of all new HIV infections. In SSA, young people aged 15-24 account for half of all new HIV infections [1]. Therefore monitoring the sexual behaviours of this vulnerable age group is necessary in order to control the HIV/AIDS pandemic.

Cameroon has the highest HIV/AIDS prevalence in the Central and West African sub-region, of 4.3%. Juveniles in Cameroon aged 15-24 comprise 21.5% of the total population and the estimated HIV/AIDS prevalence rate among women in this group is 2.9% [2].

Many Cameroonian youths engage in sexual risk behaviours, such as having sex with multiple sexual partners

or having unprotected sexual intercourse, which may lead to HIV/AIDS [3, 4]. Adolescents in Cameroon are thus at high risk of infection.

Youths aged 15 to 24 are an important and highly vulnerable part of the human resource base in developing countries. Of the 1.5 billion youth between the ages of 15 and 24 worldwide, approximately 1.3 billion live in developing countries, with a large proportion coming from SSA [5].

Cameroon has a high concentration of out-of-school youths, representing 56.5% of the total youth population; slightly above 10.2% of these out-of-school youths lack any education whatsoever [5]. Therefore research relating to out-of-school adolescents and HIV/AIDS in Cameroon seems timely. Out-of-school youth are an upcoming population of research in the field of HIV/AIDS prevention, who have hitherto been neglected. Given the established role of behavioural change in countering the HIV/AIDS pandemic in SSA [6], disregarding the out-of-school adolescents is no

longer an option.

The socio-psychological literature on health-related behaviours emphasises the perception of being at risk of an infection as one of the necessary conditions for behavioural change. Moreover, the degree of perceived risk seems to affect individuals' actual control in adopting preventive measures [7]. In order for young people to take precautions to protect themselves against HIV infection, they first have to regard themselves as potentially at risk of becoming infected. Individuals who have high-risk sex (multiple sexual partners) should have higher perceived risks than individuals who engage in low-risk sex [8].

The aim of the study is to investigate the perception of risk of contracting HIV/AIDS and its association with multiple sexual partners among out-of-school youths in Kumba, the Southwest region of Cameroon. It is hypothesised that perception of high risk of contracting HIV is associated with being faithful to one sexual partner, to prevent HIV/AIDS transmission among out-of school youths in the city of Kumba in the Southwest region of Cameroon.

2. Methods

2.1. Study Site

Kumba is the administrative headquarters of Meme division, and the economic capital of the Southwest region, thus making it one of Cameroon's wealthiest urban centres, which together with the availability of economic and social amenities, industries and political institutions, has resulted in a high population density. With a total land area of 188.4 Km², the total population of Kumba, a mixture of Christians and Muslims, is estimated at 166,000 inhabitants (51.2% males and 48.8% females) [9]. Administratively, the city is divided into three local government areas.

2.2. Study Design and Population

This study was a descriptive, cross-sectional survey, using a self-administered questionnaire to collect data. It was conducted in July 2013 in Kumba, the economic capital of the Southwest region of Cameroon, which ranks third in the HIV/AIDS prevalence.

The study population included all out-of-school youths in the city of Kumba, who are between the ages of 15 and 24 years and who have dropped out from school either primary or secondary school, or who have never attended at least primary school before; but they might be under apprenticeship learning a trade (hairdressing, tailoring, auto mechanic, etc). The sample size was calculated using results of a previous study conducted in Nigeria [10], using Epi-Info version 6.0 statistical software, to arrive at a sample size of 405.

2.3. Sampling

A multistage sample method was applied in this study. A list of all the wards (quarters) in all the three municipalities (local government areas) of Kumba (Kumba I, Kumba II and

Kumba III) was used as the sampling frame, to randomly select 15 quarters. Out of these 15 quarters, an average of 27 households per quarter was randomly selected to participate in the study. Using the local government register, a list of all out-of-school adolescents was made and stratified by gender. Proportional sampling according to the population distribution of Kumba, was used to select the number of eligible males and females to participate in the study. Within the households, study participants were selected using systematic random sampling.

2.4. Data Collection, Reliability and Validity

The questionnaire was designed as an adaptation from a previous study [6], to collect data on socio-demographic characteristics, perception of risk of contracting HIV/AIDS and number of sexual partners. A pretest of the questionnaire was done on a convenience sample of 20 out-of-school adolescents of both genders who did not take part in the study proper, for clarity and to ascertain internal consistency.

Respondents were given the self-administered questionnaires in English. Confidentiality was maintained by providing a private place for the respondents during data collection. Confidentiality was also maintained because only the researcher had access to the completed questionnaires, which were locked up. Subsequent to the acceptance of the research report, these would be destroyed. Four trained research assistants (2 males, 2 females) of the same age group as the participants, assisted those who could not read or write. The completed questionnaires were checked by the research assistants for errors and missing data before participants were allowed to go. Anonymously completed questionnaires were kept in a separate container from the signed informed consent forms in order to maintain anonymity.

2.5. Data Analysis

Data were edited, cleaned, coded, entered and analysed using the Statistical Package for Social sciences (SPSS) version 20 software program. Probability (P) values were calculated at the 0.05 level of significance. Data were summarised by means of descriptive statistics including the frequency table. Two-sided chi-square tests for association were computed to detect any associations between HIV knowledge and sexual behaviours.

2.6. Ethical Considerations

Permission to conduct the current research was obtained from research and ethics committee of the HIV/AIDS Prevention Research Network, Cameroon (HIVPREC) and from the Kumba Municipal (local government) authorities. Consent was obtained after the potential participants and their parents/guardians (for those below 18 years) were informed of the study's objectives. Only youths aged 15-24 who gave consent to participate, were included in the study. All the parents/guardians were given the opportunity to withhold or withdraw their children from the study at any

time they felt like.

2.7. Measures

Socio-demographic characteristics included: age which was self-reported in years, sex, divided into two categories (male and female), marital status, categorised into single and others, house of residence divided into two categories (5 rooms or more and 4 rooms or less), religion categorised into two groups (Christians and Muslims), social group affiliation divided into (yes or no) and fathers' and mothers' monthly incomes, categorised into two groups (more than 200 000XAF and 200 000XAF or less).

Perception of risk of contracting HIV was assessed based on the degree of agreement with the following statements: multiple sexual partners is a sexual risk behaviour, unprotected sexual intercourse is a sexual risk behaviour and early sexual debut is a sexual risk behaviour. The response options were rated on a four-point Likert scale as '3=strongly agree', '2=agree', '1=disagree' and '0=strongly disagree'. 'Strongly agree' and 'agree' were coded as the index category, and also with the question: 'how at risk of contracting HIV are you?', with '0=not at risk'; '1=small risk'; '2=moderate risk' and '3=high risk' being the response options.

Sexual behaviour included: sexual experience categorised into 1=yes and 0=no, age at first sexual intercourse categorised into two groups (16 years or less and more than 16 years), number of sexual partners in the last one year, divided into two categories (one or less and more than one) and number of concurrent sexual partners during the study period, divided into two categories (one or less and more than one). These questions were asked only to respondents who were sexually active. The coefficient alpha for the 2-item scale for number of sexual partners was 0.88.

3. Results

Of the 405 respondents in this study, 208 (51.4%) were males and 197 (48.6%) were females. All were between the ages of 15 and 24 years, with 375 (93.1%) being single. Three hundred and eighty two (94.6%) were Christians and 353 (88.9%) belonged to a social group. Majority of them, 255 (64.6%) indicated that their fathers' monthly incomes were less than 200 000XAF (US\$ 13.00 a day) and 325 (81.6%) indicated that their mothers' monthly incomes were less than 200 000XAF (US\$ 13.00 a day) (table 1). Their mean age (SD) was 18.94 (2.11).

Table 1. Socio-demographic characteristics.

Characteristics	Frequency	Percentage
• Age Group (n=405)		
• 15-24	405	100.0
• Gender (n=405)		
• Male	208	51.4
• Female	197	48.6
• Marital Status (n=405)		
• Single	375	93.1
• Others	28	6.9
• House of residence (n=395)		

Characteristics	Frequency	Percentage
• 5 rooms or more	209	52.9
• 4 rooms or less	186	47.1
• Religious Affiliation (n=404)		
• Christian	382	94.6
• Muslim	22	5.4
• Social group affiliation (n=397)		
• Yes	353	88.9
• No	44	11.1
• Father's monthly income (n=395)		
• 200 000XAF and above	140	35.4
• Less than 200 000XAF	255	64.6
• Mother's monthly income (n=399)		
• 200 000XAF and above	74	18.5
• Less than 200 000XAF	325	81.5

Majority, 277 (68.6%) knew that having multiple sexual partners is a sexual risk behaviour, and majority, 296 (73.1%) knew that unprotected sexual intercourse is a sexual risk behaviour. However, only few, 84 (20.7%) perceived themselves at high risk of contracting HIV (table 2).

Table 2. Knowledge of sexual risk behaviours and perception of risk of HIV infection.

Knowledge of sexual risk behaviours and perception of risk of HIV infection	Frequency	Percentage
• Early sexual debut is a sexual risk behaviour for HIV/AIDS transmission (n=404)		
• Agree	266	65.8
• Disagree	138	34.2
• Unprotected sexual intercourse is a sexual risk behaviour for HIV/AIDS transmission (n=405)		
• Agree	296	73.1
• Disagree	109	26.9
• Having multiple sexual partners is a sexual risk behaviour for HIV/AIDS transmission (n=404)		
• Agree	277	68.6
• Disagree	127	31.4
• How at risk of contracting HIV are you? (n=405)		
• Not at risk	176	43.5
• Small risk	107	26.4
• Moderate risk	38	9.4
• High risk	84	20.7

With regard to sexual behaviours, the majority, 225 (55.6%) reported having experienced sex, with the mean (SD) age at sexual debut being 14.72 (2.11). Of the sexually active respondents, the majority, 129 (57.3%) reported having had multiple sexual partners in the last one year before this study (table 3). However, only 62 (27.7%) respondents reported having multiple concurrent sexual partners at the time of this study (table 3). Male out-of-school youths, 46 (22.1%) were more likely to have had multiple concurrent sexual partners than females, 16 (8.1%) ($X^2=15.312$; $df=2$; $p=0.002$). In the same vein, males, 84 (40.9%) were more likely to have had multiple sequential sexual partners in the one year preceding this study than females, 46 (23.4%) ($X^2=19.841$; $df=3$; $p=0.000$).

Sexually active respondents who agreed that having

multiple sexual partners is a sexual risk behaviour, 88 (31.8%), were less likely to have had multiple sequential sexual partners in the one year preceding this study than those who disagreed, 42 (33.1%) ($X^2=19.405$; $df=9$; $p=0.022$).

Table 3. Sexual risk behaviours

Sexual risk behaviours	Frequency	Percentage
• Ever had sexual intercourse with a male partner (n=405)		
• Yes	225	55.6
• No	180	44.4
• Age at which first sexual intercourse occurred (n=225)		
• 16 years or less	181	80.4
• More than 16 years	44	19.6
• Number of sexual partners in the past one year (n=225)		
• More than one	129	57.3
• One or less	96	42.7
• Number of concurrent sexual partners at present (n=224)		
• More than one	62	27.7
• One or less	162	72.3

4. Discussion

Out-of-school youths in this study manifested low perception of risk of contracting HIV, and practised multiple sexual partnerships. Multiple sexual partnerships where condom use tends to be low are among the key drivers of HIV infection in Africa. HIV infection is more likely to occur within long term multiple concurrent sexual partnerships, as people are less likely to consistently use condom within these more regular relationships. Multiple sexual partners may place out-of-school youths at risk of HIV infections. Multiple overlapping concurrent sexual partners are thus of special concern. Within a set of serial relationships, transmission is linear, so early partners are protected. In the case of concurrent partners, early partners continue to be at risk as a later partner infects the subject because the partners overlap in time.

Table 1 reveals that only 20.7% of the respondents in this study perceived themselves at high risk of HIV infection. This percentage is lower than that obtained by Munthali et al in Malawi, (79.0%) [11]. This disparity could be due to the cultural differences in relation to sexual activities between Malawi and Cameroon.

Out-of-school youths may perceive their risks of HIV/AIDS to be low even if they engage in multiple sexual partnerships which might expose them to the risk of HIV/AIDS, live in areas with high HIV prevalence rates, or are knowledgeable about HIV/AIDS. One explanation for low perceived HIV/AIDS risk is that youths may exhibit optimistic bias, tending to underestimate risks in general due to feelings of invulnerability [12]. Additionally, HIV/AIDS is a highly stigmatised disease. Acknowledging one's own risk implies putting oneself at risk of being stigmatised. Thus out-of-school youths may avoid self-disclosure, this by

downplaying their own personal risk, which leads to further low risk perceptions [12]. Personality experience and familiarity with HIV/AIDS may be associated with more awareness of infection pathways, less stigma towards the disease, and higher perceived risks of infection. It is the actual perception of risk by the individuals that matters in their decision making, not whether that perception is known to be correct or incorrect.

In accordance with other studies in Cameroon and SSA this study have found associations between perceived risk of contracting HIV/AIDS and multiple sexual partnerships [13, 14]. Given the vulnerability of out-of-school youths to HIV, it is of program and policy relevance to better understand the relationship between actual behavioural risk and perceptions of risk among out-of-school youths in Cameroon in order to help them protect themselves from negative outcomes. The ability to accurately judge one's risk to HIV is an essential element in developing successful strategies for prevention.

If out-of-school youths are not aware of the level of risk that their activities involve, knowledge on preventive measures as such will not reduce the risks taken. The degree of riskiness of unprotected sex is not often addressed in HIV prevention campaigns; and neither are evaluations on the relation between risk perception and preventive behaviour widely incorporated in the empirical research on safe sexual behaviours such as being faithful to one sexual partner.

The low level of perception of risk of contracting HIV/AIDS as documented in this study shows the inefficiency in the health education programmes targeting out-of-school youths in Cameroon.

These findings reiterate the need for extensive and efficient behavioural change communication programmes with emphasis on education on HIV/AIDS and safe sexual behaviours targeting out-of-school youths in Cameroon. This study demonstrated that perception of risk of contracting HIV/AIDS was associated with the number of sexual partners. Implementing strategies to increase the perception of risk of contracting HIV/AIDS of out-of-school youths in this study is the first step in developing a successful fight against HIV/AIDS with sexual behaviour change.

Out-of-school youths' sexual behaviours are based on low perception of risk of contracting HIV/AIDS as revealed in this study. They might not consider their behaviours or that of their sexual partners to be risky. Full knowledge of the options available for out-of-school youths to prevent HIV/AIDS infection, from abstinence to safe sex is important in empowering them, influencing their choices about sex and preventing HIV infections.

The findings of this study have shown that out-of-school youths in Kumba in the Southwest region of Cameroon manifested low perception of risk of contracting HIV/AIDS, with youths having low perception, likely to engage in multiple sexual partnerships, and therefore at high risk of HIV/AIDS transmission.

The study recommends that beyond interventions for HIV/AIDS awareness programs and advocacies, targeted programs towards out-of-school youths should focus more on

promoting safe sexual practices, particularly among those who lack the economic will to negotiate safe sexual behaviours with their partners.

5. Limitations

The study should be interpreted in light of its limitation. First as a cross-sectional study, it is not able to draw conclusions about causality of any of the identified associations. Secondly, given that the study was conducted in one location, it may not be applicable to other settings. Thirdly, self-reported assessments of sexual behaviours through questionnaires are prone to a number of biases that could affect the validity and reliability of the results. Also, HIV/AIDS and sexual issues are very sensitive and could limit free expression of the out-of-school adolescents in some matters. Assurance of confidentiality of the respondents, the presence of research assistants in the room to answer possible questions raised by respondents during data collection, and the simplicity and direct nature of the questions in the questionnaires minimised this effect.

Despite these limitations, the out-of-school adolescents in Kumba in the Southwest region of Cameroon had low perception of risk of contracting HIV/AIDS, with a corresponding high number of sexual partners.

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