



HIV infection risk awareness and sexual behaviour among young women: Observations from Mufulira urban district, Zambia

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Abstract

Background: HIV and AIDS is a major Public Health concern worldwide. Almost 12 million young people aged 15-25 years and 3 million children live with HIV or AIDS. The study aimed at exploring the association of HIV infection with sexual behaviour among young women.

Objective: To explore the association of HIV infection and risk awareness with sexual behaviour among young women in Mufulira urban district, Zambia.

Methodology: This was a mixed method study. Data were collected using a structured interview schedule and a focus group discussion guide in Kawama west residential area in Mufulira District selected using simple random sampling method. Individuals were obtained from households by systematic sampling. Quantitative data were analysed by EPI-info version 6 and SPSS version 16. Chi-square test and logistic regression was used for analysis. Cut-off point for statistical significance was set at 5% with P values of 0.05 or less. Qualitative data were analysed using content analysis where categories were coded.

Results: Sixty percent of the respondents were aged 20–24 years and 40% 15–19 years. Almost half (48.6%) were single, 51.4% were married or separated. All of them had heard about HIV and AIDS, 70% had already indulged in sexual intercourse at the time of the study. Most (78.4%) young women had sex for the first times between ages 15 – 19 years. Education and economic status were not statistically associated with HIV and AIDS infection risk awareness and sexual behaviour.

Conclusion: There was a significant association between the respondent's knowledge levels and the level of education however; there was no association between the risk of HIV and sexual behaviour.

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Introduction

Women and girls are particularly vulnerable to HIV (Human Immunodeficiency virus) infection with young women being infected almost every minute and are likely to be infected ten years younger than their male counterparts [1]. Policies such as universal education for girls, reducing violence against women and ensuring that women have equal access to property, income, and employment have not yet been implemented, thus putting women at a disadvantage [2,3]. Additionally, women in many countries in the region face rural underdevelopment, widespread poverty, poor educational opportunities and limited access to radio, television and newspapers [3,4]. Women confront traditional social values that prescribe strict gender roles for males and females and that condone men's sexual promiscuity while placing a high value on female fidelity [5].

In Zambia, the HIV and AIDS (Acquired Immunodeficiency Syndrome) epidemic disproportionately affects women. The 2013/2014 Zambia Demographic and Health Survey (ZDHS) reports that the adult HIV prevalence was at 13%, representing a decrease from the prevalence of 16% observed in the 2001–2002 ZDHS [6]. Fifteen percent of women are HIV positive, in comparison to 11% of men [6]. The Central Statistical Office (CSO) further revealed that among respondents tested, the proportion that was HIV positive tended to rise with age from 4% among those aged 15–19 and 9% in those aged between 20–24 years to 23% in the 40–44-year age group. Young people usually lack guidance and are often under the influence of their peers, thus indulging in sex at an early age [7-10].

Evidence from surveys of HIV-related behaviour and knowledge among young people show that the vast majority of young women have low levels of knowledge on HIV transmission [11]. Since it is crucial that the risk of HIV and AIDS is known before someone can change their sexual behaviour, the study investigated the extent to which young women knew the risk of HIV and AIDS and their sexual behaviour and the extent to which they practised safe sex after understanding the risk.

Objective

The main objective of the study was to explore the association of HIV infection and risk awareness of sexual behaviour among young women in Mufulira urban district, Zambia.

Methods

This was a mixed method study conducted in Mufulira urban district in 2008. The study population comprised females aged 15–24 years residing in Kawama west residential area.

Kawama west residential area was selected using simple random sampling method. Individual respondents were selected from each household using systematic sampling method. Individuals for the focus group were homogeneously selected by a purposive sampling method based on age. Two focus group discussions, one involving age group 15–19 years and the other one involving the age group 20–24 years were conducted with seven participants in each group. The sample for both the quantitative and qualitative studies were 70 respondents and 14 participants respectively.

Data collection tools

Data were collected using an interview schedule and a focus group discussion guide. The interview schedule had three sections; A which contained demographic information, B knowl-

edge items and C, sexual behavior. The focus group discussion guide had three (3) sections; A, on HIV and AIDS knowledge, B on sexual behaviour and C on suggestions for improvement.

Data collection procedure

Ten respondents were interviewed each day for a duration of 30-40 minutes. The purpose of the study was explained to the respondents and permission was sought from them before the interview was conducted. Only one person was interviewed at a time in an enclosed room. Numbers were allocated to all participants for anonymity instead of names.

The focus group discussion consisted of 6-12 persons guided by a facilitator with the age groups of 15 – 19 and 20 – 24 years. Prior to the focus group discussions the respondents' background information (including demographic characteristics, education level, marital status and sexual experiences) were obtained. Participants were invited two days in advance and the general purpose of the focus group discussion was explained. The focus group discussions were conducted using a guide moderated by the researcher while a note taker took down the notes and the discussions were audio taped following permission from the participants. Respondents were asked to answer to the same questions in the same order, and were given the same set of options for their responses. The interviewer wrote the responses verbatim.

Data analysis

Quantitative data was analysed using the Epi-info version 6 software computer package. Chi-square was used to test the association between independent and the outcome variables. Where the Chi-squared test was not valid, Fisher's exact two-tailed probability test was used. Ordinal logistic regression was carried out using SPSS to calculate the odds of the outcome of variables which were significant. The cut-off point for statistical significance was set at 5%, P values of 0.05 or less were considered statistically significant thereby rejecting the null hypothesis. Qualitative data were analysed by performing content analysis. Three major themes identified during data analysis were HIV and AIDS knowledge, HIV and AIDS risk awareness and sexual behaviour.

After every focus group discussion the recorder read the points to the group members to check the information for accuracy and inconsistencies, and the study participants were asked to clarify them. Data obtained were transcribed from vernacular to English. Using the participants' own words, the key statements were listed, including the ideas and attitudes expressed for each topic were categorized. The researcher read all the data to obtain a general sense of the information and to reflect on its overall meaning. Data were analysed by content analysis, by coding the categories directly from the text data. A full report of the focus group discussion was prepared that reflected the discussion as much as possible. Answers of the two subgroups (those between 15-19 and 20-24 years) were compared.

Results

Sample characteristics (Table 1)

Most (60%) of the respondents interviewed were within the age group of 20–24 years and 40% were in the age group 15–19 years. Almost half (48.6%) of the sample consisted of single women and 51.4% were either married or separated. All (70) the respondents were Christians, 55.7% had low levels of education while 44.3% had moderate or high education. Less than

half (41.4%) of the respondents were housewives, 28.6% were unemployed, and 18.6% were students. The majority (78.6%) of the respondents earned a household income below K500 (USD 42) per month.

Knowledge of HIV and AIDS

All the respondents had heard about HIV and AIDS and the media was the commonest source of information (98.6%). When asked what the meaning of AIDS was, 62.9% of the respondents said AIDS was an illness and 17.1% said AIDS was a microorganism. Similarly, many participants aged between 15–18 years in the focus group stated that AIDS was an illness while those aged between 20–24 years said AIDS was the same as HIV. Most (98.6%) of the respondents indicated that sexual intercourse was the commonest route of transmission of HIV and AIDS while the transmission method least mentioned was via breast milk (Table 2). In the focus group discussion, when the young women were asked on the cause of HIV, they said it was by promiscuity – for example, Participant 1, in the 15-19 year age group said “*ubulalelale*” (meaning promiscuity) “*thereafter it lays eggs*”; Participant 2 in the 20-24 year age group said “*ukutemwa ubulalelale*” (meaning by promiscuity). The Respondents who had never been to school or with primary education were 58% (OR = 0.42; 95% CI: 0.19, 0.93) (P value = 0.043) less likely to have low or medium level of knowledge of HIV and AIDS in comparison to those who had attained secondary or college education. Significantly, more respondents with high knowledge (96.5%) were aware of the risk of HIV and AIDS compared to those with low or medium knowledge (61.5%) (P-value = 0.001). Respondents who had low or medium knowledge were 76% (OR = 0.24; 95% CI: 0.10, 0.59) less likely to be aware of the risk of HIV and AIDS compared to respondents who had high knowledge.

Sexual behaviour

Most of the married respondents (73.5%) got married between 15 and 19 years whereas 26.5% got married between the ages of 20 and 24 years. Seventy percent of the respondents were sexually active at the time of the interview. In the focus group discussion, all the participants in the 15-19 year age group said they had never indulged in sexual intercourse before with their boyfriends as stated by this participant, “*no I have never had sex with my boyfriend before, I refuse*”. All the participants in the 20-24 year age group said that they had indulged in sexual intercourse before. Most (54.9%) of the respondents who were sexually active had never used a condom during intercourse. Most of the young women (87.1%) were aware that unprotected sex carries a risk of HIV and AIDS. When asked if they would initiate condom use with their partners, some of the women were not for the idea as indicated by this woman in the 20-24 year age group. “*It would seem as though I don't trust him*”. Another participant in the same age group said “*he would think you suspect him of being infected with HIV*. Another one in the 15-19 year age group said “*kumweba*” (meaning I can tell him to use a condom).

Discussion

Demographic characteristics

Most (60%) of the respondents interviewed were within the age group 20-24 years and 40% were in the age group 15-19 years. About half (51.4%) of the respondents in the study were married or separated, all were Christians, 55.7% had either primary education or never been to school, 41.4% were housewives, 28.6% were unemployed and 18.6% were students. Most

(78.6%) of the respondents earned a household income of below K500 (USD 42).

Knowledge of HIV and AIDS

All respondents in this study had heard of HIV and AIDS. In the FGDs, the participants equally knew what HIV and AIDS are as stated by this participant “*HIV is an illness caused by a microorganism*”. Similarly, the 2013/2014 Zambia Demographic and Health Survey (ZDHS) reveals that all women between the ages of 15 and 49 years had heard about HIV and AIDS [6]. However, a qualitative study on Knowledge about HIV and AIDS among Young Women by Ngoma and others revealed that some of the participants in the FGD displayed ignorance on the meaning of the acronym HIV and on the difference between HIV and AIDS [12]. This is contrary to the findings of a study by Taffa (2017) in Ethiopia where 21% of the respondents aged 15 to 24 years had never heard about HIV and AIDS [13].

The media was cited as the commonest source of information for 98.6% of the respondents. Taggart and others (2015) reported similar findings [14]. Contrary, Nubed and Akoachere (2016) in Cameroon found that the commonest source of AIDS information was sex education [15].

Most of the young women (87.1%) were aware that unprotected sex carries a risk of HIV and AIDS. Tylor and his colleagues (2016) in their study on the Risk Factors among the Zambian Street Youths aged between 15 to 24 years reported that 97% of the youths in their study stated that multiple partners increases the risk of HIV transmission [16]. Participants in the FGDs echoed the above fact, as indicated by one participant “*ukutemwa ubulalelale*” (meaning promiscuity) increases the chances of HIV transmission. This shows an increase in HIV and AIDS knowledge over the years.

This study has shown an association between education level and the respondent's knowledge levels. Respondents who had never been to school or with primary education were less likely to have low or medium level of knowledge of HIV and AIDS in comparison to those who had attained secondary or college education. Similarly, Gemechu et al. (2015) in Ethiopia, discovered that respondents who had reached grade 12 and high school were more likely to have comprehensible knowledge in HIV in comparison to those who had no formal education [14]. Yaya et al. (2016) reported similar findings where women with a higher education level had more knowledge of HIV compared to those with lower education [17,18].

Sexual behaviour

It is interesting to note that despite the respondents indulging in risky sexual behaviour, 90% were aware of the risk of HIV and AIDS, however, there was no association between demographic characteristics and respondents' risk awareness but knowledge level was significantly associated with risk awareness. Majority of the respondents who were sexually active had similar characteristics like others in the regional studies, for example, Stephenson et al. (2014) revealed that the mean age at which young people had their first sexual experience was 16.1 years for the Ghanaian to 17.3 years for the Malawian females [19]. The mean age at first sexual experience for the focus group participants was 18.7 years, which is slightly higher than the one in the study above. When young people have sex at an early age, they are more likely to be infected with HIV even at earlier stages of their lifespan [20].

The results show that 54.9% of the sexually active respondents had never used a condom. The non-use of condoms puts young women at risk of HIV infection. However, women often do not have the power to abstain from sex or to insist on condom use even when they suspect that the man has other sexual partners and might be infected with HIV [21]. A Ghanaian study revealed that women did not have the right to ask their husband to use a condom even if he had proven himself to be unfaithful [22].

Limitations

One of the limitations of the study was that a self-report instrument was used to collect data which could have led to under-reporting of sensitive information about sexual behaviour and therefore, the findings might not be generalizable.

Conclusion

The study revealed that most of the young women had medium level of knowledge about HIV and AIDS, had heard about HIV and AIDS, were sexually active and almost half of them had never used a condom before. There was a significant association between the respondent's knowledge levels and the level of education however, there was no association between the risk of HIV and sexual behaviour. Therefore there is need for continued sensitization on HIV and AIDS prevention, care and support among the young women.

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Tables

Table 1: Socio-Demographic Characteristics of the Participants

	FREQUENCY	PERCENTAGE
Age		
15-19	28	40
20-24	42	60
Marital Status		
Single	34	48.6
Married/Separated	36	51.4
Educational Level		
None/Primary (low)	39	55.7
Secondary/College(moderate/high)	31	44.3
Occupation		
Housewife	29	41.4
Student	13	18.6
Formally employed	1	1.4
Self employed	7	10.0
Unemployed	20	28.6
Income		
Below K500 (USD 42)	55	78.6
Between K500-K1 500 (USD 42 – 125)	15	21.4
Total	70	100

Table 2: Sources of information on HIV and AIDS

Source of Information on HIV and AIDS		Frequency	Percentage
	Media	69	98.6
	Others	2	2.9
Causes of HIV	A microorganism	12	17.1
	Acquired Immunodeficiency Syndrome	3	4.3
	Illness	44	62.9
	Sex with man HIV positive	2	2.9
	Don't Know	9	12.9
	A microorganism	12	17.1
	Acquired Immunodeficiency Syndrome	3	4.3
Route of HIV Transmission	Sexual intercourse	69	98.6
	Infected blood products	68	97.1
	Unsafe injection practices	66	94.3
	Breast milk to babies	57	81.4
	Sharing contaminated razor blades and needles	66	94.3

Table 3: Identified Themes on HIV and AIDS Knowledge, Risk Awareness and Sexual Behaviour

HIV and AIDS knowledge	Responses	Major themes identified
	<ul style="list-style-type: none"> “HIV is an illness caused by a microorganism” “HIV is caused by promiscuity” “HIV is caused by lack of condom use during sexual intercourse” “HIV is caused by using infected items for example a needle or razor blade” “HIV can be prevented by avoiding sex with an infected person” “HIV can be prevented by use of condoms” 	<ul style="list-style-type: none"> HIV is caused by a microorganism HIV is caused by having multiple sexual partners HIV can spread due to lack of condom use AIDS is an illness where symptoms show
HIV and AIDS Risk Awareness	<ul style="list-style-type: none"> “We cannot be sick.” “You cannot catch HIV and AIDS if you “take care of yourself”. “One cannot tell, anyone can acquire HIV” “You can be sick without knowing” 	<ul style="list-style-type: none"> HIV and AIDS can be prevented by abstaining from sex You need a test for you to know that you have HIV
Sexual Behavior	<ul style="list-style-type: none"> “No I have never had sex with my boyfriend before, I refuse”. <p>Condom use</p> <ul style="list-style-type: none"> “I cannot initiate condom use because “It would seem as though I don’t trust him”. “He would think you suspect him of being infected with HIV.” “he can’t even agree “yes, I can encourage him to use a condom” “A condom is bad, I am told it rubs against you”. “If a condom bursts in the vagina you can never have a child” 	<ul style="list-style-type: none"> Some young women were abstaining from sex Those engaged in sex did not feel free to suggest condom use to their partners There are myths and misconceptions surrounding condom use

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