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Gender Differentials in Consistent Condom Use among Young People in Zambia

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Abstract

The aim of this paper is to determine socio-economic and demographic factors that influence gender differentials in consistent use of condoms among young people in Zambia. Data for this paper were collected from a household questionnaire that was administered to sexually active youth (N=3554) between the ages of 15-24 during the 2013 Demographic Health survey. Cross tabulation and chi-square results revealed a relationship between age, gender, place of location, socio-economic background, employment status, level of education media exposure, alcohol consumption and perceived risk of contracting HIV with the consistent use of condoms. For females, regression analyses revealed that wealth status, work status, educational level and drinking alcohol were positively associated with reporting consistent use of condoms. For males, age, work status, educational level, perceived risk of contracting HIV and drinking alcohol are associated with increased likelihood of reporting consistent condom use within the last 6 months.

Key Words: Gender Differentials, Condom use, Youth, Zambia

Introduction

Consistent condom use has been described as the most effective way to prevent both sexually transmitted infections and HIV transmission among people living with HIV and those who are not. According to Cates and Steiner (2002), using condoms consistently could prevent unintended pregnancy among young people. Furthermore; the condom is the single, most effective method to reduce the transmission of sexually transmitted infections, including HIV.

Nearly 68% of all people living with HIV worldwide live in sub-Saharan Africa, about 1.9 million new infections were also reported in sub-Saharan Africa, representing more than two-thirds (70%) of all new infections globally (Raiford et al, 2007). Condoms are an integral part of sexually transmissible infections (STI) and HIV/AIDS prevention, and their use has increased significantly over the past decade. Correct and consistent use of condoms reduces the risk of HIV transmission by almost 100% (Tarkang, 2015). However, research suggests that adolescents and young adults associate condom use with a lack of trust for their partner, which may serve to decrease condom use in the context of main relationships (Bralock, et.al. 2009). Inconsistent condom use among young people is one of the major risk factors in the continued propagation of the epidemic and several studies have assessed that behavioral, personal, and cultural obstacles prohibit enacting and maintaining consistent condom use (Thanavahan, et al, 2013).

The factors that have been identified as being important in the consistent use of condoms include knowledge about HIV/AIDS attitudes towards condoms, perceived vulnerability, perceived self-efficacy, condom efficacy, discussing condom use or AIDS with partner, and relationship control (Raiford, et.al 2007). It has also been found that inconsistent condom use may stem from perceptions of less control over condom use and lower self-efficacy for refusing sex without a condom (Pulerwitz, 2002). Social norms may also influence women's likelihood of engaging in safe sex. Women who perceive negative peer norms surrounding condom use are more likely to be inconsistent condom users (Crosby, et al, 2008).

A study conducted in Cameroon among male secondary school students showed that the majority reported being sexually active, of whom only 31.9% reported using condoms consistently. Perceived severity of HIV and AIDS, perceived benefit of condom use and socio-demographic factors were the main factors that had statistically significant relationships with consistent condom use (Tarkang, 2015).

Consistent condom use is determined by a number of factors, some of which are also linked to gender in more or less obvious ways. A study was conducted in Uganda among university students by Mehra et al, (2014) to investigate whether gender differences regarding individual and social factors determine the association between condom efficacy and inconsistent condom use with a new sex partner. Results showed that a total of 1,179 (60.3%) students reported having had their sexual debut. Of these, 231 (37.4%) males and 209 (49.2%) females reported inconsistent condom use with a new sex partner. Students with low condom efficacy had a higher risk of inconsistent condom use with a new sex partner, even after adjusting for the potential confounders. A synergistic effect was observed between being a female and low condom efficacy with inconsistent condom use. The association between inconsistent condom use and low condom efficacy was found among both males and females, but females were found to be at a higher risk of inconsistent condom use compared to their male counterparts.

A study was conducted in Angola by Prata et al, (2005) to investigate gender and relationship differences in consistent condom use among 15–24-year olds in Angola. Results indicated that for both males and females, consistent condom use was positively associated with higher levels of education and believing that condoms did not diminish sexual pleasure. It was however negatively associated with being married or in a cohabiting relationship. Females who equated condom use with lack of trust were less likely to use condoms consistently, and males who believed that condoms were safe and those who had multiple partners were more likely to be consistent users. Urban residence, higher education, being in school and not equating condom use with lack of trust were important predictors of use at last intercourse in regular and casual relationships, whereas access to condoms was the most important factor in spousal relationships.

A study carried out in Tanzania by Babalola (2005) examined commonalities and differences in the predictors of consistent condom use among Tanzanian youth in five regions. Findings suggested that an effective intervention for promoting consistent condom use should be differently packaged for men and women. For men, an effective intervention should seek to educate the audience about correct and consistent use of a condom, promote discussion about condom use with peers, link condom use to longevity and self-efficacy for use of condom with long-term partners. For women, interventions should focus on sexual empowerment, increase in the understanding of the adverse social and health impacts of unplanned pregnancies and promoting understanding about the response efficacy of the use of condoms.

Methods and materials

The present study used data from the 2013 Zambia Demographic Health Survey (ZDHS). The sample for the survey was designed to provide the estimates of population and health indicators at the provincial and national levels. The survey was based on a

nationally representative sample carried out by Central Statistical Office with technical assistance from the Demographic Healthy Surveys Programme at ICF International which was funded by the United States Agency for International Development (USAID). The survey used a two-stage stratified cluster sampling design. At the first stage, 722 Enumeration Areas (EA) were selected using systematic random sampling with probability proportional to size. At the second stage, 25 households per EA were selected again using systematic random sampling. Methods and data collection procedures have been published elsewhere (CSO, 2014).

The ZDHS included a special module designed to collect information on various demographic and health indicators including individual characteristics, sexual activity, knowledge and use of condoms, HIV/AIDS related knowledge, HIV testing, attitudes and behaviour. The household questionnaires also collected information on the demographic and economic characteristics of all household members. In this study, the analysis was restricted to sexually active youths in order to specifically look at the consistency in the use of condom use among youths.

Data Analysis

The data analysis was carried out in two stages. Firstly, cross tabulations were used to examine the relationship between the independent (socio-economic and demographic variables) and dependent (consistency in condom use) variables. For the statistical analysis, chi-square tests were conducted at the bivariate level for independent variables at $p < 0.01$ and $p < 0.05$ significant level. Secondly, the linear logistic regression was used to identify factors influencing consistency in condom use by considering socio-economic and demographic variables. The result of the logistic regression models was converted into odds ratios, which represented the effect of a one-unit change in the explanatory variable on the indicator of the consistency in condom use. Odds ratios larger than one indicate a greater likelihood of using a condom consistently than for the reference category; odds ratios smaller than one indicate a smaller likelihood of consistent condom use compared to the reference category.

Findings and Discussion

Background Characteristics of the Sample

The background characteristics of the sample are shown in Table 1. The results revealed that 40.6% of females and 45.5% of males were in the age group 15-19 and 35% of females and 40% of males were aged 20-24 respectively. With regard to religion, the majority of the respondents were Protestants (78% of males and 82% of females) while the minority were Catholics (21.6% of males and 17.6% of females). The results also showed that about half of the respondents were from rural areas (47.3% of females and 47.1% of males). The distribution of respondents by wealth quintile showed that 37.7% of females and 32.7% of males were ranked poor, 22.2% of females and 23.3% of males were categorized as belonging to the middle class whereas 40% of females and 44.1% of males were ranked rich. The data further shows that majority of the respondents were not working (62.4% of females and 41.3% of males).

The education characteristics of the respondents showed that 56.6 % of females and 64.6 % of males had completed secondary or higher education whereas 43.4% of females and 35.4% of the males had only acquired primary education. Furthermore,

66.4% of females and 56% of males reported having been exposed to media less than once a week. On the contrary, 33.6% of the females and 44.4% of the males reported having had access to media at least once a week. The data further indicates that 5.4% of females and 15.1% of males reported having drunk alcohol. With regard to risk perception of getting HIV, 57.3% of females and 64.7% of males reported low or no risk, 26% of females and 18.7% of males reported medium risk while 16.7% of females and 16.5% of males reported being at high risk of getting HIV.

Table 1: Sample Distribution of males and females youths in Zambia (15-24)

Characteristics	Female	N	Male	N
Age				
15-19	40.6	1879	45.5	1675
20-24	59.4	2747	54.5	2005
Religion				
Catholic	17.9	836	21.6	808
Protestant	82.1	3790	78.4	2812
Place of residence				
Rural	47.3	2186	47.1	1734
Urban	52.7	2440	52.9	1946
Wealth Index				
Poor	37.7	1746	32.7	1202
Middle	22.2	1029	23.3	856
Rich	40.0	1851	44.1	1622
Work status				
Not-working	62.4	2883	41.3	1521
Working	37.6	1743	58.7	2159
Educational level				
Primary	43.4	2008	35.4	1305
Secondary+	56.6	2618	64.6	2375
Exposure to media				
Less than once a week	66.4	3073	56.0	2060
At least once a week	33.6	1553	44.0	1620
Drinks alcohol				
No	94.9	6377	84.9	4678
Yes	5.1	345	15.1	971
Perceived risk of getting HIV				
Low risk	57.3	2643	64.7	2377
Medium	26.1	1199	18.7	687
High	16.7	784	16.5	616

Level of Consistency in Condom Use Among Youths in Zambia

The percentage of youths who reported using condoms consistently with their partners is shown in Table 2. Overall, about 8% of females and 16.3% of males reported using condoms every time with their partners in the last 12 months. Female respondents aged 20-24(8.8%) were more likely to report using condoms every time with their partners as compared to those in the age group 15-19(7.2%). Similarly, male respondents aged 20-24(23.5%) were more likely to report using condoms every time they had sex with their partners as compared to those aged 15-19 (11.2%). With regards to place of residence, female respondents from rural areas were more likely to report using

condoms consistently with their partners (9.3%) than those from urban areas (6.6%). In like manner, male respondents from rural areas were more likely to report using condoms consistently with their partners (17.7%) than their counterparts from urban areas (14.7%).

The wealth index shows that female respondents from rich backgrounds were found to be more likely to report having used condoms every time with their partners, followed by the middle class and then those in the poor class (poor 5.6%, middle 9.1% and the rich 9.2%). Similarly, male respondents from rich backgrounds were found to be more likely to report having used condoms consistently with their partners, followed by the middle class and then the poor class (poor 14.4%, middle 14.5% and the rich 18.1%). On work status, females who were working (9.4%) were more likely to report using condoms every time with their partners as compared to women who were not working (7.4%). Likewise, males who were working (19.2%) were more likely to report using condoms every time with their partners as compared to those who were not working (13.3%).

Female respondents who had acquired secondary or higher education (9.4%) were more likely to report having used condoms consistently with their partners as compared to those who had only acquired primary education (5.9%). Similarly, male respondents who had acquired secondary education (18.7%) or higher were more likely to report having used condoms with their partners as compared to those who had only acquired primary education (11.8%).

Furthermore, respondents who were exposed to media at least once a week (females-8.8%, males 17.7%) were more likely to report having used condoms consistently with their partners as compared to those who were exposed to media less than once a week (females-7.5%, males 15.0%). With regard to drinking alcohol, respondents who drank alcohol (females-19.7%, males 27.7%) were more likely to report having used condoms consistently every time with their partners as compared to those who did not drink (female, 7.3%, males 13.8%). The data further indicate that respondents who had a high perception of getting HIV were more likely to report having used condoms consistently with their partners as compared to those who reported having a medium risk and low risk perception (high risk 22.4%, medium risk 21.5% and low risk 14%).

Table 2. Percentage of youths who reported having used condoms consistently with their partners in the last 12 months

Characteristics	% of females who had used condom every time with most recent partner		% of males who had used condom every time with most recent partner		
	%	N	%	N	
Age					
	15-19	7.2**	3686	11.2**	3344
	20-24	8.8	3040	23.5	2306
Religion					
	Catholic	8.4	1248	18.0*	1196
	Protestant	7.9	5462	15.7	4428
Place of residence					

	Rural	9.3**	3426	17.7**	2780
	Urban	6.6	3300	14.7	2870
Wealth Index	Poor	5.6**	2212	14.4**	1723
	Middle	9.1	1370	14.5	1224
	Rich	9.2	3144	18.1	2703
Work status	Not-working	7.4**	4655	13.3**	2858
	Working	9.3	2038	19.2	2781
Educational level	Primary	5.9**	2681	11.8**	2070
	Secondary+	9.4	4040	18.7	3575
Exposed to media	Less than once a week	7.5*	4300	15.0**	3169
	At least once a week	8.8	2426	17.7	2481
Drinks alcohol	No	7.3**	6377	13.8**	4678
	Yes	19.7	345	27.7	971
Perceived risk of getting HIV	Low risk				
	Medium	7.7	4332	14.0**	3984
	High	8.7	1414	21.5	867
		8.7	903	22.4	749
Total		8.0	6726	16.3	5650

*** Significant at $P < 0.01$; ** Significant at $P < 0.05$

Factors Affecting Consistency in Condom Use

Logistic regression analysis data of social economic and demographic variables on sexually active female youths who reported having used condom consistently is shown in Table 3. The results of logistic regression show that wealth status, work status, educational level and drinking alcohol were positively associated with the likelihood of females reporting consistently using condoms with their partners in the last 12 months. Results reveal that females from the rich and middle-class backgrounds were significantly more likely to report having used condoms consistently with their partners. Those from rich backgrounds were 1.4 times more likely and those in the middle class were 1.6 times more likely to report having used condoms consistently with their partners as compared to those from poor backgrounds.

With regards to work status, females who were working had a strong likelihood of reporting using condoms consistently with their partners. Those who were working were 1.4 times more likely to report having used a condom consistently with their partners as compared to those who were not working. Moreover, those with secondary or higher education were 1.4 times more likely to report having used a condom consistently with their partners as compared to those who only had primary education. Alcohol intake showed a strong likelihood of respondents reporting using a condom every time with their partners. Those who drank alcohol were 1.7 times more likely to report having used a condom consistently with their partners as compared to those who did not drink alcohol.

The logistic regression analysis data of social economic and demographic variables on sexually active males who reported having used a condom during first sex is shown in table 3. The results of the logistic regression show that age, work status, educational level, perceived risk of getting HIV and drinking alcohol were associated with a strong likelihood of males reporting consistent condom use with their partners in the last 12 months. Male respondents aged 20-24 were found to be 1.8 times more likely to report having used condoms every time they had sex with their partners as compared to those aged 15-19. With regards to work status, males who were working showed a strong likelihood of reporting condom use every time they had sex with their partners. Those who were working were 1.3 times more likely to report having used condoms every time they had sex with their partners as compared to those who did not work.

Table 3. Logistic Regression Analysis data of socio-economic and demographic variables on female youths who reported having used condom every time they had sex

Variables	Females		Males		
	Exp (β)	P- value	Exp (β)	P- value	
Age					
	15-19				
	20-24	1.0702	0.4797	1.8114	0.0000
Religion					
	Catholic				
	Protestant	0.9230	0.4865	0.8857	0.1719
Place of residence					
	Rural				
	Urban	0.9141	0.4578	1.0867	0.3994
Wealth Index					
	Poor				
	Middle	1.5509	0.0022	1.0210	0.8545
	Rich	1.3334	0.0673	1.1617	0.2047
Work status					
	Not-working				
	Working	1.3640	0.0024	1.2701	0.0072
Educational level					
	Primary				
	Secondary+	1.4447	0.0010	1.4674	0.0000
Exposed to media					
	Less than once a week				
	At least once a week	1.0497	0.6118	1.1232	0.1301
Drinks alcohol					
	No				
	Yes	2.6395	0.0000	1.7098	0.0000
Perceived risk of getting HIV					
	Low risk				
	Medium	1.1145	0.3386	1.5301	0.0000
	High	1.0864	0.5364	1.5802	0.0000

Moreover, logistic regression results on educational level revealed that those who had secondary education showed a strong likelihood of respondents reporting use of condoms every time they had sex with their partners. Those with secondary education

were 1.5 times more likely to report having used a condom every time they had sex with their partners as compared to those who only had primary education. Furthermore, drinking alcohol showed a strong likelihood of respondent's reports of using condom every time they had sex with their partners. Those who drank alcohol were 1.7 times more likely to report having used condom every time they had sex with their partners. Male youths who reported high and medium risk of getting HIV were more likely to report having used condom every time with their partners. Those who reported high risk of getting HIV were 1.6 times and those who reported medium risk were 1.5 times more likely to report having used condoms consistently with their partners than those who reported a low risk of contracting HIV.

Discussion

Condoms are seen as one of the preventive measures against the spread of HIV and unwanted pregnancies, as a result most studies and interventions have focused on encouraging consistent condom use. The present study examined factors that determine consistent condom use among sexually active youths in Zambia. The study was based on socio-demographic factors which included, sex, age, religion, place of residence, wealth status, work status, educational level, exposure to media, drinking alcohol and perceived risk of getting HIV.

The study found that age is one of the significant determinants of consistent condom use among youths. Youths aged 20-24 were more likely to use a condom consistently than those who were younger. These findings are in line with other studies, Kayembe et.al (2007) which found that sex workers aged 20-44 were more likely to use condoms consistently as compared to those who were younger. The reasons for inconsistency in condom use among adolescents aged below 20 may be more associated with the explorative nature of adolescence. While possible explanation for consistent use among the older participants could be a sense of responsibility and being more stable as they grow older. They are also more likely to fully understand the effects of not using condoms and the impact this could have for their future. This could encourage reduced risky behaviour in this age group.

Moreover, results from this study also revealed that work status was strongly associated with the likelihood of using condoms consistently for both male and female youths compared to their counterparts who did not work. This difference can be attributed to the reason that those who worked were more likely to engage in casual sexual relationships where people were more likely to use condoms as compared to those who did not work. Furthermore, those who earn an income are less likely to be vulnerable to social and economic pressures that could expose them to high risk behaviours. They are also more likely to access good healthcare services that encourage healthy lifestyle practices and increased knowledge on matters related to sexual reproductive health.

Furthermore, in this study sex was also predictive of consistent condom use. Overall, 8% of females and 16.3% of males reported using condoms consistently. This variation may have been as a result of the vulnerable nature of women in relationships since culturally, they cannot even be expected to carry condoms. Studies have also shown that women's inability to effectively negotiate condom use with their older partners hinders them from consistent condom use (Alamrew & Adamtie, 2014; Pinkerton & Abramson, 1997). This, finding could also be attributed to the social and economic

vulnerabilities that young women experience. In comparison to males, there is a lower school completion rate, higher school dropout rates, lower literacy rates, higher HIV prevalence, less women in formal employment and less women in decision making positions (CSO, 2014).

Across both genders, educational level was a significant determinant of consistent condom use. The odds of using condoms seemed to increase with educational level. Those with secondary education or higher were more likely to use condoms consistently as compared to those with primary education. However, these results contradict the findings of Alamrew and Adamtie (2014), which showed that Ethiopian soldiers who had primary education were more likely to report using condoms consistently compared to those who had secondary and higher education. The reason given for the difference in the study was that those with secondary or higher education were more resistant to change as compared to those who only had primary education. The differences between Zambian youths and Ethiopian military personnel may be affected by the different occupational contexts. However, these results fell in line with a study done on a Chinese population which found that consistent condom use tended to increase with educational level (Choi, et al, 2006). It is also possible that the more educated youth were better informed about the possible risks of not using a condom.

Drinking alcohol also strongly predicted condom use in both males and females. This study found that youths who drank alcohol were more likely to use condoms than those who did not drink. A possible explanation for these results may be that those who drank alcohol were more likely to engage in casual sexual relationships with casual partners as compared to those who did not drink alcohol. Since in casual relationships, people barely know each other's status, the need to use condoms was more likely to be realized.

Furthermore, this study suggests that perceived risk of getting HIV was only a significant determinant of consistent condom use among the males but not the females. Males who had high risk perception of contracting HIV were more likely to use condoms consistently as compared to youths with low and medium risk perception. These findings are consistent with the findings in Prata (2006) among university students in Ethiopia, the risk perception of contracting HIV was a major determinant of condom use.

Another determining factor of consistent condom use was wealth status of males and females. Using bivariate analysis, the probability of consistent condom use among youths seemed to increase with wealth status. Those from rich backgrounds were more likely to report using condoms consistently compared to those from middle and poor wealth status. These results may be attributed to limited decision-making power among those from poor backgrounds and the cost of condoms. Those from poor backgrounds are often submissive and unable to insist on using condoms if their partners are more financially dominant. This finding also speaks to the financial vulnerability experienced of individuals from poor backgrounds.

Place of residence was also significantly associated with the likelihood of consistent condom use among the youths in Zambia. For both males and females, respondents from a rural background were negatively associated with the likelihood of consistent condom use as compared to those from urban backgrounds. This finding could be

attributed to lack of access to information on HIV preventive measures and the lack of healthcare facilities where this information can be obtained. Individuals from rural areas are less likely to be educated in comparison to their counterparts in urban areas. Research has shown a link between level of education and HIV prevalence (Dunkle, 2004). Studies have shown that lack of reproductive health information and health education has an impact on health risky behaviors among youths (Tarkang, 2015). This study confirmed these findings by revealing that those who were exposed to media less than once a week were less likely to use condoms consistently with their partners as compared to those who were exposed to media at least once a week.

Religious denomination showed a weak association with likelihood of youths using condoms consistently. Strangely, this factor was only significantly applicable to males and not to the females. Male youths from catholic denomination were more likely to use condoms consistently than those from protestant denomination. These results however were among the unique outcomes of the study and would require more investigation.

Conclusion

In conclusion, the results in this study are in agreement with studies previously done in other countries which have shown that socio-demographic variables were very cardinal determinants of consistent condom use (Tarkang, 2015). However, other scholars have argued that relationship dynamics and processes were more important determinants of condom use as compared to socio-demographic factors (Manning, et.al, 2009). It is important to note however, that some of the factors that were examined such as exposure to media, alcohol and religious denomination were unique variables which have not been extensively studied before in terms of consistent condom use. In view of the results of this study we hereby wish to recommend that interventions aimed at the reduction of HIV infections by consistent condom use should consider socio-economic and demographic factors such as wealth status, educational level, exposure to media and alcohol consumption as they are cardinal determinants of consistent condom use.

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