

PREVALENCE AND DETERMINANTS OF MALE CONDOM UTILIZATION IN ONDO STATE NIGERIA

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ABSTRACT

Introduction: Male condom use has been advocated to prevent unwanted pregnancy and Sexually Transmitted Infections (STI). Predictors of condom use will help in understanding groups requiring more interventions. This study aims at determining the prevalence and predictors of male condom utilization in Ondo State. **Methods:** This is a secondary data analysis of the Nigeria National Demographic and Health Survey (NDHS) 2013 data set. Ondo state data was extracted. The study area was Ondo State, Nigeria. It was a descriptive cross-sectional study and it focused on men between ages 15-49 years. Descriptive statistics were done. Data was analysed using Chi-square test and logistic regression. Level of statistical significance was $p < 0.05$. **Results:** The mean age of the 404 respondents was 29 ± 10 years, 215 (53.2%) were never in a marital union, 258 (63.8%) had secondary level of education. Out of 318 (78.7%) respondents who have ever had sex 91(28.7%) used condom at last sex. In age 15-24 categories 37(59.7%) used condoms while only 54(24.7%) used among respondents above 25 years, $p < 0.001$. Among those who were never in any marital union 58(60.4%) used condom compared to 13(22.8%) of those who were living with partners, $p < 0.001$. Men who were not in union had about 4 times odds of using condoms (OR 3.6, 95% CI: 1.5-8.7, $p = 0.004$). **Conclusion:** To reduce the prevalence of HIV/AIDS and transmission of STI emphasis needs to be put on the use of condom. Effort at promoting condom use should be encouraged among men in marital union especially those having extramarital sex.

Key words: Condoms, HIV, STI, Sexual Behavior

INTRODUCTION

Condom use during a sexual act has been shown to reduce, the chances of infection like HIV and other sexually transmitted diseases (STDs) and the chances of becoming pregnant¹⁻³. The promotion and distribution programs of condoms have grown significantly over the past decades. Globally, it has been shown that both the male and female latex condoms are highly effective and efficient in the reduction of sexual transmission of HIV and other sexually transmitted infections⁴.

The mechanism of action is by preventing the transfer of fluids between sexual partners such semen, anal mucosa, menstrual blood and vaginal mucous fluid⁵. Some studies have shown that latex and polyurethane condoms provide an impermeable barrier to HIV, STDs, and also increase the clearance rate of human papillomavirus (HPV) and cervical intraepithelial neoplasia (CIN) regression^{6,7}. The male condom is cost effective, easy to access, simple to dispose and its non-systemic action with minimal side effect has made it an effective means of birth control when used consistently and correctly⁸.

Among adolescents prevalence of condom use was 30% in a Nigerian study, among HIV-positive patients the prevalence of condom use in the last sexual act was 30.5%. Teenagers and the elderly, and less educated were more likely to engage in unprotected sex^{2,9}. A trend analysis by Global AIDS Response Country Progress Report (GARPR) revealed that, young people aged 15-24 years had HIV prevalence of 4.3% in 2005, 4.2% in 2008 and 4.2% in 2010¹⁰.

Several factors affect the correct and consistent use of condoms; among male teenagers and young adults in a study conducted in Angola, consistent use of condom was positively associated with higher level of education, believing that condoms were safe, having multiple partners and with the belief that condoms did not diminish sexual pleasure¹¹. Other factors include, the type of sexual partner whether casual or regular, correct and reliable reproductive health information, accessibility to health facilities, operating hours and issues of confidentiality and availability of condoms¹². In a survey conducted in Nigeria, condom use was very low at 25% among

sexually active males¹³.

Most studies have neglected all sexually active men. A lot were done among adolescent while many others were among HIV positive clients. The use of condom is not spontaneous it has been suggested that condom use is determined by the social context within which the sexual behavior occurs^{14,15}. Hence the study of the sociodemographic determinants of condom use will help in understanding who are likely to use condom and who are not. Though the NDHS was conducted nationally, a subnational analysis can help to guide local decision making. This study aimed at determining the prevalence and predictors of male condom utilization in Ondo State Nigeria.

METHODS

This is a secondary data analysis of the Nigeria NDHS 2013 data set. The 2013 Nigeria NDHS is a national sample survey that provides up-to-date information on background characteristics of the respondents. Specifically, information is collected on fertility levels, marriage, fertility preferences, awareness and the use of family planning methods, child feeding practices, nutritional status of women and children, adult and childhood mortality, awareness and attitudes regarding HIV/AIDS, female genital mutilation, and domestic violence. The target groups were women and men age 15-49 in randomly selected households across Nigeria. Information was also collected on the height and weight of women and children age 0-5. In addition to presenting national estimates, the report provides estimates of key indicators for both the rural and urban areas in Nigeria, the six geo-political zones, the 36 states, and the Federal Capital Territory (FCT).

Nigeria NDHS 2013 is the fourth survey of its kind to be implemented by the National Population Commission (NPC). The collection and analyses of the data was done by the NPC. The data was however made available for those who are willing to reanalyse. This was aimed at assisting policymakers

and program managers in monitoring and designing programs and strategies for improving health and family planning services in Nigeria.

The study was done in Ondo State, South West Nigeria. A descriptive cross-sectional design was used. Men between ages 15-49 years were the studied population. National sample was gotten through multistage sampling in the six geo-political zones and the FCT. Data was downloaded in SPSS format. The data for Ondo State was selected and saved separately. The Nigeria NDHS has more than one hundred different variables on men, women, as well as children. To determine the prevalence and predictors of male condom utilization in Ondo State Nigeria independent variables selected from the large NDHS data set were current age, age group in 5 categories, type of residence, level of education, religion, current marital status, wealth index, and recent sexual activity. The dependent variable was condom use at last sex with most recent partner. Descriptive statistics was done and presented in tables and figures. Bivariate analysis (Chi-square test) was used to compare sociodemographic characteristics with condom use. Variables significant at bivariate analysis were used in the logistic regression model to identify the predictors of condom use.

Permission for the secondary analysis was obtained from Demographic Health Survey, USA. In the Nigeria NDHS 2013 survey, consent was received from participants. Voluntariness and confidentiality was ensured. No obvious harm came to the participants.

RESULTS

The mean age of respondent was 29 years \pm 10 standard deviation. The median age is 28 years (range 15-49 years). Table 1 shows the Sociodemographic characteristics of male respondents in Ondo State, NDHS 2013. Respondents aged 15-24 years were 161(39.8%), Almost half 215(53.2%) were never in a marital union. Concerning religion Catholic were 26(6.4%), other Christians were 302(74.7%) while Islam were 76(18.9%). The educational status of 258(63.8%) was secondary while only 6(1.5%) had no formal education. The wealth index was computed using the possession of household items 101(5%) were in each category. Other sociodemographic characteristics are shown in table 1.

Table 1. Sociodemographic characteristics of male respondents in Ondo State, NDHS 2013

Characteristics	Frequency n=404	Percent
Age group in years		
15-24	161	39.8
>24	243	60.2
Place of residence		
Urban	218	54.0
Rural	186	46.0
Current marital status		
Never in union	215	53.2
Married	130	32.1
Living with partner	60	14.8
Religion		
Catholic	26	6.4
Other Christian	302	74.7
Islam	76	18.9
Educational Status		
No formal education	6	1.5
Primary	57	14.0
Secondary	258	63.8
Higher	83	20.7
Wealth Index		
Poorer	101	24.9
Middle	101	25.0
Richer	101	25.1
Richest	101	25.0

Among the 404 respondents 318(78.7%) had ever had sex, while 86(21.3%) never had sex. Out of the 318(78.7%) that have had sex 190(59.8%) did not use condom at last sex, while only 91(28.7%) used. Also, 36(11.5%) did not give any response. The prevalence of male condom use in Ondo State Nigeria is 28.7%. Figure 1 shows that condom use was in 14(63.6%) of respondent age 15-19 years while only 2(5.6%) used condom at last sex among respondent age 40-44 years.

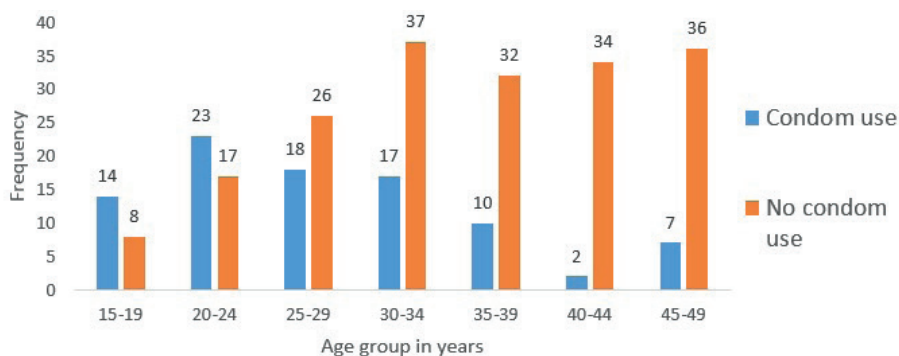


Figure 1: Age group and Male condom use in Ondo State, Nigeria
 $\chi^2 = 41.154, p < 0.001$

Table 2 shows the association between sociodemographic characteristics and male condom use in Ondo State. In age 15-24 categories 37(59.7%) used condoms while only 54(24.7%) used among respondents above 25 years, $p < 0.001$. with regards to current marital status 58(60.4%) used condom among those who were never in any marital union compared to 13(22.8%) of those who were living with partners, this association was statistically significant $p < 0.001$. concerning level of education 29(45.35) of respondent with higher education used condom compare to 9(19.1%) of respondents with primary education, $p = 0.001$. The use of condom was not affected by wealth index.

Table 2. Association between sociodemographic characteristics of male respondents in Ondo State and Condom use, NDHS 2013

Characteristics	Condom use at last sex		Chi square	p-value
	Yes n(%)	No n(%)		
Age group in years				
15-24	37(59.7)	25(40.3)	27.16	<0.001
>24	54(24.7)	165(75.3)		
Place of residence			4.55	0.033
Urban	55(32.8)	89(61.8)		
Rural	36(26.3)	101(73.7)		
Current marital status			51.91	<0.001
Never in union	58(60.4)	38(39.6)		
Married	21(16.3)	108(83.7)		
Living with partner	13(22.8)	44(77.2)		
Religion			2.28	0.321
Catholic	9(47.4)	10(52.6)		
Other Christian	66(32.4)	138(67.6)		
Islam	17(28.8)	42(71.2)		
Level of Education			11.396	0.001
No formal education	0(0)	6(100)		
Primary	9(19.1)	38(80.9)		
Secondary	53(32.3)	111(67.7)		
Higher	29(45.3)	35(54.7)		
Wealth Index			4.422	0.219
Poorer	17(23.0)	57(77.0)		
Middle	24(38.7)	38(61.3)		
Richer	25(34.2)	48(65.8)		
Richest	25(34.7)	47(65.3)		

Table 3 shows the sociodemographic determinants of male condom use in Ondo State, Nigeria using the NDHS 2013 data set. Men who were not in union had about 4 times odds of using condoms (OR 3.6, 95% CI: 1.5-8.7, $p=0.004$).

Table 3. Sociodemographic determinants of male condom use in Ondo State, Nigeria NDHS 2013

Characteristics	Odds ratio	95% Confidence interval of odds ratio		p-value
		Lower	Upper	
Age group in years				
15-24	1.57	0.710	3.474	0.256
>24	1			
Place of residence				
Urban	1.5	0.713	3.167	0.285
Rural	1			
Current marital status				
Never in union	3.63	1.518	8.665	0.004
Married	0.6	0.261	1.378	0.229
Living with partner	1			
Level of Education				
No formal education	0.000	0.000	∞	0.999
Primary	0.462	0.161	1.321	0.150
Secondary	0.510	0.251	1.035	0.062
Higher	1			

DISCUSSION

The prevalence and predictors of condom use in Ondo State Nigeria was done by analysing NDHS, 2013 data set. Condom use has been showed to bring about a drastic reduction in the prevalence of HIV and with the current prevalence of HIV in Nigeria at 3.2%, a high prevalence rate of condom use is expected¹⁶. The prevalence of condom use in Ondo State Nigeria is 28.7%. This prevalence is low despite the increasing prevalence of HIV. The reason for this might be as a result of inconsistent and a high discontinuation rate of the use of condoms by couples. The unending need for procreation, experimentation with the method and misunderstanding about the need and importance of consistent condom use has led to this inconsistency and high discontinuation rate¹⁷. Male condom was used as a form of contraceptive in the late 1990s by 4.9% of the world's married couple and the highest prevalence rate was found in Japan, however, many developing countries still recorded a low condom use prevalence rate^{18,19}. Recent studies have shown that condom use has risen in many countries as a result of the increased awareness of the detrimental effect of

unprotected sex²⁰.

Young people used male condom during the last sex compared to the middle-aged and older age group in the studied population, this is most likely as a result of the increased awareness on condom use, rising prevalence of HIV and the older age group are likely to be faithful to their sexual partner compared to the young ones. This is in contrast to a study conducted among Nigerian soldiers in Ilorin where condom use among respondents within the age range 18-34 years was reportedly low²¹. Another study conducted among clients visiting HCT center at Ogun state was at discordance with the finding of this study, where low use of condom among the younger clients was also reported²². A higher proportion of those who had never been in any marital union were recorded to have used a condom during their most recent sexual act compared to those who were married or living with a partner. The increase attention and publicity given to the use of condom among age group 18 to 34 years who are increasingly mobile, prone to risky sexual behavior and substance use

is probably responsible for the increased usage though they are vulnerable. However, other studies showed low condom use during the last sexual intercourse among younger age group compared to their married counterparts^{22,23}. Despite increased awareness of HIV infection, condom use in Nigeria remains alarming low even among people living with HIV²⁴. Other factors significantly related to condom use during the last sexual intercourse were increasing level of literacy and richer wealth index. It is expected that those with higher level of education should engage in less risky sexual behavior than the less educated. This finding is in agreement with a study where condom use was higher among respondents with secondary education²¹. Condom use among the educated may be different from those with little or no formal education. Level of education has been identified as a determinant of increased condom use in non-marital relationship²⁵. On the contrary, higher level of education was found to be related to non-use of condoms during the most recent act of sexual intercourse in a particular study²². Condom use during last sex was increased among the richer wealth index in this study was corroborated by findings from other studies in Ibadan and also Lusaka which reported that condom use increased with improved socio economic status^{26,27}.

Those who were not married or in any union were 4 times more likely to use a condom during sexual intercourse compared to their married counterparts. This shows that those who are married are not inclined towards using condoms during sexual intercourse. A study conducted among Nigerian youths using the NARHS 2007 data survey set also reported that youths who were not in any union were more likely to use condoms during sexual intercourse compared to those who were married²⁸.

According to studies conducted in Nigeria, condom use was more common non marital relationships than in marital contexts, while in Lusaka, those who were not in any union or marital relationship were eight times more likely to use condoms than those in marital relationships^{26,29}.

LIMITATION

Findings from this study though corroborated by other studies has some limitations first it was not possible to know if the reason for non-use of condom is to achieve pregnancy among married couples. Also, all the respondents had sex with women. It was not possible to find out the difference in condom use between men who had sex with men and men who had sex with women and men who had sex with men and women.

CONCLUSION

To reduce the prevalence of STI, HIV/AIDS emphasis needs to be put on the use of condom. The significant predictor of condom use is being a single (never in union). Though the use of condom among single is usually given wide publicity. The finding is not surprising since low condom use has been reported among married couple. There is a need to promote condom use even among married couples. Effort at promoting condom use should not be limited to the adolescent alone. It should be encouraged among men in marital union especially those having extramarital sex.

CONFLICT OF INTEREST

The authors declare that no conflict of interest exists.

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