

ORIGINAL RESEARCH ARTICLE

Patterns and Correlates of Condom Use among Unmarried Male Youths in Nigeria: NDHS 2008

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Abstract

The HIV/STDs constitute public health problem. Condom use during sexual intercourse has been proved to be a good means of protection against HIV/STDs. Unmarried male youths which constitute a high proportion of Nigerians will be at risk of HIV/STDs if they fail to use condom. Reducing HIV/STDs in Nigeria will be difficult if research on condom use among youths is neglected. This retrospective cross-sectional design study utilized 2008 NDHS dataset. It focused on unmarried male youths aged 15-24 (n=1575) who ever had sexual intercourse (vaginal, oral and anal). The dependent variables were ever used and current use of condom. Data was analyzed using Chi-square and logistic regression ($\alpha=5.0\%$). Mean age of the respondent was 20.5 ± 2.4 , 62.0% ever used condom and 49.5% currently using condom. Among the sexually active; age, region, residence, education, wealth index, ever undergone HIV test and total life-time number of sexual partners were significantly associated with current use of condom. Living in the southern regions of Nigeria promotes the use of condom. The odds of ever use of condom was higher among male youths who were in the middle (OR=2.36; C.I=1.48-3.78), richer (OR=2.93; C.I=1.81-4.72) and richest (OR=3.52; C.I=2.07-6.00) wealth quintiles than the poorest. Ever undergone HIV test increased the likelihood of using condom. Condom use among unmarried male youths in Nigeria is low. Distribution of condom at no cost and undergoing HIV test will increase utilization of condom among unmarried male youths in Nigeria. (*Afr J Reprod Health 2013; 17[3]: 149-159*).

Résumé

Le VIH / MST constitue un problème de santé publique. Il a été prouvé que l'utilisation du préservatif lors des rapports sexuels est un bon moyen de protection contre le VIH / MST. Les jeunes hommes célibataires, qui constituent une forte proportion de Nigériens vont courir le risque du VIH / MST s'ils ne parviennent pas à utiliser un préservatif. Il sera difficile de réduire le VIH / MST au Nigeria si la recherche sur l'utilisation du préservatif chez les jeunes est négligée. Cette étude de conception transversale rétrospective s'est servie de données de l'ENDS de 2008. Elle s'est concentrée sur les jeunes hommes célibataires de 15-24 ans (n = 1575) qui ont déjà eu des relations sexuelles (vaginales, orales et anales). Les variables dépendantes sont avoir jamais utilisés et l'utilisation actuelle du préservatif. Les données ont été analysées par la régression Chi-carré et logistique ($\alpha = 5,0\%$). L'âge moyen des interviewés était de $20,5 \pm 2,4$, 62,0% pour ceux qui ont jamais utilisé le préservatif et 49,5% pour ceux qui utilisent actuellement le préservatif. Parmi ceux qui sont sexuellement actifs, l'âge, la région, le domicile, l'éducation, l'indice de richesse, le test du VIH qu'on a jamais subi et le nombre total de partenaires sexuels qu'ils ont eu toute leur vie étaient significativement associés à l'utilisation actuelle du préservatif. Le fait de résider dans les régions du sud du Nigeria encourage l'utilisation des préservatifs. La possibilité de jamais utiliser le condom était plus élevée chez les jeunes hommes qui se trouvaient au milieu (OR = 2,36, IC = 1,48 à 3,78), plus riche (OR = 2,93, IC = 1,81 à 4,72) et les plus riches (OR = 3,52, IC = 2,07 à 6,00) quintiles de richesse que les plus pauvres. Le fait d'avoir jamais subi le test du VIH a augmenté la probabilité d'utiliser le préservatif. L'utilisation du préservatif chez les jeunes hommes célibataires au Nigeria est faible. La distribution des préservatifs gratuitement et le fait de subir le test du VIH vont augmenter l'utilisation des préservatifs chez les jeunes hommes célibataires au Nigeria. (*Afr J Reprod Health 2013; 17[3]: 149-159*).

Keywords: Male condom, Unmarried male youths, Sexual intercourse

Introduction

The HIV prevalence in Nigeria is becoming worrisome, particularly among youths. Realization of the 6th theme of the Millennium Development

Goal (combat HIV/AIDS, malaria and other diseases in Nigeria) will be a hallucination if research on underlying factors influencing the use

of condom among male youths is neglected. There is dearth of information on patterns of condom use among unmarried male youths who ever had sexual intercourse in Nigeria. Few studies in Nigeria¹⁻⁴ have paid attention to condom use. However, the current research provides additional information on utilization of condom among unmarried male youths in Nigeria.

Nigeria is the most populous country in sub-Saharan Africa and its population is approximately 160 million with two-thirds of the population lives in rural areas which are characterized with poor modern social and health facilities⁵. The total population of male youths in Nigeria is 13,774,081 which constituted 9.81% of the population while 12,399,007 were unmarried male youths⁵. Knowledge of condom as a method of protecting sexually transmitted diseases (STDs) is high in Nigeria, but the utilization is low, particularly among unmarried male youths who are more sexually active than other segments of the males' population⁶⁻⁷. Nigeria is among the few African countries that have reported a decline in HIV prevalence⁸.

Having sexual intercourse is a natural phenomenon that perpetuates human life. One may find it difficult to abstain from sex as it is enjoyable, but can constitute a serious challenge to human health through contacting STDs including HIV/AIDS. This is because, knowing individual sexual partner's STDs status may be impossible unless if disclosed. This has prompted the Government and International Agencies to always advocate for constant use of condom, particularly among people who are sexually active and not married. This set of people is more vulnerable to having multiple sexual partners than the married. Engaging in sexual intercourse with someone other than a spouse or partner with whom one is living with is considered high-risk sex in terms of transmitting STDs and unwanted pregnancies. But, if a person does have sex with a partner irrespective of the marital status, there are evidences that the risk of contracting STDs could be reduced by using condoms. For instance, in a two-year study of sero-discordant couples, no uninfected partner became infected among couples using condoms correctly and consistently at every act of vaginal or anal sex versus 10 percent of

those using condoms inconsistently⁹⁻¹¹. In a similar two-year study, two percent of uninfected partners who used condoms consistently became HIV-infected versus 12% among those who used condoms inconsistently or not at all⁹.

Consistent use of condom during sexual intercourse remains an important public health prevention strategy against the spread of STDs and HIV. However, people have diverse challenges in condom use utilization in terms of affordability, accessibility and acceptability. In Nigeria, where a high proportion of its citizens live below the poverty line, condom supply are not free, therefore, condom use may be hampered by financial ability if its need arises. Also men's attitudes towards condom can directly affect their preference to use them. Adebisi and Asuzu reported that the commonest reason for non-condom use was that it reduces sexual enjoyment³.

A handful of studies have examined that condom use as being influenced by numerous socio-demographic factors. But, the patterns of condom use appear to differ according to gender, age, residence, wealth index, income, education, employment status, religion and between in-school and out-school students^{12,13,14}. Different findings from sub-Saharan Africa countries indicate that a considerable proportion of youths have little belief in their ability to successfully use condoms to protect themselves from HIV¹⁵. Their challenges in this regard is that requesting condom use communicates distrust between spouses or sexual partners, believe that contracting STDs is inevitable and express concern that condom might break and cause injury when in use¹⁶.

Unmarried male youths are a critical target group for sexual behavioral change programmes. In Nigeria, HIV transmission is largely spread as a result of sexual intercourse¹⁷ as in case with other countries. Sexual abstinence has been identified as the best method of HIV prevention. However, many unmarried male youths find it difficult to cope with abstinence due to sexual urge and interest to put into practice what they have heard about. Only consistent use of condom can keep them safe at this point. When used consistently, condoms are highly effective in preventing the sexual transmission of STDs and lowers women's risk of developing cervical cancer^{9,18}. Condoms are

also effective in preventing pregnancy¹⁸⁻²⁰ and can also help people clear HPV infection or reduce their risk of re-infection^{19,21}.

As enunciated above, it is obvious that none or partial utilization of condom can predispose young men and their sexual partners to morbidity, poor health and mortality as a result of contracting STDs including HIV/AIDS. Improving the sexual health of male youths and their sexual partners would be accomplished easily if condom is used consistently and correctly during sexual intercourse. Realization of the efforts of Government and international agencies in achieving good reproductive health outcome will not materialize in a setting where the prevalence of condom use is low particularly among sexually active male youths. These insights informed the motivation for this study which focused on identifying some factors associated with condom use. This was with the view to knowing which segment of the population of male youths are more at risk that will require urgent attention for reduction of STDs transmission among youths in Nigeria.

This study will improve existing knowledge on condom use and its associated factors among male youths in Nigeria. Although, a growing body of literature documents prevalence and correlates of condom use, the vast majority of these studies are limited by small convenient samples. Our analysis strengthens the existing literature by examining a population based sample of unmarried male youths in Nigeria, sub-Saharan Africa.

Methods

Data Collection Procedures:

The study uses secondary data collected during the 2008 Demographic and Health survey conducted by ICF Macro Calverton, Maryland, USA in conjunction with National Population Commission (NPC), Nigeria⁷. During the survey, a multi-stage probability sampling was utilized to select men aged 15-59 years from the six regions (North East, North West, North Central, South East, South West, South South) in Nigeria. Detailed report of the methodologies involved in data collection is available on the website of the original data

collector (<http://www.measuredhs.com/>). Interested readers should visit the website for explicit explanations on the sampling procedures and validation of the study instruments.

In the original sample 15,486 men aged 15-59 were interviewed. However, the current study focused on unmarried male youths aged 15-24 years who had ever had sexual intercourse whether vaginal, oral, anal or combination of any of them. Setting these inclusion criteria reduced the number of men in the sample to 1,575. The sample further reduced to 505 when restriction was made only to men who currently use condom among those that were sexually active.

Measurement of the dependent variables:

Two dependent variables were used in this study. These are; ever use of condom among the total study sample and currently use of condom among sexually active which is a subset of the studied sample. Ever use of male condom in the 2008 NDHS refers to use of condom at any time, with no distinction between past and current use. This includes all male youths who had had sexual intercourse because these young men play an equally important role in the realization of reproductive health and STDs prevention strategies. Ever use of condom also provides a measure of the cumulative experience of a population with lower chances of contracting STDs including HIV. Sexually active in this study means those who had sexual intercourse 4 weeks prior the survey. Comparisons were also made where feasible across the sample subgroup.

In the original questionnaire designed for the survey, the respondents were asked a question on whether they "ever used a particular contraceptive method". Here, the respondents were to choose from the list of contraceptives which included condom. The variable was therefore recoded into two categories; Condom = 1 and Otherwise = 0. This is the first dependent variable. The other dependent variable was obtained from similar question, but on currently using condom. The ever use of condom shows the level of condom use both in the past and present among men, whereas, the current use of condom is an indication of overall level of use of condom in the study population.

Current use of condom also shows the present level of preventing sexually transmitted infections and unwanted pregnancies among male youths in Nigeria.

Data analysis procedures:

Data were analyzed using Stata Software version 12.0. In order to ensure representativeness of the study sample as a result of cluster sampling method that was used during the data collection, the data was weighted. The weighting variable was created from the existing sampling weight and was activated before we begin the statistical analysis. The analysis began with Chi-square model which was used to determine association between “currently using male condom”, “ever use of male condom” and selected background (independent) variables. Thereafter, variables found to be statistically significant in the analysis (at 5%) were entered into binary logistic regression model to determine the strength of the associations between the dependent and independent variables.

The logistic regression model is defined as;

$$\log\left(\frac{\gamma_i}{1-\gamma_i}\right) = \alpha_0 + \beta_{1i}x_{1i} + \beta_{2i}x_{2i} + \beta_{3i}x_{3i} + \dots + \beta_{ki}x_{ki}$$

Where γ_i is the outcome measure and $i = 1$ if γ_i is the proportion of male youths that are currently using male condom among the sexually active male youths. Also, $i = 2$ if γ_i is the proportion of male youths that had ever used

male condom in the total sample studied. $\beta_{1i}, \beta_{2i}, \beta_{3i}, \dots, \beta_{ki}$, are the regression coefficients to be estimated, $x_{1i}, x_{2i}, x_{3i}, \dots, x_{ki}$ are covariates such as age, level of education, religion, current work status, wealth index, smokes cigarettes, covered by health insurance, recent sexual activity, had any STD in the last 12 months, ever-being tested for HIV and host of others.

Results

Demographic and Socio-economic characteristics of unmarried male youths who ever used and currently using condom in Nigeria:

The data show that 61.7% of the respondents had ever used condom. Significant difference existed between the mean age of those who never used condom (19.6±2.5) and ever users (21.1±2.2).

Demographic and socioeconomic factors such as age, region, residence, education and wealth index were found to be significantly associated with ever used and currently using condom (p<0.05). The percentage of male youths who ever used condom in the regions of south was more than those in the north.

Male youths residing in urban, ever used condom (70.8%) more than their rural counterparts (54.9%). The proportion of male youths who ever used condom increases consistently with increasing level of education and increasing wealth quintile. Similar pattern existed for currently using condom among those who had sex in 4 weeks prior the survey. (Table 1)

Table 1: Percentage Distribution of Male Youths who Ever Used and Currently Using Condom by Demographic and Socioeconomic Characteristics of Male Youths in Nigeria

Demographic & Socioeconomic Characteristics	Ever Used Condom			Currently using Condom		
	Yes	χ^2 -value	p-value	Yes	χ^2 -value	p-value
Total	61.7(971)			49.5(250)		
Age		98.811	p<0.001		8.225	0.004
15-19	40.2(220)			39.7(60)		
20-24	66.6(751)			53.7(190)		
Mean±SD	21.08±2.2	120.6	p<0.001	21.02±2.4	35.642	p=0.001
Region			p<0.001			p<0.001
North Central	49.2(190)			39.5(52)		
North East	30.7(65)			20.4(14)		
North West	36.6(32)			62.5(8)		

South East	70.3(149)			56.1(26)		
South South	59.5(265)			42.3(74)		
South West	73.4(270)			64.6(76)		
Residence		40.981	p<0.001		20.930	p<0.001
Urban	70.8(475)			61.9(125)		
Rural	54.9(496)			41.1(125)		
Education		76.891	p<0.001		29.402	p<0.001
None	28.3(13)			8.3(1)		
Primary	50.4(67)			29.5(13)		
Secondary	60.2(714)			48.5(179)		
Higher	84.7(177)			70.4(57)		
Religion		7.798	0.050		3.301	0.348
Christian	63.4(769)			50.8(199)		
Islam	55.2(187)			46.7(50)		
Others	58.2(15)			16.7(1)		
Wealth Index		96.212	p<0.001		49.681	p<0.001
Poorest	30.5(39)			11.9(5)		
Poorer	49.5(93)			36.4(24)		
Middle	58.1(182)			38.8(38)		
Richer	65.8(323)			57.5(88)		
Richest	73.4(334)			64.4(95)		
Covered by HI		1.721	0.190		0.336	0.562
No	61.5(946)			49.3(242)		
Yes	72.7(25)			57.1(8)		
Work Status		0.608	0.435		3.212	0.073
Not Working	62.9(454)			54.6(121)		
Working	60.8(517)			45.6(129)		

HI: Health Insurance

Behavioural characteristics of unmarried male youths who ever used and currently using condom in Nigeria:

The data as shown in table 2 indicate that among all the behavioural characteristics considered in the analysis, smoking status, recent sexual activity, knowledge of STDs, ever tested for HIV and the total life-time number of sexual partners were significantly associated with ever used of condom. However, ever tested for HIV and the total life-time number of sexual partners were the two variables significantly associated with currently using condom among male youths who had sexual intercourse 4 weeks prior the survey. Among the ever smokers, the percentage of male youths who

ever used condom (76.8%) was higher than their counterparts who had never smoked (60.7%).

Male youths who were sexually active in the last 1month before the survey (72.9%), ever used condom than those who were not sexually active (56.0%). Having heard about STDs increases the chances of using condom among the respondents, as the percentage of those who ever used condom was higher among those who ever heard of STDs (62.1%) than those who never heard of STDs (31.8%). Also, those who have undergone HIV test (77.9%) were more likely to ever used condom than those who never went for such test (59.9%). The proportion of condom users was more among respondents who have more than one life-time number of sexual partners (71.3%) than those who had only one (42.0%). (Table 2).

Table 2: Percentage Distribution of Male Youths who Ever Used and Currently Using Condom by Behavioural Characteristics of Male Youths in Nigeria

Behavioural Characteristics	Ever Used Condom			Currently Using Condom		
	Yes	χ^2 -value	p-value	Yes	χ^2 -value	p-value
Total	61.7(971)			49.5(250)		

Smoking		9.822	0.002		0.300	0.584
No	60.7(898)			48.9(223)		
Yes	76.8(73)			52.9(27)		
Recent Sexual Activity		48.301	p<0.001			
Active	72.9(368)					
Not active	56.5(603)					
Heard About STDs		8.399	0.004		0.961	0.327
No	31.8(7)			25.0(1)		
Yes	62.1(964)			49.6(249)		
Had STD in the last 12 Months		2.385	0.304		5.702	0.058
No	63.4(947)			50.2(244)		
Yes	72.0(24)			23.8(6)		
Ever Had HIV Test		32.299	p<0.001			
No	59.9(765)			45.8(186)	16.212	<0.001
Yes	77.9(206)			69.8(64)		
Paid for Sex in the last 12 Months		1.596	0.207		0.177	0.674
No	67.5(801)			49.8(233)		
Yes	76.0(38)			45.7(17)		
TLTNSP*		126.076	p<0.001		7.668	0.006
One	42.0(218)			36.3(33)		
Two or More	71.3(753)			52.3(217)		

TLTNSP: Total Life-time Number of Sexual Partner

Multivariate Analysis Results:

In the table 3, the data show that male youths who were 20 years and older were 2.14 ($p = 0.001$) times more likely to ever use condom than younger youths. Living in south west (OR=2.47; C.I=1.72-3.55; $p<0.001$) and south east (OR=2.11; C.I=1.38-3.22; $p=0.001$) was a determinant factor for ever used of condom than living in the north central. The odd of ever use of condom increases consistently with increasing wealth quintile.

Also male youths who were not sexually active in the last one month were less likely (OR=0.537; C.I=0.41-0.70; $p<0.001$) to ever used condom than their counterparts who were sexually active. The data further showed that respondents who ever had an HIV test were 1.717 ($p=0.004$) times more likely to ever used condom than those who have not undergone the test. Having multiple sexual partners increases the chances of using condom (OR=2.56; C.I=1.985-3.30; $p<0.0001$).

Table 3: Logistic regression of 'Ever use and Currently using Condom' by Background Characteristics of Unmarried Male Youths in Nigeria

Background Characteristics	Ever Used Condom				Currently Using Condom			
	Sig.	Exp(β)	95.0% C.I for β		Sig.	Exp(β)	95.0% C.I for β	
			Lower	Upper			Lower	Upper
Age								
15-19	R.C	1.000	R.C	R.C	R.C	1.000	R.C	R.C
20-24	0.000	2.144*	1.664	2.762	0.229	1.314	0.842	2.050
Region								
North Central	R.C	1.000	R.C	R.C	R.C	1.000	R.C	R.C
North East	0.014	0.580***	0.376	0.895	0.522	0.757	0.323	1.774
North West	0.329	0.686	0.321	1.464	0.185	3.138	0.579	17.006
South East	0.001	2.112**	1.382	3.227	0.577	1.248	0.573	2.720
South South	0.192	1.241	0.897	1.718	0.944	0.981	0.583	1.652
South west	0.000	2.471*	1.721	3.548	0.010	2.162***	1.207	3.873
Residence								
Urban	R.C	1.000	R.C	R.C	R.C	1.000	R.C	R.C
Rural	0.954	0.992	0.742	1.326	0.622	0.886	0.546	1.435
Education								

None	R.C	1.000	R.C	R.C	R.C	1.000	R.C	R.C
Primary	0.558	1.277	0.564	2.890	0.872	1.154	0.202	6.582
Secondary	0.193	1.631	0.781	3.405	0.429	1.911	0.384	9.511
Higher	0.010	3.034***	1.299	7.087	0.280	2.559	0.464	14.104
Wealth Index								
Poorest	R.C	1.000	R.C	R.C	R.C	1.000	R.C	R.C
Poorer	0.035	1.690***	1.037	2.755	0.160	2.059	0.752	5.633
Middle	0.000	2.363**	1.475	3.783	0.039	2.783***	1.051	7.371
Richer	0.000	2.925*	1.813	4.721	0.001	4.933**	1.869	13.023
Richest	0.000	3.522*	2.069	5.996	0.003	4.873**	1.691	14.038
Smoking								
No	R.C	1.000	R.C	R.C				
Yes	0.361	1.273	0.759	2.136				
Recent sexual activity in the last 1 month								
Active	R.C	1.000	R.C	R.C				
Not active	0.000	0.537*	0.412	0.700				
Ever Tested for AIDS								
No	R.C	1.000	R.C	R.C	R.C	1.000	R.C	R.C
Yes	0.004	1.717**	1.183	2.492	0.012	2.106***	1.179	3.762
Total Life-time Number of Sexual Partner								
One	R.C	1.000	R.C	R.C	R.C	1.000	R.C	R.C
Two or more	0.000	2.559*	1.985	3.300	0.277	1.325	0.798	2.202

* Significant at 0.1%; **Significant at 1%; *** Significant at 5%

Table 4 shows the logistic regression models of the strength of relationship between condom use and some background characteristics in Nigeria. The modeling was done separately for the two dependent variables with region as the main independent variable. Region was used because of wide geographical distribution of Nigeria population and vast cultural differences across the regions.

For ever used of condom, when region was the only independent variable used in the logistic regression model, all regions in the south have higher odds of ever used of condom than any other

regions in the north (Model 2A). Similar pattern exists for currently using condom (Model 2B). However, using education and wealth quintile as control reduces the strength of odd ratios of ever used of condom in south west (2.85 to 2.20) and south east (2.45 to 1.98), but increases the value for north east (0.46 to 0.61). The odd ratio of ever used of condom which was earlier significant for south south (Model 1) disappears (Model 2). A comparable pattern exists for currently using of condom, but in this case; only south west retains its significant among all the regions in Nigeria (Model 3).

Table 4: Logistic regression models of predicting the strength of Relationship between Ever Used, Currently Using Condom and Background Characteristics in Nigeria (NDHS, 2008).

Background Characteristics	Ever Used	Model 1B	Currently Using	Model 2B
	Model 1A Odd Ratio (95% C.IOR)	Odd Ratio (95% C.IOR)	Model 2A Odd Ratio (95% C.IOR)	Odd Ratio (95% C.IOR)
Region				
North Central	1.000 RC	1.000 RC	1.000 RC	1.000 RC
North East	0.459* (0.314-0.670)	0.611*** (0.405-0.920)	0.409 (0.161-1.038)	0.679 (0.241-1.913)
North West	0.597 (0.306-1.164)	0.634 (0.314-1.281)	3.465 (0.817-14.696)	4.299 (0.839-22.027)
South East	2.450* (1.687-3.557)	1.976** (1.339-2.917)	2.271*** (1.131-4.563)	1.558 (0.741-3.274)
South South	1.518**	1.329	1.289	1.051

	(1.142-2.018)	(0.987-1.791)	(0.782-2.125)	(0.619-1.784)
South west	2.852*	2.203*	3.016*	2.204**
	(2.085-3.903)	(1.581-3.068)	(1.767-5.148)	(1.228-3.955)
<u>Education</u>				
None		1.000		1.000
		RC		RC
Primary		1.470		1.879
		(0.681-3.172)		(0.248-14.232)
Secondary		1.892		3.097
		(0.939-3.812)		(0.453-21.189)
Higher		5.802*		5.711
		(2.602-12.940)		(0.786-41.522)
<u>Wealth Index</u>				
Poorest		1.000		1.000
		RC		RC
Poorer		1.819***		2.883
		(1.150-2.879)		(0.959-8.668)
Middle		2.176**		3.291***
		(1.402-3.376)		(1.141-9.487)
Richer		2.868*		6.164**
		(1.860-4.423)		(2.190-17.344)
Richest		3.383*		5.914**
		(2.122-5.391)		(2.037-17.175)
-2 LogL	1985.076	1883.828	662.531	621.832
Cox & Snell R ²	0.076	0.135	0.068	0.141
Nagelkerke R ²	0.102	0.181	0.091	0.188

* Significant at 0.1%; **Significant at 1%; *** Significant at 5%; R.C: Reference Category; C.IOR: Confidence interval for Odd Ratio

Discussion

This paper explores the pattern and correlates of condom use among male youths in Nigeria using NDHS, 2008. Attention was focused on unmarried male youths because they are more vulnerable to risky/unprotected sexual intercourse than any other age categories of men. If they use condom consistently during sex, their female counterparts would not face reproductive health challenges such as sexually transmitted infections, unwanted pregnancy, early childbearing, abortion and untimely death. Their sexual health and that of their female partners will be better, this could transcend to healthy generation, reproductive health wise^{11,22}. About half of the sexually active male youths in Nigeria are currently using condom whereas, higher proportion ever used condom. We also found that older male youths were significantly more likely to ever use condom than younger ones. The reason for this differential may not be too far from the fact that older male youths are more matured and likely to gain better access to condom. Their length of exposure to

childbearing is also more than the younger youths. Most of these youths (20-24 years) are either away from home or leaving alone or cohabiting with their colleagues. Therefore, diffusion of information on condom use and how to acquire one when in need will be easier than those living with their parents or guardian^{23,24}. Also, in Nigeria context, at age 15-19 years, young men are either in school or learning a trade with some independence. At 20-24yrs, they have exited with full or good measure of independence or living on their own with a steady source of income; think of youth corpsers, young army boys, those doing internship.

Young men from the southern part of Nigeria ever used condom more than their counterparts from regions in the north. Researchers have revealed that people in the south are more educated than those in the North^{5-7,25-26} and more utilization of condom is associated with increasing levels of education²⁶. Baker and his colleagues found that education robustly influences health reasoning ability and this factor mediates a significant proportion of the education effect on

condom use. For instance, in the study conducted by Tumwesigye et al, education was identified as one of the significant correlates of condom use²⁷. Education is an impetus to patronage and utilization of modern STD prevention measures⁷. It overrides cultural beliefs and improves awareness on condom use, particularly for fertility timing among career men. Late marriage due to time spent for studying can facilitate more use of condom among educated young men than those who had no formal education.

Ever used of condom was found to be increasing with increasing wealth index. Many organizations still give away condoms under diverse programs, but condom is not free in Nigeria, therefore, being richer can increase one's purchasing power and ability to acquire condom as at when needed. Using data from the Demographic and Health Surveys for Uganda²⁸⁻³⁰ and Tanzania³¹, the study found that women and men living in clusters with higher indicators of development were more likely to use condoms than their counterparts living in poor indicators of development³². The result from the current study is also consistent with the findings from the study conducted by Kamal and Huda in India³³, who using 2006 Indian DHS, found that use of condom gradually increases among poor (2.1%), middle and richer groups and significantly high among richest group (33.25%). A possible explanation for the result is that exposures to condom information e.g. media are more available in richer homes than the poorer ones. Also, it may be that the richer young men are more likely to be attractive to the opposite sex and at higher risk of philandering.

Ever had HIV test and total life-time number of sexual partners were also found to be significantly related to ever use of condom. It is quite obvious that counseling received during HIV test and the fear of contracting the disease can propel individual to uptake condom³⁴. Some of those who had HIV test could be positive and the use of condom becomes a necessity to prevent spouse or sexual partners from contracting the disease. Our study also revealed that youth with multiple sex partners are more likely to have to use condom. An individual with more than one sexual partner might find it necessary to use condom than those with only one partner for fear of contacting STDs

and prevention of unwanted pregnancies. This finding would suggest a positive behavioural change likely in response to ongoing massive and intensive campaigns on safe sexual practices across Nigeria. This is in contrary with the findings by Richter and colleagues³⁵, where a pattern of declining condom use with increasing number of partners was evident, especially for white students.

Among those who were sexually active prior to the survey, only wealth index and ever had HIV test were identified as predictors of current use of condom. This explains the impact of one's financial ability in Nigeria on acquiring and utilizing condoms. Also counseling received in the course undergoing HIV test can make a difference in utilization of condom in Nigeria.

Limitations

The use of secondary data is the major limitation of the study, because the data was not specifically collected to meet the specific objectives of this study. In Nigeria context, some of the respondents who are currently using male condom might not want to disclose their status because of shame as they were unmarried young men which are not expected to engage in sexual intercourse. Data excluded 10-14 year-old where the prevalence of sexual intercourse may be very low, but the health implication of not using condom among this group is also important.

Conclusion

The prevalence of current use of condom among sexually active unmarried male youths in Nigeria is low and must be improved. This study confirms the reality of considerable regional variations in condom use in Nigeria. Consistent with preceding NDHS results, it shows a higher level of condom use in south west compared with other regions in Nigeria, and also above the national level. Wealth index and ever undergone HIV test were strong predictors of current use of condom, while; total life-time number of sexual partners, age wealth index, region, recent sexual activity and ever-tested for HIV were the major predictors of ever

used of condom. Distribution of condom at no cost and undergoing HIV test will increase utilization of condom and reduce the chances of contracting STDs/HIV and unwanted pregnancies among youths in Nigeria.

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Contribution of Authors

Dr Adebowale conceived the idea, wrote the study background and methodology section, did the data extraction, data analysis and interpretation. Ajiboye reviewed the data analysis and wrote the discussion. Dr Arulogun reviewed relevant literatures and the manuscript. All the authors reviewed and approved the manuscript.

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