Global Journals LaTeX JournalKaleidoscope™
Artificial Intelligence formulated this projection for compatibility purposes from the original article published at Global Journals. However, this technology is currently in beta. *Therefore, kindly ignore odd layouts, missed formulae, text, tables, or figures.*

On the Comparative Analysis of Determinant Factors on the use of Condom among Nigerian Youths

Femi J. Ayoola[1]

[1] University of Ibadan

Received: 7 December 2012 Accepted: 3 January 2013 Published: 15 January 2013

Abstract

Condom use during sexual intercourse has been ascertained to be a good contraceptive method that reduces the spread of HIV/STDs. Youths which constitute a high proportion of Nigerians will be at risk of HIV/STDs if they miss the mark to use condom and more research should focus on how to encourage sexually active youth in protected sexually activities. This study utilized NARHS 2007 survey dataset. It focused on sample of males and females age 15-24 years living in regular households in rural and urban area in Nigeria.The dependent variables were lifetimes and current use of condom. Data was analysed using Chi-square and logistic regression (?=5.0

Index terms— condom, sex, HIV/AIDS, chi-square, logistic regression.

1 Introduction

he epidemic could increase at an exponential rate in Nigeria unless adequate national and regional responses are mounted to stem the spread of HIV/AIDS.

According to Kaiser Family Foundation 2005, teens and young adults are in the centre of the epidemic because young people ages 15-24 account for approximately half of new adult HIV/AIDS infections that is the majority of those infected with HIV/AIDS has been affected with this virus before 25 years of age and 28% of the global total adults living with HIV/AIDS. Also United Nations Population Fund (2007) confirmed that young people are at the centre of the HIV/AIDS epidemic in terms of rates of infection, vulnerability and of the 1.5 billion young people worldwide, 11.8 million are estimated to be living with HIV. It is also reported that every day, between 5,000-6,000 young people (ages 15-24) contract HIV and that many of them still lack comprehensive and correct knowledge about to prevent the infection.

It is generally known that youths sometimes adopted the use of condom during sexual intercourse and the factors that necessitate condom usage among the youths during sexual activities serve as the determinants of condom usage. The determinants of condom use among youths on compulsory paramilitary national service in Nigeria were documented to include influence of sexual partner, availability of condom, and self-efficacy of condom. (Sunmola A.M, Olley B. **??**, et al. 2007).Also, the major mode of HIV/AIDS transmission is through heterosexual intercourse in most part of the globe, including Nigeria. The estimated number of unwanted pregnancies and unsafe abortions in the country presents state can be outlining. The projection of unwanted pregnancies and unsafe abortion to maternal morbidity and mortality in the country is very high **??**WHO, 2005).

Globally, around half the people who acquire HIV become infected before they turn 25 years and they die before their 35th birthday (Worldwide HIV and AIDS Statistics Commentary, 2006). Thus, many people are sexually active and without adequate information to protect themselves. Therefore, this study will help to investigate the basic characteristics that influence the use of condom among Nigeria youths (15 to 24 years old). That is, to determine the prevalence of youths who had ever used condom, to determine the background characteristics that is likely to enhance the use of condom by the youths and to examine the sexual risk factors that may influence condom use among the youths.

(NARHS), 2007 with a (three level) multi-stage sampling targeted at selecting eligible persons in each sphere (states) with equal probabilities. Comprehensive report of the methodologies involved in data collection is available on the publication of the original data collector for details on the sampling procedures and validation of the study instruments.

In the original sample 11,521respondents were interviewed. Nevertheless, this study focused on youths aged 15-24 years, setting these inclusion criteria reduced the number of youth in the sample to 3,138. However, the number of youths who had ever had sexual intercourse whether vaginal, oral, anal or combination of any of them was found to be 787 and youths who currently use condom among those that were sexually active was 568.

Two dependent variables were used in this study 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. The variables was recoded into two categories; Condom = 1 and Otherwise = 0. The ever use of condom shows the level of condom use at any point in time in one lifetime while Current use of condom shows the present level of preventing sexually transmitted infections and unwanted pregnancies among youths in Nigeria.

2 III.

3 Data Analysis Procedures

Data were analyses using Stata software version 12.0. The analysis began with Chi-square tests to establish associations in the selected variables. Afterwards Logistic regression was used for theoutcome variables lifetime user and current user to determine the strength of significant explanatory variables the youth.

4 a) Chi-Square Test

The chi-square test is used to determine whether there is a significant difference between the expected frequencies and the observed frequencies in one or more categories. Is this difference between the expected and observed due to sampling error, or is it a real difference. Chi-Square Test requirements are: quantitative data, one or more categories, independent observations, adequate sample size (at least 10), Simple random sample, data in frequency form and all observations must be used.

The chi-Square formula:2 = ? (?????) 2 ?? ?? ??**(2)**

Where o = Observed Frequency in each category e = Expected Frequency in the corresponding category df=degree of freedom (n-1)?2=is Chi Square b) Logistic Regression

In the family of generalized linear models which contained models for categorical responses as well as standard models for continuous responses, the most important case is logistic regression, which is a linear model for the log it transformation of a binomial parameter. Binary logistic regression is a form of regression which is used when the dependent variable is dichotomy and the independent variables are of any type (i.e qualitative or quantitative) while Multinomial logistic regression is design to handle the case of more than two categories of dependent variable. When ranking of multiple classes of the dependent variable is put in place, then ordinal logistic regression is preferred to multinomial logistic regression. It should be noted that continuous variables cannot be used as dependents in logistic regression. So also there can be only one dependent variable in logit regression. Its predict a dependent variable on the basis of continuous and/or categorical independent variables and to determine the percent of variance in the dependent variable explained by the independents; to rank the relative importance of independents; to assess interaction effects; and to understand the impact of covariate control variables.

Logistic regression applies maximum likelihood estimation after transforming the dependent into logit variable (the natural log of the odds of the dependent occurring or not). In which case, logistic regression estimates the probability of a certain event occurring. And it calculates changes in the log odds of the independent but not changes in the dependent itself as ordinary least square does.

Logistic regression has many similarities to ordinary least square: logit coefficients correspond to ? coefficients in the logistic regression equation, the standardized logit coefficient correspond to beta weights, and a R2 statistic is available to summarize the strength of the relationship unlike ordinary least square. However, logistic regression does not assume linearity of relationship between the independent variables; the dependent does not require normally distributed variables, does not assume homoscedasticity and generally has less stringent requirement. In which case, logistic regression requires that observations are independent and that the log it of the independent variables is linearly related to dependent.

The logistic regression model is given as:? = = ? ? ? ? ? ? ? ? ? K k ik k i i x 0 1 log ? ? ? or IV.

5 Results

The mean age and standard deviation of the respondents is 19.6±2.8. This data shows that a quarter (25.1%) of the respondent had ever used condom in their lifetime while more than three-quarter (72.2%) of those that had ever used condom are still currently using condom. All the background characteristics were found to be significantly ($P<0.05$) associated with lifetime use of condom except marital status but marital status and gender was found to be significantly associated with current use of condom. Older youth aged 20 -24 years (35.7%) were lifetime users of condom compared to younger youths aged 15-19 years (13.6%). Youths living in the rural location were

slightly higher 27.81% than youths in the urban location (23.1%). The South South zone reported the highest lifetime use of condom (38.1%), followed by the South West (32%) while it was reported least in the North West zone of the country (6.1%). Also, males use of condom was found to higher than that of females (28.3% vs. 20.7%) while married youth used condom in lifetime than singles. Lifetime condom use by education reveals a trend; the higher the education, the more the use of condoms amongst these youth. The proportion of Christians using condom are about twice the proportion of Muslims making use of condoms (31% vs. 14.4%).

Furthermore, younger youth aged 15-19 years who are currently using condom (77.5%) is more than older youth aged 20-24 years(70.3%) who are lifetime use of condom were still currently using condom. The proportion of current use of condoms between rural and urban location were similar (73.1% vs. 71.3%). More so, current use of condom across the zone was highest in the South South region (74.3%) and least in the North West (55.6%). A higher percentage (78.5%) of the male youths was more than females (60.6%) currently uses condom while married youths (78.1%) also have a higher use compared to unmarried youths (48.1%). Similarly, higher proportion of those that use condom currently were found to be more educated. In investigating the association between lifetime condom use and selected behavioural characteristics, youths with two or more partners representing 69.8% is significantly associated with lifetime use of condoms compared to youths that professed to have just one sexual partner (44.1%). Perceived risk of contracting HIV/AIDs is also associated with lifetime use of condoms among the youths while the proportion of perception is higher among the perceived high risk group. Again, both alcohol use and drug use is associated with lifetime use of condoms. The result shows that 54.1% of youths who takes alcohol and 49.1% who takes drugs were significantly higher than those who do not take any of these substances. A similar scenario is observed among youths that currently use condom but there was no significant association for perceived risk of HIV/AIDS and drugs intake. Current use of condom was higher among youths with 2 or more sexual partners (88%) than those with only one sexual partner (71%). A majority (85%) of the youths rate their chances of getting HIV/AIDs as high and there was a decreasing pattern observed in these proportions as perceived risk decreases expressed by the youths that rate their chance of contracting HIV/AIDs. Also, there was a significant association between youths that currently use condom and alcohol intake (82.5%) and a similar proportion of 82% was observe among drugs users but not statistically significant.

6 Variables

V.

7 Multivariate Analysis

In Table 3, older youths aged 20 -24 years were 4times more likely to used condom compare to younger youths. Across the six geo-political zones; youth in the South South are 7times more likely to use condom in their lifetime compare to youth in North west, follow by North west (put no of times here in bracket) and North Central youth who are six times more likely, also South East youth are about 4times more likely and lastly North East youth are 2times more likely to used condom in their lifetime. Female are less likely to used condom in their lifetime compare to male since the questions was centred on 'Have you ever used male condom', the probability that female will use it is zero (?= -0.524 ? ?0). The higher the education level, the more youths are likely to use condom that is youth tends to lifetime use of condom as they go higher in their educational attainment compare to youth who do not have any academic background. It was also observed that the odds of youth who practice Christianityis 2times more compare to Muslim youth. Youth with multiple sexual partners are more like compare to youth with single partner. The odds of youth with high risk perception of contracting HIV/AIDS decreases by 25% though it is not statistically significant and youth with low risk perception of HIV/AIDs are significantly more likely to lifetime use of condom compare to youth that reported no perceived risk of HIV/AIDs. Youth that takes alcohol and drugs are more likely compare to those who do not.

However for current use of condom, the odds of female decreases by 40% compare to male since the questions was centred on 'Do you still use male condom in the last 12month', the probability that female will use it is zero (?= -0.516 ? ?0). An interesting thing is that marital status which has no significant association with the lifetime use of condom was significant in current use of condom. Youths who are not married are 3times more likely to current use condom compared to married youths. This shows that older youths who are married do not use condom to prevent pregnancy. Youths with multiple sexual partners are 3times more likely to be current condom users compare to youth with single partner and lastly those that take alcohol are significantly more likely compare to those who do not take at all. VI.

8 Discussion

In spite of the high level on the awareness and knowledge of condom use around the globe, a greater proportion of youth still do not make use of it. According to Oyediran K.A., 2003, the effects of awareness of HIV/AIDS as a major determinant of condom use in Nigeria is the fact that the major motivating factor for condom use among monogamous married males was prevention of pregnancy and not prevention of STIs. This draws an alarm on the needs to encourage youths through health talk, media shows, public seminar/workshop and other awareness forum on the danger, benefit and usefulness of condom to their health. Though condom was design primarily for family planning purpose but as AIDs epidemic is on the increase in recent times, condom use play a vital

role in AIDs prevention campaigns and it has been reported in research work that condom can reduce the risk of contacting HIV/AIDS. Also United Nations Population Fund (2007) confirmed that young people are at the centre of the HIV/AIDS epidemic in terms of rates of infection, vulnerability and of the 1.5 billion young people worldwide, 11.8 million are estimated to be living with HIV/AIDS. It is also reported that every day between 5,000 to 6,000 young people (ages 15-24years) contract HIV and that many of them still lack comprehensive and correct knowledge on how to prevent the infection.

This research found that all the respondents (100.0%) aged 15 to 24years had heard of condom which agrees with Omorepie, G., study while one quarter of the youth had use condom in their lifetime and the three-quarter of those who had used condom are current user. About 60% of the youth reported they have no risk perception of HIV/AIDS, 37% indicated low risk perception and 3% with high risk perception. This was the main reason to examine if the use of condom depends on the background (demographic) characteristics. The chi square test of independence had reveals the association between lifetime use of condom and current use of condom with youth background characteristics and selected behavioural characteristics. Age group, location, geo-political zone, sex, Education level, religion, number of sexual partner, perceived risk of HIV/AIDs, alcoholic intake and drugs intake were found to be significantly associated with the lifetime use of condom while sex, marital status, number of sexual partner and alcoholic intake were found to be significantly associated with the current use of condom.

Modelling the relationship of significant individual independent variables to the outcome variable-lifetime use and older youths aged 20 -24 years were 4times more likely to used condom compare to younger youths. Across the six geo-political zones; youth in the South South are 7times more likely to use condom in their lifetime compare to youth in North west, follow by South west (6times) and North Central youth who are six times more likely, also South East youth are about 4times more likely and lastly North East youth are 2times more likely to used condom in their lifetime. Female are less likely to used condom in their lifetime compare to male since the questions was centred on 'Have you ever used male condom', the odds that female will use condom is less likely (0.6times). The higher the education level, the more youths are likely to use condom that is youth tends to lifetime use of condom as they go higher in their educational attainment compare to youth who do not have any academic background. It was also observed that the odds of youth who practice Christianity is 2times more partner. The odds of youth with high risk perception of contracting HIV/AIDS decreases by 25% though it is not statistically significant and youth with low risk perception of HIV/AIDs are significantly more likely to lifetime use of condom compare to youth that reported no perceived risk of HIV/AIDs. Youth that takes alcohol and drugs are more likely compare to those who do not. Thus, a logistic model was fit for the significant background and the selected behavioural characteristics.

However for current use of condom, the odds of female decreases by 40% compare to male since the questions was centred on 'Do you still use male condom in the last 12month', the odds that female will use condom is still less likely (0.6times). An interesting thing is that marital status which has no significant association with the lifetime use of condom was significant in current use of condom. Youths who are not married are 3times more likely to current use condom compared to married youths; this can be traced back to a study in Zimbabwe that measures the change in HIV prevalence and sexual behaviour between 1998 and 2003. This shows that older youths who are married are not current user of condom supported by Meekers et al., 2003. Youths with multiple sexual partners are 3times more likely to be current condom users compare to youth with single partner and lastly those that take alcohol are significantly more likely compare to those who do not take at all.

9 VII.

10 Conclusion

Noticeably awareness and knowledge is not the hindrance but the low prevalence of lifetime use of condom can be traced to other numerous factors which the scope of this study cannot encompass. The background characteristics that are likely to enhance the use of condom for both lifetime use and current use differ. The lifetime use of condom was boost by all the demographic variables used except the marital status while current use of condom lean towards youth sex (gender), marital status, number of sexual partner and alcohol intake.

In order of eradicating HIV/AIDS, there is a need for sound education not watered one to the youths who are sexually active and Parents at large. Also, It will be a great phenomenon if Governments, Non-Governmental Organizations and other service providers place importance in dealing with the problem of HIV/ AIDS pandemic, especially sexually active youths in safe sex practice. [1] [2]

[1] ( ) K On the Comparative Analysis of Determinant Factors on the use of Condom among Nigerian Youths

[2] ( ) K On the Comparative Analysis of Determinant Factors on the use of Condom among Nigerian Youths

1

Variables	Lifetime use of condom			Current Use of condom		
	Yes	? 2 - value	p-value	Yes	? 2 - value	p-value
Age		205.015	0.000		3.820	0.051
15-19	13.6(1506)			77.5(204)		
20-24	35.7(1632)			70.3(583)		
Location		8.894	0.003		0.276	0.600
Rural	27.8(1309)			73.1(364)		
Urban	23.1(1829)			71.4(423)		
Zone		198.249	0.000		7.468	0.188
North West	6.1(445)			55.6(27)		
North East	11.0(336)			59.5(37)		
North Central	25.9(591)			73.6(159)		
South West	32.3(679)			72.6(219)		
South East	23.1(463)			72.9(107)		
South South	38.1(624)			74.4(238)		
Sex		23.555	0.000		28.956	0.000
Male	28.3(1793)			78.5(508)		
Female	20.7(1345)			60.6(279)		
Marital Status		0.469	0.493		56.249	0.000
Single	24.8(596)			48.1(156)		
Married	26.2(2542)			78.1(631)		
Education		133.993	0.000		7.359	0.061
None	7.7(92.3)			70.0(20)		
Primary	17.3(433)			62.7(75)		
Secondary	25.6(2134)			71.6(546)		
Tertiary	46.8(312)			79.5(146)		
Religion		113.590	0.000		9.124	0.725
Islam	14.3(1160)			71.1(166)		
Christianity	31.4(1978)			72.2(621)		

Figure 1: Table 1 :

3

	Lifetime use of condom			Current Use of condom		
	P>|z|	Exp(?)	95% CI for Exp(?)	P>|z|	Exp(?)	95% CI for Exp(?)
Aged 20-24	0.000*	3.87318	(3.19319, 4.69798)			
Rural	0.053	0.83075	(0.68864, 1.00218)			
North East	0.032***	1.79576	(1.05087, 3.06886)			
North Central	0.000*	5.61596	(3.55281, 8.87723)			
South West	0.000*	6.04396	(3.83958, 9.51393)			
South East	0.000*	3.50062	(2.12067, 5.77851)			
South south	0.000*	7.20155	(4.45901, 11.6309)			
Female	0.000*	0.59206	(0.49233, 0.71200)	0.004**	0.59664	(0.42000, 0.84758)
Married				0.000*	3.11070	(2.09880, 4.61049)
Primary	0.155	1.50018	(0.85797, 2.62311)			
Secondary	0.009**	1.97598	(1.18676, 3.29004)			
Tertiary	0.000*	3.59880	(2.06699, 6.26579)			
Christianity	0.000*	1.70773	(1.33539, 2.18390)			
Multiple partner	0.000*	2.57761	(1.92723, 3.44747)	0.000*	2.73494	(1.72287, 4.34153)
Low risk	0.012***	1.35267	(1.06791, 1.71335)			
High risk	0.282	0.74360	(0.43347, 1.27561)			
Alcohol intake	0.000*	2.44218	(1.83085, 3.25763)	0.014***	1.71632	(1.11695, 2.63732)
Drugs intake	0.485	1.31142	(0.61123, 2.81370)			

*[Note: * Significant at 0.1%; **Significant at 1%; *** Significant at 5%]*

Figure 2: Table 3 :

.1 Appendix

[Quadrel et al. ()] , M J Quadrel , B Fishholf , W Davis . *Adolescent Morbidity.American Psychologist* 1993. 48 (6) p. .

[Worldwide and Statistics Commentary (2006)] , Hiv Worldwide , Statistics Commentary . `http://www.avert.org/worlstatinfo.htmaccessed` May 2006.

[Tinuola ()] 'Analysis of Some Key Sexual Bahaviour indicators among Adolescent in Ekiti South West Nigeria'. F R Tinuola . *The Social Sciences* 2006. 1 (3) p. .

[Heasrt and Chen ()] 'Condom Promotion for AIDS Prevention in the Developing World: Is it working?'. N Heasrt , S Chen . *Studies in Family Planning* 2004. 2004. 35 (1) p. .

[Emenike (ed.) ()] *Confronting the AIDS Epidemic: Cross Cultural Perspective onHIV/AIDS Education*, K Emenike . DC Umeh (ed.) 1997. Trenton NJ: Africa World Press. p. . (Sexual Abstinence: A Viable Option for young Adolescent)

[Oyediran ()] 'Determinants of condom use among monogamous men in Ondo State'. K A Oyediran . *Nigeria. J Health PopulNutr* 2003. 2003. 21 (4) p. .

[Olley ()] 'Differences in Knowledge About HIV/ AIDS and Perceived Exposure to Risk Between Physician and Workers in Ibadan'. B O Olley . *Nigeria. NigerianJournal of Psychology* 2001. 2 p. .

[Imhonde et al. ()] 'HIV/AIDS: Sexual Risk Behaviour Associated with condom use: Assessing Attitude of Nigerian University undergraduate'. H O Imhonde , J Azelama , O Aluede . *ICEPEC C D Journal* 2005. (3) p. . (XXC)

[Maternal mortality in 2005: estimates developed by WHO, UNICEF, UNFPA and the World Bank ()] *Maternal mortality in 2005: estimates developed by WHO, UNICEF, UNFPA and the World Bank*, 2007. Geneva: WHO. (World Health Organization (WHO))

[Sunmola and Olley ()] 'Predictors of condom use among sexually active persons involved in compulsory national service in Ibadan'. A M Sunmola , B O Olley . *Nigeria. Health Educ Res* 2007. 2007. 22 (4) p. .

[Osho and Olayinka ()] 'Sexual practices conducive to HIV transmission in South West Nigeria'. A Osho , B A Olayinka . *Research on African HIV/AIDS epidemic Yaba: Lagos: St Luku Hospital and Maternity Ltd*, 1999.

[Achebe ()] *Theories of Individual counselling: relevance to Nigerian situation*, C C Achebe . 1988. Amherst. Massachusetts: Five-College Black Studies Press.

[Youth and HIV/AIDS: Can We Avoid Catastrophe World Health Series ()] 'Youth and HIV/AIDS: Can We Avoid Catastrophe'. *World Health Series* 2001. World Health Organization Reports. (Population Report)