Journal of Diseases
2019 Vol. 6, No. 2, pp. 61-80
ISSN(e): 2410-6550
ISSN(p): 2413-838X
DOI: 10.18488/journal.99.2019.62.61.80

UNPROTECTED SEX AMONG SEXUALLY ACTIVE UNMARRIED YOUNG ADULTS: A PARIAH OR PREEMPTIVE INCIDENCE

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Article History
Received: 12 June 2019
Revised: 16 July 2019
Accepted: 19 August 2019
Published: 10 October 2019

Keywords
Pariah
Preemptive
Unprotected sex
Young adults
Unmarried
HIV endemic.

ABSTRACT

Globally, HIV endemic has been linked to several but preventable predictors, amongst these, is the practice of unprotected sex. In spite of the burdens of HIV/AIDS in Nigeria, there is a dearth of studies with focus outside the conventional approach to predicting the incidence of unprotected sex among sexually active unmarried young adults in Nigeria. This study addresses this limitation. The study adopted a cross-sectional and multistage sampling technique. A total sample size of 384 respondents was systematically and randomly selected among young adults aged 20-29 in Ile-Ife, Osun State, Nigeria. Unprotected sex was the study's response variable and was categorised into respondents who had unprotected sex in at least the last three months prior the survey with single sex partner and those who had with multiple sex partners over the same period. The key explanatory variables were a pariah and preemptive factors while the confounding variable was knowledge of HIV/AIDS. Rank-ordered logistic regression was employed using Stata 14. Results showed that pariah and preemptive factors were significantly associated with unprotected sex ($p<0.05$). The study concluded that the incidence of unprotected sex among unmarried young adults across Ile-Ife communities was predisposed to pariah and preemptive factors.

Contribution/Originality: This study contributes in the existing literature by reconnoitering risky sexual behaviour outside the conventional recognized approach; it documents joint influence of pariah and preemptive factors on incidence of unprotected sex; as such document provides insights to inhibiting the spread of HIV and avoidance of unwanted pregnancy outside wedlock.

1. INTRODUCTION

Globally, the spread of HIV has been related to several but preventable predictors, amongst these factors, is the practice of unprotected sex. The severity of the protruding implications of HIV/AIDS infection has led to it being recognised as one of the few deadliest infections in the world without a cure [1-4]. Specifically, AIDS remains one of the primary causes of death among young adults across countries in sub-Saharan Africa [5, 6]. The bulging effects of HIV/AIDS cut across economic, social and cultural spheres with infected people without adequate care were alienated to severe health implications, and deaths becoming inevitable [7-9]. Consequently, where no adequate, proper and timely healthcare facilities are not readily accessed, HIV/AIDS epidemic has increased the incidence of mortality among the infected individuals leading to a drop in their level of economic productivity [10-

12]. Consequently, the high prevailing incidence rate of HIV among young adults in many developing countries has increased the heights of poverty as much of the finances are spent on medication for opportunistic infirmity associated with the infection [13-17].

According to a recent report by United Nations, nearly 21 million people out of about 37 million persons who were living with HIV/AIDS in 2017 were young adults from ages 15-29 years [18]. Intuitively, a larger proportion of these young adults contracted the deadly virus through the practice of unprotected sex. About two-thirds of persons living with HIV/AIDS across regions of the world were sub-Saharan Africans while more than 70% of global deaths arising from HIV epidemics were also reported in the sub-Saharan African region [18]. Retrospectively, about 60% of all new HIV infections in Central African and West African region in 2016 were reported for Nigeria; while the incidence rate of new infection in the country has remained relatively the same over the past seven years, with an insignificant reduction of about 5% from 2010 to 2017 UNAIDS [18]. The prevalence of unprotected heterosexual sex resulting in HIV infection was relatively high in Nigeria; the new infection rate arising from this unsafe sex was about 80%. [14, 19, 20].

In Nigeria, several factors have been attributed to the spread of HIV among adolescents and young adults. One of these factors is the practice of unsafe sex. In other word, the practice of risky sexual behaviour such as having multiple sex partners, having sex without condoms and early onset of sexual activities make adolescents and young adults more susceptible to HIV and other sexually transmitted infections in the country [21-23]. The fact that young adults have a burden of HIV/AIDS is bothersome in Nigeria, where young people constitute a significant proportion (about 60) of her teeming population [3, 24]. Imperatively, the reduction in the incidence of HIV infection is a global priority which is particularly relevant to Nigeria, where 2.9% of young adults aged 15-24 years were reported to be living with the deadly virus [18, 25].

The adversative effect of unprotected sex has stretched to almost all communities across regions, particularly in the developing countries, amongst which is Nigeria. Although, Nigeria, with her HIV prevalence rate of 2.9% is ranked as the 21st HIV endemic nation in the world; the country huge population of about 200 million people made her the country with the highest people living with the deadly virus in Africa [24, 25]. Thus, the spread of HIV among young adults in Nigeria could be allied to several but preventable factors. Pressing among these factors is the population knowledge of HIV/AIDS knowledge [16, 26]. The extent of knowledge on the implications of the deadly virus have been attributed to exposure to mass media, social media, utilisation of voluntary counselling unit, sociocultural, drug and illicit substance abuse economic and demographic factors [5, 9, 27-30].

According to Awofala and Ogundele [19] and Lawal and Olley [31] it is obvious that a significant number of people living with HIV in Nigeria were not aware of their infection status; this has been generally linked to the poor level of the utilisation of voluntary counseling testing centres for HIV/AIDS in the country. On the other hand, there are gender disparities in the prevalence of HIV among young adults between ages 15-24 years in Nigeria. Empirically, the National Health Survey reports showed that proportion of young female adults (29%) between 15 to 24 years compared to 27.9% of young male adults were able to approximately recognise the appropriate measures through which HIV/AIDS and other sexually transmitted infections could be averted [19].

Several measures have been adopted by the Nigerian government to address the spread of HIV/AIDS among her population. One such measures were the bold step taken by the government through the establishment of the National HIV Strategic Framework for adolescents and young adults in 2016. The organisation was tasked with the responsibilities of addressing the negative approach of healthcare personnel towards unmarried young adults and adolescents who complained of being addressed as persons with moral decadences or promiscuous when they sought counselling at VCT centres [26]. The framework was designed with the national coverage target of at least 90% coverage, and 50% among young adults from ages 15 to 24 years by 2020 [19]. Arguably, in Nigeria, as well as in many other developing countries of the world, denial of access to VCT facilities in most cases results into

unexploited opportunities for timely medical care, support and prevention need for people that are newly infected with the deadly virus [16, 25, 32-35].

Imperatively, knowing the consequences that come with being infected with HIV/AIDS is one thing, while being able to overcome adrenaline-charged that comes with the urge and unexplained drive for sex at the point in time is another thing that one must be able to put under control when the matter arises. More so, getting over the fear of losing one's partners due to one's persistent refusal of engaging in unprotected sex may sometime be tempting for the unemployed and financially incapacitated unmarried young adults or vulnerable adolescents who are solely dependent on their partners for survival. Thus, indulging in unprotected sex by such a trapped individual might become something that he or she wishes never happened. Several factors have been extensively attributed to the practice of unsafe sex among young adults in the country. These factors vary from economic to socio-cultural and environmental or parental upbringing.

Nevertheless, there is a dearth of studies in Nigeria that have addressed this situation by going beyond the conventional plausible approach of explaining the underlying factors influencing the practice of unsafe sex among young adults in the country. For instance, studies have identified a lack of insufficient knowledge about HIV/AIDS as correlates of risky sexual behavior among young adults in the country [19, 36-39]. Equally, a significant number of studies addressing the menace of HIV/AIDS in Nigeria have attributed the spread of the epidemic largely to the low utilisation of VCT facilities, as well as shortage of VCT centres, especially across rural and interior settlements in the country [25, 35].

Although the existing data on the scale-up of precautionary approach on HIV in the country did reveal that the incidence rate of HIV infection among the people of reproductive age dropped, the drop was inconsequential (3.0% in 2014 to 2.9% in 2019). Accordingly, the concern of high incidence rate of the epidemic among young adults in the country accentuates the need to further explore the plausible causes of the phenomenon beyond what previous studies have investigated in the country. Also, there are no studies that have investigated the joint effect of knowledge of HIV/AIDS, pariah and preemptive factors on sexual risk behaviour in the country. This study addresses these limitations by asking the question: to what extent can the practice of unprotected sex among unmarried young adults in Ile-Ife community, Osun State Nigeria be attributed to knowledge of HIV/AIDS, pariah and preemptive incidence?

1.1. Theoretical Focus: Social Cognitive Theory by Bandura [40]

In line with the proponents of the social cognitive theory as postulated by Bandura [40] acquisition of knowledge transpires in a social context with a dynamic and reciprocated interaction of individuals, social order and behaviour. Therefore, it is imperative that human behavioural attitude is not developed in isolation but with the effects predisposed by individual and conforming factors, as well as his stable interaction among persons in his surroundings. The social cognitive theory is found appropriate in this study since neither does preemptive incidence nor pariah action take place without being influenced by man's response to his social or environmental exigencies. Likewise, man's submissiveness to a set of norms or societal exigencies often arises from the extent of knowledge acquired to conform or disregard such practices. Invariably, in context of the broad objective of this study, the desire of an unmarried young adult to practice unsafe sex, thus, unprotected sex could be attributed to factors that such individuals may intentionally or forcefully oblige to as a result of societal or agreeable motive. This agreeable or conceived motive most of time arises from exigencies which such individuals do not have control over. As a result, the fact that an individual knows an intending action is not sufficient enough to avail him or her to get rid of such pariah or preemptive action. Consequently, the endemic of HIV/AIDS among the youth is more pronounced among adolescents and unmarried young adults who sometimes engage in risky sexual behaviour not because of their insufficient knowledge of the implications of their careless lifestyles but as a result of what they stand to gain from such acts – which may be in cash or kind. Hence, this study is underpinned by the social cognitive theory since

the theory addresses preemptive and pariah factors as integral constituents which are formed over time by an individual from time to time not in isolation but in responses to socio-environmental, and individualistic exigencies.

2. METHODS

2.1. Research Variables

The response variable of the study was the incidence of unprotected sex. The conceptualisation of unprotected sex as employed in this study was restricted to respondent engagement in sex sexual intercourse in the last three months before the conduction of this survey with single or multiple partners, and without any form of protector during the act(s). The explanatory variables were a pariah and preemptive factors that influenced unprotected sex among the respondents. The concept "pariah factor" in this study was restricted to the incidence of unprotected sex that the respondent would have averted if he or she had an alternative or had controlled over such incidence. Therefore, pariah incidence in the context of unprotected sex in this study refers to "unprotected sex" that the respondents wish never happened and preemptive factor if otherwise. Pariah factors of the study were measured when respondents had unprotected sex due to no access to a condom, undue closeness arising from cohabitation, financial gain, ignorance, uncontrollable drive for sex, raped/forceful sex, drugged/tricked. Preemptive factors were measured by unprotected sex had in order to keep a relationship, under the influence of alcohol, due to peer influence, while on pills and sure of partner's was HIV status, during safe period and sure of her partner's HIV status, out of ignorance, seduction/conviction and for pleasure sake. Respondents' knowledge about HIV endemic was introduced as the intervening variable of the study. Knowledge about HIV endemic, pariah and preemptive factors were investigated to establish the incidence of unprotected sex among unmarried young adults (20-29 years) across Ile-Ife communities.

2.2. Research Design, Data Source and Sample Design

This study on unprotected sex among unmarried young adults in Ile-Ife communities was a cross-sectional design survey. The research instrument was a structured questionnaire. The research instrument was designed in line with the aimed objectives of the study. The study employed a multistage sampling technique and a systematic approach to randomly select a total sample size of 384 respondents. The selection of legible respondents was purposeful and systematic. It was neither based on gender differentials nor ethnicity. The inclusive criteria were age, marital status, and sexual activities. Accordingly, all randomly selected respondents were unmarried, young adults within age bracket of 20-29 years who had unprotected sex with single or multiple partners at least once in the last three months prior the survey. Data were collected across communities within Ife Central, Ife East, Ife North and Ife South Local Government Area (LGA) in Osun State, Southwest Nigeria. At the first stage of stratification, the sampling frame comprised unmarried young adults from ages 20-29 years in the three purposefully selected LGAs. In the second stage, unmarried young adults who had not been sexually active in the last six months while those who were sexually active but have not had sex in the last three months before the survey were not included in the population sample frame. The third stage involved the systematic and random selection of the proposed 384 population sample. The final stage of the study involved the administering of research instruments to respondents. All copies of administered questionnaire were retrieved. Since the study area's total population was large and unknown, the infinite sample size technique was adopted to arrive at a systematically derived sample size.

$$n = \frac{Z^2 * P(1-P)}{e^2}$$

where:

n = sample size; e^2 = incidence rate = 0.05 marginal error = 5%; confidence level = 95%.

$$n = \frac{(196)^2 * (0.5*0.5)}{(0.05*0.05)^2}$$

$$\frac{3.8416*0.25}{0.0025} = 384$$

2.3. Data Analysis

The sourced primary data were entered directly into SPSS (SPSS version 22 for Windows, SPSS Inc., Chicago IL), sorted, cleaned, and then exported to Stata version 14. All statistical analyses were performed with the Stata version 14. Using the appropriate descriptive statistics, the background information of the respondents was presented concerning the incidence of unprotected sex. Also, at this level of analysis knowledge about HIV endemic, pariah and preemptive factors were captured and presented in relation to the incidence of unprotected sex among the respondent. The rank-ordered logistic regression was employed at the multivariate level of analysis to establish the level of association between the incidence of unprotected sex and the explanatory/intervening variables of the study. Four models were developed in order to capture the objectives of the study. Model I explained the association between unprotected sex and some selected pariah factors while preemptive factors and knowledge about HIV endemic were held constant. In Model II, the association between unprotected sex and preemptive factors was explained while pariah factors and knowledge about HIV endemic were controlled for. In Model III, the level of association between knowledge about HIV endemic (intervening variable of the study) and unprotected sex was established holding the explanatory variables of the study constant. Model IV was the full model. At this stage of our analysis, neither any of the study's key explanatory variable nor intervening variables were held constant in relation to the incidence of unprotected sex among unmarried young adults. The only association with significant influence were reported in Model IV. Respondents' gender was adopted as the group variable for the rank-ordered analysis. The unit of analysis for each of the indicators employed in this study was an unmarried young adult from age 20 to 29 years who had engaged in unprotected sex in a period not less than three months prior the survey. The confidence level for this study was fixed at 95%. Thus, the results of the study if found to be < 0.05 was considered to be significantly associated. Nonetheless, the level of significance were presented at $<5\%$, $<1\%$ and $<1\%$ and $>5\%$ accordingly as derived.

Figure 1 describes the link between pariah, preemptive factors, knowledge of HIV and unproetected sex among sexually active young adults.

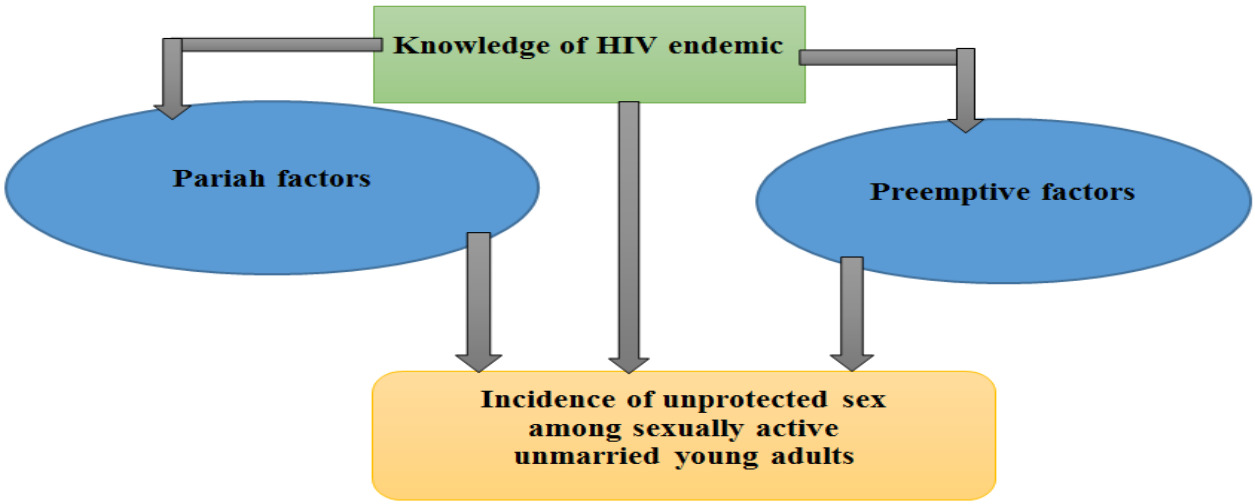

Figure-1. Conceptual model relating incidence of unprotected sex among sexually active unmarried young adults to knowledge of HIV endemic, pariah and preemptive factors.
Source: Author's work, 2019.

3. RESULTS

3.1. Socio-Demographic Characteristics and Incidence of Unprotected Sex

Table 1 presents the socio-demographic characteristics of the respondents concerning the incidence of unprotected sex. The mean age of the respondents was 24 years (24±2.82). The results showed that about two-thirds of males (66%) and females (67.4%) had unprotected sex with a single-sex partner. Results by the level of educational attainment showed that the majority (82.8%) of the respondents who had unprotected by with just one single partner were those with secondary school education. Our results by employment status showed that more than one-third (36.1%) of unemployed respondents with no regular support had unprotected sex with more than one partner in the past three months. Furthermore, we discovered that more than 70% of respondents who were not brought up by their at least one of their biological parents had unprotected sex with only one partner in the past three months prior the survey, while about one-third (32.9%) of our respondents with a polygamous family background had unprotected sex with multiple partners over the same period. Moreover, we discovered that about 10% of the respondents who neither had access to television nor radio had unprotected sex with at least one sexual partner in the past three months prior the conduction of the survey. Also, we discovered that about 18.4% of the respondents who rarely watched television or listen to radio had sex with multiple partners over the same period. On the contrary, our results by accessibility to print media showed that the least incidence (56.6%) of unprotected with single sex partner was reported by respondents who regularly accessed print media. Our results by respondents' access to social media showed that the incidence of unprotected sex by with just one single sex partner in the past three months prior this survey was higher among respondents who had no access to social media (71.2%) than respondents with regular access to social media (65.1%). Our results consistently showed that unmarried young adults in Ile-Ife community had unprotected sex more with single than multiple sex partners in the last three months prior the conduction of this survey.

3.2. Results Showing Cross Distribution of the Relationship between Unprotected Sex, Knowledge of HIV Endemic, Pariah and Preemptive Factors

Table 2 presents the results of the relationship between unprotected sex, knowledge of HIV endemic, pariah and preemptive factors. Results by knowledge of HIV endemic and unprotected sex showed one-third (33.2%) of the respondents who had the knowledge that HIV/STIs could be contracted through unprotected sex had had sex with multiple partners in the past three months prior the conduction of the survey. Our results showed that about 65% of the respondents who had never had HIV test had had sex with their partner over the same period while more than one-third (34.8%) of the respondents who had not gone for HIV test admitted to having had sex with multiple partners. we also discovered that more than two-thirds (68.4%) of the respondents who had HIV test in order to ascertain their HIV status admitted to have had sex with single-sex partners in the past three months while one in every three (33.7%) of the respondents who were not prepared to go for HIV test admitted to having had sex with multiple partners over the same stipulated period.

Results by pariah factors and incidence of unprotected sex showed that 30.3% of the respondents who had had sex with multiple partners engaged in the act because they had no access to condom at that very moment while more than three-quarters (78%) of the respondents who were not cohabiting had sex with single partners in the past three months prior the conduction of the survey. we also discovered that two in every five (40.7%) of the respondents who had unprotected sex with multiple partners did so out of their ignorance of the implications of the act. We found out that more than one-third (36.5%) of the respondents who had had sex with multiple sex partners did so in exchange for financial rewards with nearly the same proportion (36.3%) who has sex with multiple partners in the past three months prior the conduction of this survey did it for any other reasons but monetary gains. About 70% of the respondents who had unprotected sex with their single-sex partners admitted that they were either drugged or tricked by their partners. contrary to this, more than one-third (35.8%) of the respondents

who had unprotected sex with multiple partners admitted that they had no control over their strong sexual drive at the very moments while 46.8% of the respondents who had unprotected sex with multiple sex partners said that they were somehow forced into the acts.

Results by preemptive factors and incidence of unprotected sex among unmarried young adults as presented in Table 4 showed that about 70% of the respondents who had had unprotected sex in the past three months prior the survey did so to keep their relationship from breakup while one-third (33.9%) of the respondents who admitted to having had unprotected sex over the same period with multiple partners did so due to the pleasure derived from it. We discovered that about one-quarter (26.7%) who were not seduced or convinced to having unprotected sex admitted that they had unprotected sex with multiple partners. also, we found out that about 25% of the respondents who had unprotected sex in the past three months with multiple sex partners were not convinced to engaging in the practice by their friends or peers. About two-thirds (64.3%) of the respondents who had unprotected sex with their single-sex partners in the past three months prior the survey had unprotected sex because they wanted the experience the difference between unprotected and protected sexual pleasure. The majority (87%) of the female respondents who had unprotected sex in the past three months prior the survey had it during their safe and on the ground that they were sure of their partners HIV status. Likewise, about two-thirds (66.9%) of the respondents had unprotected sex while on pills, admitting that they were very certain of their partners HIV status.

3.3. Results of Rank-Ordered Logistic Regression Showing Association between Unprotected Sex and Pariah Factors

Table 3 presents the rank-ordered logistic regression results showing direction and association at different level of significance between pariah factors and practice of unprotected sex with single and multiple sex partners among unmarried young adults across communities in Ile-Ife, Osun State Nigeria. The results of the likelihood ratio chi-square (8) of 29.8 with p-value of 0.0002 is an indication that Model I as developed in our study as a whole is statistically significant where it is compared with our null model with empty explanatory and intervening variables. Therefore, the results of our study showed that cohabitation (z= -3.08; p=0.002), ignorance (z= -2.67; p=0.008), financial gains (z= -2.05; p=0.04) and force (z= -2.18; p=0.033) were established to be inversely and significantly associated with the practice of unprotected sex among unmarried young adults controlling for preemptive factors and knowledge of HIV endemic in the model. We predict a 0.69 decrease in the log odds of unprotected sex where unmarried young adults were not cohabiting with their partners. Also, we expect a 0.49 and 0.42 decrease in the log odds of unprotected sex where unmarried young adults were not engaged in sex for money and not ignorance of the implications of unprotected sex respectively. Likewise, we predict a 0.24 increase in the incidence rate of unprotected sex where unmarried young adults were compelled into having sex out of self-will by their partners. Hence, our results as presented in Table 3 showed that the practice of unprotected among unmarried young adults in Ile-Ife communities, Osun State Nigeria was significantly associated with pariah factors ($p<0.05$).

3.4. Results of Rank-Ordered Logistic Regression Showing Association between Unprotected Sex and Preemptive Factors

Table 4 presents the rank-ordered logistic regression results showing the association at a different level of significance between preemptive factors and practice of unprotected sex with single and multiple sex partners among unmarried young adults across communities in Ile-Ife, Osun State, Nigeria. Our results of the likelihood ratio chi-square (8) of 2.81 with a p-value of 0.0053 is an indication that Model II as developed in this study as a whole is statistically significant where it is compared with the null model with empty explanatory and intervening variables. Thus, our results showed that fear of broken relationship (z=2.28; p=0.023), alcohol/drug influence (z=2.17; p=0.029), friend/peer group influence (z=2.34; p=0.019) and use of contraceptive pills/clean sheet of partner HIV status (z= -2.26; p=0.024) were established to be significantly associated with the practice of unprotected sex among unmarried young adults in the study area controlling for pariah factors and knowledge of

HIV endemic. Also, we predict a 0.35 increase in the log odds of unprotected sex where unmarried young adults were not ready to break up with their partners on the ground of strictly adhering to protected or safe say. Likewise, we predict a 0.55 increase in the log odds of unprotected sex where unmarried young adults had sex with their partners under the influence of alcohol or drug addiction. Equally, we predict a 0.53 odd increase in the log odds of unprotected sex where unmarried young adults were convinced by their friends or submitted to peer influence that unprotected sex was more pleasurable than protected sex. On the other hand, we expect a 0.57 decrease in the log odds of unprotected sex where unmarried young adults were not on contraceptive pills and not certain of their partners HIV status. In conclusion, the results of our Model II as presented in Table 4 established the existence of a significant association between preemptive factors and practice of unprotected sex ($p<0.05$) among unmarried young adults in Ile-Ife communities, Osun State, Nigeria.

3.5. Results of Rank-Ordered Logistic Regression Showing Association between Unprotected Sex and Preemptive Factors

Table 5 presents the rank-ordered logistic regression results showing direction and association at a different level of significance between knowledge of HIV endemic and practice of unprotected sex with single and multiple sex partners among unmarried young adults across communities in Ile-Ife, Osun State Nigeria. The results of the likelihood ratio chi-square (9) of 16.05 with a p-value of 0.0658 is an indication that Model III as a whole is not statistically significant compared to the null model as with empty explanatory variables. The outcomes of our study showed that knowledge of contraction of HIV/STIs through unprotected sex ($z= -2.09$; $p=0.037$) and ever tested for HIV in the past ($z= -53.02$; $p=0.000$) were established to be significantly associated with practice of unprotected sex among unmarried young adults in our study area controlling for pariah and preemptive factors. We expect a 0.70 decrease in the log odds of unprotected sex where unmarried young adults had no sufficient knowledge that HIV and other STIs could be contracted majorly through unprotected sex. Also, we predict a decrease of 22.08 in the log odds of unprotected sex where unmarried young adults had never had an HIV test before. In conclusion, our results in Model III as presented in Table 5 showed the existence of an inverse and significant association between knowledge of HIV endemic and practice of unprotected sex ($p<0.05$) among unmarried young adults in Ile-Ife communities, Osun State Nigeria.

3.6. Results of Rank-Ordered Logistic Regression Showing Association between Unprotected Sex, Knowledge of HIV/AIDS, Pariah and Preemptive Factors

Table 6 presents the rank-ordered logistic regression results showing association at different level of significance between pariah factors, preemptive factors, knowledge of HIV endemic and practice of unprotected sex with single and multiple sex partners among unmarried young adults across communities in Ile-Ife, Osun State Nigeria results of the likelihood ratio chi-square (26) of 69.03 with p-value of 0.000 is an indication that our Model IV (full model) as a whole is statistically significant as compared to the null model with no predictors. Explanatory and intervening variables that were significantly associated with our response variable were not reported in Table 6 of this study. Results showed that the incidence of unprotected sex among unmarried young adults was significantly associated with pariah factors ($p<0.05$). Also, we discovered that by not holding any other variable constant, preemptive factors and practice of unprotected sex among unmarried young adults were significantly associated ($p<0.05$). Equally, by not controlling for pariah and preemptive factors in the full model of the study, our results showed that there was a significant association ($p<0.05$) between knowledge of HIV endemic and the practice of unprotected sex among unmarried young adults of aged 20-29 years in Ile-Ife communities of Osun State, Nigeria.

Table-1. Cross percentage distribution of respondents by socio-demographic characteristics and incidence of unprotected sex.

Variable	Had unprotected sex		
	With single partner (%)	With multiple partners (%)	n = 384
Gender			
Male	132(66.0)	68(34.0)	200(52.1)
Female	124(67.4)	60(32.6)	184(47.9)
Highest level of education			
No formal education	118(64.8)	64(35.2)	182(47.4)
Primary	92(66.2)	47(33.8)	139(36.2)
Secondary	24(82.8)	5(17.2)	29(7.6)
Post-secondary	22(64.7)	12(35.3)	34(8.9)
Age			
< 20 years	117(63.2)	68(36.8)	185(48.2)
20-24 years	117(69.6)	51(30.4)	168(43.8)
25-29 years	22(71.0)	9(29.0)	31(8.1)
Mean age; SD; min age; max age	*24 years; 2.82; 18 years; 29 years*		
Employment status			
Employed	64(68.8)	29(31.2)	93(24.2)
Unemployed with regular support	100(68.0)	47(32.0)	147(38.3)
Unemployed with no regular support	92(63.9)	52(36.1)	144(37.5)
Family structure at childhood			
Monogamous	142(66.4)	72(33.6)	214(55.7)
Polygamous	114(67.1)	56(32.9)	170(44.3)
Childhood upbringing			
Raised by both parents	151(66.5)	76(33.5)	227(59.1)
Raised by single parent	72(65.5)	38(34.6)	110(28.7)
Not raised by a biological parent	33(70.2)	14(29.8)	47(12.2)
Assessed print media			
Regular	30(56.6)	23(43.4)	53(13.8)
Not regular	113(67.7)	54(32.4)	167(43.5)
Rarely	69(69.0)	31(31.0)	100(26.0)
Not at all	44(68.8)	20(31.3)	64(16.7)
Assessed social media			
Regular	110(65.1)	59(34.9)	169(44.0)
Not regular	61(64.2)	34(35.8)	95(24.7)
Rarely	43(70.5)	18(29.5)	61(15.9)
Not at all	42(71.2)	17(28.8)	59(15.4)
Assessed TV/Radio			
Regular	62(60.2)	41(39.8)	103(26.8)
Not regular	109(63.4)	63(36.6)	172(44.8)
Rarely	54(76.1)	17(23.9)	71(18.5)
Not at all	31(81.6)	7(18.4)	38(9.9)

Source: Authors' survey report 2019.

Table-2. Percentage distribution of the respondents showing relationship between unprotected sex, knowledge of HIV endemic, pariah and preemptive factors.

Variable	Had unprotected sex		
Knowledge of HIV endemic	**With single partner (%)**	**With multiple partners (%)**	**Total**
HIV/STIs can be contracted through unprotected sex			
Yes	217(64.8)	118(35.2)	335(87.2)
No	39(79.6)	10(20.4)	49(12.8)
Ever had HIV test before			
Yes	84(70.6)	35(29.4)	119(31)
No	172(64.9)	93(35.1)	265(69)
Had HIV test			
>6 months ago	22(66.7)	11(33.3)	33(27.7)
3 to 6 months	47(74.6)	16(25.4)	63(52.9)
< 6 months	15(65.2)	8(34.8)	23(19.3)

Reason(s) for taking HIV test			
Only for HIV/AIDS status	65(68.4)	30(31.6)	95(79.8)
For HIV and other STIs status	19(79.2)	5(20.8)	24(20.2)
Reasons for not taking HIV test			
Never thought it necessary	24(63.2)	14(36.8)	38(14.3)
I am afraid that I may be HIV positive	91(66.9)	45(33.1)	136(51.3)
I have not had sex since my last test for HIV	18(56.3)	14(43.7)	32(12.1)
There is no VCT close by	86(71.1)	22(37.3)	59(22.3)
Prepared to go for HIV test now			
Yes	148(68.5)	68(31.5)	216(56.3)
No	108(64.3)	60(35.7)	168(43.7)
Pariah incidence	With single partner (%)	With multiple partners (%)	Total
Had unprotected sex because i had no condom			
Yes	108(69.7)	47(30.3)	155(40.4)
No	148(64.6)	81(35.8)	229(59.6)
Had unprotected sex due cohabitation			
Yes	164(61.7)	102(38.4)	266(69.3)
No	92(78.0)	26(22.0)	118(30.7)
Had unprotected sex in exchange for financial gain			
Yes	132(63.5)	76(36.5)	208(54.2)
No	124(70.5)	52(29.6)	176(45.8)
Had unprotected sex as a result of ignorance			
Yes	102(59.3)	70(40.7)	172(44.8)
No	154(72.6)	58(27.4)	212(55.2)
Had unprotected sex in exchange for other rewards than money			
Yes	140(69.3)	62(30.7)	202(52.6)
No	116(63.7)	66(36.3)	182(47.4)
My partners drugged/tricked me to have unprotected sex			
Yes	93(69.4)	41(30.6)	134(34.9)
No	163(65.2)	87(34.8)	250(65.1)
Had unprotected sex due to my uncontrollable sexual drive			
Yes	154(64.2)	86(35.8)	240(62.5)
No	102(70.8)	42(29.2)	144(37.5)
Never intended to have unprotected sex but I was forced			
Yes	25(53.2)	22(46.8)	47(12.2)
No	231(68.6)	106(31.5)	337(87.8)

Source: Authors' survey report 2019.

Cont. of Table 2.

Variable	**Had unprotected sex**		
Preemptive incidence	**With single partner (%)**	**With multiple partners (%)**	**Total**
Had unprotected sex to keep my relationship			
Yes	197(69.6)	86(30.4)	283(73.7)
No	59(58.4)	42(41.6)	101(26.3)
Had unprotected sex because I derived more pleasure from it			
Yes	181(66.1)	93(33.9)	274(71.4)
No	75(68.2)	35(31.8)	110(28.6)
Seduced/convinced by partner to have unprotected sex			
Yes	201(65.1)	108(34.9)	309(80.4)
No	55(73.3)	20(26.7)	75(19.6)
Had unprotected sex under alcohol/drug influence			
Yes	227(67.2)	111(32.8)	338(88.0)
No	29(63.0)	17(37.0)	46(12.0)
Had unprotected sex because my friends convinced me that it was more pleasurable			

Yes	158(62.2)	96(37.8)	254(66.1)
No	98(75.4)	32(24.6)	130(33.9)
Had unprotected sex because I wanted to know if there was any difference			
Yes	175(64.3)	97(35.7)	272(71.4)
No	81(72.3)	31(27.7)	112(28.6)
Had unprotected sex because I was on pills and my partner was HIV negative			
Yes	160(62.3)	97(37.7)	257(66.9)
No	96(75.6)	31(24.4)	127(33.1)
Had unprotected sex during my safe period and my partner was HIV negative			
Yes	108(67.5)	52(32.5)	160(87.0)
No	16(66.7)	8(33.3)	24(13.0)

Source: Authors' survey report 2019

Table-3. Rank-ordered logistic regression showing association between pariah factors and unprotected sex controlling for preemptive factors and knowledge of HIV endemic.

Variable					
Pariah incidence	**Coefficient**	**Std. err.**	**Z**	**P>|Z|**	**95% C.I.**
Had unprotected sex because I had no condom					
Yes [RC]	1.000				
No	0.277	0.192	1.45	0.148	-0.099 0.653
Had unprotected sex due to cohabitation					
Yes [RC]	1.000				
No	-0.685	0.223	-3.08	0.002**	-1.122 -0.249
Had unprotected sex in exchange for financial gain					
Yes [RC]	1.000				
No	-0.489	0.238	-2.05	0.040*	-0.954 -0.021
Had unprotected sex as a result of ignorance					
Yes [RC]	1.000				
No	-0.424	-2.67	-2.67	0.008**	-0.846 -0.129
Had unprotected sex in exchange for other rewards than money					
Yes [RC]	1.000				
No	-0.061	0.198	-0.31	0.759	-0.449 0.0328
My partners drugged/tricked me to have unprotected sex					
Yes [RC]	1.000				
No	0.129	0.193	0.67	0.503	-0.249 0.507
Had unprotected sex due to my uncontrollable sexual drive					
Yes [RC]	1.000				
No	-0.267	0.192	-1.39	0.164	-0.643 0.109
Never intended to have unprotected sex but I was forced					
Yes [RC]	1.000				
No	-0.437	0.243	-2.18	0.033*	-0.913 0.039
Log likelihood	*-224.996*				
LRC Chi 2 (8)	*29.80*				
Prob. > Chi 2	*0.0002*				
No of observation	*384*				
No of group	*2*				

Note:*Significant at p<0.05, **Significant at p<0.01, ***Significant at p<0.00; RC=Reference Category.

Table-4. Rank-ordered logistic regression showing association between unprotected sex and preemptive factors controlling for pariah factors and knowledge of HIV endemic.

Variable					
Preemptive incidence	**Coefficient**	**Std. err.**	**z**	**p>|z|**	**95% C.I.**
Had unprotected sex to keep my relationship					
Yes [RC]	1.000				
No	0.351	0.193	2.28	0.023*	-0.028 0.730
Had unprotected sex because I derived more pleasure from it					
Yes [RC]	1.000				
No	0.141	0.223	0.64	0.525	-0.295 0.578
My partner seduced and convinced me to have unprotected sex					
Yes [RC]	1.000				
No	-0.264	0.248	-1.06	0.289	-0.751 0.223
Had unprotected sex under the influence of alcohol/drug					
Yes [RC]	1.000				
No	0.549	0.302	2.17	0.029*	-0.043 1.141
Had unprotected sex because my friends convinced me that it was more pleasurable					
Yes [RC]	1.000				
No	0.529	0.226	2.34	0.019*	-0.973 -0.085
Had unprotected sex because I wanted to know if there was any difference					
Yes [RC]	1.000				
No	-0.168	0.239	-0.70	0.481	-0.637 0.300
Had unprotected sex because I was on pills and my partner was HIV negative					
Yes [RC]	1.000				
No	-0.564	0.249	-2.26	0.024*	-1.052 -0.076
Had unprotected sex during my safe period and my partner was HIV negative					
Yes [RC]	1.000				
No	-0.056	0.387	0.14	0.886	-0.703 0.814
Log likelihood	*-228.994*				
LRC Chi 2 (8)	*21.81*				
Prob. > Chi 2	*0.0053*				
No of observation	*384*				
No of group	*2*				

Note:*Significant at p<0.05, **Significant at p<0.01, ***Significant at p<0.001; RC=Reference Category.

Table-5. Rank-ordered logistic regression showing association between unprotected sex and knowledge of HIV endemic controlling for pariah and preemptive factors.

Variable					
Knowledge of HIV endemic	**Coefficient**	**Std. Err.**	**Z**	**P>|Z|**	**95% C.I.**
HIV/STIs can be contracted through unprotected sex					
Yes [RC]	1.000				
No	-0.702	0.336	-2.09	0.037*	-1.361 -0.043
Ever had HIV test before					
Yes [RC]	1.000				
No	-22.079	0.416	-53.02	0.000***	-22.896 -21.263
Had HIV test					
>6 months ago [RC]	1.000				

3 to 6 months	-0.491	0.398	-1.23	0.218	-1.271 0.289
< 3 months	-0.084	0.489	-0.17	0.864	-1.043 0.875
Reason(s) for taking HIV test					
Only for HIV/AIDS status [RC]	1.000				
For HIV and other STIs status	-0.504	0.493	-0.02	0.307	-1.472 0.463
Reasons for not taking HIV test					
Never thought it necessary [RC]	1.000				
I am afraid that I may be HIV positive	-0.828	0.589	-1.41	0.159	-1.982 0.325
I have not had sex since my last test for HIV	-0.527	0.636	-0.83	0.407	-1.773 0.719
There is no VCT close by	-0.016	0/351	-0.05	0.963	-0.705 0.672
Prepared to go for HIV test now					
Yes [RC]	1.000				
No	0.792	0.514	1.54	0.123	-0.215 1.799
Log likelihood	*-231.8721*				
LRC Chi 2 (9)	*16.05*				
Prob. > Chi 2	*0.0658*				
No of observation	*384*				
No of group	*2*				

Note:*Significant at p<0.05, **Significant at p<0.01, ***Significant at p<0.001; **RC**=Reference Category.

Table-6. Rank-ordered logistic regression showing association between unprotected sex, knowledge of HIV endemic, pariah and preemptive factors (full model).

Variable					
Pariah incidence	**Coefficient**	**Std. err.**	**Z**	**P>|Z|**	**95% C.I.**
Had unprotected sex because I had no access to condom at that moment					
Yes [RC]	1.000				
No	0.425	0.209	2.05	0.041*	0.018 0.832
Had unprotected sex due to cohabitation					
Yes [RC]	1.000				
No	-0.876	0.240	-3.65	0.000***	-1.347 -0.406
Had unprotected sex in exchange for financial gain					
Yes [RC]	1.000				
No	-0.676	0.269	-2.51	0.012*	-1.203 -0.149
Had unprotected sex due to ignorance					
Yes [RC]	1.000				
No	-0.443	0.191	-2.32	0.020*	-0.818 -0.069
Preemptive incidence	Coefficient	Std. err.	z	p>|z|	95% C.I.
Had unprotected sex to keep my relationship					
Yes [RC]	1.000				
No	0.396	0.204	2.09	0.042*	-0.027 0.776
Yes [RC]	1.000				
No	0.607	0.312	2.25	0.025*	-0.005 1.219
Had unprotected sex because my friends convinced me that it was more pleasurable					
Yes [RC]	1.000				
No	-0.503	0.246	-2.04	0.041*	-0.986 -0.020
Had unprotected sex because I was on pills and my partner was HIV negative					
Yes [RC]	1.000				
No	-0.686	0.268	-2.56	0.011*	-1.212 -0.161
Knowledge of HIV endemic	Coefficient	Std. err.	z	p>|z|	95% C.I.
HIV/STIs can be contracted through unprotected sex					
Yes [RC]	1.000				
No	-0.726	0.347	-2.09	0.036*	-1.405 -0.046
Ever had HIV test before					

Yes [RC]	1.000				
No	-22.653	0.474	-47.75	0.000***	-23.583 -21.723
Reasons for not taking HIV test					
Never thought it necessary [RC]	1.000				
I am afraid that I may be HIV positive	-1.213	0.640	2.09	0.048*	-2.467 0.041
I have not had sex since my last test for HIV					
There is no VCT close by	1.250	0.573	2.18	0.029*	0.126 2.373
Log likelihood	*-205.3822*				
LRC Chi 2 (26)	*69.03*				
Prob. > Chi 2	*0.000*				
No of observation	*2*				
No of group	*384*				

Note:*Significant at p<0.05, **Significant at p<0.01, ***Significant at p<0.001; **RC**=Reference Category.

3.7. Discussion

Our study on unprotected sex, a form of risky sexual behaviour described patterns and investigated unprotected sex among unmarried sexually active young adults (aged 20-29 years) across Ile-Ife communities in Osun State, Nigeria as a pariah or preemptive incidence. Findings of the study by patterns of incidence of unprotected sex in the studied area showed that keeping multiple sex partners was significantly higher among young adults under 20 years of age (36.8%) compared to respondents that were within ages 25 and 29 (29%). It was evidence from our findings that unprotected sex was relatively higher among male (52.1%) than female (47.9%) students while over 75% of students that had unprotected sex were unemployed respondents with or without regular financial supports. Relatively, we discovered proportion of our respondents that engaged in unprotected sex was inversely related with level of education. For example, about 48% of respondents with no formal education admitted to have engaged in unprotected sex tat least three months prior our survey while the incidence of unprotected sex among respondents with post-secondary education was approximately 9%. Also, deducing from our study outcomes, it was evidence that the extent to which mass media was sourced had influence on our respondents' engagement in unprotected sex. For instance, while about 14% of young adults with regular access to print media admitted to have engaged in unprotected sex, more than 43% of respondents with no regular access to print media had unprotected sex over the same period.

Therefore, incidence of unprotected sex among young people, particularly among the unmarried ones to a large extent could explained in the context of their socioeconomic and demographic characteristics. Invariably, it was evidence from our study findings that age, marital status, employment status, family structure, extent of exposure to mass media, level of educational attainment, parental upbringing amongst others and incidence of unprotected sex among unmarried young adults were intricately related. Consistently, our study outcomes buttressed [22] who emphasised on the existence of an inverse relationship between risky sexual behaviour among married persons and their socioeconomic characteristics. Equally, Jones, et al. [8] identified socioeconomic and demographic characteristics as some of the contextual factors influencing risky sexual behaviour among young black adults in the United States. Furthermore, our findings collaborated UNAIDS [18] and Sexual Rights Initiative [26] reports that empirically allied unsafe sex among youth to their demographic and socioeconomic status. On the other hand, going by our findings in this study, it is somewhat imperative that in spite of young adults' accessibility to social media, the incidence of unprotected sex remained relatively high. For example, 44% of respondents who claimed that they had regular access to social media such as Facebook, WhatsApp, Instagram, and the likes reported to have had unprotected sex at least three months prior our survey while proportion of respondents who rarely (15.9%) accessed, as well as those with no access to social media at all was relatively lower. Imperatively, there is a need for us to explore the relation between incidence of unprotected sex and the identified explanatory variables of our study.

Going by the derived evidence from this study, knowledge of young adults was found to be significantly associated with practice of unprotected sex. For example, we discovered that few of our respondents did not agree that HIV and other sexually transmitted infections could be easily contracted through unsafe sex. In line with this, a significant number of the respondents in this study did not have knowledge of their HIV status; while one in every three of respondents who last checked their HV status in over six months ago admitted to having multiple sexual partners. In fact, more than one-third of the respondents with multiple sex partners claimed that there was no reason for knowing their HIV status. In spite that more than half of the respondents had engaged in unprotected sex about 44% of them maintained that they were not prepared to go for their HIV test checkup. Retrospectively, knowledge of contracting HIV/STIs and incidence of unprotected sex were significantly associated in this study. This is an indication that the practice of unprotected sex among unmarried young adults in Ile-Ife communities to a very large extent influenced their perception, attitude and eventual engagement in unsafe sex. We also discovered that the practice of unprotected sex among young adults in the studied area could be attributed to their lack of HIV status.

Accordingly, young adults' knowledge of the need for knowing their HIV status and practice of unprotected sex were significantly related. Therefore, we can empirically argued that the extent to which unprotected sex was practiced by unmarried young adults in Ile-Ife communities could be attributed to the extent of their knowledge of the implications of HIV/STIs. Our findings in this context were in line with few studies conducted in the country. For example, Babatunde [25]; Awofala and Ogundele [19]; Pharr, et al. [37] and Amu, et al. [41]. Specifically, Pharr, et al. [37] emphasised that the spread of HIV could be attributed to poor knowledge of the implications of engaging in unsafe sex among adolescents in Port Harcourt, River State, Nigeria. Relatively, Babatunde [25] argued that the unpreparedness of young adults in Port Harcourt to utilise voluntary counselling centre for HIV/AIDS testing could be attributed from the fear of being carrier of the deadly viruses due to their practice of unsafe sex; while Amu, et al. [41] attributed the low utilisation level of voluntary counselling centre for HIV/AIDS centres among literate young adults to their inadequate knowledge of how HIV could be properly managed before it developed into full blown AIDS.

There is no doubt that knowledge of HIV/AIDS and practice of unsafe sex are inseparable, at least to a reasonable extent. Evidence from our study, collaborated from the aforementioned empirical studies is an indication that many youths in the country are not only susceptible to contracting deadly sexually transmitted infections but, specifically the females among them were also vulnerable to conceiving unwanted pregnancies. More so, the incidence of unprotected goes beyond knowledge of HIV/AIDS; hence, we extensively explored the links between two plausible predictors, that is – preemptive and pariah influence. Based on empirical evidence from our study's outcomes, a significant proportion of unmarried young adults would not have engaged in unprotected if they have had unprotected sex but to the reclusive situations that they had found themselves at the time of succumbing to exigency which ordinary they had not found themselves under such pressures. For instance, more than one-third of our respondents admitted that they had unprotected sex with multiple sex partners for the financial benefits derived from it, while about 31% of our respondents admitted that they had unprotected sex because they had no personal accommodation of theirs. In fact, it becomes difficult to in alienate the incidence of unprotected sex among unmarried young adults from ignorance of the risks, uncontrollable drive for sex, especially when they are in the mood for sex and had no access to condoms. These assertions were empirical evidence deduced among unmarried young adults across the studied communities in Ile-Ife.

Retrospectively, the practice of unprotected sex is an act that could be empirically explained as a pariah occurrence. Invariably, we discovered that the practice of unprotected sex among unmarried young adults across communities in Ile-Ife was significantly associated with a significant number of the pariah variables identified in this study. Imperatively, findings from our study were in line with the existing body of empirically established knowledge where it has been extensively argued that unsafe sex sometimes took place out of the consent of at least

one of the individuals that had engaged in it. For instance, our findings were partly with Amare, et al. [7] and Berhan and Berhan [15] who in their systematic review and meta-analysis of predictors of risky sexual behaviour discovered that not all students of tertiary institutions engaged in unsafe sex out of their self-will but sometimes due to what they stood to derive from such practices or as results of poor understanding of the consequences of their risky sexual lifestyles. Also, our findings collaborated Chawla and Sarkar [27] and Lawal and Olley [31] who buttressed on the established direct and significant link between substance abuse, psychosocial factors and risky sexual behaviour lifestyles. This finding was a confirmation of our findings where our respondents admitted that had unprotected sex because they were drugged by their sexual partner(s). Our findings were also not in isolation with Perera and Abeysena [34] who in their attempt to explore the patterns and predictors of risky sexual behaviour among tertiary institution students discovered that factors such as monetary gains, abuse of psychosocial and peer influence played a significant role in students' indulgent in unsafe sexual activities. More so, our findings attributing unprotected sex among unmarried young adults in our studied area to pariah incidence were in support of Timiun [35] and Ugoji [23] who in their works attributed unsafe sexual behaviour to factors raging from poverty to ignorance of the full implications of their actions.

Another identified predictors of unprotective among unmarried young adults in this study were preemptive actions. We discovered in course of this study that many of the respondents preferred having unprotected sex with their sex partners to losing their relationship. Although, about one-third of unmarried young adults in the studied area who had unprotected sex with multiple partners gave pleasure as the reason behind this practice, approximately nine in ten respondents admitted to have had unprotected sex under the influence of alcohol or drug while more than two-thirds of respondents who had unprotected sex with single partners did it because they were having their safe period; hence, to these unmarried young adults in Ile-Ife communities, having unprotected sex should not be a big issue as long as one is not prone to becoming pregnant. In light of this, one could deduced that these youths were less concerned about contracting STIs but avoidance of unwanted pregnancy. On the other hand, evidence from our study's outcomes clearly showed that more than 70% of our respondents had unprotected sex primarily because they wanted to know if there was difference in pleasure derived from sexual intercourse with and without condom. Introspectively, this is an indication that these unmarried young adults were aware of preventive measures to playing safe but for inquisitive sake they adhered not to safe sex. Retrospectively, evidence from our empirical study among unmarried young adults across communities in Ile-Ife established preemptive factors as key predictors of unprotected sex (risky sexual behaviour – unsafe sex). Based on our findings, it is realistic to empirically agree that an average unmarried young adult with little control over the identified preemptive factors was at a higher risk of having unprotected sex compared to an individual who had control over these factors to a large extent. For instance, many of our respondents did not see any big issue in having unprotected sex with multiple sex partners as long as their partners were not carried with HIV.

Meanwhile, findings from our study were buttressed Awofala and Ogundele [19] and Babatunde [25] whose works on the primary health implications of the spread of HIV infections in Nigeria argued from the point of views that the spread of the deadly virus would be reduced to minimal by first controlling the root causes of unsafe sex among people of reproductive before addressing the primary health implications. Also, our findings supported [21] that the reasons for indulgent of young adults in unsafe sex were not only limited to the extent of their knowledge of HIV/AIDS and other STIs but also motives behind their actions Likewise, our findings were to some extent in line with Muchiri, et al. [10]; Nubed and Akoachere [11] and Christiane [12] who identified ecological factors, attitude and precautionary actions as predictors of HIV/AIDS and other STIs among young adults in their studies conducted in Southwest region, Cameroun, Libreville, Gabon and Cape Town , South Africa accordingly.

In retrospect, several indications are identifiable from our empirically established facts, and one of such is the actualisation of the desired decline in the spread of HIV/other deadly STIs. Thus, there are needs to address the push and pull factors of unprotected sex, particularly among unmarried young adults with low level of education.

Also, as contained (pariah, preemptive and knowledge of HIV/AIDS and other deadly STIs) in this study, there is a need to curtail the incidence of unwanted pregnancy among unmarried young adults (especially those they are below 20 years of age) who are not ready to be parents, particularly in a country such as Nigeria where abortion, except in some rare occasions, is not legal.

3.8. Conclusion

Unprotected sex, especially among unmarried young adults with multiple sex partners remains one of the factors hindering the attainment of the targeted significant reduction in the spread of HIV/AIDS and other sexually transmitted infections in the country. Our study identified pariah and preemptive factors as key predictors of unprotected sex among the studied population. In line with our findings, we discovered that socio-demographic characteristics of the studied population influenced the pariah and preemptive factors that served as predictors of unprotected sex among them. The study concluded that having the knowledge of the implications of HIV/AIDS alone is not a sufficient predictors of sticking to one sexual partner or to practicing protected sex, rather there is joint association between knowledge of HIV/AIDS, pariah and preemptive factors related to non-adherence to safe and protected sex among sexually active unmarried young adults in the studied community.

3.9. Recommendations

In an attempt to address the spread of HIV/AIDS among young adults based on our study's empirical findings, the following recommendations are found necessary:

1. There is an exigent need for sexually active unmarried young adults, in the country to be mandated to regularly checkup their HIV status. This is imperative based on our findings which showed that about 44% of unmarried young adults were not prepared to take up HIV test despite indulging in unprotected sex.
2. In line with aforementioned recommendation, it is expedient that the government obligate HIV testing for all persons of reproductive age in the country. In anticipation of making such directive by the government a success, more voluntary counselling testing (VCT) centres for HIV need to be established. These centres should be made youth friendly. This is imperious since our findings showed that about 70% of our respondents admitted never to have gone for HIV testing in the time past despite their engagement in unprotected sex, even with more than single sex partner three months prior the survey.
3. Also, we discovered that about 40% of our respondents may not have engaged in unprotected sex if they had access to condom at all time. Correspondingly, more than half (54%) our respondents admitted to have had unprotected sex in exchange for monetary rewards while about 75% were not gainfully employed. Therefore, condoms should made available at free cost across all VCT centres and other strategic places in the country.
4. Equally, it is imperative to enlighten unmarried female young adults on the need for safe sex even during their "safe period" or while on contraceptive pills. This is necessary because they may be able to prevent unwanted pregnancies but vulnerable to contracting HIV and other STIs.
5. Finally, alcohol abuse and use of illicit drugs that may warrant pariah actions should be discouraged among unmarried youth and adolescents through youth empowerment and provision of social security for the unemployed and less privileged amongst them.

3.10. Strength and Limitation of the Study

This study is characterised by some strengths and limitations. The strength of this study included the predictive risky sexual behaviour (unprotected sex) beyond the conventional approach as well as the use of rank-ordered logistic regression to explain joint effect of knowledge of HIV/AIDS, pariah and preemptive factors on the practice of unprotected sex among unmarried young adults aged 20-29 years in the studied community. On the

other hand, the main limitation of this study was as a result of the cross-sectional data that was employed to explain the causal effect association between the response and explanatory variables of the study. Also, the sensitive nature of the study prompted respondents to feel reluctantly to give a response. However, after a series of explanation of the need for the study, and with close rapport, the respondents consented to provide information even more than what was being required of them. In line with our findings, longitudinal study adopting an explorative and investigatory methods should be carried out to validate the root predictors of unprotected sex and other forms of risky sexual behaviour and activities among unmarried young adults in one of the States with the highest prevalence of HIV in Nigeria.

Funding: This study received no specific financial support.
Competing Interests: The authors declare that they have no competing interests.
Contributors/Acknowledgement: All authors contributed equally to the conception and design of the study.

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