**Abstract**

Multiple sexual partnering is a prevalent behavior among young adults in Nigeria, contributing to the high prevalence of sexually transmitted infections (STIs) and HIV/AIDS in the country. This study aims to examine the geographical patterns of multiple sexual partnering among young adults in Nigeria and identify the sociodemographic factors associated with this behavior. The study utilizes data from the 2018 Nigeria Demographic and Health Survey and employs Bayesian spatial modeling techniques to analyze the data. The results reveal that young adults from rural areas, Christians, and those with higher education levels are more likely to engage in multiple sexual partnering. Additionally, younger age, early sexual debut, and being male are associated with a higher likelihood of having multiple sexual partners. The findings also show significant regional variations in multiple sexual partnering across Nigeria. The study highlights the need for targeted interventions, comprehensive sexual education programs, and improved access to healthcare services to promote safer sexual behaviors and mitigate the risks of STIs and HIV/AIDS among young Nigerian adults.

**BACKGROUND OF STUDY**

Young adults in Nigeria who engage in several sexual relationships face serious risks, such as a higher risk of unwanted pregnancies and the spread of STIs like HIV/AIDS. Research has shown that young people and teenagers frequently act impulsively and fail to fully examine the effects of their decisions (Alamrew et al., 2013; Fatusi & Blum, 2008). The dangers of having several sexual partners are worsened by Nigeria's high prevalence of HIV/AIDS, which also contributes to the transmission of STIs (Alamrew et al., 2013). These risks highlight the urgent need for focused interventions to encourage safer sexual activity and lessen the detrimental effects on Nigeria's young adults' well-being.

Multiple sexual partnering is a prevalent activity among young adults in Nigeria, contributing to the high prevalence of sexually transmitted infections (STIs) and HIV/AIDS in the country. According to the 2018 Nigeria HIV/AIDS Indicator and Impact Survey, an estimated 1.9 million people are living with HIV in Nigeria, highlighting the urgency of addressing this issue (Nigeria HIV/AIDS Indicator and Impact Survey, 2018). The risks of unwanted pregnancies are also heightened, as indicated by the adolescent birth rate of 97 births per 1,000 adolescent girls aged 15 to 19 (World Bank, 2020). Furthermore, the low knowledge and usage of contraception among unmarried sexually active women aged 15 to 24, reported by the Nigerian Demographic and Health Survey in 2018, further exacerbate these challenges (Nigerian Demographic and Health Survey, 2018). Gender disparity plays a role in this practice as well, with Nigeria ranking 136th out of 156 nations in the Global Gender Gap Report of 2021. To address the hazards associated with multiple sexual partnering among young adults in Nigeria, comprehensive sexual education, improved access to healthcare facilities, and initiatives to promote gender equality are necessary (Nigeria HIV/AIDS Indicator and Impact Survey, 2018; World Bank, 2020).

In Nigeria, culture and religion significantly influence young adults' attitudes and behaviors regarding multiple sexual partnering (MSP). With over 250 ethnic groups and diverse cultural traditions, cultural norms that emphasize male dominance and sexual conquest contribute to the prevalence of MSP. The National HIV/AIDS and Reproductive Health Survey conducted in 2018 revealed that 31% of males and 18% of females aged 15 to 24 reported engaging in MSP within the past 12 months (National HIV/AIDS and Reproductive Health Survey, 2018). These cultural ideals reinforce the perception that having multiple sexual partners is a sign of masculinity. While conservative religious beliefs may discourage premarital sex or having numerous sexual partners, the actual practice often varies due to social constraints and limited access to comprehensive sexual education. By working within Nigeria's cultural and religious framework, we can foster conversations and promote healthier sexual behaviors among young adults while respecting their cultural and religious beliefs (National HIV/AIDS and Reproductive Health Survey, 2018; World Bank, 2020).

Numerous studies have explored the factors influencing multiple sexual partnering (MSP) among young adults in Nigeria. Sociodemographic characteristics such as household educational levels, urban and rural settlements, religion, young age, female sex, and urban habitation have been found to have a significant impact on sexual behaviors (Adimora & Onwu, 2019; Somefun, 2019). Adolescents must develop coping mechanisms to regulate and express their sexual urges within the social and cultural context they find themselves in (Kar et al., 2015). Unsafe sexual practices among teenagers have been linked to various factors such as customs, rapid urbanization, family background, peer pressure, economic situation, gender, and parental educational background (Bingenheimer et al., 2015).

Young people, particularly females, are at a higher risk of HIV/AIDS and other sexually transmitted infections (Shannon & Klausner, 2018). Risky sexual behaviors, including having multiple sexual partners, initiating sexual contact at a young age, using drugs or alcohol during sex, and engaging in unprotected sex, contribute to the spread of STIs (Chawla & Sarkar, 2019). Multiple sexual partnering is a significant public health concern in sub-Saharan Africa, with implications for infertility, miscarriage, mental health issues, and the transmission of HIV (Onoya et al., 2014; Apari et al., 2014; Berde & Ozcebe, 2017).

In Nigeria, MSP prevalence among men is notable, with studies reporting rates ranging from 29% in sub-Saharan Africa to 3.5% to 54.1% among men of reproductive age in Ethiopia (Bingenheimer, 2010; E. Mhele, 2017; Abosetugn et al., 2015). Education, occupation, age, substance misuse, religion, affluence, media exposure, age at first sexual encounter, residency, and area have been identified as factors associated with MSP (E. Mhele, 2017). MSPs among men significantly contribute to the transmission of HIV in sub-Saharan Africa.

Despite previous studies shedding light on the factors influencing multiple sexual partnering (MSP) among young adults in Nigeria, there is a dearth of research examining the geographical patterns of MSP in the country. Understanding the spatial distribution and determinants of MSPs among young adults is crucial for effective prevention strategies and for promoting safer sexual behaviors. This study aims to fill this research gap by quantifying the geographical patterns of MSP among young people in Nigeria.

By examining the prevalence of MSPs, assessing demographic interactions, and analyzing socio-demographic characteristics, the study aims to provide valuable insights for stakeholders and policymakers in the health industry. This research aims to quantify the geographical patterns of multiple sexual partnering among young adults in Nigeria, addressing the existing knowledge gaps in understanding the prevalence, demographic interactions, and sociodemographic characteristics associated with this behavior. By filling this research gap, the study will contribute to targeted interventions and strategies to mitigate the risks of sexually transmitted infections and promote safer sexual behaviors among young Nigerian adults.

## Method of Data Analysis

**Data**

This study uses data from the most recent Nigeria Demographic and Health Survey collected in 2018. We combined the male (men recode) and female (individual recode) data sets for the current analysis. The Nigeria Demographic and Health Survey (NDHS), executed by the National Population Commission of Nigeria, received technical help from the Demographic Health Survey (DHS) Program through ICF International. Demographic and health data were to be gathered for planning, investigation, and policymaking. Based on the sampling frame for the 2006 Nigerian population census, the survey used a multistage (two-stage) sample approach. Clusters were picked randomly in the first step of the two-stage sampling procedure, and homes within the clusters were selected systematically in the second stage. The data gathered from the DHS program with approval from the DHS program team was accessed through the DHS Program-Data website (www.dhsprogram.com).

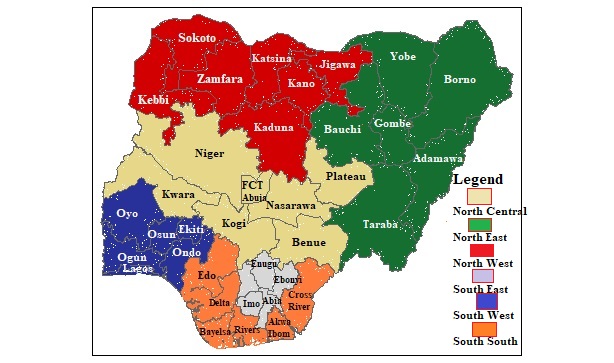
The main inclusion criterion in this study was being a young adult. The age range for young adults is 15 to 24, although the data for this study came from interviews with both male and female young adults in this age range, regardless of whether they were currently married. This allowed us to calculate the current study's sample size, 9840 young adults. Both independent and dependent variables were measured in this study.

Table 1 shows the percentage distribution of young adults based on categories of the socio-demographic variables included in this research.

# *Table 1****:****Descriptive statistics based on the categories of the socio-demographic and behavioural variables included in the study.*

|  |  |  |
| --- | --- | --- |
| **Variables** | **Frequency** | **Percentage (%)** |
| **Total Lifetime** |  |  |
| 1 | 6,841 | 69.52 |
| 2+ | 2,999 | 30.48 |
| **Last 12 Month** |  |  |
| 1 | 9,474 | 96.28 |
| 2+ | 366 | 3.72 |
| **Age** |  |  |
| 15-17 | 1,268 | 12.89 |
| 18-20 | 3,808 | 38.70 |
| 21-24 | 4,764 | 48.41 |
| **Age at Sex Debut** |  |  |
| < 15 | 1,893 | 19.24 |
| 15-17 | 5,077 | 51.60 |
| 18-20 | 2,471 | 25.11 |
| 20-21 | 399 | 4.05 |
| **Residential Area** |  |  |
| Urban | 3,155 | 32.06 |
| Rural | 6,685 | 67.94 |
| **Educational status** |  |  |
| No education | 3514 | 35.71 |
| Primary | 1115 | 11.33 |
| Secondary | 4500 | 45.73 |
| Higher | 711 | 7.23 |
| **Religion** |  |  |
| Others | 68 | 0.69 |
| Christian | 4443 | 45.14 |
| Islam | 5329 | 54.16 |
| **Ethnicity** |  |  |
| Others | 3954 | 40.18 |
| Yoruba | 1045 | 10.62 |
| Igbo | 1157 | 11.76 |
| Hausa/Fulani | 3684 | 37.44 |
| **Internet** |  |  |
| No-internet | 8044 | 81.75 |
| Internet | 1796 | 18.25 |
| **Marital Status** |  |  |
| Never-married | 3525 | 35.82 |
| Married | 6025 | 61.64 |
| Separated/Divorce | 250 | 2.54 |
| **STI** |  |  |
| No | 562 | 5.71 |
| Yes | 9278 | 94.29 |
| **Gender** |  |  |
| Male | 1002 | 10.19 |
| Female | 8837 | 89.81 |
| **Total** | **9840** | **100** |

*Source: DHS Survey, 2018*

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**Statistical framework**

The outcome variables in the study are multiple sexual partnerships, defined as the number of lifetime sexual partners that a young adult has ever had, that is, a total of the number of persons a young adult has ever had sexual intercourse with within the last 12 months including spouse or sexual partners that a young adult has had (i.e. a count of the number of people that a young adult has ever had sexual intercourse with, that is, count of the number of people that a young adult has had sexual intercourse within the last one year). They were measured based on the response to a survey question about the total sum of lifetime sexual partners and the total number of sexual partners, including spouses, in the last 12 months. For the analysis in this research, which made use of binary logistic regression, the responses were coded as 1 (0) and 2 + (1).

**Yi j = 1 if MSP**

**Yij = 0 if OTHERWISE**

The response variable (MSP) is dichotomous. The response variable can take the value one with a probability of success p or the value 0 with the probability of failure 1-p. This type of variable is called a Bernoulli (or binary) variable.

**Yij ~ binomial (n, p)**

To know the linear effects of the covariates in Table 1, we use the odd ratio, a statistical tool that measures and quantifies the strength of the relationship between two occurrences. The existence of one event reduces or decreases the odds of the other event's occurrence.

For two groups, say A and B, the odds ratio is given by:

Comparing the two odds measures:

As mentioned, logistic regression's independent or predictor variables can take any form; that is, logistic regression does not assume the distribution of the independent variables. They do not have to be normally distributed, linearly related or of equal variance within each group. The association between predictor and response variables is not linear in logistic regression. Instead, the logistic regression function is used, which is the logit transformation of p.

**Logit(P) = Ƞ =**

Including the spatial components, we have;

**Logit(P) = Ƞ = + f (S)spatial**

The Spatial component can be decomposed into structured(spatially correlated) that assumes that the data being modelled have a Markov random field (MRF) structure, which means that the value of each data point is dependent on the values of its neighbouring points. The unstructured(spatially uncorrelated) property is often assumed for the observations being analyzed, implying that the value of each observation is not dependent on the values of other observations and that each observation follows the same distribution.

**Ƞ=+ f(S)structured +f(S)unstructured**

**Model building**

Four different models were compared for each ofthe total lifetime and last 12 months of MSP, beginning with the simplest to a more complex one. As a primary model (M1), we considered only the spatial component for the states in Nigeria without adjusting for any covariates. The categorical covariates listed in Table 1 and decomposed the spatial components in a structured (spatially correlated) random effect were added to the first model to form the second (M2).

For the third model (M3), The categorical covariates listed in Table 1 and decomposed the spatial components in an unstructured (spatially uncorrelated) random effect were added, while for the last model (M4), the spatial effects was decomposed into structured and unstructured along with the covariates listed in Table 1.

**M1: Ƞ = f (S) structured**

**M2: Ƞ=+ f (S) structured**

**M3: Ƞ=+ f(S) unstructured**

**M4: Ƞ=+ f(S) structured +f(S) unstructured**

The parameter estimation follows a Bayesian approach, and the best model that fits the data was determined using the Deviance Information Criterion (DIC).

**Results**

## The model diagnostic criteria’s values for lifetime partners and the past twelve months

Table 2 shows the model diagnostic statistics for all the models examined based on lifetime partners and the past 12 months. The models provide better fits for both cases when more covariates are added but at increased complexity. In the case of the past 12 months, it is clear that model M2 provides the best fit based on the DIC values, but for lifetime partners, the marginal difference in DIC between the models is minimal, less than 10. When the DIC values of two competing models differ by less than 10, neither one can be deemed superior to the other, and the model with fewer covariates should be considered (Spiegelhalter et al., 2002). However, the results presented in this case shall be based on those of model M4 for both lifetime partners and the past 12 months.

**Table 2:** Model diagnostic criteria's values for lifetime partners and the past 12 months.

|  |  |  |  |
| --- | --- | --- | --- |
| Model | Model Diagnostic | Lifetime Partners | Past 12 Months |
| Model 1 | DIC | 10008.06 | 2773.04 |
| Model 2 | DIC | 8996.94 | 2346.52 |
| Model 3 | DIC | 9000.03 | 2347.91 |
| Model 4 | DIC | 8996.98 | 2347.89 |

## Relationship between multiple sexual partners and sociodemographic factors

Table 3 displays the findings of the binary and survival models within the geo-additive framework for the linear impacts of these variables on multiple sexual partnering. This table displays the estimate of the odd ratio and its plausible range.

Findings indicate that young adults from rural areas are more likely than those from urban areas to have had several sexual partners in the past year and throughout their lifetime. In Nigeria, young adults who identify as Christians are around twice as likely as Muslims to have had several sexual partners both in the past year and overall in their total lifetimes. The Yoruba young adults are most likely to have been involved with multiple sexual partners within the last 12 months, while the Hausa young adults are least likely to have done so. The odds of young adults having multiple sexual partners within the last 12 months and, overall, also increase with education level.

Furthermore, the likelihood that a young adult will have had several sexual partners increases with age, and young people who made their sexual debut before the age of seventeen are more likely to have had multiple partners than those who had theirs late. Further research reveals that compared to young female adults, young male adults are nearly five times as likely to have had several sexual partners in the past year and overall. Because unmarried young adults were more likely to have several sexual partners both in the most recent year and throughout their lifetime, it is safe to claim that marriage is a healthy institution that helps to encourage safe sex.

Similarly, the internet influences safe sex as findings show that young adults with access to the internet have higher odds of engaging in multiple sexual partners within the last 12 months and total lifetime than young adults without access to the internet. Surprisingly, young adults aware of the danger of multiple sexual partnering (Sexually transmitted Diseases STIs are more likely to have engaged in multiple sexual partnering. The internet also has an impact on safe sex, as research has found that young adults with internet access are more likely to have had multiple sexual partners in the passing year and across their whole lives than young adults without it. Unexpectedly, young adults aware of the risks associated with numerous sexual encounters (STIs) are likelier to have participated in multiple sexual encounters.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |
| VARIABLES | Lifetime Partners | | | Past 12 Months | | |
| Odd Ratio | 95% Ci | | Odd Ratio | 95% Ci | |
| LCI | UCI | LCI | UCI |
| Intercept | 0.2146 | 0.094 | 0.4717 | 0.0157 | 0.0011 | 0.1351 |
| **Age** |  |  |  |  |  |  |
| 15-17 | 1 |  | | 1 |  | |
| 18-20 | 2.6677 | 2.1838 | 3.2684 | 1.5214 | 1.0242 | 2.3009 |
| 21-24 | 6.3167 | 5.1359 | 7.7937 | 2.9157 | 1.9543 | 4.4313 |
| **Sex debut** |  |  |  |  |  |  |
| < 15 | 1 |  | | 1 |  | |
| 15-17 | 0.6462 | 0.5591 | 0.7468 | 0.8659 | 0.6312 | 1.1985 |
| 18-20 | 0.2883 | 0.2423 | 0.3426 | 0.3661 | 0.2511 | 0.5351 |
| 20-21 | 0.0962 | 0.0703 | 0.1308 | 0.1055 | 0.0407 | 0.2399 |
| **Residential Area** |  |  |  |  |  |  |
| Urban | 1 |  |  | 1 |  |  |
| Rural | 0.9446 | 0.83 | 1.0752 | 0.8113 | 0.6247 | 1.054 |
| **Educational Status** |  |  |  |  |  |  |
| No education | 1 |  | | 1 |  | |
| Primary | 1.3325 | 1.0838 | 1.636 | 1.1512 | 0.619 | 2.1415 |
| Secondary | 1.5368 | 1.28 | 1.8447 | 1.1384 | 0.6761 | 1.9677 |
| Higher | 1.6684 | 1.2776 | 2.1777 | 1.3477 | 0.717 | 2.57 |
| **Religion** |  |  |  |  |  |  |
| Others | 1 |  | | 1 |  | |
| Christian | 4.0393 | 2.045 | 8.3918 | 1.2389 | 0.3833 | 5.0766 |
| Islam | 2.0789 | 1.0334 | 4.3913 | 0.6186 | 0.179 | 2.6832 |
| **Ethnic** |  |  |  |  |  |  |
| Others | 1 |  | | 1 |  | |
| Yoruba | 1.1022 | 0.8332 | 1.4577 | 1.2542 | 0.7199 | 2.2194 |
| Igbo | 0.7919 | 0.5968 | 1.0535 | 0.5898 | 0.3594 | 0.9549 |
| Hausa/Fulani | 0.5092 | 0.4089 | 0.6335 | 0.6573 | 0.3394 | 1.251 |
| **Internet** |  |  |  |  |  |  |
| No-internet | 1 |  |  | 1 |  |  |
| Internet | 1.0264 | 0.8799 | 1.197 | 1.1087 | 0.83 | 1.4777 |
| **Marital Status** |  |  |  |  |  |  |
| Never-married | 1 |  |  | 1 |  |  |
| Married | 0.6277 | 0.5476 | 0.7192 | 0.1457 | 0.0954 | 0.2175 |
| Seperated/Divorced | 1.3581 | 0.9765 | 1.8835 | 0.7925 | 0.3815 | 1.5149 |
| **STI** |  |  |  |  |  |  |
| No | 1 |  |  | 1 |  | |
| Yes | 1.1122 | 0.848 | 1.4677 | 8.561 | 1.5868 | 81.08 |
| **Gender** |  |  |  |  |  |  |
| Male | 1 |  | | 1 |  | |
| Female | 0.3108 | 0.2621 | 0.3681 | 0.1941 | 0.1498 | 0.2512 |

*Source: DHS survey, 2018*

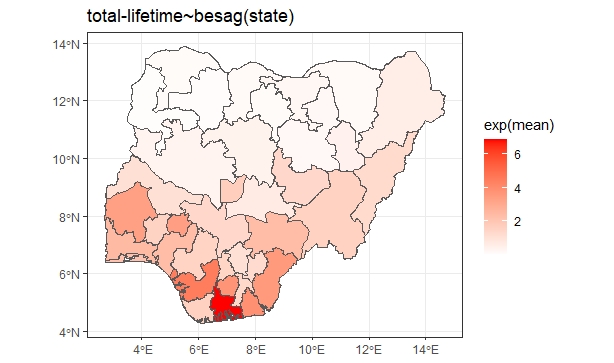
## Maps of Nigeria showing the spatial effects of multiple sexual partnering for the last 12 months and total lifetime.

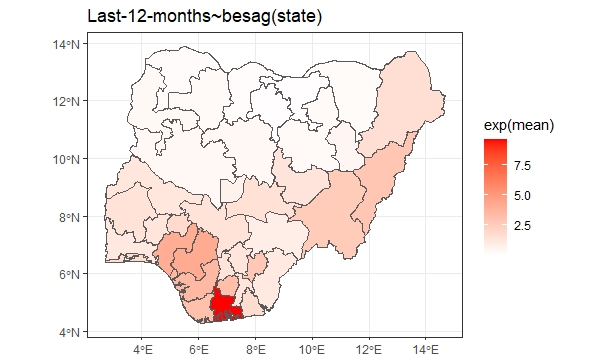
The figures below show the Bayesian Spatio-temporal effect of the multiple sexual partnering across Nigeria's states and geopolitical zones.

Without taking into account the linear effect of the covariates on the total number of sexual partners across a partner's lifetime, Figure 2a demonstrates that while young adults from Kebbi, Sokoto, Kano, Yobe, Bauchi, Katsina, and Zamfara have a negligible chance of engaging in multiple sexual partners compared to young adults from every other state in the nation, young adults from Rivers, Akwa-Ibom, Cross-River, Imo, Delta, Ekiti, Oyo, Ogun, Lagos, Ondo, and Benue states have a very high chance of engaging in the act.

The likelihood that young adults from the states of Taraba, Osun, FCT, Bayelsa, and Edo will commit the act is likewise high. The likelihood of multiple partners among young adults from Kwara, Adamawa, Plateau, Enugu, Ebonyi, and Abia is substantially less than average. Select states, like Borno, Gombe, Niger, Jigawa, Kaduna, and Nasarawa, are less likely to have multiple partners. Similarly, without considering the linear effect of the covariates on the number of sexual partners in the last 12 months, Fig. 3a shows that young adults from Rivers, Imo, Delta, Edo, Ebonyi, Taraba, Bayelsa, Ondo, and Adamawa states have a very high likelihood, while young adults from Sokoto, Kano, Katsina, and Jigawa have an insignificant chance of engaging in multiple sexual partnering compared to every other state in the nation.

Young adults from the states of Benue, Ebonyi, and FCT have a moderately low likelihood of having sex with more than one person. According to the spatiotemporal temporal map, a few states, including Gombe, Niger, Zamfara, Kebbi, Yobe, Bauchi, and Kaduna, are less likely to have many partners. We can also employ the Bayesian Spatio-Temporal Effect Rate for Nigeria's geopolitical regions. We can infer from the results that young adults in the South-West region have the highest likelihood of having had two or more sexual partners, followed by the North-West and South-South. In contrast, young adults in the South-East region have the lowest likelihood of having had two or more sexual partners in their lifetime, followed by the North-Central and then the North-East.





**Discussion of results.**

This study examined the factors associated with having multiple partners among young adults in Nigeria. The study shows that 89.9% of the respondents were females. This is not in agreement with the findings of Omisore et al. (2009), who reported that 54.5% of the respondents were male. Similarly, the result of this study shows that a huge part of the respondents was within the age group of 14-20 years. This agrees with the findings of Omisore et al. (2009), who reported that a large percentage of respondents in the study were between the ages of 15-24. This showed that young adults were mostly selected as participants in the survey. The results show that men are five times more likely to participate in multiple sexual partnerships in their lifetime and the last twelve months.

The result of this study/research agrees with previous findings from studies conducted in South Africa (Onoya et al., 2014) and sub-Saharan Africa (Oluwole et al., 2020), which found that men are more probable than women to have multiple sexual partners. It is also noted that younger men are more likely to report having more sexual partners than older men. The study also found that young adults between the ages of 18-24 are particularly likely to engage in multiple sexual partnerships, which is in line with the study of Onoya et al. (2014), who posed that people with many sexual partners are at a higher risk of contracting HIV. The study also found that respondents with higher levels of education had higher chances to participate in multiple sexual partnerships, which contradicts the findings of previous studies by Lawoyin and Larsen (2002). It was revealed from the study of Lawoyin and Larsen (2002) that men with little to no education are more likely to engage in extramarital sex. This discrepancy or variation may be because the earlier studies focused only on married men, whereas this study looked at both married and unmarried men and women.

Additionally, this study found that young adults with knowledge of STIs are more likely to engage in multiple sexual partnerships, consistent with the study of Ibrahim et al. (2013) and WHO (2006). Similarly, other research has found that people do not necessarily engage in safer sex after learning about their HIV status. The study suggests that poverty, urbanization, modernization, cultural shifts, and migration may influence the high rate of multiple sexual partnerships in Nigeria. Specifically, the study found that Yoruba young adults are particularly likely to have multiple sexual partners, which aligns with the cultural and traditional practices of the Yoruba people (Kelvin, 2019) in western Nigeria.

Findings from this research also show that the earlier young adults have their first sexual experience, the more probable they are to engage in multiple sexual partnerships, which is consistent with other research (Alawode et al., 2021) on adolescents in Nigeria. Furthermore, the study found that respondents who were never married were more likely to have multiple sexual partners than those who were married (Teshale et al., 2021) and that Christians engage in multiple sexual partnering than Muslims.

This work is not without limitations. Research on sensitive topics such as sexual behaviour and attitudes towards it can face several limitations that can affect the accuracy and reliability of the results. One of the main limitations is the issue of social desirability bias, where participants may provide socially acceptable responses rather than truthful ones to avoid judgment or stigmatization. This can lead to underreporting certain behaviours or attitudes that society may perceive as deviant or unacceptable. Additionally, some individuals may be reluctant to participate in studies on sensitive topics due to concerns about confidentiality and privacy, which can limit the sample size and representativeness of the data.

Another limitation is the difficulty in defining and measuring the variables of interest, as they may be subjective and culturally dependent. For instance, the definition of "multiple sexual partners" may vary across cultures and individuals, making comparing and interpreting results challenging. Moreover, using self-reported data on sensitive topics can be prone to recall bias, as participants may have difficulties remembering specific details or forgetting or misrepresenting certain events or behaviours. Studies on sensitive topics require careful consideration of potential limitations and strategies to minimize their impact, such as anonymous surveys and developing culturally appropriate and validated measures. However, these would not be potent enough to change the results materially. As with other cross-sectional studies, we cannot conclude causality from the results. Notwithstanding these issues, the study is a start in the right direction, and the conclusions can help develop new policies or implement existing ones.

## Conclusion

In conclusion, the study on multiple sexual partnering among young adults in Nigeria found that the male gender is more likely to engage in this behaviour than females, with young adults between the ages of 18-24 being particularly susceptible. Those with higher levels of education and knowledge of STIs were more likely to engage in multiple sexual partnering, while those who were married were less likely to do so. The high prevalence of poverty, urbanization, modernization, cultural shifts, and migration may be influencing factors in encouraging the prevalence of multiple sexual partnering in Nigeria instead of discouraging it.

Based on the findings made of this study, we would advise that Proper and adequate sexual education programs that focus on the risks and consequences of multiple sexual partnering, targeting young adults specifically, should be implemented. Governments, NGOs and other concerned bodies should ensure the provision of sexual health services to young adults, such as providing access to contraception and testing for STIs.

Furthermore, the government should appropriately address the underlying socioeconomic factors contributing to multiple sexual partnering among young adults, such as poverty and cultural shifts. Also, a future researcher should focus more on studying the rural part of the country in order to provide policies to combat sexually transmitted diseases through multiple partners.

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**Compliance with ethical standards**

**Conflict of interest**: The authors proclaims that they have no conflict of interest.

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