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*Research Article*

# Determinants of Sexual Behaviour among Out-of-School Adolescents in an Urban Setting in Ibadan, Nigeria

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**ABSTRACT**

This study investigated the determinants of sexual behavior among out-of-school adolescents in Ibadan, Nigeria. A cross-sectional study was conducted using a staged sampling technique to select 15-19years 400 out-of-school adolescents. Quantitative data was collected using an interviewer-administered semi-structured questionnaire. Analysis of data was carried out using descriptive and inferential statistics at a level of significance set at 95% confidence level. Mean age of respondents was 17.49 ± 0.06 years and lowest age at sexual debut was 13 years. Majority (67.8%) of respondents were exposed to movies and musicals that promote sexual activities. Less than half (46.3%) of respondents were encouraged by friends to engage in sexual activities while a majority (94.8%) engaged in unsafe sexual practice. There was a statistical significant association between age (p = 0.00), sex (p = 0.04), occupation (p = 0.01) and experience of sexual intercourse. Older respondents (OR= 8.29) and males (R= 0.68) were more likely to have had sexual intercourse. Most out-of-school adolescents were sexually active and majority engaged in unsafe sexual practices. The need for further expansion and strengthening of information and services to adolescents, particularly for the less accessible out-of-school ones, should be encouraged.

**Keywords:** *Out-of-school adolescents; sexual behaviors; sexual influencers; determinants.*

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## INTRODUCTION

As sexual behavior goes along with threat for unpleasant consequences such as sexual transmitted infections (STIs) and unplanned pregnancy, it is also one of the process of healthy growth of young persons to maturity (Kar *et al*., 2015). Late adolescents (15-19 years) especially deserves special attention as sexual debut and a process of testing usually happen during this teenage period (Dixon-Mueller, 2009). There are so many wrong beliefs about issues concerning adolescent sexuality and information they acquire from sources that are wrong; this may have dangerous effect on adolescent health and the nation as a whole (Famutimi and Oyedele, 2014). Adolescents get facts about reproductive and sexual health from a collection of informal sources including peers, magazines and pornographic materials. This unmonitored exposure often lead to unsafe behaviors which makes them vulnerable to unwanted pregnancies, STIs, or other sexual related infections (Adogu *et al*., 2014a).

Although young people aged fifteen to twenty-four years amount to about 20% of the population of Nigeria (CIA, 2018), estimates of prevalence and incidence suggest that youths within this age group constitute around half of the number of people who acquire new sexually transmitted diseases. In comparison with people of middle age, adolescents aged 15-19 years and youths aged 20-24 years who engage in sexual relationships have increased threats of sexual behavior related STIs, cultural milieu and biological reasons (CDC, 2017).

The Nigeria Demographic and Health Survey revealed that 23% and 19% females aged 15-19 years had already begun childbearing (NPC and ICF, 2014; NPC and ICF, 2019). Adolescents with no education represent about half of those who have begun childbearing, while only two percent of adolescents with more than a secondary education have begun childbearing (NPC and ICF, 2014). Out-of-school adolescents in Nigeria usually do not complete primary or secondary school or have no education. Delay in childbearing is more amongst teenagers with more than a secondary education than those who have had no education (NPC and ICF, 2019). In 2016, there were 20.3 births for every 1000 female adolescents aged 15-19 years; this increased worldwide to 44 per 1000 (WHO, 2018).

Adolescent years are a period of exposure to starting sex prematurely and engaging in unsafe sex most of the times (Envuladu *et al*., 2017). Most youths in Nigeria begin sexual activities when they are within the school age (Hallett &

Lopman, 2007) and female adolescents in Nigeria have great weight of reproductive and sexual health disparities that affects their wellbeing (Iwelunmor *et al*., 2017). The commonest consequences of adolescent sexual behaviors include - unplanned adolescent pregnancy, unsafe abortion, risky childbirth from sexual adventures, infections transmitted through sex and HIV/AIDS, premature death as a result of accidents, suicide, dangerous aftermath of violence, drug use and alcoholism etc (Famutimi & Oyetunde, 2014). The social learning theory suggests that contributory factors for sexual behavior exist not only within the individual level but looks at the dynamic linkage between the person, behavior and the associated environment. Out-of-school adolescents who live in an environment where sexual activities are rampant and acceptable with no regulations, have the opportunity to observe and learn from their sphere of influence (friends, peers, family and so on). These observations increase their expectations by modifying their values and perception of the practice thereby motivating them to engage in the sexual behaviors. Their self-efficacy or feeling of capability in disengaging with the practice can be enhanced by social support. Tenets of this theory were included in this study assessments.

This research was carried out among out-of-school adolescents in Ibadan, an urban city in Nigeria, and included variables from earlier studies focusing on sexual behaviors among adolescents (mostly in-school), risky sexual practices, safe sexual practices and factors promoting risky sexual practices were used to determine patterns of sexual behavior among this often-neglected group. The aim of this research is to add to extant of literature and suggest focus for development of approaches that could positively improve the attitudes of out-of-school adolescents concerning matters that relate to sex. This study aimed to investigate the determinants of sexual behavior among out-of-school adolescents which could help in designing effective training curriculums for organizing interventions that may assist in empowering out-of-school adolescents on sexual matters and decrease their risk-taking behaviors.

## MATERIALS AND METHODS

**Study design and population:** The research design was a cross-sectional survey with the use of interviewer-administered questionnaires to collect data from out-of-school adolescents. The study population consisted of out-of-school male and female adolescent artisans or who were presently learning a trade within the age of 15-19 years, in Ibadan city, Nigeria. Out-of-school adolescents aged 15-19 years who fit the inclusion criteria but were mentally or physically impaired, and including hearing or speech disabilities, were excluded from the study. In addition, those who did not give consent were also excluded.

**Sampling and participants' selection:** One local government area was randomly selected from the five local government area (LGAs) in Ibadan metropolis. Ten communities were randomly selected from this LGA. Eleven major artisan associations, which serve as informal training schools for out-of-school adolescents, were identified from these ten communities. These included hairdressers, tailors, chemists/patent medicine vendors, barbers, shoemakers, mechanics, welders, aluminium fabricators, electricians, mobile phone repairers and carpenters. Proportionate ratio was utilized in determining the number of adolescents selected from each artisan group. Four hundred adolescent artisans who met the criteria for inclusion and gave verbal consent to participate were interviewed.

**Data collection:** Data was collected using quantitative method and an interviewer-administered semi-structured questionnaire. Development of variables for the questionnaire was guided by the key constructs of the theoretical framework (social learning theory) and from literature review. Environment factors on sexual influencers included questions on exposure to films/movies and musicals that teach and promote sexual activities, access to books that promote sexual activities, laws/regulations that frown at adolescents engaging in sexual activities and community concern about sexual activities. Environment factors on observational learning included peer-influence and parental influence on sexual activities. Data were collected with the help of trained research assistants.

**Data analysis:**
All data collected were entered into IBM SPSS Statistics 21.0 for analysis. The results were presented as frequencies and percentages using tables. Inferential statistics such as correlational analysis, chi square and logistics regression were used to determine the statistical association and degree of relationship between variables. The level of significance ($\alpha$) was set at 95% confidence level.

**Ethical consideration:** Ethical approval to carry out the study was sought and granted before data collection. Verbal informed consent was gotten from the participants and taking part in the study was voluntary. No identifiers such as name of respondents was required and all information provided were kept confidential.

## RESULTS

**Demographic Characteristics:** The respondents were within the age of 15-19 years with a mean age of $17.49 \pm 0.06$ years. There were more females (55.5%) and majority (97.8%) of the respondents were single. The respondents were all artisans with less than a third (32.3%) of them tailors. Majority (71.8%) of the parents of the respondents live together, less than half (47.8%) of the respondents live with their parents. More than half (56.0%) of the respondents are not free to discuss sex with the person they live with but rather majority (75.0%) discuss with friends and most of them (72.3%) have friends that are sexually active. Majority (82.8%) of respondents have a boyfriend or girlfriend.

### Determinants of sexual behaviour

**Sexual relationships:** Many (64.8%) of the respondents had had sexual intercourse; there were more females (51.7%) than males (48.3%). The mean age of sexual debut was 10.33 and

many (56.3%) of the respondents had been sexually active in the previous year. Over a third (36.8%) of sexually active adolescents had a single partner, while others had multiple partners ranging from 2-10. Less than a third (22.5%) of respondents had become pregnant or impregnated someone and 17.3% of these aborted the pregnancy. Majority (85.8%) of the respondents were sexually attracted to opposite sex, few (4.8%) of them were attracted to the same sex, while 9.5% were attracted to both opposite sex and same sex. One-third (33%) of the respondents reported to have strong sexual urge, with more females (57.6%) reporting this.

**Table 1:**
Chi-square and Binary logistics test of association between age of respondents and experience of sexual intercourse

| Variables | Ever had sex | | Chi-square test | | |
|---|---|---|---|---|---|
| | Yes | No | Value | Df | p-value |
| **Age** | | | | | |
| 15 years old | 14 (5.4%) | 22 (15.6%) | 43.981 | 5 | 0.000 |
| 16 years old | 38 (14.7%) | 33 (23.4%) | | | |
| 17 years old | 35 (13.5%) | 37 (26.2%) | | | |
| 18 years old | 71 (27.4%) | 30 (21.3%) | | | |
| 19 years old | 100 (38.6%) | 19 (13.5%) | | | |
| **Total** | 258 | 141 | | | |
| **Age** | **Df** | **OR** | **CI** | | **p-value** |
| 16 years old | 1 | 2.31 | 1.20 – 4.45 | | 0.012 |
| 17 years old | 1 | 5.61 | 2.85 – 11.04 | | 0.000 |
| 18 years old | 1 | 4.35 | 2.30 – 8.6 | | 0.000 |
| 19 years old | 1 | 8.29 | 3.6 – 19.07 | | 0.000 |

**Table 2:**
Chi-square and Binary logistics test of association between sex of respondents and experience of sexual intercourse

| Variables | | Ever had sex | | Chi-square test | | |
|---|---|---|---|---|---|---|
| | | Yes | No | Value | Df | p-value |
| **Sex** | Male | 125 (48.3%) | 53 (37.6%) | | | |
| | Female | 134 (51.7%) | 88 (62.4%) | 4.212 | 1 | 0.040 |
| | **Total** | 259 | 141 | | | |
| | **Age** | **Df** | **OR** | **CI** | | **p-value** |
| | Male | 1 | 0.646 | 0.43 – 0.98 | | 0.041 |

**Table 3:**
Chi square test of association between occupation of respondents and experience of sexual intercourse

| Variables | Ever had sex | | Chi-square | P-value |
|---|---|---|---|---|
| | Yes | No | | |
| **Occupation** | | | | |
| Hairdresser | 58 (22.4%) | 29 (20.6%) | | |
| Tailor | 87 (33.6%) | 42 (29.8%) | | |
| Chemist | 20 (7.7%) | 30 (21.3%) | | |
| Barber | 27 (10.4%) | 11 (7.8%) | **21.567** | **0.017** |
| Shoemaker | 10 (3.9%) | 9 (6.4%) | | |
| Mechanic | 23 (8.9%) | 6 (4.3%) | | |
| Welder | 6 (2.3%) | 1 (0.7%) | | |
| Aluminium fabricator | 10 (3.9%) | 5 (3.5%) | | |
| Electrician | 9 (3.5%) | 5 (3.5%) | | |
| Mobile phone repair | 6 (2.3%) | 3 (2.1%) | | |
| Carpenter | 3 (1.2%) | 0 (0.0%) | | |

There was a statistically significant relationship between age of respondents and experience of sexual intercourse ($X^2$ = 43.981, p = 0.000) (see Table 1). Binary logistics results showed that 19-year-old adolescents were most likely to have had sexual intercourse (OR = 8.29, CI= 3.6-19.07) than any other group (Table 1). Chi square analysis results revealed that there was a significant association between sex of respondents and experience of sexual intercourse $X^2$ = 4.212 (p = 0.040) (Table 2). Binary logistics regression showed that males are more likely to have had sexual intercourse (OR = 0.646, CI= 0.43-0.98) than females (Table 2). Results showed that there was a statistically significant association between occupation of respondents and experience of sexual intercourse $X^2$ = 21.567 (p = 0.017) (Table 3).

**Table 4:**
Binary logistic regression analysis to determine the independent variable that had more significant influence on experience of sexual intercourse

| | Df | OR | CI | p-value |
|---|---|---|---|---|
| **Age** | | | | |
| 16 years old | 1 | 2.31 | 1.20 – 4.45 | 0.012 |
| 17 years old | 1 | 5.61 | 2.85 – 11.04 | 0.000 |
| 18 years old | 1 | 4.35 | 2.30 – 8.6 | 0.000 |
| 19 years old | 1 | 8.29 | 3.6 – 19.07 | 0.000 |
| **Gender** | | | | |
| Male | 1 | 0.684 | 0.44 – 1.07 | 0.097 |

Binary logistic regression analysis to determine the independent variable that had more significant influence on experience of sexual intercourse showed that older respondents (OR= 8.29, CI= 3.6-19.07) and males (OR= 0.684, CI= 0.44-1.07) have higher odds of ever having sex (Table 4).

**Table 5:**
Correlation analysis of factors influencing patterns of sexual behavior among respondents

| | | Risky sexual practices | Safe sexual practices |
|---|---|---|---|
| **Environmental Factors** | | | |
| I am exposed to films/movies and musicals that teach and promote sexual activities | Pearson Correlation | -0.299 | -0.037 |
| | Sig. (2-tailed) | 0.000 | 0.464 |
| | N | 400 | 400 |
| I always have access to books that promote sexual activities | Pearson Correlation | -0.331 | -0.058 |
| | Sig. (2-tailed) | 0.000 | 0.247 |
| | N | 400 | 400 |
| There are laws/regulations that frown at adolescents engaging in sexual activities | Pearson Correlation | 0.120 | -0.12 |
| | Sig. (2-tailed) | 0.016 | 0.011 |
| | N | 400 | 400 |
| My community cares about my sexual activities | Pearson Correlation | 0.155 | -0.193 |
| | Sig. (2-tailed) | 0.002 | 0.000 |
| | N | 400 | 400 |
| I engage in sexual activities to get money to take care of myself | Pearson Correlation | -0.259 | -0.060 |
| | Sig. (2-tailed) | 0.000 | 0.229 |
| | N | 400 | 400 |
| I give my partner money to have sex with me | Pearson Correlation | -0.322 | 0.040 |
| | Sig. (2-tailed) | 0.000 | 0.426 |
| | N | 400 | 400 |
| **Observational Learning** | | | |
| I engage in sexual activities because I see my friends do it | Pearson Correlation | -0.391 | 0.079 |
| | Sig. (2-tailed) | 0.000 | 0.113 |
| | N | 400 | 400 |
| I engage in sexual activities because I see my parents do it | Pearson Correlation | -0.231 | 0.086 |
| | Sig. (2-tailed) | 0.000 | 0.086 |
| | N | 400 | 400 |
| My friends encourage me to engage in sexual activities | Pearson Correlation | -0.370 | 0.111 |
| | Sig. (2-tailed) | 0.000 | 0.026 |
| | N | 400 | 400 |
| I engage in sexual activities because my siblings encourage me to | Pearson Correlation | -0.205 | -0.043 |
| | Sig. (2-tailed) | 0.000 | 0.392 |
| | N | 400 | 400 |
| My family will frown at it if they get to find out that I am already engaged in sexual activities | Pearson Correlation | 0.288 | -0.128 |
| | Sig. (2-tailed) | 0.000 | 0.010 |
| | N | 400 | 400 |

**Sexual protection:** Among respondents that have had sexual intercourse before, more than half (55.3%) use contraceptives methods which includes abstinence (1.3%), condom (39.3%), coitus interruptus (2%), oral pills (11.8%) and injectable (1%). Less than half (45.5%) of respondents used contraceptive for their last sexual intercourse and condom was used more (31.8%) than other contraceptive methods. Less than half (47.3%) of respondents had not used contraceptives in the past 12months. Less than a third (28.8%) of the respondents always abstain from sexual activities, while 43.8% abstain from sexual intercourse when they lack knowledge of their partners' sexual history and 49.5% abstain from sexual intercourse when they have irritation or sores in their genital area.
Less than a third (23%) always insist on condom use, 47.3% stop foreplay for a time long enough to put on a condom and 45.3% do carry condom with them when they know that they may have sexual intercourse. About a third of respondents (33.8%) always introduce the topic of safer sex with their prospective sexual partners and only 24.6% of respondents usually get screened for sexual transmitted infections (STIs).
Less than a third (30.3%) of respondents have been coerced by someone to engage in sexual intercourse while 23.3% have forced someone to engage in sexual intercourse with them. More than a third (37.1%) have had sexual intercourse on a first outing and 49.1% have had sexual intercourse without using condom. Less than a third (32.6%) do engage in oral sex without the use of condom or rubber dam and 26.3% engage in anal sex. Less than a third of respondents have had sexual intercourse during drug intoxication (21.8%) and have had sexual intercourse under the influence of alcohol (28.1%).

**Sexual influencers: Environmental factors:** Majority (67.8%) of respondents were exposed to movies and musicals that teach and promote sexual activities and more than half (53.3%) had access to books that promote sexual activities. Less than half (40.8%) reported that there are no laws that frown at adolescents engaging in sexual activities and 47.8% said their community do not care about their sexual activities. Few (15.5%) of the respondents engaged in sexual activities in order to get money to take care of themselves while 13.3% gave their sexual partners money in order to have sex with them.

**Sexual influencers: Observational learning:** Less than half of respondents are (46.3%) are encouraged by friends to engage in sexual activities and 29.8% engaged in sexual activities because they observe their friends doing it. Only 6.5% of respondents engaged in sexual activities because they see their parents do it and majority (80.3%) of respondents said that their family will frown at it if they get to know that they are already engaged in sexual activities.

**Correlational analysis of factors influencing patterns of sexual behaviour:** Table 5 shows the correlational analysis of factors influencing patterns of sexual behaviour among respondents. Result revealed that environmental factors such as exposure to film/movies and musicals (-0.299), access to books that promote sexual activities (-0.331) and involving in sexual activities to get money (-0.259) had negative influence on risky sexual behaviour. Availability of laws/regulations (0.120) and care from community members about respondents' sexual activities (0.155) had positive influence on risky sexual behaviour. Observational learning such as engaging in sexual activities because friends are seen doing it (-0.391), engaging in sexual activities because parents are seen doing it (-0.231), encouragement from friends to engage in sexual activities (-0.370) and engaging in sexual activities due to encouragement from siblings (-0.205) had negative

influence on risky sexual behaviour while family members frowning if they are aware that respondents engage in sexual activities (0.288) had a positive influence on risky sexual behaviour.

## DISCUSSION

Most of the respondents' parents live together and but less than half of the respondents live with their parents. This result was in contrast with that of a survey carried out in Anambra State which reported that more than half of the out-of-school females lived mostly with family members, a parent, acquaintances and lover (Adogu *et al*., 2014a). Many of this study participants discuss sexual matters with friends. Similarly, Wang et. al. (2007) found that adolescents prefers speaking to their friends concerning sexual issues. Most of the respondents have friends that are sexually active and majority of them have a boy/girlfriend. This was corroborated by another study (Olanrewaju and Bamidele, 2015).

This study findings revealed that most of the participants have had coitus. The result agrees with an earlier study by Envuladu *et al* (2017) among adolescents where about half of the respondents are in sexual relationship. The age range at initiation of sexual intercourse found in this study, 13 and 19 years respectively corroborates the study of Doyle *et al* (2012) on the patterns and trends of adolescents' sexual behavior in sub-Saharan Africa, in which about 25% of 15-19 year olds have had sex before age 15. Furthermore, it validates the findings of a research carried out in Nigeria which showed that eighty percent of respondents had had sex before 18years of age and only fifteen percent of the respondents had their sexual initiation at about nineteen years and above (Ugal and Floral, 2015).

Most of the respondents in this study have been sexually active in the previous year, more than a third of the respondents have a single partner and maximum number of sexual partners reported was 8-10; these results show an active sexual life among these adolescents. Findings on condom use as higher form of contraceptives among study participants is supported by studies conducted earlier that found that the commonest method of contraception known to out-of-school adolescents as condom (Adogu *et al*, 2014b; Ugal and Floral, 2015).

Less than a third engage in oral sex without the use of condom or rubber dam and less than a third engage in anal sex. This is supported by earlier studies that revealed that the types of sexual activity practised by the sexually experienced adolescents were vagina, oral and anal sex (Morhason-Bello *et al*, 2008; Hafsa, 2012). Also, few of respondents have coitus under the intoxication of hard drugs or alcohol. This is supported by a previous study that said alcohol intake is associated with casual sexual intercourse (Oyediran *et al*, 2010).

Most of the respondents have access to books and musicals that promote sexual activities, higher proportion of respondents are exposed to movies and musicals that teach and promote sexual activities. This is supported by a survey carried out by Fatusi & Blum (2008) which reported that exposure to television has a mutual relationship with early beginning of sex. Also, foreign films and locally produced movies have been identified as a causal agent for involvement in first sex, particularly for males (Ankomah *et al*, 2011). Less than a third of respondents engage in sexual activities because they see their friends do it and about half of the participants reported that they are encouraged by friends to be involved in sexual activities. This is supported by the findings of Morhason-Bello *et al* (2008) that most adolescents first learnt about sex from their friends.

Study findings on statistical significant relationship between age, gender and experience of sexual intercourse was corroborated in by Envuladu *et al*., (2013) and Salako *et al*.,(2006), which reported that older adolescents and more males were found to be more sexually active than younger adolescents and females. Other previous studies also supports these (Alemu et. al, 2007; Olanrewaju and Bamidele, 2015).

In conclusion, this study has revealed that most adolescents that are out-of-school are sexually energetic, and a substantial majority engage in risky sexual activities. Environmental factors such as peer influence their decisions concerning the kind of sexual behaviors they adopt. All sectors, including parents, media, religious organizations, health-care providers, policy makers and community establishments have roles to play in promoting healthy sexuality. The implication of this study is that there is need for governments both at the federal and state levels to place sanctions on sexual provoking media messages. Peer-training sexual health education programs is encouraged for these group of adolescents. Efforts should also be made to provide qualitative accessible and affordable adolescent-friendly reproductive health services to young people at community level where concrete health education programs will be designed for out-of-school adolescents to enhance their awareness on sexual matters, encourage refrain from sexual acts and enhance conducts that lessen sexual peril.

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