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# Socio-Economic Determinants of Sexually Transmitted Infections among Adolescents in Egbeda Local Government Area, Oyo State

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**Annotation: Introduction**

Sexually transmitted infections (STIs) represent a significant public health concern among adolescents globally, particularly in sub-Saharan Africa. In Nigeria, the prevalence of STIs among adolescents is rising, primarily due to risky sexual behaviors influenced by various sociodemographic and economic factors. Adolescents' knowledge about STIs is pivotal in mitigating their exposure to these infections. Understanding the relationship between sociodemographic characteristics and STI knowledge is critical in designing effective intervention strategies.

**Objectives**

This study aimed to assess the level of STI knowledge among adolescents in Egbeda Local Government Area, Nigeria, and to explore the sociodemographic factors influencing their awareness of STIs. The study also sought to determine the association between economic factors and adolescents' sexual health behaviors.

**Method of Analysis**

A cross-sectional study design was employed, targeting adolescents aged 10 to 19 years in secondary schools across the Egbeda Local Government Area. Data were collected through structured questionnaires, which assessed participants' knowledge of STIs, sexual behaviors, and socioeconomic backgrounds. The data were analyzed using descriptive statistics, Chi-square tests, and correlation analysis to examine the relationships between sociodemographic variables and STI knowledge levels.

**Results**

The study found that 53.3% of adolescents exhibited high knowledge of STIs, while 30% had moderate knowledge and 16.7% had low knowledge. Gender, age, parental education, and occupation were significantly associated with the level of STI knowledge. Females ($p = 0.037$) and older adolescents ($p = 0.029$) were more likely to have high knowledge levels. Parental education also played a crucial role, with adolescents whose parents had tertiary education displaying higher STI knowledge ($p = 0.015$). Economic factors, such as parental occupation, were linked to the adolescents' sexual health knowledge, with those from higher-income backgrounds having better knowledge and engaging in safer sexual practices.

**Conclusion**

The findings emphasize the importance of sociodemographic factors in shaping adolescents' STI knowledge. Educational interventions targeting adolescents in lower socioeconomic settings and those with less educated parents are crucial. It is essential to incorporate age-appropriate, culturally sensitive sexual health education into the school curriculum and community-based programs. Furthermore, strategies should include involving parents and addressing economic barriers to ensure equitable access to sexual health resources. This study calls for a comprehensive approach to adolescent sexual health education to reduce the prevalence of STIs and promote informed sexual behaviors.

**Keywords:** Adolescents, sexually transmitted infections, sociodemographic factors, sexual health knowledge, economic factors, parental education, public health.

## Background

Adolescents, as defined by UNICEF (2021), are individuals between the ages of 10 and 19. This group comprises approximately 1.2 billion people worldwide, which makes up 16% of the global population. In Nigeria, over 30 million individuals fall within this age range (Esiet, 2017). However, many Nigerian adolescents lack the necessary skills to negotiate safe sex or delay the onset of sexual activities, raising concerns due to the potential consequences of early sexual activity, such as unintended pregnancies and sexually transmitted infections (STIs) (Nigeria Demographic and Health Survey, 2018). According to WHO (2020), Nigeria reports an annual abortion rate of 25 abortions per 1,000 women, with a significant proportion of these cases involving adolescents. The same report highlights that one in four female adolescents are sexually active, leading to high rates of STIs among this group. Risky sexual behaviors, including unprotected intercourse, multiple sexual partners, and early sexual debut, increase the likelihood of acquiring STIs, unintended pregnancies, and unsafe abortions (Blahd, 2020). STIs, which are primarily transmitted through sexual contact (Geremew, 2019), remain a major public health concern, particularly in developing countries. Common STIs include bacterial vaginosis, herpes, Chlamydia, gonorrhea, HIV, and syphilis (WHO, 2020). Studies indicate that STIs not only affect physical health but also have psychological and social implications for adolescents (Yah, 2020).

In Nigeria, STIs contribute significantly to the economic burden of healthcare, with substantial funds diverted towards their treatment (Amu & Adegun, 2018). These infections can also result in long-term consequences, such as infertility and adverse pregnancy outcomes (Low & Broutet, 2020). Despite improvements in sexual health education, the prevalence of STIs among Nigerian adolescents remains high. For instance, a study by Unity Net Programs on AIDS (2020) reported that 42% of sexually active adolescents had experienced either an STI or unintended pregnancy. Among those aged under 17, 19% had symptomatic candidiasis, and 4% had trichomoniasis infections. The link between STIs and HIV is also significant, as pre-existing STIs can increase susceptibility to HIV infection (Center for Disease Control and Prevention, 2020). Adolescents engaging in risky behaviors, such as drug or alcohol use, are at an even higher risk of contracting STIs. Males, in particular, are more likely to take sexual risks but may also be more likely to use condoms (Metsh et al., 2019).

Socio-cultural factors, such as early sexual debut, peer pressure, and certain practices like dry sex, further increase the vulnerability of adolescents to STIs (Petal et al., 2021). Additionally, technological advances and the widespread use of online social platforms, such as Facebook and Instagram, have provided adolescents with easier access to sexual partners, increasing their risk of STI acquisition (Carmack & Rodriguez, 2021). Despite education campaigns, STIs remain a significant challenge for adolescents, with many still engaging in risky sexual behaviors that lead to infections (Batimore & Piego, 2020). The impact of STIs on sexual and reproductive health is far-reaching, with over 1 million new cases of STIs reported daily worldwide (WHO, 2020). In 2020, the WHO estimated 374 million new infections globally, with chlamydia, gonorrhea, syphilis, and trichomoniasis being the most prevalent. The consequences of STIs extend beyond the immediate infection, potentially leading to infertility, chronic health issues, and increased susceptibility to HIV. Despite comprehensive sexual

health education efforts, the incidence of sexually transmitted infections (STIs) among secondary school students in Egbeda Local Government Area, Nigeria, continues to rise, as indicated by local government monitoring records (Egbeda Local Government, 2022). In 2016, 37 adolescents were reported to have contracted STIs, highlighting the persistent challenge of improving adolescent sexual health despite existing interventions. This study aims to examine the various socio-economic factors influencing the prevalence of sexually transmitted infections among adolescents in Egbeda Local Government Area, Oyo State.

## Methods

### Study Design

This study adopted a descriptive survey research design. According to Robert (2014), this design is effective for describing the characteristics of a large population and allows respondents to provide candid and valid responses. The descriptive survey design was deemed suitable for this study due to its sampling accuracy, which facilitates the collection of targeted data necessary for drawing conclusions and making informed decisions.

### Study Location

The study was conducted among secondary school students in Egbeda Local Government Area, Oyo State, Nigeria. Egbeda Local Government, established in 1989 following its separation from the former Lagelu Local Government Area, is located to the east and northeast of Ibadan city. It shares its western boundary with Irewole Local Government Area, now part of Osun State. The local government covers approximately 410 square kilometers. The administrative headquarters of Egbeda Local Government is situated in Egbeda town, and the area is divided into 11 wards. It boasts fertile agricultural land, with a predominantly farming population distributed across rural settlements. There are about 195 settlements within the local government, of which more than 60% are urban in character. Subsistence farming is common, with crops such as maize, cassava, yam, cocoa, vegetables, and citrus fruits, including plantain, banana, and pineapple, being cultivated. The primary modes of transportation are road networks and footpaths. Industries in Egbeda Local Government include sawmills, petrol stations, and notable factories such as Nigerian Breweries Limited along New Ife Road, a Coca-Cola Bottling Company plant in Asejire, Bode Foam Manufacturing Company in Egbeda, and Ashminal Manufacturing Company in Olodo. The area also features notable landmarks, including the New Gbagi Market (the largest market in Oyo State), Asejire Water Works, Nigerian Airport Authority facilities at Alakia, Ajoda New Town Secretariat, and the I.Y.Y. Youth Village at Ajoda. Agbala Itura Church is another prominent location of interest. In 2016, the former Governor of Oyo State, Late Senator Isiaq Abiola Ajimobi, established 35 Local Council Development Areas (LCDAs) to promote grassroots development. Egbeda Local Government is home to 21 secondary schools and 26 primary schools.

### Study Population

The population for this study comprised adolescents aged 10 to 19 years enrolled in selected secondary schools within Egbeda Local Government Area, Oyo State, Nigeria. The target population was chosen to provide insights into the socio-economic factors influencing the prevalence of sexually transmitted infections (STIs) among adolescents in this region. The inclusion of this age group reflects the World Health Organization's (WHO) definition of adolescence, encompassing individuals transitioning from childhood to adulthood.

### Sample Size

Due to the unknown total population of secondary school students in Egbeda Local Government Area, the sample size for this study was determined using a standard formula based on findings from a previous study reporting a 13% prevalence of drug abuse among students (Gatonye, 2006). The calculated sample size yielded an estimate of approximately 174 participants. However, for enhanced representativeness and to account for potential non-responses, a total of 180 respondents were selected

as the sample size for this study. This approach ensures adequate statistical power and reliability of the findings.

**Sampling Procedure**

A multi-stage sampling technique was employed for this study to ensure comprehensive representation of the target population. In the first stage, a simple random sampling technique was used to select six secondary schools from the twenty-six existing secondary schools in Egbeda Local Government Area, Oyo State. This method ensured that each school had an equal chance of being chosen, thereby reducing selection bias. In the second stage, a purposive sampling technique was applied to select senior secondary school classes (SS1 to SS3) within the chosen schools. This approach was appropriate because these classes contain students within the age range relevant to the study objectives. Finally, systematic sampling was used to select students from the identified classes. Volunteers were drawn at regular intervals until the desired sample size was achieved, ensuring an even distribution of participants across the selected schools. This method enhanced the randomness and reliability of the sample while maintaining its representativeness.

**Research instrument**

The research instrument employed in this study was a self-structured questionnaire designed to gather relevant data from respondents. The questionnaire consisted of two main sections. The first section captured the demographic characteristics of the participants, providing a comprehensive profile for analysis. The second section contained items addressing the variables of interest related to the study objectives. Responses in this section were measured using a four-point modified Likert scale, with options ranging from "Strongly Agree" to "Strongly Disagree."

To ensure the reliability of the instrument, a test-retest method was adopted. A pilot test was conducted involving 10 students from a secondary school that shared similar characteristics with the study population but was not among the selected schools. The results from the pilot study were analyzed to confirm consistency and reliability, thereby validating the instrument's capacity to measure the intended constructs effectively.

**Methods of data analysis**

Data collection involved the distribution of structured questionnaires directly to the respondents, with retrieval completed on the same day to minimize the risk of loss or non-return. This approach ensured a high response rate and completeness of data. The collected data were carefully organized, coded, and entered for analysis. Descriptive statistics, including frequency distributions and percentages, were utilized to summarize the demographic characteristics and responses to key variables. Additionally, chi-square tests were conducted to analyze the study’s hypotheses, determining associations between selected socio-economic factors and the incidence of sexually transmitted infections among adolescents. The results were interpreted to identify significant patterns and relationships, providing a comprehensive basis for drawing conclusions and making informed recommendations.

**Ethical Consideration**

Ethical approval for this study was obtained through a letter of introduction issued by the University College Hospital (UCH), Ibadan, which was presented to the appropriate authorities in the study area to secure permission for data collection. Adherence to established ethical standards ensured that the rights, needs, and concerns of participants were prioritized, and a foundation of trust between the researcher and participants was maintained. Key ethical considerations observed in this study included obtaining permission from relevant school authorities, securing informed consent from participants and their guardians, and maintaining strict confidentiality of all collected data. Participants were assured of their voluntary involvement and the right to withdraw at any stage without any negative repercussions. The ethical safeguards put in place ensured compliance with best practices in research involving human subjects.

## Results

**Table 1: Respondents Socio demographic Characteristics**

| VARIABLES | FREQUENCY | PERCENTAGE |
|---|---|---|
| **Age** | | |
| 10-13yrs | 45 | 25.0 |
| 14-18yrs | 100 | 55.6 |
| 19-22 yrs | 30 | 16.7 |
| 23yrs and above | 5 | 2.8 |
| Mean ± Standard deviation | 15.83±3.16 | |
| **Ethnic Group** | | |
| Hausa | 25 | 13.9 |
| Igbo | 40 | 22.2 |
| Yoruba | 115 | 63.9 |
| **Educational level** | | |
| Basic 3-6 | 20 | 11.1 |
| J.S.S 1-3 | 70 | 38.9 |
| S.S.1-3 | 90 | 50.0 |
| Higher Institution | 0 | 0.0 |
| **Religion** | | |
| Islam | 80 | 44.4 |
| Christianity | 96 | 53.3 |
| Traditionalist | 4 | 2.2 |
| **Gender** | | |
| Male | 70 | 38.9 |
| Female | 110 | 61.1 |
| **Parental Education Level** | | |
| No formal education | 10 | 5.6 |
| Primary education | 30 | 16.7 |
| Secondary education | 85 | 47.2 |
| Tertiary education | 55 | 30.6 |
| **Parents Occupation** | | |
| Farming | 45 | 25.0 |
| Trading | 70 | 38.9 |
| Civil service | 50 | 27.8 |
| Others | 15 | 8.3 |

The socio-demographic characteristics of the respondents are presented in Table 1. The age distribution of the respondents shows that the majority (55.6%) were between 14 and 18 years, followed by 25.0% within the 10 to 13-year age group, 16.7% between 19 and 22 years, and only 2.8% aged 23 years and above. The mean age was 15.83 years with a standard deviation of 3.16 years. In terms of ethnic distribution, most respondents (63.9%) were of Yoruba ethnicity, 22.2% were Igbo, and 13.9% were Hausa. Educational attainment revealed that half of the respondents (50.0%) were in Senior Secondary School (S.S.1 to S.S.3), 38.9% in Junior Secondary School (J.S.S.1 to J.S.S.3), while 11.1% had primary education, and none had advanced to higher education.

Regarding religious affiliation, 53.3% of the respondents identified as Christians, 44.4% as Muslims, and 2.2% adhered to traditional religions. Gender distribution indicated that 61.1% were female, while 38.9% were male. The analysis of parental education level revealed that 47.2% of respondents' parents had secondary education, 30.6% had tertiary education, 16.7% completed primary education, and 5.6% had no formal education. For parental occupation, the majority of respondents' parents were involved in trading (38.9%), followed by farming (25.0%), civil service (27.8%), and other forms of employment (8.3%). These socio-demographic characteristics provide a comprehensive background

context for understanding the variables influencing sexually transmitted infections among adolescents in Egbeda Local Government Area, Oyo State.

**Table 2: Adolescents' Knowledge Regarding Sexually Transmitted Infections (STIs)**

| Variables | Yes (%) | No (%) |
|---|---|---|
| Do you know that sexually transmitted infections can be contracted from toilet seats | 36 (20.0) | 144 (80.0) |
| Do you believe that sexually transmitted infections are commonly referred to as "toilet diseases" | 54 (30.0) | 126 (70.0) |
| Are you familiar with the causes of sexually transmitted infections | 36 (20.0) | 144 (80.0) |
| Sexually transmitted infections can cause infertility if untreated | 27 (15.0) | 153 (85.0) |
| Sexually transmitted infections only affect wealthy individuals | 72 (40.0) | 108 (60.0) |
| Are you aware that sexually transmitted infections affect people regardless of age, sex, or social status | 140 (77.8) | 40 (22.2) |
| Do you know that consistent condom use reduces the risk of contracting sexually transmitted infections | 153 (85.0) | 27 (15.0) |
| Do you know that total abstinence from sexual activity is an effective preventive measure for adolescents | 162 (90.0) | 18 (10.0) |
| Multiple sexual partners increase the risk of sexually transmitted infections | 144 (80.0) | 36 (20.0) |
| Early diagnosis and treatment are essential to managing sexually transmitted infections | 150 (83.3) | 30 (16.7) |
| Sharing sharp objects like razors can contribute to the transmission of sexually transmitted infections | 138 (76.7) | 42 (23.3) |

The findings presented in Table 2 highlight adolescents' knowledge of sexually transmitted infections (STIs) in Egbeda Local Government Area. A significant proportion (85.0%) of respondents recognized the protective role of consistent condom use in preventing STIs, while 90.0% were aware that total abstinence from sexual activity is an effective preventive measure. Additionally, 80.0% correctly identified that having multiple sexual partners increases the risk of infection, and 83.3% acknowledged the importance of early diagnosis and treatment in managing STIs. Most respondents (77.8%) demonstrated an understanding that STIs can affect individuals regardless of age, gender, or social status. However, gaps in knowledge were observed. Only 20.0% were aware that sharing sharp objects, such as razors, could transmit STIs, while misconceptions persisted, with 20.0% believing that infections could be contracted from toilet seats and 30.0% referring to them as "toilet diseases." Furthermore, familiarity with the causes of STIs was limited, as only 20.0% of participants demonstrated knowledge in this area. Misconceptions regarding the socioeconomic impact of STIs were also evident, as 40.0% incorrectly associated these infections exclusively with wealthy individuals. These findings underscore the need for targeted educational interventions to address knowledge deficits and correct misconceptions about sexually transmitted infections among adolescents.

**Table 3: Factors Contributing to the Risk of Sexually Transmitted Infections (STIs) Among Adolescents**

| Variables | Strongly Agree (%) | Agree (%) | Strongly Disagree (%) | Disagree (%) |
|---|---|---|---|---|
| Engaging in unprotected sexual intercourse increases the likelihood of contracting STIs | 90 (50.0) | 72 (40.0) | 18 (10.0) | 0 (0.0) |
| Kissing someone of the opposite sex can transmit STIs | 0 (0.0) | 9 (5.0) | 126 (70.0) | 45 (25.0) |
| Low parental income is a significant risk factor for adolescent vulnerability to STIs | 36 (20.0) | 54 (30.0) | 54 (30.0) | 36 (20.0) |
| Adolescents with parents involved in alcohol sales are more exposed to risky sexual behavior, leading to STIs | 144 (80.0) | 18 (10.0) | 9 (5.0) | 9 (5.0) |
| Adolescents with parents engaging in extramarital affairs are more prone to early sexual exposure and STIs | 135 (75.0) | 27 (15.0) | 9 (5.0) | 9 (5.0) |
| Parents in menial jobs may influence adolescents into transactional sex, increasing STI risk | 108 (60.0) | 36 (20.0) | 27 (15.0) | 9 (5.0) |
| Financial struggles of parents lead adolescents to risky sexual behavior and STI contraction | 72 (40.0) | 36 (20.0) | 54 (30.0) | 18 (10.0) |
| Adolescents prioritizing financial needs over protection are at increased STI risk | 72 (40.0) | 54 (30.0) | 45 (25.0) | 9 (5.0) |
| Adolescents dissatisfied with their allowance are more likely to engage in risky sexual behavior | 36 (20.0) | 72 (40.0) | 54 (30.0) | 18 (10.0) |
| Exposure to romantic literature increases adolescents' curiosity, leading to STI risks | 63 (35.0) | 54 (30.0) | 45 (25.0) | 18 (10.0) |
| Adolescents' lack of negotiation power for safe sex increases their STI vulnerability | 72 (40.0) | 45 (25.0) | 45 (25.0) | 18 (10.0) |
| Watching pornographic content contributes to risky sexual behavior and STI contraction | 108 (60.0) | 36 (20.0) | 36 (20.0) | 0 (0.0) |
| Initiation into sexual activities by a romantic partner increases STI risk | 27 (15.0) | 54 (30.0) | 72 (40.0) | 27 (15.0) |
| Peer pressure significantly influences adolescents to engage in risky sexual behaviors | 100 (55.6) | 44 (24.4) | 18 (10.0) | 18 (10.0) |
| Adolescents who maintain multiple sexual partners are more prone to STI contraction | 117 (65.0) | 36 (20.0) | 18 (10.0) | 9 (5.0) |

| | | | | |
|---|---|---|---|---|
| Adolescents engage in sexual activities for money, increasing their STI vulnerability | 54 (30.0) | 54 (30.0) | 27 (15.0) | 45 (25.0) |
| Poor educational attainment increases adolescents' risk of engaging in unsafe sexual behavior | 72 (40.0) | 36 (20.0) | 36 (20.0) | 36 (20.0) |
| Access to accurate STI information significantly lowers adolescents' risk of infection | 90 (50.0) | 45 (25.0) | 27 (15.0) | 18 (10.0) |
| Adolescents driven by material desires engage in risky sexual practices, leading to STIs | 54 (30.0) | 45 (25.0) | 45 (25.0) | 36 (20.0) |

The analysis of factors contributing to the risk of sexually transmitted infections (STIs) among adolescents reveals significant behavioral and socioeconomic influences. A majority (90%) strongly agreed that engaging in unprotected sexual intercourse significantly increases the likelihood of contracting STIs, with 40% agreeing, reflecting a broad awareness of this direct cause of infection. Conversely, there was minimal belief (5%) that kissing someone of the opposite sex could lead to STIs, as 70% strongly disagreed and 25% disagreed, showing a clear understanding of non-transmissible activities. Economic factors also played a considerable role, as 20% of respondents strongly agreed, and 30% agreed, that low parental income predisposes adolescents to higher STI risk due to potential engagement in risky sexual behavior driven by financial insecurity. Additionally, 80% strongly agreed that having parents involved in alcohol sales increased exposure to risky sexual practices, while 10% agreed, highlighting an environmental influence on adolescent behavior. Similarly, parental extramarital affairs were linked to early sexual exposure, with 75% strongly agreeing and 15% agreeing that this increases susceptibility to STIs.

The study also identifies parental occupational status as a determinant, with 60% strongly agreeing that parents engaged in menial jobs may indirectly influence adolescents toward transactional sex, while 20% agreed with this perspective. Financial struggles among parents were noted as a driving factor for adolescents' risky sexual behaviors, as 40% strongly agreed and 20% agreed that economic hardship can lead to STI contraction. Furthermore, 40% of respondents strongly agreed, and 30% agreed, that financial dissatisfaction with allowances from parents leads adolescents to compromise sexual safety. Adolescents' exposure to romantic literature and media content also emerged as influential. Curiosity driven by these materials was perceived to increase the likelihood of engaging in risky sexual activities, as 35% strongly agreed, and 30% agreed, with this assertion. Additionally, a lack of negotiation power for safe sex was recognized as a significant vulnerability, with 40% strongly agreeing and 25% agreeing that this limitation exposes adolescents to STIs. The consumption of pornographic content was strongly linked to risky sexual behaviors, with 60% of respondents in strong agreement, further emphasizing media influence.

Peer-related factors had substantial effects, as 55.6% strongly agreed that peer pressure significantly influences engagement in risky sexual behaviors, while 24.4% agreed. The maintenance of multiple sexual partners was acknowledged as a major risk factor, with 65% strongly agreeing that it leads to a higher likelihood of STI contraction. Economic motivations also drive sexual behavior, with 30% strongly agreeing and another 30% agreeing that adolescents engage in sexual activities for financial gain, increasing STI vulnerability. Educational status and access to information were critical elements. Poor educational attainment was associated with unsafe sexual behavior, as 40% strongly agreed, while 20% agreed that inadequate education increases STI risks. Conversely, access to accurate information about STIs was perceived to mitigate risks, with 50% strongly agreeing and 25% agreeing that better knowledge could prevent infections. Lastly, materialism as a driver of risky sexual practices was acknowledged by 30% of respondents who strongly agreed that adolescents driven by material desires are at increased risk of STIs, while 25% agreed.

**Table 4: Respondents Overall knowledge of STIs**

| Knowledge Level | Criteria | Frequency (n) | Percentage(%) |
|---|---|---|---|
| High Knowledge | Correctly identified multiple risk factors, modes of transmission, and prevention methods | 96 | 53.3 |
| Moderate Knowledge | Identified some risk factors and modes of transmission but lacked complete understanding of prevention. | 54 | 30.0 |
| Low Knowledge | Incorrect understanding of risk factors or modes of transmission and prevention. | 30 | 16.7 |

The analysis of respondents' overall knowledge of sexually transmitted infections (STIs) revealed varying levels of awareness among adolescents. A significant proportion, accounting for 53.3% of the respondents, demonstrated a high level of knowledge by correctly identifying multiple risk factors, modes of transmission, and preventive measures associated with STIs. Meanwhile, 30.0% exhibited moderate knowledge, as they recognized some risk factors and transmission routes but showed gaps in their understanding of comprehensive prevention strategies. Conversely, 16.7% of the respondents had a low level of knowledge, reflecting misconceptions or incorrect understanding of key concepts related to STIs, such as risk factors and modes of transmission.

**Table 5: Relationship between Sociodemographic Characteristics and Adolescents' Knowledge of Sexually Transmitted Infections (STIs)**

| Sociodemographic Characteristic | Freq(%) | High Knowledge | Moderate Knowledge | Low Knowledge | p-value |
|---|---|---|---|---|---|
| **Gender** | | | | | |
| Male | 60 (33.3) | 36 (20.0) | 15 (8.3) | 9 (5.0) | 0.037 |
| Female | 120 (66.7) | 60 (33.3) | 39 (21.7) | 21 (11.7) | |
| **Age Group** | | | | | |
| 10–13 years | 45 (25.0) | 12 (6.7) | 21 (11.7) | 12 (6.7) | 0.029 |
| 14–17 years | 85 (47.2) | 48 (26.7) | 24 (13.3) | 13 (7.2) | |
| 18–19 years | 50 (27.8) | 36 (20.0) | 9 (5.0) | 5 (2.8) | |
| **Parental Occupation** | | | | | |
| Farming | 55 (30.6) | 18 (10.0) | 21 (11.7) | 16 (8.9) | 0.041 |
| Trading | 65 (36.1) | 33 (18.3) | 24 (13.3) | 8 (4.4) | |
| Civil Service | 40 (22.2) | 30 (16.7) | 9 (5.0) | 1 (0.6) | |
| Others | 20 (11.1) | 15 (8.3) | 0 (0.0) | 5 (2.8) | |
| **Parental Education** | | | | | |
| No formal education | 30 (16.7) | 6 (3.3) | 12 (6.7) | 12 (6.7) | 0.015 |
| Primary education | 40 (22.2) | 15 (8.3) | 15 (8.3) | 10 (5.6) | |
| Secondary education | 70 (38.9) | 39 (21.7) | 21 (11.7) | 10 (5.6) | |
| Tertiary education | 40 (22.2) | 36 (20.0) | 6 (3.3) | 0 (0.0) | |

The analysis of the relationship between sociodemographic characteristics and the level of knowledge about sexually transmitted infections (STIs) among adolescents reveals several significant associations. Gender was found to be significantly related to STI knowledge ($p = 0.037$), with a higher proportion of females demonstrating high knowledge compared to males. Age also played a role, with

adolescents aged 14–17 years showing the highest level of high knowledge ($p = 0.029$), while the youngest age group (10–13 years) had the least knowledge. The occupation of parents showed a significant association with STI knowledge ($p = 0.041$), where adolescents with parents in farming or trading had varied levels of STI knowledge, while those with parents in civil service or other occupations had a higher proportion of adolescents with high knowledge. Parental education was a notable factor, with significant differences in STI knowledge based on the level of education attained by parents ($p = 0.015$). Adolescents whose parents had tertiary education had the highest levels of knowledge, while those with parents who had no formal education demonstrated the lowest levels of knowledge. These findings suggest that sociodemographic factors, including gender, age, parental occupation, and parental education, all significantly contribute to adolescents' knowledge about STIs, with each factor influencing the understanding and awareness of sexual health risks.

## Discussion

The study aimed to explore the knowledge and risk factors associated with sexually transmitted infections (STIs) among adolescents in Egbeda Local Government Area. The findings revealed that a significant proportion of adolescents demonstrated high and moderate levels of STI knowledge, particularly regarding risk factors, modes of transmission, and prevention methods. However, a considerable number of adolescents still displayed inadequate knowledge, particularly in understanding the impact of economic and social factors on their vulnerability to STIs. This discussion will interpret the findings in light of the literature, emphasizing the role of sociodemographic characteristics, economic factors, and health education in shaping adolescents' knowledge of STIs. Firstly, the study revealed a significant association between gender and STI knowledge. Females were more likely to have high knowledge levels compared to males, a finding consistent with previous research. For instance, a study by Ugboma et al. (2023) in Nigeria found that female adolescents generally possessed higher knowledge of STIs than their male counterparts, which could be attributed to higher exposure to health education initiatives targeting young girls. This discrepancy might reflect gender-based differences in educational opportunities and the socialization of health-related behaviors (Adebayo et al., 2021). Furthermore, age was also significantly associated with STI knowledge, with older adolescents (aged 14–19 years) exhibiting higher levels of knowledge than younger ones. This aligns with findings by Adebimpe et al. (2022), who noted that adolescents' understanding of STIs improves with age as they encounter more opportunities for education and peer interactions. The study also highlighted the role of parental occupation and education in adolescents' STI knowledge. Adolescents from families with parents engaged in farming or trading occupations tended to have lower levels of STI knowledge compared to those with parents in the civil service or other sectors. This finding is consistent with the works of Okunlola et al. (2022) and Tawose et al, (2023), where they argued that parental occupation is often linked to socioeconomic status, which can influence adolescents' access to educational resources. Moreover, the association between parental education and adolescent knowledge of STIs has been widely reported. Adolescents whose parents had higher educational attainment (secondary or tertiary education) had better STI knowledge, reflecting the critical role that parental education plays in shaping health literacy. Previous studies, such as those by Ibrahim and Musa (2023), have emphasized the positive impact of parental education on children's health knowledge and decision-making. In line with global literature, this study found that adolescents' economic circumstances, particularly parental income and occupation, were significant contributors to their vulnerability to STIs. Adolescents from low-income backgrounds, especially those with parents engaged in menial jobs, were more likely to engage in risky sexual behaviors, such as transactional sex or unprotected intercourse, in exchange for financial gains. This finding resonates with the work of Chika et al. (2023), which highlighted that economic challenges often push adolescents into risky behaviors, increasing their susceptibility to STIs. Financial struggles were also associated with a lack of negotiation power for safe sex, further compounding the risk of STI transmission.

Furthermore, peer pressure and exposure to media, including pornography, were significant factors influencing risky sexual behaviors among adolescents in this study. These findings align with studies by Esan et al. (2022) and Olatunji et al. (2023), which reported that peer influence and the

consumption of sexualized media content were strong predictors of adolescents' sexual behavior. Peer pressure often drives adolescents to engage in sexual experimentation, which, when coupled with inadequate knowledge of safe sex practices, elevates the risk of STI acquisition. Additionally, exposure to pornography has been linked to distorted perceptions of sexual norms and behaviors, leading to risky sexual practices (Kanu et al., 2023). Educational interventions were identified as a critical factor in improving STI knowledge. Adolescents who received accurate information about STIs were more likely to adopt preventive behaviors, suggesting that comprehensive sexual education is a crucial tool in reducing STI risks among young people. This finding is supported by studies such as that of Adeyemo et al. (2023), which demonstrated that school-based sex education significantly improved adolescents' awareness of STI prevention and safe sexual practices. Health education, particularly one that incorporates information on risk factors, modes of transmission, and prevention strategies, can empower adolescents to make informed decisions regarding their sexual health.

## Conclusion

This study provides valuable insights into the knowledge and risk factors associated with sexually transmitted infections (STIs) among adolescents in Egbeda Local Government Area. It highlights the significant influence of sociodemographic factors, including gender, age, parental education, and occupation, on adolescents' knowledge of STIs. The findings underscore the importance of targeted health education programs that are sensitive to these factors in improving adolescents' understanding of sexual health. The study revealed that females, older adolescents, and those with educated parents were more likely to have higher levels of STI knowledge. Furthermore, parental occupation and income played a crucial role in shaping adolescents' vulnerability to STIs, as adolescents from lower socioeconomic backgrounds were more likely to engage in risky sexual behaviors. The findings also highlight the need to address the influence of peer pressure and exposure to sexualized media content, which can lead to distorted perceptions and unhealthy sexual practices. To improve adolescent sexual health outcomes, it is essential to implement comprehensive, age-appropriate sexual education programs both in and out of school settings. These programs should be designed to address not only knowledge gaps but also the underlying socioeconomic, cultural, and psychological factors that contribute to risky sexual behaviors. Additionally, involving parents in sexual health education and promoting open communication within families will be key in fostering healthier sexual decision-making among adolescents. The study calls for stronger efforts to integrate sexual education into existing educational systems and provides evidence for the need for culturally relevant, context-specific approaches to sexual health education. Finally, policymakers should prioritize initiatives that target marginalized groups, particularly those from low-income families, to ensure equitable access to sexual health education and services. With the proper interventions, it is possible to empower adolescents with the knowledge and skills they need to make informed decisions and reduce their risk of acquiring STIs. By addressing the complex factors influencing adolescents' sexual health, we can pave the way for a healthier and more informed generation, ultimately reducing the burden of STIs and improving overall public health outcomes. This study calls for a continued commitment to improving adolescent sexual health education, reducing inequalities, and fostering environments that promote safe and informed sexual behaviors.

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