INFLUENCE OF EXPOSURE TO ONLINE SEXUAL CONTENT ON THE SEXUAL BEHAVIOUR OF YOUTHS IN UGBOWO, BENIN CITY.

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DECLARATION

We hereby declare that this project, titled '**Influence of Exposure to Online Sexual Content on the Sexual Behaviour of Youths in Ugbowo, Benin City, Edo State.'** will be conducted under supervision and has not been submitted in parts or in full for any purpose.

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DEDICATION

We dedicate this project to Almighty God for his grace towards us which sustained us and enabled us to successfully complete this project. We also dedicate this project to our respective families who relentlessly supported us spiritually, financially and morally. This work is also dedicated to our teacher who guided us throughout the course of this project, Prof. (Mrs.) E.O. Ogboghodo.

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I wish to express my heartfelt appreciation to my Mother, Ms Mercy Emesiri Akpe who has covered me with her love, prayers and unwavering support. Your firm belief in me has kept me all these years. Mrs Grace Akpe,who has been a mother to me in every way. Thank you for your unconditional love and support. I am deeply thankful to my siblings, Treasure Ozavisa Asemah, for being a light in dark days, Dr Marylyn Romewhun Akpovi and husband Engr Akpovi, who also supported me in many ways throughout this project with their love, words of encouragement and financial support.

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LIST OF ABBREVIATIONS

CASI: Computer Assisted Self Interviews

FGDs: Focused Group Discussions

GPA: Grade Point Averages

HRSB: High-risk Sexual Behaviors

IDIs: In-Depth Interviews

ISST: Internet Sex Screening Text

NPC: National Population Commission

NPMV: Nigerian Popular Music Videos

OSA: Online Sexual Activity

OSC: Online Sexual Content

RSB: Risky Sexual Behavior

SEM: Sexually Explicit Materials

SHAPE: Sexual Health Assessment of Practice and Experiences

STI: Sexually Transmitted Infection

UNAIDS: United Nations Programme on AIDS

UNICEF: United Nations Children's Fund

WHO: World Health Organization

DEFINITION OF TERMS

Online sexual activity: any behavior involving the use of the internet or social media for sexual purposes, including viewing, creating, sharing, or interacting with sexually explicit content, as well as engaging in sexual communication or seeking sexual partners online.

Online sexual content: material available on the internet that depicts or describes sexual acts, nudity, or sexually suggestive themes, which may be created, shared, or consumed through social media platforms for purposes of entertainment, education, or sexual stimulation.

Risky sexual behaviour: any sexual activity that increases the risk of acquiring sexually transmitted infections (STI) and unwanted pregnancies.

Sexually explicit materials: any visual, verbal, or written content that depicts or describes sexual acts, nudity, or sexual themes in a manner intended to cause sexual arousal or gratification.

Social media: a broad category or genre of communications media which occasion or enable social interaction among groups of people, whether they are known to each other or strangers, localized in the same place or geographically dispersed.

Youth: a period of transition between the ages of 15 and 24 years, from the dependence of childhood to adulthood's independence.

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND

Communication is a fundamental aspect of human existence, shaping how individuals understand and perceive the world. In the early years, older methods of communication, such as cave paintings, smoke signals, symbolic telegraphs, and written correspondence facilitated interaction within societies. In recent decades, communication methods have evolved rapidly to include television, mobile phones, the internet, email, text messaging, and social media[1].

Social media encompasses online platforms and tools that enable individuals to communicate, share content, and connect with others[1]. These computer-mediated interactive tools facilitate the development and exchange of knowledge, concepts, and various forms of expression within online communities and networks[1]. Currently, social media is a vital part of daily life for many individuals worldwide, serving as a medium for communication, collaboration, and the creation and dissemination of user-generated content[1]. Over the past decade, social media usage has increased substantially, with millions of users worldwide now engaged.

Globally, social media platforms have attracted over 2 billion users, with daily usage rates continuing to rise. On average, internet users maintain eight distinct social media accounts[2]. Studies indicate that messaging applications such as Facebook Messenger, WhatsApp, YouTube, Snapchat, Instagram, and WeChat are expanding at a faster rate than traditional media outlets, including television and radio[2].

Approximately 37% of Africa's population utilizes social media, with around 200 million Facebook subscribers across the continent; 17 million are based in Nigeria and 16 million in

South Africa[3]. Internet usage in sub-Saharan Africa remains the lowest globally, with a median rate of 41% across six countries, including Nigeria, Kenya, Ghana, Senegal, South Africa, and Tanzania[4]. Studies indicate that Nigeria had 92.3 million internet users in 2018, a figure projected to reach 187.8 million by 2023. Notably, 63% of Nigerian youth use social media, with most accessing the internet via mobile phones5. The most widely used platforms include Facebook, Twitter, Instagram, YouTube, TikTok, and WhatsApp[1].

The internet has become an integral component of daily life for most individuals. Its influence intensified during the onset of the COVID-19 pandemic in early 2020, when government policies mandated remote work and study[6]. Advances in information and communication technology, particularly the internet, have provided significant benefits, including facilitating communication, information sharing, business operations, and entertainment[2].

While the internet has enhanced convenience for many, the vast availability of information and ease of content access can pose disadvantages, particularly for users lacking the cognitive maturity to critically evaluate and utilize information. This vulnerability is most pronounced among teenagers and young adults[6].

Early youth represents a rapid developmental phase, marking the transition from childhood to adulthood. This period is characterized by significant physical and neurohormonal changes, with biological maturity sometimes preceding psychosocial maturity[7]. Behaviors such as risk-taking, exploration, sensation seeking, social interaction, and play often emerge during this stage. Additionally, this is a critical period for exploring and understanding sexuality. Sexual curiosity can lead to exposure to pornography, engagement in sexual activities, and increased vulnerability to sexual abuse. Multiple factors, including physical maturation, psychological influences, social dynamics, cultural norms, and prior experiences, shape sexual behavior during this time.

Currently, advancements in internet technology and social integration have influenced young people's attitudes and perceptions regarding sexuality. The extensive availability of sexual content online significantly impacts sexual behavior. Furthermore, place of residence serves as a predictor of sexual behavior; a recent study found that young males in urban areas are 2.6 times more likely to engage in high-risk sexual behavior than those in suburban areas[8].

Social media has facilitated interpersonal connections across distances, but the increased accessibility of digital platforms has transformed information sharing and consumption. While the internet offers educational and awareness opportunities, unrestricted access to diverse online content, including sexual material, may significantly influence youths' perceptions, attitudes, and engagement in sexual activities, particularly in urban centres such as Benin City, which has a large youth population. This exposure can contribute to risky sexual behaviors, early sexual initiation, and unhealthy perceptions of sexuality. For instance, although premarital sexuality remains taboo in many Nigerian families, platforms such as TikTok, Twitter (X), and WhatsApp, which are widely used by Nigerian youths, often normalise casual relationships and risky sexual practices. This dynamic creates an environment where social exposure may alter perceptions of consent, gender roles, and safe sexual practices, a gap inadequately addressed by current public health structures in Nigeria.

Nigeria's diverse cultural and religious landscape results in varying perspectives on sexuality across different regions. While some states implement comprehensive sexual education programs, others avoid addressing these topics. This inconsistency can leave young people without adequate guidance regarding sexual health and relationships, particularly when exposed to substantial online sexual content. Without proper education, distinguishing between healthy relationships and unrealistic online portrayals becomes challenging. Social media can normalise

certain behaviours, influencing youths' perceptions of intimacy and relationships. Where school-based sexual education exists, it often emphasises abstinence, prompting youths to seek information from online sources that may prioritise sensationalism over accuracy.

Social media generates more internet traffic among Nigerian undergraduates than any other service, with sex-related activities serving as a significant attraction. The desire for admiration, affection, and social connection motivates many undergraduates to remain active on these platforms[9]. Social media offers an environment conducive to expressing and discussing various aspects of sexuality, often without parental or familial oversight. Research indicates that social media influences youth behaviour, particularly among undergraduates, with both positive and negative effects. The minimum admission age for Nigerian tertiary institutions is 16-17 years, meaning many undergraduates are adolescents susceptible to peer and social pressures. Typically, these students live independently, lacking parental guidance, and the university environment, combined with technology use for academic purposes, increases their exposure to risky online activities[1,10].

Risky sexual behavior is rising rapidly among undergraduates, with social media use implicated due to increased exposure to online sexual content[1,6]. Social media platforms facilitate the transmission of various types of information, including content related to substance abuse, sexual risk, and violence, exposing undergraduates to potentially harmful material. This trend has fueled public debate over whether social media causes more harm than good for young adults[10]. Despite this concern, there is limited research on the extent to which youths engage with such content. While some studies have explored the influence of social media on undergraduate behavior, few specifically examine its impact on sexual behavior[1].

Sexual behavior encompasses actions undertaken to satisfy sexual needs[11]. Among youths, these behaviors range from penetrative acts to activities intended to arouse sexual interest in others. The manner in which sexual activities are practiced, whether intentionally or not, can result in negative consequences, indicating varying levels of risk. Individuals may engage in solitary activities, such as masturbation, or partnered activities, including sexual intercourse, non-penetrative sex, and oral sex, with differing frequencies and motivations[12]. The risk associated with sexual behavior depends on both the individual and the nature of the activity. For example, sexual activities between non-coupled youths are considered high-risk due to the potential for adverse health outcomes, including injury, pregnancy, abortion, or infection. The increased accessibility of internet services, particularly during the COVID-19 pandemic and the shift to virtual learning and business networking, has led to greater social media use among youths.

Increased reliance on social media, which often contains uncensored sexual material, has heightened youths' vulnerability to high-risk sexual behaviors (HRSB), defined as actions that deviate from societal norms[12]. HRSB includes having multiple sexual partners, inconsistent or absent condom use, and engaging in sexual activity under the influence of substances[9]. Without appropriate interventions, these unsafe behaviors elevate the risk of HIV, other sexually transmitted infections (STIs), and unintended pregnancies[9,13].

1.2 STATEMENT OF THE PROBLEM

Nigeria is facing a silent sexual health crisis among its youth. With 63% of the population under 25 and internet penetration at 55%, a generation is increasingly exposed to online sexual content (OSC), resulting in severe consequences[14]. Evidence indicates that Nigerian adolescents initiate sexual activity at a median age of 15.6 years, only 42% report consistent condom use, and chlamydia prevalence among those under 25 has reached 18%[15]. Despite these critical indicators, comprehensive research into the underlying drivers of this epidemic, particularly the influence of social exposure, remains insufficient.

The widespread availability of affordable smartphones and data plans has removed traditional barriers to internet access, resulting in exposure of even secondary school students to pornography, hyper-sexualised social media, and unregulated dating applications. This increased digital exposure is associated with adverse sexual health outcomes: Nigerian youth now account for 60% of new HIV infections globally, and rates of sexually transmitted infections, unintended pregnancies, unsafe abortions, and maternal mortality continue to rise[12]. The 15-25 age group disproportionately experiences poor sexual and reproductive health outcomes, yet remains underserved by existing prevention and intervention programs.

Observed behavioral patterns among youth indicate engagement in multiple high-risk practices, including early sexual debut, multiple concurrent partners, inconsistent condom use, substance use during sexual encounters, and experimentation with non-traditional sexual practices such as anal and oral sex. Notably, many young people underestimate their vulnerability to negative outcomes despite these behaviors. This misperception, combined with impaired judgment due to alcohol and drug use, increases the risk of disease transmission and unintended pregnancies.

University students encounter compounded risks as newly independent young adults. They face peer pressure, economic instability, and limited access to youth-friendly health services[11]. In many semi-urban academic communities, the presence of cybercafés near campuses enables unrestricted access to OSC. Additionally, entrenched cultural taboos inhibit open dialogue about sexual health, resulting in reliance on pornography rather than credible health education.

Family structure further influences risk. Youths from single-parent or blended households initiate sexual activity significantly earlier than peers from intact two-parent families. Protective factors that may delay sexual debut, such as parental closeness, clear disapproval of early sex, and positive peer networks, are increasingly absent in Nigeria's rapidly urbanizing communities[16].

The research gap is glaring. Despite overwhelming evidence of crisis, existing studies focus predominantly on secondary school students, almost entirely neglecting undergraduates and young adults who face distinct pressures and risk contexts. No comprehensive study has examined how online sexual content exposure specifically drives risky sexual behavior among youth in semi-urban academic communities. Without understanding these digital-age drivers how OSC interacts with family structure, peer influence, economic precarity, and cultural factors interventions remain guesswork rather than evidence-based strategy.

This knowledge gap has tangible consequences, including teen pregnancies that disrupt educational trajectories, HIV infections that result in lifelong health challenges, unsafe abortions that threaten the lives of young women, and preventable sexual health crises that undermine the potential of an entire generation. Youth communities in Nigeria, particularly those in academic institutions, require targeted research to inform interventions capable of interrupting these adverse patterns.

1.3 JUSTIFICATION OF THE STUDY

While social media enhances educational access and knowledge-sharing, its pervasive use among Nigerian youths has also facilitated unprecedented exposure to explicit sexual content, correlating with risky behaviors like early sexual debut, unprotected sex, and STI transmission. In Nigeria, 67% of adolescents encounter pornography online, with higher rates in urban academic hubs like Ugbowo, Benin City, where internet access is widespread yet sexual health education remains inadequate[17]. Despite rising public health crises, including a 22% chlamydia prevalence and 15.6 median age of sexual debut among under-25s[18,19], the specific relationship of social media consumption to sexual behavior in semi-urban Nigerian contexts remain underexplored. Existing studies disproportionately focus on Western or generalized African populations, neglecting localized sociocultural dynamics (e.g., Edo cultural norms, cybercafé accessibility) that mediate social exposure.

This study addresses this gap by investigating how social media platforms (such as TikTok, Instagram, and WhatsApp) influence sexual behaviors among youths aged 15-24 in Ugbowo. The analysis focuses on three dimensions: content exposure (including types and frequency of sexual content accessed), behavioral changes and outcomes (such as links to multiple partners, transactional sex, or low condom use), and the influence of cultural or social factors, including peer pressure, parental oversight, and economic instability.

The findings of this research will inform targeted interventions, including social literacy programs and youth-friendly sexual health policies, to reduce risks while leveraging the educational potential of social media. By focusing on Ugbowo, the study prioritizes localized insights that are essential for addressing Nigeria’s unique epidemiological and cultural landscape.

1.4 RESEARCH QUESTIONS

1. What is the knowledge of online sexual content among youths in Ugbowo, Benin City?
2. What is the prevalence of exposure to online sexual content among youths in Ugbowo, Benin City?
3. Which platforms (such as social media or pornography sites) and types of content (explicit or educational) are most frequently accessed by youth?
4. What are the patterns of OSC exposure, and how do they relate to sexual behaviors such as early sexual debut, multiple partners, and inconsistent condom use?
5. Does exposure to OSC influence attitude toward consent, gender roles, or sexual health risks among youths?
6. To what extent do peer or economic pressures and social media facilitate engagement with OSC and subsequent risk-taking behaviors?

1.5 AIMS AND OBJECTIVES

1.5.1 GENERAL OBJECTIVES

This research aims to assess the extent of exposure to online sexual content among youths in Ugbowo, identify behavioral patterns influenced by such content, and assess the implications for public health interventions.

1.5.2 SPECIFIC OBJECTIVES

1. To assess the knowledge of online sexual content among youths in Ugbowo, Benin City.
2. To assess the attitude of youths toward online sexual content and its perceived social acceptability among youths in Ugbowo, Benin City.
3. To determine the prevalence and patterns of online sexual content accessed by youths in Ugbowo, Benin City.
4. To assess the influence of exposure to online sexual content on sexual initiation and practices among youths in Ugbowo, Benin City.

CHAPTER TWO

LITERATURE REVIEW

2.1 CONCEPTUAL FRAMEWORK

The conceptual framework for this study outlines the potential influence of exposure to online sexual content on the sexual behaviour of youths in Ugbowo. Grounded in Social Learning Theory[20] and Cultivation Theory[21], the framework proposes that youths internalize behaviours, attitudes, and expectations observed in digital environments, especially when such exposure is frequent, unregulated, or reinforced by peers[22,23].

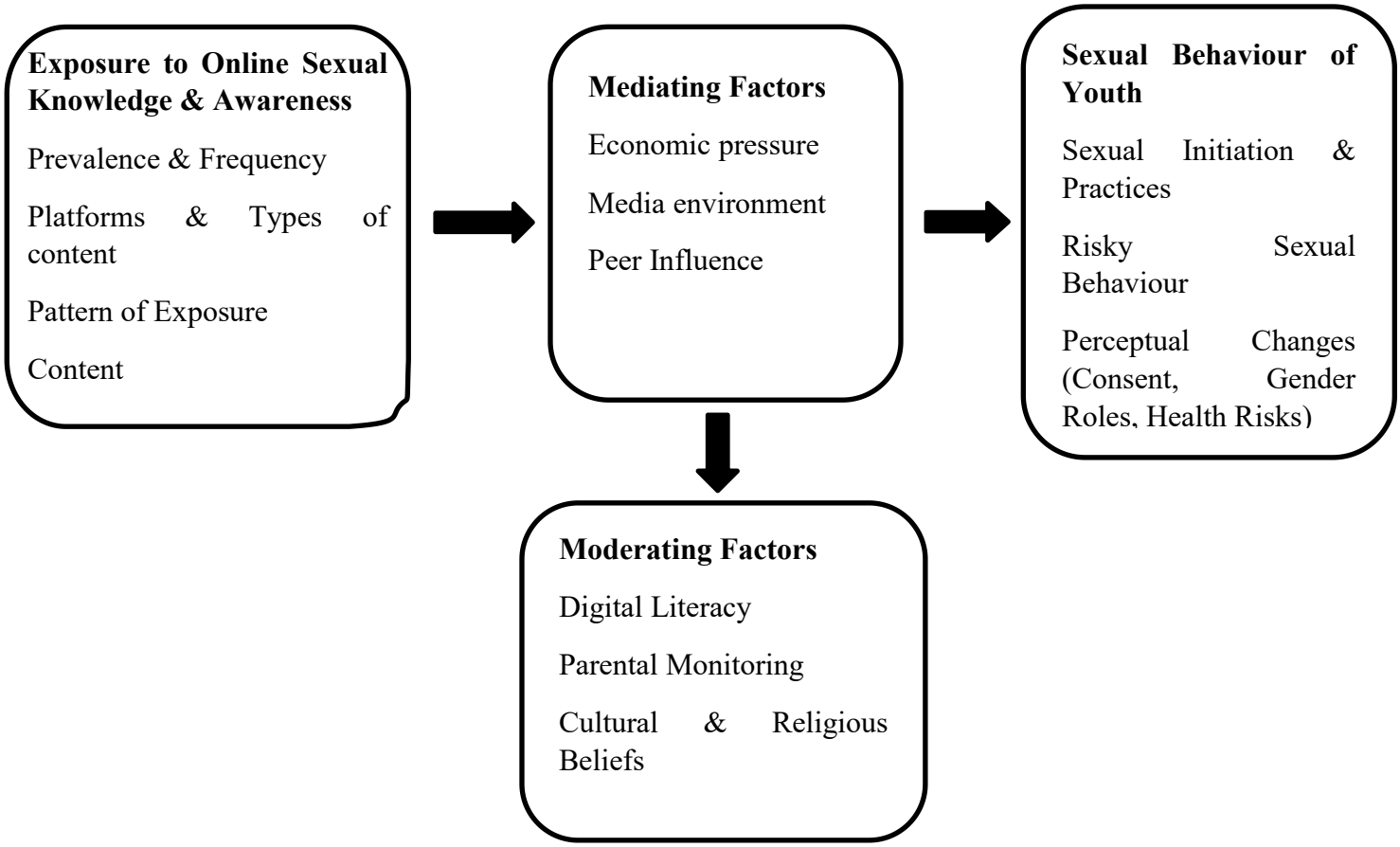

Figure 1: Influence of Exposure to Online Sexual Content on the Sexual Behaviour of Youths in Ugbowo

Sexual behaviour of youth is the dependent variable which may be reflected through indicators such as sexual debut, number of partners, condom use, and sexual risk-taking. The framework assumes that only exposure to online sexual content does not fully explain behavioural outcomes. Rather, mediating factors such as peer influence shape how young people interpret, respond to, and are influenced by online sexual content. These mediating factors account for variations in the extent to which online sexual content encourages behaviours such as early sexual initiation, engagement in risky sexual practices, or the adoption of permissive attitudes toward consent, gender roles, and sexual health risks[23,24].

The framework also incorporates moderating factors such as digital literacy, parental monitoring, and prevailing cultural or religious beliefs, which may serve as protective influences or, conversely, as risk-enhancing conditions that intensify susceptibility to online sexual influences. This conceptual framework offers a comprehensive structure for examining how the interplay between social exposure, social dynamics, and contextual factors shapes youth cognition and attitudes, ultimately influencing sexual behaviour in Ugbowo. It informs the development of research questions, data collection, and interpretation of results in this study[25].

2.2 Knowledge of Online Sexual Content among Youths

An international cross-sectional study conducted across three Asian cities (Shanghai, Hanoi, Taipei) was published in 2014. This study examined how media exposure; internet, television, and other forms influenced sex-related knowledge, attitudes, and behaviors among unmarried adolescents. The study used data from a questionnaire with a sample of 17,016 adolescents and young adults aged 15-24 years and face-to-face interviews coupled with computer-assisted self-interviews (CASI) for sensitive questions. Exposure to sexual content in the mass media (including the Internet and traditional media), pornographic videos, and a preference for

western/Asian movies/videos were the main media influence measures. Sex-related knowledge, premarital sexual permissiveness, and sex-related behaviors were the main outcome measures and the survey found that media variables alone explained 13-24% of variance in sexual knowledge[26].

A 2018 study in Accra, Ghana evaluated the awareness and knowledge of internet pornography among 600 senior secondary school students aged 14 to 18. Using a cross-sectional descriptive design and cluster sampling across selected schools, the study found that 72% of respondents were aware of pornographic content, yet only 38% demonstrated a clear understanding of what it entails or its potential consequences. Male students were notably more knowledgeable than their female counterparts, and the primary sources of information were peers and mobile phone usage[27].

A 2016 study conducted in Ibadan North, Oyo State, employed a descriptive cross-sectional design to explore the awareness and knowledge of pornography among 420 senior secondary school students. Multistage random sampling was used to select participants. The results showed that 65% of the students were aware of pornography, and 43% had a moderate understanding of its nature and associated risks. Notably, male students were twice as likely to report accurate knowledge[28].

A descriptive cross-sectional study with 400 undergraduates who were selected using a multistage random sampling technique. Study aimed at examining the role of mass media and Internet utilization in shaping the sexual health attitudes and behaviors of young undergraduates in Osogbo metropolis Osun state. Results showed most students were aware of the various forms of mass media (>95%). 64.0% respondents spent 1–5 hours watching television, daily, and most used the Internet often. About 38.3% and 24.2% of respondents used the Internet and

radio/television, respectively, as sources of information on sexual issues. Most respondents used the Internet for school assignments (83.0%) and for accessing sexually explicit materials (74.5%)[11].

A cross-sectional study, 750 senior secondary school students in private and public schools in 2016 in southwest Nigeria, using interviewer-administered questionnaire. The aim of this study was to assess the association between exposure of in-school adolescents to sexual content in the electronic media and their sexual intentions. From the findings, 36% respondents were exposed to overtly explicit sexual content from all forms of media in the 3 months prior to this study[29].

Collectively, these studies indicate that while many Nigerian youths are aware of online sexual content, their knowledge, particularly regarding legal, ethical, and health implications, remains limited. Gender differences are evident, with males often demonstrating higher levels of knowledge, potentially due to greater social freedom and peer influence. The reviewed literature reveals a substantial gap in evaluating the quality and accuracy of youths' knowledge and its impact on decision-making and behaviour. Future research should utilise standardised instruments to measure knowledge and examine the influence of contextual variables such as religion, culture, and education on youths' interpretation of online sexual content.

2.3 Attitude towards Online Sexual Content and its Social Acceptability among Youths

A 2022 qualitative study in England done explored young people's perspectives on online hate, unwanted sexual content, and unrealistic body and appearance related content. 60 participants aged 13 - 21 were recruited through purposive sampling and engaged in focus group discussions. Findings revealed that youth perceived unwanted sexual content as a form of online harm, interpreting it within a broader framework of digital citizenship. Participants reported using

various resilience strategies, though tensions emerged between notions of individual responsibility and the influence of broader social contexts. While the study provides insights into the intersection of online sexual exposure and resilience, its qualitative nature limits generalizability, and the reliance on self-reported narratives may have introduced social desirability bias[30].

In 2024, a qualitative descriptive study in a rural South African district explored influences on sexual risk behaviour among adolescent boys, with attention to media and online exposures shaping perceptions and acceptability. Using purposive sampling, researchers conducted interviews and focus group discussions among boys in rural communities. Results showed that exposure to sexual content frequently accessed via mobile phones was often normalized, with peer endorsement reinforcing perceived acceptability. Participants highlighted the absence of adult guidance and noted that culturally embedded masculinity norms contributed to framing such content as acceptable for boys. While this study offers valuable rural insights often missing from urban-focused literature, its small sample size limits generalisability[31].

A 2014 descriptive cross-sectional study surveyed 400 University of Ibadan undergraduates' students using multistage random sampling and assessed attitudes toward using the internet for sexual material and perceived acceptability. The Results indicated that 74.5% had used the internet to access sexual content, but only 25.3% viewed such behavior as acceptable. A significant majority (73.5%) felt that online sexual content negatively influenced youth sexuality. While this study sheds light on normative judgment among Nigerian students, it lacked depth in distinguishing between types of content (e.g., educational vs. pornographic) and did not explore gendered attitudes[11].

A cross-sectional study in 2024 conducted in Lagos State examined how Nigerian adolescents and their parents perceive online risk behaviors, including access to sexual content. The survey involved 1,050 adolescents and their parents using random sampling techniques with findings that boys were significantly more exposed to sexual content than girls, and parental mediation differed by gender. While the study primarily investigated parental strategies, it indirectly captured how gender norms influence perceived social acceptability. For instance, stricter monitoring of girls suggested greater moral scrutiny of female social behavior, while boys were implicitly allowed more social media freedom[32].

Another descriptive cross-sectional study done in Ebonyi State used qualitative methods to explore adolescent perceptions of dating and sexual permissiveness. Conducted in 2021 using focus group discussions (FGDs) with in and out of school adolescents aged 13 - 18, the study revealed widespread disapproval of sexual permissiveness, including kissing and casual sex. While not directly about online sexual content, participants acknowledged the influence of media on permissive attitudes. Boys appeared more permissive in their perceptions than girls, and some out-of-school participants justified transactional sex based on economic realities. The study underlined how broader sexual norms influence interpretations of social online content but did not isolate online media as the focal point[33].

A qualitative study from Ile-Ife in 2021 explored student perceptions of alternative sexual relationships and included discussions on media influence. The study involved 250 undergraduate students at Obafemi Awolowo University. Findings indicated that 70.4% held negative views toward non-normative sexual practices, and over half disapproved of sexual content portrayed in media. The gender breakdown revealed only slight differences between

male and female students. Though focused on non-traditional sexuality, this study provided some insight into broader social acceptability judgments among Nigerian youths[34].

These studies demonstrate that most Nigerian youths perceive online sexual content with skepticism or disapproval, often influenced by moral, cultural, or religious considerations. Gender norms significantly shape these attitudes, with female youths subject to more restrictive standards than males. However, a major research gap persists regarding youths' perceptions of different types of online sexual content, such as distinguishing between educational, erotic, or exploitative media, and the social contexts influencing these perceptions. Few studies employ a youth-centered, qualitative approach that captures respondents' moral reasoning, emotional responses, or peer influences regarding sexual content.

2.4 Prevalence and Pattern of Online Sexual Content Accessed by Youths

A cross-sectional was carried in 2018 among 10,930 adolescents (5211 males/5719 females), aged 14 - 17 years old (mean age 15.8 ± 0.7) in six European countries (Greece, Spain, Poland, Romania, the Netherlands, and Iceland). The aim of the study was to assess the prevalence of online exposure in European adolescents and its relationship to sociodemographic and psychopathological correlates. Findings from this study showed that the prevalence of any online exposure to pornography was 59% overall and 24% for exposure at least once a week, the likelihood of online exposure to pornography was greater in male adolescents, heavier internet users, and those who displayed dysfunctional internet behavior[35].

A descriptive study was done in Ghana in 2019 on Internet pornography seeking among senior high schools in the Tema metropolis with the aim to investigate Internet pornography, the factors that promote Internet pornography seeking and the prevalence of its seeking among these senior

high school students. A sample size of 357 made up of 189 males and 168 females using convenience sampling from 4 schools in the Tema Metropolis was used. A questionnaire was used for the data collection and was used for data analyses. The study revealed that senior high school students in the Tema metropolis are exposed to internet pornography and it was more prevalent among males in the metropolis then females[27].

Another descriptive study done in 2016, investigated the influence of internet use on the sexual behaviour of 413 young persons aged 10-24 years selected from households in Ibadan North Local Government Area, Nigeria showed mean age of males was 21.7 + 3.4 years while that of females was 20.9 + 3.2 years. Main source of information about the internet was friends (63.3%) and 99.3% accessed the internet from cybercafé. Sending and receiving mails (55.0%) and online chatting (34.1%) were main activities involved in. Seventy-two percent had ever stumbled on pornographic sites and reactions to the scenes included closure of the sites (females, 57.5%; males, 38.7%), glancing through before closing (females, 30.1%; males, 46.7%) and minimizing page to view later (females, 12.3%; males, 13.6%). Post-exposure influence on behaviour were desire to know more about sexual activities (45.0%) and an urge to have sex (31.7%). Twenty-seven percent of daily internet users who had ever watched pornography sites had practiced what was viewed. More males than females were likely to report a change in sexual behaviour[25].

A descriptive cross-sectional study carried out in 2017 in Ibadan, in South-Western Nigeria, on Sexting: prevalence, predictors, and associated sexual risk behaviors among postsecondary school young people in Ibadan, Nigeria offers important insight into the growing prevalence and behavioral correlates of online sexual content consumption, particularly in the form of sexting. It aimed to assess the prevalence of sexting, identify its predictors, and examine its relationship with risky sexual behavior among postsecondary school students. A sample size of 964 male and

female between the ages of 14 and 24 and a multi-stage sampling technique was used. Findings from the research showed that 20.1% of the respondents had sent sexually explicit messages, while 33.2% had received such messages and that males were more likely than females to have sent sexts[36].

A descriptive cross-sectional study was carried out on prevalence, pattern and factors associated with online sexual activity among final year students in Osun State University, Nigeria in 2023. The study was done among 436 undergraduates selected via a multistage sampling technique and a semi-structured self-administered questionnaire was used for data collection and analyses. The results showed that the prevalence of OSA was 58.7%, It is more common among males (53.1%) than females (46.9%), 73.4% of the undergraduates were mildly involved, and none was severely involved. It also showed that common modes of access were inferred to include social media, messaging apps, and dedicated adult websites[37].

A descriptive cross-sectional survey conducted in 2024 using a multistage sampling strategy aimed to assess the prevalence, causes, and impacts of pornography consumption among 520 adolescents, both male and female students aged approximately 13 to 19 years enrolled in junior and senior secondary school in Wamakko local government area, Sokoto state. The study found that 67.3% of respondents reported having viewed pornography at least once with most common platforms being WhatsApp (45%), YouTube (28%), and cybercafés (17%). Key motivations for consumption included curiosity (42%), peer influence (30%), and uninformed access via mobile phones (18%)[38].

These studies show a consistent pattern of widespread exposure to online sexual content among youths, although the level and form of exposure vary by context and measurement methods. The European study reported high rates of pornography exposure among adolescents, particularly

males and heavy internet users. Similarly, studies from Ghana, Ibadan, Osun, and Wamakko found substantial access among students, with males more frequently exposed. Nigerian studies further reveal that exposure encompasses not only pornography but also sexting and other online sexual activities, primarily accessed through social media, messaging apps, cybercafés, and mobile phones. Some studies employed non-probability sampling techniques, limiting the generalizability of their findings. Nevertheless, these studies provide important evidence on the prevalence and patterns of online sexual content exposure, underscoring the need for further investigation within the local context of the present study.

2.5 Influence of Exposure of Online Sexual Content on Sexual Initiation and Practices among Youths

A cross-sectional study conducted in the Netherlands assessed the relationship between sexting and sexual practices among adolescents and young adults. This cross-sectional national survey, conducted in 2018, included over 4,000 participants aged 12-24. Participants were recruited through stratified random sampling. The study revealed that 21.2% of emerging adults and 6.9% of adolescents had engaged in sexting. Sext-sharing was strongly associated with earlier sexual initiation, inconsistent condom use, and a greater number of sexual partners. The findings suggest that online sexual interactions, such as sexting, may lead to the facilitation of physical sexual behavior[39].

A meta-analysis study using data from the 5th National Family Health Survey in India was carried out to assess the impact of online sexual content exposure on premarital sex and contraception use among unmarried indian youth in 2025, it included 172,568 women and 33,397 men aged 15-29 years. Findings from this study show that youth exposed to mobile phones and the internet are more likely to engage in premarital sex and use condoms during their

first sexual encounter. Specifically, 13.46% of men and 2.83% of women reported premarital sex, with 60.84% of men using condoms at first sex[40].

A cross-sectional study was done in Ghana involving 401 adolescents selected from 1 Senior High and 5 Junior High Schools in Drobo, Jaman South Municipality, Ghana. With the use of a structured questionnaire, data on social media and adolescent sexual behaviours were collected and binary logistic regression was employed to examine the association between social media and sexual risky behaviours of the adolescents. Participants were on average 16 years (mean = 15.9; SD = 1.8), and there were slightly more female (52.6%) participants than male participants. Findings showed that adolescents who used at least one social media platform had significantly higher odds of engaging in risky sexual behaviours compared to those who did not. Adolescents in Senior High School were more likely to have risky sexual behaviours compared to their counterparts attending Junior High Schools regardless of social media use. Similarly, adolescents whose guardians were salary workers had 59% decreased odds of engaging in risky sexual behaviours compared to those whose parents/guardians were farmers irrespective of social media use[27].

A descriptive and cross-sectional study done in 2016 among 413 young persons in Ibadan aimed at documenting the influence of exposure to the internet on the sexual behaviour of young persons. It sought to identify the prevalence of Internet use, activities engaged in and its effect on sexual behaviour. Results on effect showed changes in sexual behaviour were reportedly observed by 31.1% of respondents following exposure to sexually explicit sites, and 19.5% practiced what was seen with practices engaged in post-exposure, including oral sex (48.3%), body tattoo (18.3%), having multiple sexual partners (11.6%) and homosexuality (5.0%). Daily

users (95%) and males (95%) were more likely to visit pornographic sites compared with other respondents[25].

An analytical cross-sectional was done in 2015 in Ibadan with multistage sampling amongst 433 students in University of Ibadan to examine electronic media influence on sexual behaviour among undergraduates. The study showed that internet sexually explicit content increased premarital sex risk. Watching sexually explicit program on internet increases risk of having premarital sex while watching non-sexually explicit programmes on T.V protects from having premarital sex[41].

A descriptive cross-sectional study done in 2020 in Ilorin, Kwara State, with the aim to assess how exposure to sexual content on social media platforms influenced sexual behavior among undergraduate students involved 304 participants, selected through simple random sampling. The findings revealed that 32.9% of respondents had high exposure to sexual content on platforms such as Instagram and WhatsApp, with male students more exposed than females. Crucially, high exposure was statistically associated with early sexual debut, increased sexual experimentation, and low condom use. This study offered direct evidence of social media's behavioral influence but lacked longitudinal data to confirm causality[42].

A cross-sectional study conducted in Osun State University in 2023, using a multistage technique, examined the prevalence of online sexual activity (OSA) and its relationship with sexual practices. The study used the Internet Sex Screening Test (ISST) in a survey of 436 undergraduates. Results showed that 58.7% of students engaged in online sexual activity, with 73.4% mildly involved. Males were more likely to engage in such activities, and involvement in OSA was associated with an increased likelihood of having multiple sexual partners. The study highlighted the progressive influence of online sexual engagement on real-life sexual behavior[37].

In 2017, a cross-sectional study done in Ibadan, investigated the prevalence and impact of sexting on sexual practices among 575 young people aged 14 - 24 attending postsecondary institutions. Findings showed that 20% of respondents had sent sexts, while 33.2% had received them. Sexting was positively associated with sexual intercourse, with adjusted odds ratios of 4.0 and 2.96, respectively. The study concluded that social media sexual exchanges significantly contributed to sexual initiation among adolescents and young adults[36].

Collectively, these studies demonstrate a consistent association between exposure to online sexual content and the initiation of sexual activity among youths. Both sexting and passive consumption of explicit media via social media frequently precede or encourage offline sexual practices. Although the evidence indicates a strong correlation, the predominance of cross-sectional study designs limits causal inference. Additionally, cultural, religious, and parental influences mostly in conservative settings are insufficiently explored in the literature. There is a clear need for longitudinal and qualitative research to clarify the psychological and social mechanisms through which social media shapes youth sexual trajectories.

CHAPTER THREE

METHODOLOGY

3.1 STUDY AREA

The study was conducted in Ugbowo, a community within Egor Local Government Area (LGA) of Edo State, Nigeria. Nigeria, a federal republic in West Africa, had a provisional population of 140,431,790 in 2006 and an estimated population of 235 million as of January 2025[43,44]. Edo State, one of Nigeria's 36 states and part of the South-South geopolitical zone, covers approximately 19,743 square kilometres and has a population of about 8 million. It is bordered by Kogi State to the northeast and east, Anambra to the east, Delta to the southeast and south, and Ondo to the west and northwest. Edo State was established in August 1991 following the division of the former Bendel State into Edo and Delta States, and it comprises 18 LGAs [45,46]. The state capital, Benin City, historically recognised as the capital of the ancient Benin Kingdom, consists of three LGAs. As of 2025, Benin City has a population of 2,045,000, reflecting a 3.65% increase from 2024. The city occupies 500 square kilometres, situated between latitudes 6°20' and 6°31'N and longitudes 5°32' and 5°41'E [43].

Egor Local Government Area (LGA) is one of the LGAs within Benin City. It is bordered by Oredo LGA to the south, Ikpoba-Okha LGA to the west, Uhunmwonde LGA to the northeast, and Orhionmwon LGA to the north. Egor LGA comprises 10 wards and had a population of 340,287 in 2006. Recent projections estimate the population to be approximately 502,700 in 2022, based on an average annual growth rate of 2.44%. The LGA covers a land area of about 93 km^2 [47].

Ugbowo is an urban neighbourhood within Benin City and constitutes one of the 10 wards in Egor Local Government Area, comprising 9 communities and 75 polling units[47]. It hosts the main campus of the University of Benin (UNIBEN) and the University of Benin Teaching Hospital (UBTH). The University of Benin, a major federal institution, has its Ugbowo campus housing multiple faculties and student hostels[48]. The presence of UNIBEN attracts thousands of undergraduates, postgraduates, and young staff to Ugbowo, particularly during academic sessions.

The University of Benin Teaching Hospital serves as a major tertiary referral and teaching hospital[49]. It employs healthcare workers, many of whom reside in Ugbowo. The environment features a mix of student hostels and residential clusters, characteristic of tertiary institution settings. Ugbowo is a significant hub for young and highly educated individuals, making it an appropriate study population for research on youth exposure to online sexual content and related behaviours, given the presence of the UNIBEN main campus and student hostels[49]. Population projections and urban growth statistics further support Ugbowo as a representative urban youth setting in Benin City[43].

Ugbowo is situated within Benin City's socio-cultural environment, predominantly influenced by Benin cultural norms. These norms regarding sexuality and modesty shape how youth access, interpret, and report sexual content. Cultural expectations, religiosity, parental monitoring, and peer networks influence youth sexual debut and risk-taking behaviour[50]. Rapid urbanisation in the area has led to increased digital infrastructure and household internet access, including smartphones and social media, which are directly relevant to exposure to online sexual content[51].

3.2 STUDY DESIGN

A descriptive, cross-sectional design was utilized to ascertain the influence of exposure to online sexual content on youth sexual behaviour.

3.3 STUDY POPULATION

The study was conducted among youth aged 15 - 24 years residing in Ugbowo, Benin city, Edo state, Nigeria.

Selection Criteria

3.3.1 Inclusion criteria

I. The study included in-school youths (Secondary school, University) in Ugbowo.

II. Out of school youths in Ugbowo.

3.3.2 Exclusion criteria

I. The study excluded youths who are too ill to fill the questionnaire.

3.4 STUDY DURATION

The study was carried out from April 2025 till April 2026.

3.5 SAMPLE SIZE DETERMINATION

Sample size will be calculated using Cochran's formula for cross-sectional studies:

$$n = \frac{Z^2 \cdot (1 - p)}{d^2}$$

Where:

- n = required sample size
- Z = 1.96 at 95% confidence level
- p = estimated prevalence of behaviour change due to online sexual content = 0.317 (from a Nigerian study among adolescents in Ibadan on online sexual material influenced their sexual behaviour)[25].
- d = margin of error = 0.05

Substituting:

$$n = \frac{(1.96)^2 \times 0.317 \times 0.683}{0.05^2} = 333$$

Because a cluster sampling design was used, we applied a design effect (DE) of 1.5 to account for intra-cluster correlation:

$$n_1 = 333 \times 1.5 = 500$$

Adjusting for 10% non-response:

$$n_{final} = 500 \times 0.9 = 556$$

Hence, the minimum sample size is 556 respondents. However, a final sample size of 610 respondents.

3.6 SAMPLING TECHNIQUE

A cluster sampling technique was used for this study.

Ugbowo ward consists of 9 communities; Ugbowo I, Ugbowo II, BDPA Estate, Adolor, UBTH/UNIBEN environs, Osasogie, Uwasota, which served as clusters. 5 communities was selected using simple random sampling by balloting. Within each selected cluster, all eligible youths who met the inclusion criteria were invited to participate in the study until the required sample size was reached.

3.7 DATA MANAGEMENT

3.7.1 Tools for data Collection

A structured self-administered questionnaire with closed-ended and open-ended questions was the tool used for data collection. The questionnaire was adapted from World Health Organization Sexual Health Assessment of Practice and Experiences (SHAPE) tool[52], Sexual Awareness Scale[53], Youth Risk Behaviour Survey[54], Internet Sex Screening Test[55], Problematic Pornography Consumption Scale[56], European Union Kids Online Survey[57], Cyber Pornography Use Inventory[58], Sexual Consent Scale-Revised[59], and Gender Role Attitudes Scale[60], modified to answer the specific research objectives. Each questionnaire contains six (6) sections as follows:

Section A: This section required answers to the respondent's age, gender, educational status, religion, household internet access, and living arrangements.

Section B: This section included questions that assessed the respondent's knowledge and understanding of what constitutes online sexual content and related risks. This included definitions of sexual content, common platforms where OSC is found (social media, streaming sites, chat apps), and knowledge of potential harms. Knowledge was assessed using multiple-choice questions and Yes/No questions.

Section C: This section included questions that explored attitudes, moral judgments, perceived norms, and acceptability of online sexual activity within the respondent's family, peer group, and community.

Section D**:** This section included questions that measured lifetime and recent (e.g., past 3 months) exposure to sexually explicit or suggestive online material, frequency, modalities (viewing, sharing, sending), and context (alone, with peers, via stranger). It also captured content type (images, videos, erotic text, and live webcam).

Section E**:** This section included questions that assessed the sexual behaviours of the youths

Section F**:** This section included questions that will assessed perceived and self-reported influence of exposure to online sexual content on sexual attitudes and behaviours, including age at sexual debut, types of sexual practices initiated after exposure, and perceived pressure or normative beliefs arising from social media.

3.7.2 Method of Data Collection

Data was collected using a self-administered questionnaire. The questionnaires were distributed to respondents in the selected communities in Ugbowo. Respondents were allowed to complete the questionnaire in private at their preferred location within a reasonable timeframe to ensure their privacy and comfort. Research assistants were available to clarify any questions the respondents had without influencing their responses. Informed consent was obtained beforehand and respondents were assured of confidentiality.

3.7.3 Training of research assistants

Research assistants were trained for 3 days for the purpose of this study. The training covered an overview of the topic, research objectives, research ethics, interpersonal skills, and effective

communication. The questionnaires were standardized and administered, and data collation and analysis were conducted in collaboration with the trained research assistants.

3.7.4 Pretesting

The questionnaires were pre-tested in Oluku, a neighbouring community in Benin City, Edo State, to assess validity, comprehension, and sensitivity of the data collection tool. Ten percent of the study sample was used for pretesting to identify and correct errors before the main study commenced.

3.8 DATA ANALYSIS

SCORING SYSTEM

Knowledge of Online Sexual Content

The knowledge of online sexual content among respondents was assessed using 35 questions; multiple-choice questions and Yes/No questions addressing all knowledge domains.

For Yes/No questions, coding: 1 = Correct answer, 0 = Incorrect answer

For multiple-choice questions, coding: 1 = Correct answer, 0 = Incorrect answer

The total knowledge score was calculated by summing up all correct responses.

Knowledge was categorized as:

Good knowledge: score ≥ 50% of maximum possible score

Poor knowledge: score < 50% of maximum possible score

Attitude towards Online sexual Content

Attitude towards online sexual content and its social acceptability was assessed using 12 questions exploring: personal attitudes toward online sexual content, perceived family attitudes, perceived peer attitudes, perceived community norms, and moral judgments about online sexual

activity. Responses were analysed to determine the distribution of perceptions among respondents.

Attitude was categorised as:

Positive Attitude: score ≥ 60% of the maximum possible score

Negative Attitude: score < 60% of the maximum possible score

Prevalence and Pattern of Online sexual Content

Prevalence of exposure to online sexual content was assessed using 28 questions on:

Lifetime exposure (ever exposed: Yes/No), Recent exposure (past 12 months: Yes/No; past 3 months: Yes/No), Frequency of exposure (daily, weekly, monthly, rarely; once in 3 months), Types of content accessed (images, videos, text, live streams), Platforms used (social media, websites, messaging apps, etc.).

Prevalence was expressed as the proportion of respondents who have been exposed to online sexual content, calculated as:

Prevalence = (Number of respondents exposed / Total number of respondents) × 100%

Influence of OSC exposure

Influence of online sexual content on sexual behaviour was assessed using 9 questions, with response options designed to capture the extent of perceived influence on: sexual curiosity, discussions about sex, sexual initiation, types of sexual practices, attitudes toward sex.

Responses were categorised and analysed to determine the proportion of respondents reporting influence in each domain.

Influence was categorized as:

High Influence: score ≥ 50% of maximum possible score

Low Influence: score < 50% of maximum possible score

All quantitative data collected through structured questionnaires was screened for completeness at the point of collection by the researcher and data collection assistants. Completed questionnaires were coded and entered into the IBM SPSS version 26.0 for analysis. Univariate analysis was conducted to describe the socio-demographic characteristics of respondents, including age, sex, religion, and level of education. Categorical variables were summarised using frequencies and proportions, while continuous variables (e.g., age) were summarised using mean and standard deviation after checking for normality of distribution.

Bivariate analysis was done to determine the association between social demographic characteristics and their level of exposure to online sexual content, as well as associations with sexual behaviours. Chi-square test was used for the categorical variable.

Multivariate analysis was done to identify the determinants of risky sexual behaviour using binary logistic regression. Statistical significance was set at $p < 0.05$. Results from the analysis were presented using tables, charts and graphs to ensure clarity and ease of interpretation.

3.9 ETHICAL CONSIDERATION

Ethical approval for this study was obtained from the Health Research Ethics Committee of the University of Benin Teaching Hospital before the commencement of data collection. Ethical approval protocol number: ADM/E 22/A/VOL. VII/14865491272124. Informed consent was obtained from all respondents. In the case of minors (respondents aged 15-17 years), informed consent was obtained from parents or guardians and assent was obtained from the respondents themselves. Participants' confidentiality and privacy was maintained throughout the study. All data collected was stored securely and was made accessible to the research team. Respondents were informed that they have the right to withdraw from the study at any time without any

consequences and that withdrawal poses no harm or loss to them. No personal identifiers was collected or recorded on the questionnaires to ensure anonymity.

3.10 LIMITATION OF THE STUDY

The study relied on self-reported information from respondents, which may be subject to information bias, including social desirability bias, recall bias, or deliberate misreporting. Cultural sensitivity regarding sexual topics may also limit openness in responses. The cross-sectional design precludes establishing causality between exposure to online sexual content and sexual behaviours. Additionally, the study is limited to the Ugbowo community, and findings may not be generalizable to all youth populations in Nigeria. Efforts to minimise bias included assurances of confidentiality, the use of self-administered questionnaires, and comprehensive training for research assistants.

CHAPTER FOUR

RESULTS

A total of 610 respondents participated in the study and the response rate was 100%. The results are presented in the following sections in line with the specific objectives.

SECTION A: Sociodemographic characteristics of respondents

SECTION B: Knowledge of online sexual content among respondents

SECTION C: Attitude towards online sexual content among respondents

SECTION D: Prevalence and pattern of online sexual content accessed by respondents

SECTION E: Sexual behaviour of respondents

SECTION F: Influence of OSC exposure on sexual initiation and practices among respondents

SECTION A

SOCIODEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

Table 1a: Sociodemographic characteristics of respondents

Variables	Frequency (n = 610)	Percent
Age Group (years)		
15 – 19	431	70.7
20 – 24	179	29.3
Mean + SD	*18.44 + 2.29*	
Sex		
Female	359	58.9
Male	251	41.1
Ethnic groups		
Benin	243	39.8
Igbo	99	16.2
Esan	64	10.5
Yoruba	48	7.9
Urhobo	38	6.2
Ika	26	4.3
Afemai	23	3.8
Ukwuani	16	2.6
Isoko	13	2.1
Ibibio	8	1.3
Ijaw	7	1.1
Ebelo	6	1.0
Itsekiri	5	0.8
Anang	4	0.7
Other*	10	1.6
Religion		
Christianity	582	95.4
Islam	22	3.6
African Traditional Religion	6	1.0
Marital status		
Single	601	98.5
Married	7	1.1
Divorced	2	0.3
Highest level of education		
Secondary	544	89.2
Tertiary	66	10.8
Schooling status		
In school	517	84.8
Out of school	93	15.2
Employment status		
Unemployed	534	87.5
Employed	76	12.5

**Andoni, Ekperi, Emai, Ghanian, Igala, Igbanke, Tiv, Zulu.*

The mean age of respondents was 18.44 ± 2.29 years, with the majority, 431 (70.7%) aged 15 to 19 years, while 179 (29.3%) were aged 20 to 24 years. More than half, 359 (58.9%) of the respondents were female, while 251 (41.1%) were male. Ethnically, the Benin ethnic group constituted the largest proportion, 243 (39.8%), followed by Igbo, 99 (16.2%), Esan, 64 (10.5%), Yoruba, 48 (7.9%), and Urhobo, 38 (6.2%). Other ethnic groups each accounted for less than 5% of respondents. Christianity was the predominant religion, accounting for 582 (95.4%) of respondents, while 22 (3.6%) were Muslims and 6 (1.0%) practised African Traditional Religion.

Most 601 (98.5%) respondents were single, while 7 (1.1%) were married and 2 (0.3%) were divorced. For level of education, 544 (89.2%) had secondary education, while 66 (10.8%) had tertiary education. Majority 517 (84.8%) respondents were currently in school, while 93 (15.2%) were out of school, 534 (87.5%) were unemployed, while 76 (12.5%) were employed.

Table 1b: Sociodemographic characteristics of respondents

Variables	Frequency	Percent
Occupation (n=76)		
Full-time student	60	78.9
Apprentice or trainee	15	19.7
Part-time student	1	1.3
Resides with (n = 610)		
With family	389	63.8
Alone	221	36.2
Monthly Income (n = 610)		
< 70,000	496	81.3
> 70,000	114	18.7

Among the employed respondents, 60 (78.9%) were full-time students, while 15 (19.7%) were apprentices or trainees and only 1 (1.3%) was a part-time student. A majority 389 (63.8%) of respondents lived with family, while 221 (36.2%) lived alone. 496 (81.3%) respondents earned less than ₦70,000, while 114 (18.7%) earned above ₦70,000.

SECTION B

KNOWLEDGE OF ONLINE SEXUAL CONTENT AMONG RESPONDENTS

Table 2: Access to digital devices among respondents

Variables	Frequency (n = 610)	Percent
Own a personal internet-enabled device		
Yes	475	77.9
No	135	22.1
Knowledge of privacy settings on apps		
Yes	365	59.8
No	245	40.2
Main Device Used		
Phone	598	98.0
Tablet	7	1.1
Laptop	5	0.8
Data affordability		
Very affordable	39	6.4
Affordable	328	53.8
Very unaffordable	73	12.0
Unaffordable	170	27.9
Average time spent online (hours)		
< 4	237	38.9
4 – 6	162	26.6
> 6	75	12.3

A majority 475 (77.9%) of respondents owned a personal internet enabled device, while 135 (22.1%) did not. More than half, 365 (59.8%) respondents reported having knowledge of privacy settings on apps, while 245 (40.2%) did not. Phones were the predominant devices used for internet access, 598 (98.0%),than tablets, 7 (1.1%), and laptops, 5 (0.8%).

Regarding data affordability, 328 (53.8%) reported it as affordable, 170 (27.9%) as unaffordable, 73 (12.0%) as very unaffordable, and 39 (6.4%) as very affordable. Most 237 (38.9%) respondents spent less than 4 hours online daily, while 162 (26.6%) spent 4–6 hours and 75 (12.3%) spent more than 6 hours online.

Table 3: Awareness and sources of information about online sexual content among respondents

Variables	Frequency	Percent
Aware of online sexual content (n = 610)		
Yes	417	68.4
No	193	31.6
Source of information about online sexual content (n=417) *		
Social media	269	64.4
Teachers	65	15.6
Parents	51	12.2
Church	33	7.9
Commonly used platforms* (n = 610)		
Whatsapp	456	34.7
Tiktok	303	23.0
YouTube	187	14.2
Facebook	127	9.7
Instagram	124	9.4
X (Twitter)	69	5.2
Porn sites	50	3.8
Age at first exposure to sexual content online (n=417)		
≤ 10	82	13.4
11 – 13	122	20.0
14 – 16	243	39.4
17 – 23	163	26.7
Mean + SD	*14.1 + 3.99*	

Awareness of online sexual content was high among respondents, as 417 (68.4%) reported being aware of such content, while 193 (31.6%) were not aware. Among those aware, social media was the major source of information, reported by 269 (64.4%), followed by teachers, 65 (15.6%), parents, 51 (12.2%), and church, 33 (7.9%). The mean age at first exposure to online sexual content was 14.1 ± 3.99 years, with most 243 (39.8%) respondents first exposed between ages 14 and16 years and strongly followed by exposure before 14 years at 33.4%.

Table 4: Knowledge of online sexual content among respondents

Variables	Frequency (n = 417)	Percent
Definition of online sexual content*		
Images or videos depicting sexual acts	311	47.4
Erotic stories or explicit sexual text online	127	19.4
Suggestive images intended to stimulate sexual interest	123	18.8
Sexual health education materials	70	10.7
Humorous cartoons without sexual meaning	25	3.8
Common host platforms for sexual content online*		
Social media platforms	269	49.2
Dedicated pornography websites	201	36.7
Messaging applications where links are shared	36	6.6
Streaming platforms that block all sexual scenes	30	5.5
Academic journal websites	11	2.0
Examples of online sexual content*		
Explicit pornographic videos	323	52.2
Sexualised dance clips or suggestive videos	149	24.1
Erotic chat conversations	85	13.7
Educational reproductive health animations	56	9.0
Non-sexual online advertisements	6	1.0
What constitutes problematic use sexual content*		
Occasional viewing out of curiosity	172	27.9
Repeated unsuccessful attempts to stop viewing	172	27.9
Continued viewing despite harm	130	21.1
Constant preoccupation with content	98	15.9
Academic use only	44	7.1
Effects due to repeated exposure to sexual content*		
Earlier sexual initiation	247	38.9
Risky sexual behaviour	148	23.3
Unrealistic expectations about sex	130	20.5
Accurate sexual knowledge	70	11.0
Protection from STIs	40	6.3
Protective actions from harmful online sexual exposure*		
Parental control software	223	34.1
Comprehensive sexuality education	182	27.8
Parent child discussions	176	26.9
Sharing explicit materials for education	33	5.0
Unrestricted internet use	40	6.1
Privacy and online sexual content*		
Sharing sexual images involving minors is illegal	181	28.9
Privacy settings reduce exposure	163	26.0
Sharing without consent may be illegal	147	23.4
Deleting images removes permanently	86	13.7
No ethical issues in saving explicit images	50	8.0

**Multiple response question*

Regarding the definition of online sexual content, majority 311 (47.4%) of respondents identified it as images or videos depicting sexual acts, 127 (19.4%) described it as erotic stories or explicit sexual text online, 123 (18.8%) as suggestive images intended to stimulate sexual interest, while fewer 70 (10.7%) respondents identified sexual health education materials, and 25 (3.8%) as humorous cartoons without sexual meaning. Social media platforms 269 (49.2%) were the most common host platforms, followed by dedicated pornography websites, 201 (36.7%), smaller proportions 36 (6.6%) identified messaging applications where links are shared, streaming platforms that block sexual scenes, 30 (5.5%), and academic journal websites, 11 (2.0%).

Explicit pornographic videos 323 (52.2%) were most common examples reported, followed by sexualised dance clips or suggestive videos, 149 (24.1%), erotic chat conversations, 85 (13.7%), and educational reproductive health animations, 56 (9.0%). On what constitutes problematic use of sexual content, equal proportions 172 (27.9%), 172 (27.9%) of respondents identified occasional viewing out of curiosity, and repeated unsuccessful attempts to stop viewing respectively. Other responses included continued viewing despite harm, 130 (21.1%), constant preoccupation with content, 98 (15.9%), and academic use only, 44 (7.1%).

Regarding perceived effects of repeated exposure, most 247 (38.9%) respondents identified earlier sexual initiation, followed by risky sexual behaviour, 148 (23.3%), and unrealistic expectations about sex, 130 (20.5%). Fewer 70 (11.0%), 40 (6.3%) respondents reported accurate sexual knowledge, and protection from sexually transmitted infections respectively. For protective actions against harmful exposure, 223 (34.1%) respondents reported parental control software, followed by comprehensive sexuality education, 182 (27.8%), and parent–child discussions, 176 (26.9%), 33 (5.0%) reported sharing explicit materials for education, and 40 (6.1%) reported unrestricted internet use.

Furthermore, 181 (28.9%) identified that sharing sexual images involving minors is illegal, 163 (26.0%) identified privacy settings reducing exposure, and 147 (23.4%) identified sharing without consent may be illegal, however, 50 (8.0%) identified there are no ethical issues in saving explicit images.

Table 5: Knowledge domain scores among respondents

Domains	Good Freq. (%)	Poor Freq. (%)
Definition of online sexual content	358 (85.9)	59 (14.1)
Common host platforms for sexual content online	382 (91.6)	35 (8.4)
Examples of online sexual content	367 (88.0)	50 (12.0)
What constitutes problematic use sexual content	230 (55.2)	187 (44.8)
Effects due to repeated exposure to sexual content	328 (78.7)	89 (21.3)
Protective actions from harmful online sexual exposure	358 (85.9)	59 (14.1)
Privacy and online sexual content	308 (73.9)	109 (26.1)

Overall, respondents demonstrated a generally high level of knowledge across the domains of online sexual content. For the definition of online sexual content, 358 (85.9%) of respondents had good knowledge, while 59 (14.1%) had poor knowledge. Good knowledge of common host platforms was reported among 382 (91.6%) respondents, while 367 (88.0%) had good knowledge of examples of online sexual content.

Knowledge regarding effects of repeated exposure was also high, with 328 (78.7%) demonstrating good knowledge. However, lower knowledge was observed regarding problematic use of sexual content, where only 230 (55.2%) had good knowledge while 187 (44.8%) had poor knowledge. Finally, knowledge of privacy and online sexual content was high, with 308 (73.9%) of respondents demonstrating good knowledge compared to 59 (14.1%) with poor knowledge.

The trend suggests that respondents were more knowledgeable about identifying online sexual content than recognising problematic patterns of use.

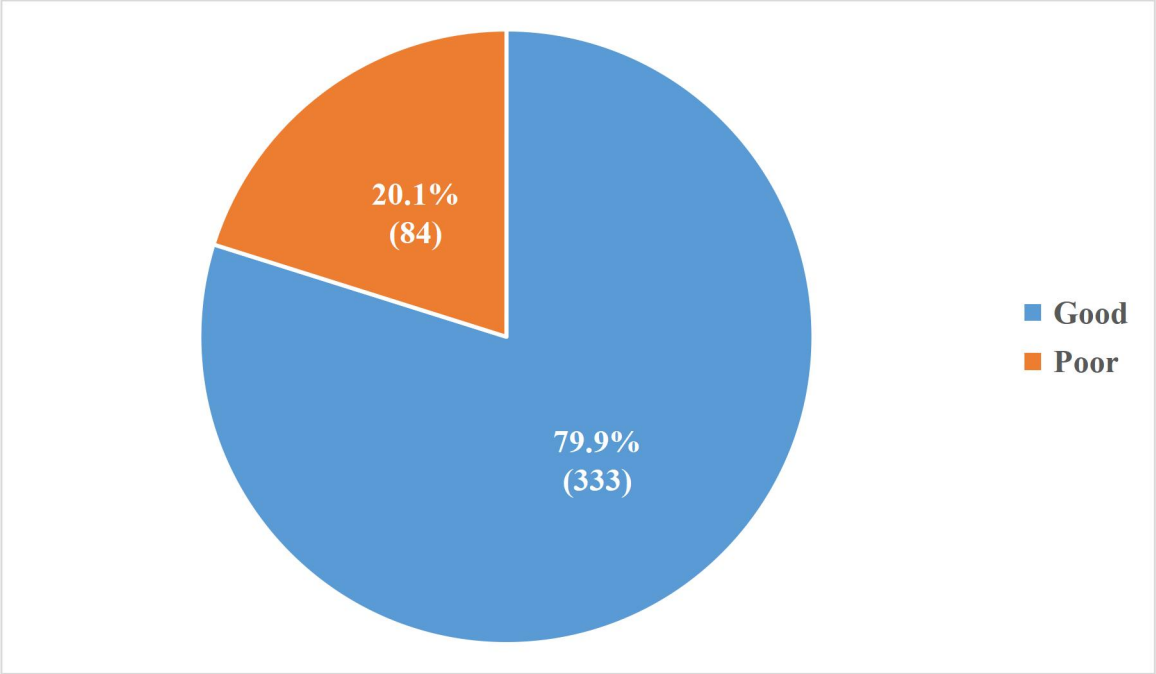

Figure 2: Overall level of knowledge of online sexual content among respondents.

A total of 333 (79.9%) respondents had good knowledge of online sexual content, while 84 (20.1%) had poor knowledge.

Table 6: Sociodemographic factors and knowledge of online sexual content among respondents

Variables	Knowledge		Test statistic	95% CI	p-value
	Good (n=333) Freq. (%)	Poor (n=84) Freq. (%)			
Age group (years)					
15 – 19	209 (76.0)	66 (24.0)	$\chi^2 = 7.465$	0.005 – 0.008	**0.007**
20 – 24	124 (87.3)	18 (12.7)			
Sex					
Male	161 (85.2)	28 (14.8)	$\chi^2 = 6.103$	0.012 – 0.017	**0.014**
Female	172 (75.4)	56 (24.6)			
Ethnicity					
Edo non-indigenes	154 (82.8)	32 (17.2)	$\chi^2 = 1.804$	0.215 – 0.231	0.219
Edo indigenes	179 (77.5)	52 (22.5)			
Religion					
Christianity	322 (80.7)	77 (19.3)	4.109+	0.062 – 0.072	0.065
Other*	11 (61.1)	7 (38.9)			
Level of education					
Secondary	293 (79.4)	76 (20.6)	$\chi^2 = 0.408$	0.567 – 0.586	0.574
Tertiary	40 (83.3)	8 (16.7)			
Residence					
With family	186 (78.2)	52 (21.8)	$\chi^2 = 1.002$	0.320 – 0.338	0.327
Alone	147 (82.1)	32 (17.9)			
Schooling status					
In school	280 (80.2)	69 (19.8)	$\chi^2 = 0.185$	0.739 – 0.756	0.741
Out of school	53 (77.9)	15 (22.1)			
Employment status					
Employed	37 (75.5)	12 (24.5)	$\chi^2 = 0.652$	0.443 – 0.463	0.448
Unemployed	296 (80.4)	72 (19.6)			
Monthly Income (₦)					
<70,000	260 (80.0)	65 (20.0)	$\chi^2 = 0.019$	1.000 – 1.000	>0.999
> 70,000	73 (79.3)	19 (20.7)			
Main Device Used					
Phone	325 (79.9)	82 (20.1)	0.000+	1.000 – 1.000	>0.999
Laptop / Tablet	8 (80.0)	2 (20.0)			
Data affordability					
Affordable	214 (80.8)	51 (19.2)	$\chi^2 = 0.365$	0.601 – 0.620	0.612
Unaffordable	119 (78.3)	33 (21.7)			
Average Time Spent Online (hours)					
<4	103 (74.6)	35 (25.4)	$\chi^2 = 4.555$	0.098 – 0.110	0.103
4 – 6	104 (85.2)	18 (14.8)			
> 6	126 (80.3)	31 (19.7)			
Age at first exposure to sexual content online					
≤ 10	39 (84.8)	7 (15.2)	$\chi^2 = 3.555$	0.303 – 0.321	0.316
11 – 13	89 (84.8)	16 (15.2)			
14 – 16	132 (77.2)	39 (22.8)			
17 – 23	73 (76.8)	22 (23.2)			

Islam, ATR; +Fisher's Exact Test

Respondents aged 20 - 24 years demonstrated higher good knowledge of online sexual content, with 124 (87.3%) having good knowledge compared with 209 (76.0%) respondents aged 15 - 19 years, suggesting that increasing age was associated with better knowledge of online sexual content. This association between age group and knowledge of online sexual content was statistically significant ($\chi^2 = 7.465$, $p = 0.007$). Male respondents demonstrated better knowledge, with 161 (85.2%) having good knowledge compared with 172 (75.4%) female respondents, indicating that male respondents were more likely to demonstrate good knowledge of online sexual content than females. This association between sex and knowledge of online sexual content was statistically significant ($\chi^2 = 6.103$, $p = 0.014$).

Edo non-indigenes demonstrated slightly higher good knowledge, with 154 (82.8%) having good knowledge compared with 179 (77.5%) Edo indigenes, suggesting only slight variation in knowledge across ethnic groups. However, there was no statistically significant association between ethnicity and knowledge of online sexual content ($p = 0.219$). Christian respondents demonstrated higher good knowledge, with 322 (80.7%) having good knowledge compared with 11 (61.1%) respondents practising other religions, indicating that Christian respondents tended to have better knowledge levels. However, there was no statistically significant association between religion and knowledge of online sexual content ($p = 0.065$). Those with tertiary education demonstrated slightly better knowledge, with 40 (83.3%) having good knowledge compared with 293 (79.4%) respondents with secondary education, suggesting that higher educational attainment was associated with better knowledge of online sexual content. However, there was no statistically significant association between level of education and knowledge of online sexual content ($p = 0.574$). Respondents living alone demonstrated slightly higher good knowledge, 147 (82.1%), compared with respondents living with family, 186 (78.2%), suggesting that

independent living was associated with slightly better knowledge of online sexual content. However, there was no statistically significant association between residence and knowledge of online sexual content ($p = 0.327$).

Respondents currently in school demonstrated slightly better knowledge, with 280 (80.2%) having good knowledge compared with 53 (77.9%) respondents out of school, indicating that respondents still in school tended to demonstrate slightly higher knowledge of online sexual content. However, there was no statistically significant association between schooling status and knowledge of online sexual content ($p = 0.741$). Unemployed respondents demonstrated slightly better knowledge, with 296 (80.4%) having good knowledge compared with 37 (75.5%) employed respondents, although the trend indicated minimal variation in knowledge by employment status. There was no statistically significant association between employment status and knowledge of online sexual content ($p = 0.448$). Respondents earning below ₦70,000 and those earning above ₦70,000 demonstrated similar levels of good knowledge, 80.0% and 79.3% respectively, suggesting no meaningful difference in knowledge across income categories. Consequently, there was no statistically significant association between monthly income and knowledge of online sexual content ($p > 0.999$).

Phone users and laptop/tablet users demonstrated similar levels of good knowledge, 79.9% and 80.0% respectively, suggesting that the type of device used did not substantially influence knowledge of online sexual content. There was no statistically significant association between main device used and knowledge of online sexual content ($p > 0.999$). Respondents who considered internet data affordable demonstrated slightly higher good knowledge, 214 (80.8%), compared with 119 (78.3%) respondents who considered data unaffordable, indicating that affordable internet access was associated with slightly better knowledge of online sexual content.

However, there was no statistically significant association between data affordability and knowledge of online sexual content ($p = 0.612$).

Respondents who spends 4 - 6 hours online daily demonstrated the highest proportion 104 (85.2%), of good knowledge, compared with respondents spending less than 4 hours online, 103 (74.6%), suggesting that moderate internet use was associated with better knowledge of online sexual content. However, there was no statistically significant association between average time spent online and knowledge of online sexual content ($p = 0.103$). Those first exposed between ages 11–13 years demonstrated the highest proportion of good knowledge, 89 (84.8%), while respondents exposed between ages 17–23 years demonstrated lower good knowledge, 73 (76.8%), indicating that earlier exposure was associated with better knowledge of online sexual content. However, there was no statistically significant association between age at first exposure and knowledge of online sexual content ($p = 0.316$).

Table 7: Predictors of knowledge of online sexual content among respondents

Variables	β (regression coefficient)	OR	95% C.I. for OR		p-value
			Lower	Upper	
Age (years)	0.196	1.216	1.058	1.399	**0.006****
Sex					
Male*		1			
Female	-0.609	0.544	0.314	0.941	**0.030****
Ethnicity					
Edo non-indigenes*		1			
Edo indigenes	-0.386	0.680	0.405	1.141	0.144
Religion					
Christianity*		1			
Other	-0.903	0.405	0.136	1.209	0.105
Level of education					
Secondary*		1			
Tertiary	1.160	3.189	0.895	11.368	0.074
Residence					
With family*		1			
Alone	-0.097	0.907	0.511	1.610	0.740
Schooling status					
In school*		1			
Out of school	-1.220	0.295	0.104	0.835	**0.021****
Employment status					
Employed*		1			
Unemployed	0.678	1.969	0.906	4.283	0.087
Monthly Income (₦)					
<70,000*		1			
> 70,000	-0.237	0.789	0.405	1.535	0.485
Main Device Used					
Phone*		1			
Laptop / Tablet	-0.072	0.931	0.177	4.905	0.932
Data affordability					
Affordable*		1			
Unaffordable	-0.176	0.838	0.495	1.421	0.513
Average Time Spent Online (hours)					
<4*		1			
4 – 6	0.609	1.838	0.938	3.601	0.076
> 6	0.220	1.247	0.672	2.314	0.485
Age at first exposure to sexual content online					
≤ 10*		1			
11 – 13	-0.073	0.930	0.336	2.568	0.888
14 – 16	-0.536	0.585	0.229	1.493	0.262
17 – 23	-0.975	0.377	0.135	1.051	0.062

*OR: Odds ratio; CI: Confidence interval; * Reference category; ** $p < 0.05$; R^2= 7.8 – 12.3%.*

This table showed that increasing age significantly increased the odds of having good knowledge of online sexual content (OR = 1.216, 95% CI: 1.058–1.399, p = 0.006). Female respondents were less likely to have good knowledge compared with males (OR = 0.544, 95% CI: 0.314–0.941, p = 0.030), while respondents who were out of school were also less likely to demonstrate good knowledge compared with those in school (OR = 0.295, 95% CI: 0.104–0.835, p = 0.021).

The trend suggests that increasing age and continued participation in formal education improved the likelihood of good knowledge of online sexual content, whereas being female or out of school reduced the likelihood of having good knowledge. Respondents with tertiary education also showed higher odds of good knowledge (OR = 3.189), although this did not reach statistical significance.

There was a statistically significant predictive association between age and knowledge (p = 0.006), sex and knowledge (p = 0.030), and schooling status and knowledge (p = 0.021). However, ethnicity (p = 0.144), religion (p = 0.105), level of education (p = 0.074), residence (p = 0.740), employment status (p = 0.087), monthly income (p = 0.485), main device used (p = 0.932), data affordability (p = 0.513), average time spent online (p = 0.076 and p = 0.485), and age at first exposure to online sexual content (p = 0.888, p = 0.262, and p = 0.062) were not significant predictors of knowledge.

SECTION C

ATTITUDE TOWARDS ONLINE SEXUAL CONTENT AMONG RESPONDENTS

Table 8: Attitude of respondents toward online sexual content

Variables	n = 610 Freq. (%)				
	SA	A	N	D	SD
Watching sexual content online is common among youths	266 (43.6)	181 (29.7)	89 (14.6)	23 (3.8)	51 (8.4)
Society is becoming more accepting of sexual content online	273 (44.8)	212 (34.8)	77 (12.6)	30 (4.9)	18 (3.0)
The sexual lifestyles shown online are what youths actually practice	154 (25.2)	244 (40.0)	118 (19.3)	37 (6.1)	57 (9.3)
Viewing sexual content online does not affect moral values	56 (9.2)	50 (8.2)	57 (9.3)	144 (23.6)	303 (49.7)
I feel comfortable discussing sexual topics seen online with friends	59 (9.7)	68 (11.1)	147 (24.1)	90 (14.8)	246 (40.3)
Exposure to online sexual content may sometimes provide sexual education	106 (17.4)	193 (31.6)	173 (28.4)	56 (9.2)	82 (13.4)
Online content provides a more honest view of sex than school or church	121 (19.8)	157 (25.7)	131 (21.5)	77 (12.6)	124 (20.3)
My family discourages viewing sexual content online	329 (53.9)	139 (22.8)	66 (10.8)	17 (2.8)	59 (9.7)
My friends believe viewing sexual content online is acceptable	59 (9.7)	70 (11.5)	170 (27.9)	102 (16.7)	208 (34.1)
Risks associated with sex (STIs, pregnancy) is minimal online	152 (24.9)	110 (18.0)	114 (18.7)	78 (12.8)	156 (25.6)
My religious beliefs discourage viewing sexual content online	300 (49.2)	128 (21.0)	69 (11.3)	30 (4.9)	83 (13.6)
Online sexual content is a reliable source of information for sexual health	81 (13.3)	69 (11.3)	203 (33.3)	101 (16.6)	156 (25.6)

SD = Strongly Disagree; D = Disagree; N = Neutral; A = Agree; SA = Strongly Agree.

For the statement that watching sexual content online is common among youths, 266 (43.6%) strongly agreed and 181 (29.7%) agreed, while 51 (8.4%) strongly disagreed. On whether society is becoming more accepting of sexual content online, 273 (44.8%) strongly agreed and 212 (34.8%) agreed, whereas 18 (3.0%) strongly disagreed. Regarding whether sexual lifestyles shown online reflect what youths actually practice, 244 (40.0%) agreed and 154 (25.2%) strongly agreed, while 57 (9.3%) strongly disagreed. For the statement that viewing sexual content online does not affect moral values, 303 (49.7%) strongly disagreed and 144 (23.6%) disagreed, while 56 (9.2%) strongly agreed.

On comfort discussing sexual topics seen online with friends, 246 (40.3%) strongly disagreed and 90 (14.8%) disagreed, while 59 (9.7%) strongly agreed. Regarding whether exposure to online sexual content may sometimes provide sexual education, 193 (31.6%) agreed and 106 (17.4%) strongly agreed, while 82 (13.4%) strongly disagreed. For the statement that online content provides a more honest view of sex than school or church, 157 (25.7%) agreed and 121 (19.8%) strongly agreed, while 124 (20.3%) strongly disagreed. On whether family discourages viewing sexual content online, 329 (53.9%) strongly agreed and 139 (22.8%) agreed, while 59 (9.7%) strongly disagreed.

Regarding friends believing that viewing sexual content online is acceptable, 208 (34.1%) strongly disagreed and 102 (16.7%) disagreed, while 59 (9.7%) strongly agreed. For perceived risks associated with sex being minimal online, 156 (25.6%) strongly disagreed and 78 (12.8%) disagreed, while 152 (24.9%) strongly agreed. On religious beliefs discouraging viewing sexual content online, 300 (49.2%) strongly agreed and 128 (21.0%) agreed, while 83 (13.6%) strongly disagreed. For whether online sexual content is a reliable source of sexual health information, 156 (25.6%) strongly disagreed and 101 (16.6%) disagreed, while 81 (13.3%) strongly agreed.

Overall, respondents showed mixed attitudes, with strong agreement on high exposure and social acceptance of online sexual content, but stronger disagreement regarding its moral acceptability, safety, and reliability as a source of sexual health information.

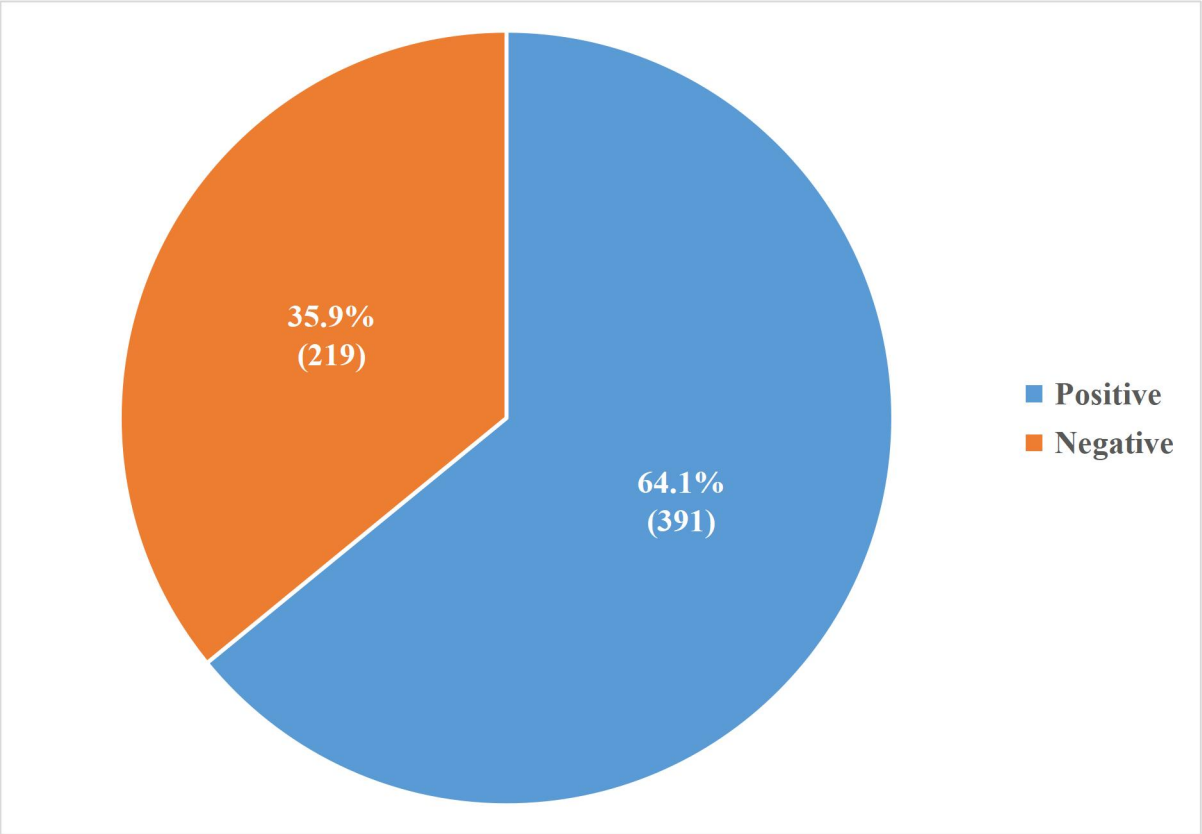

Figure 3: Respondents' attitude toward online sexual content.

A total of 391 (64.1%) of respondents had positive attitudes toward online sexual content, while 219 (35.9%) had negative attitudes.

Table 9a: Sociodemographic characteristics and respondents' attitudes toward online sexual contents

Variables	Attitude		Test statistic	95% CI	p-value
	Positive (n=391) Freq. (%)	Negative (n=219) Freq. (%)			
Age group (years)					
15 – 19	279 (64.7)	152 (35.3)	$\chi^2 = 0.257$	0.640 – 0.658	0.643
20 – 24	112 (62.6)	67 (37.4)			
Sex					
Male	154 (61.4)	97 (38.6)	$\chi^2 = 1.395$	0.260 – 0.278	0.265
Female	237 (66.0)	122 (34.0)			
Ethnicity					
Edo non-indigenes	171 (61.3)	108 (38.7)	$\chi^2 = 1.762$	0.200 – 0.216	0.204
Edo indigenes	220 (66.5)	111 (33.5)			
Religion					
Christianity	375 (64.4)	207 (35.6)	$\chi^2 = 0.617$	0.539 – 0.559	0.546
Other*	16 (57.1)	12 (42.9)			
Level of education					
Secondary	353 (64.9)	191 (35.1)	$\chi^2 = 1.368$	0.273 – 0.291	0.277
Tertiary	38 (57.6)	28 (42.4)			
Residence					
With family	253 (65.0)	136 (35.0)	$\chi^2 = 0.412$	0.532 – 0.552	0.539
Alone	138 (62.4)	83 (37.6)			
Schooling status					
In school	337 (65.2)	180 (34.8)	$\chi^2 = 1.736$	0.193 – 0.208	0.198
Out of school	54 (58.1)	39 (41.9)			
Employment status					
Employed	48 (63.2)	28 (36.8)	$\chi^2 = 0.033$	0.895 – 0.907	0.898
Unemployed	343 (64.2)	191 (35.8)			
Monthly Income (₦)					
<70,000	325 (65.5)	171 (34.5)	$\chi^2 = 2.345$	0.127 – 0.140	0.131
> 70,000	66 (57.9)	48 (42.1)			
Main Device Used					
Phone	383 (64.0)	215 (36.0)	0.035+	1.000 – 1.000	>0.999
Laptop / Tablet	8 (66.7)	4 (33.3)			
Data affordability					
Affordable	238 (64.9)	129 (35.1)	$\chi^2 = 0.226$	0.663 – 0.681	0.667
Unaffordable	153 (63.0)	90 (37.0)			
Average Time Spent Online (hours)					
<4	155 (65.4)	82 (34.6)	$\chi^2 = 8.930$	0.009 – 0.013	**0.011**
4 – 6	116 (71.6)	46 (28.4)			
> 6	120 (56.9)	91 (43.1)			

Islam, ATR; +Fisher's Exact Test

Table 9b: Sociodemographic characteristics and respondents' attitudes toward online sexual content

Variables	Attitude		Test statistic	95% CI	p-value
	Positive (n=391) Freq. (%)	Negative (n=219) Freq. (%)			
Age at first exposure to sexual content online					
≤ 10	49 (59.8)	33 (40.2)	$\chi^2 = 1.555$	0.664 – 0.682	0.671
11 – 13	83 (68.0)	39 (32.0)			
14 – 16	154 (63.4)	89 (36.6)			
17 – 23	105 (64.4)	58 (35.6)			
Knowledge of online sexual content					
Good	211 (63.4)	122 (36.6)	$\chi^2 = 0.002$	1.000 – 1.000	>0.999
Poor	53 (63.1)	31 (36.9)			

Respondents aged 15 - 19 years demonstrated slightly higher positive attitudes, with 279 (64.7%) having positive attitudes compared with 112 (62.6%) respondents aged 20 - 24 years, suggesting that younger respondents tended to demonstrate slightly more positive attitudes toward online sexual content. However, there was no statistically significant association between age group and attitude toward online sexual content (p = 0.643). Female respondents 237 (66.0%), demonstrated slightly higher positive attitudes, compared with male respondents, 154 (61.4%), indicating that females tended to demonstrate more positive attitudes toward online sexual content. However, there was no statistically significant association between sex and attitude toward online sexual content (p = 0.265).

Edo indigenes demonstrated slightly higher 220 (66.5%) positive attitudes, compared with 171 (61.3%) Edo non-indigenes, suggesting only minimal ethnic differences in attitudes toward online sexual content. There was no statistically significant association between ethnicity and attitude toward online sexual content (p = 0.204). Christian respondents, 375 (64.4%),

demonstrated slightly higher positive attitudes compared with respondents of other religions, 16 (57.1%), indicating that Christian respondents demonstrate more positive attitudes toward online sexual content. However, there was no statistically significant association between religion and attitude toward online sexual content ($p = 0.546$). Those with secondary education demonstrated more positive attitudes, 353 (64.9%), compared with respondents with tertiary education, 38 (57.6%), suggesting that respondents with lower level of education demonstrated slightly more positive attitudes toward online sexual content. However, there was no statistically significant association between level of education and attitude toward online sexual content ($p = 0.277$).

For respondents living with family, they demonstrated slightly higher 253 (65.0%) positive attitudes, compared with respondents living alone, 138 (62.4%), indicating that living with family was associated with slightly more positive attitudes toward online sexual content. However, there was no statistically significant association between residence and attitude toward online sexual content ($p = 0.539$). Respondents currently in school demonstrated more positive attitudes, 337 (65.2%), compared with respondents out of school, 54 (58.1%), suggesting that respondents currently in school tended to demonstrate more positive attitudes toward online sexual content. However, there was no statistically significant association between schooling status and attitude toward online sexual content ($p = 0.198$).

Unemployed respondents demonstrated slightly higher positive attitudes, 343 (64.2%), compared with employed respondents, 48 (63.2%), although the trend showed minimal variation in attitudes by employment status. There was no statistically significant association between employment status and attitude toward online sexual content ($p = 0.898$). Respondents earning below ₦70,000 demonstrated slightly higher positive attitudes, 325 (65.5%), compared with respondents earning above ₦70,000, 66 (57.9%), indicating that lower income respondents

tended to demonstrate more positive attitudes toward online sexual content. However, there was no statistically significant association between monthly income and attitude toward online sexual content ($p = 0.131$). Phone users and laptop/tablet users demonstrated similar levels of positive attitudes, 64.0% and 66.7% respectively, suggesting that the type of device used had little influence on attitude toward online sexual content. Consequently, there was no statistically significant association between main device used and attitude toward online sexual content ($p > 0.999$).

Respondents who considered internet data affordable demonstrated slightly higher positive attitudes, 238 (64.9%), compared with respondents who considered data unaffordable, 153 (63.0%), suggesting only slight differences in attitude by data affordability. However, there was no statistically significant association between data affordability and attitude toward online sexual content ($p = 0.667$). Those who spend 4 - 6 hours online daily demonstrated the highest proportion 116 (71.6%) of positive attitudes, while respondents who send more than 6 hours online daily demonstrated the lowest proportion, 120 (56.9%), indicating that moderate internet use was associated with more positive attitudes whereas prolonged internet use reduced positive attitudes toward online sexual content. This association between average time spent online and attitude toward online sexual content was statistically significant ($\chi^2 = 8.930$, $p = 0.011$).

Respondents first exposed between ages 11 - 13 years demonstrated the highest positive attitudes, 83 (68.0%), while respondents exposed at ≤10 years demonstrated lower positive attitudes, 49 (59.8%), suggesting that exposure during early adolescence was associated with more positive attitudes toward online sexual content. However, there was no statistically significant association between age at first exposure and attitude toward online sexual content ($p = 0.671$). Respondents with good knowledge demonstrated similar positive attitudes, 211 (63.4%), compared with

respondents with poor knowledge, 53 (63.1%), indicating no meaningful difference in attitude by knowledge level. Consequently, there was no statistically significant association between knowledge level and attitude toward online sexual content ($p > 0.999$).

Table 10: Predictors of attitude of respondents toward online sexual content

Variables	β (regression coefficient)	OR	95% C.I. for OR		p-value
			Lower	Upper	
Age (years)	0.024	1.024	0.922	1.137	0.654
Sex					
Male*		1			
Female	0.170	1.185	0.771	1.822	0.440
Ethnicity					
Edo non-indigenes*		1			
Edo indigenes	0.375	1.455	0.960	2.205	0.077
Religion					
Christianity*		1			
Other	-0.167	0.847	0.306	2.346	0.749
Level of education					
Secondary*		1			
Tertiary	-0.191	0.826	0.272	2.504	0.736
Residence					
With family*		1			
Alone	0.029	1.030	0.654	1.620	0.899
Schooling status					
In school*		1			
Out of school	-0.247	0.781	0.298	2.052	0.617
Employment status					
Employed*		1			
Unemployed	-0.279	0.756	0.384	1.489	0.419
Monthly Income (₦)					
<70,000*		1			
> 70,000	-0.317	0.729	0.430	1.236	0.240
Main Device Used					
Phone*					
Laptop / Tablet	-0.052	0.949	0.248	3.631	0.939
Data affordability					
Affordable*		1			
Unaffordable	-0.018	0.982	0.637	1.513	0.934
Average Time Spent Online (hours)					
<4*		1			
4 – 6	0.164	1.178	0.683	2.032	0.556
> 6	-0.541	0.582	0.347	0.976	**0.040****
Age at first exposure to sexual content online					
≤ 10*		1			
11 – 13	0.144	1.155	0.549	2.427	0.704
14 – 16	-0.173	0.841	0.418	1.690	0.627
17 – 23	-0.183	0.833	0.382	1.813	0.644
Knowledge of online sexual content					
Good*		1			
Poor	0.000	1.000	0.588	1.700	0.999

*OR: Odds ratio; CI: Confidence interval; * Reference category; ** $p < 0.05$; R^2=4.2 – 5.7%.*

The analysis showed that respondents who spent more than 6 hours online daily were less likely to have positive attitudes toward online sexual content compared with respondents spending less than 4 hours online (OR = 0.582, 95% CI: 0.347–0.976, p = 0.040). Other variables such as age, sex, ethnicity, religion, education, residence, schooling status, employment status, income level, device used, and knowledge did not significantly predict attitude. The trend observed suggests that excessive internet use reduced the likelihood of positive attitudes toward online sexual content, whereas moderate internet use appeared to encourage more favourable attitudes. Respondents with higher income and tertiary education also tended to have lower odds of positive attitudes, although these relationships were not statistically significant.

There was a statistically significant predictive association between spending more than 6 hours online daily and attitude toward online sexual content (p = 0.040). However, age (p = 0.654), sex (p = 0.440), ethnicity (p = 0.077), religion (p = 0.749), level of education (p = 0.736), residence (p = 0.899), schooling status (p = 0.617), employment status (p = 0.419), monthly income (p = 0.240), main device used (p = 0.939), data affordability (p = 0.934), age at first exposure (p = 0.704, p = 0.627, p = 0.644), and knowledge level (p = 0.999) were not significant predictors of attitude.

SECTION D

PREVALENCE AND PATTERN OF ONLINE SEXUAL CONTENT ACCESSED BY RESPONDENTS

Table 11: Prevalence of and pattern of online sexual content accessed by respondents

Variables	Frequency	Percent
Ever seen sexual content online (n = 610)		
Yes	426	69.8
No	184	30.2
Seen an online sexual content in the last 3 months (n=426)		
Yes	276	64.8
No	150	35.2
Frequency of sexual content exposure (n=426)		
Rarely	236	55.4
Monthly	38	8.9
Weekly	83	19.5
Daily	69	16.2
Mode of encounter with online sexual content (n=426) *		
Pop up advertisements	195	33.1
Accidental exposure	178	30.2
Shared links in online groups	92	15.6
Intentional search	79	13.4
Sent by friends	45	7.6
Type of content exposed to (n=426) *		
Explicit videos	210	32.1
Images	196	29.9
Erotic stories	121	18.5
Sexual chat	70	10.7
Educational videos	58	8.9
Platforms used to access content (n=426) *		
Porn sites	90	21.4
TikTok	87	20.7
WhatsApp	79	18.8
X (Twitter)	61	14.5
YouTube	49	11.6
Instagram	40	9.5
Shared sexual content with others online (n=426)		
Yes	72	16.9
No	354	83.1
Reasons for Viewing Sexual Content (n=426) *		
Curiosity	171	35.4
Boredom	94	19.5
Sexual interest	88	18.2
Stress relief	51	10.6
Relationship related	41	8.5
Peer pressure	38	7.9

**Multiple response question*

Majority 426 (69.8%) of respondents reported to have seen sexual content online, while 184 (30.2%) reported never having seen such content. Among those who had ever seen sexual content online (n = 426), 276 (64.8%) reported exposure within the last 3 months, while 150 (35.2%) had not. Regarding frequency of exposure, most 236 (55.4%) respondents reported rare exposure, followed by weekly exposure, 83 (19.5%), daily exposure, 69 (16.2%), and monthly exposure, 38 (8.9%).

Concerning mode of encounter with online sexual content, the majority195 (33.1%), reported pop-up advertisements, followed by accidental exposure, 178 (30.2%), shared links in online groups, 92 (15.6%), intentional search, 79 (13.4%), and content sent by friends, 45 (7.6%). Explicit videos, 210 (32.1%), and images, 196 (29.9%), were the most commonly viewed content, followed by erotic stories, 121 (18.5%), sexual chat, 70 (10.7%), and educational videos, 58 (8.9%). Pornographic websites, 90 (21.4%), and TikTok, 87 (20.7%), were the leading access platforms for OSC followed by TikTok, 87 (20.7%), WhatsApp, 79 (18.8%), X (Twitter), 61 (14.5%), YouTube, 49 (11.6%), and Instagram, 40 (9.5%).

Majority 354 (83.1%) of respondents did not share sexual content with others online, while 72 (16.9%) reported sharing such content, curiosity was the most commonly reported reason for viewing such content, with 171 (35.4%) respondent, followed by boredom, 94 (19.5%), sexual interest, 88 (18.2%), stress relief, 51 (10.6%), relationship related reasons, 41 (8.5%), and peer pressure, 38 (7.9%).

Table 12a: Sociodemographic factors and exposure to online sexual content among respondents

Variables	Exposure to Online Sexual Content		Test statistic	95% CI	p-value
	Yes (n=426) Freq. (%)	No (n=184) Freq. (%)			
Age group (years)					
15 – 19	279 (64.7)	152 (35.3)	$\chi^2 = 18.156$	0.000 – 0.000	**<0.001**
20 – 24	147 (82.1)	32 (17.9)			
Sex					
Male	194 (77.3)	57 (22.7)	$\chi^2 = 11.251$	0.000 – 0.000	**0.001**
Female	232 (64.6)	127 (35.4)			
Ethnicity					
Edo non-indigenes	198 (71.0)	81 (29.0)	$\chi^2 = 0.313$	0.594 – 0.613	0.596
Edo indigenes	228 (68.9)	103 (31.1)			
Religion					
Christianity	409 (70.3)	173 (29.7)	$\chi^2 = 1.159$	0.285 – 0.303	0.295
Other*	17 (60.7)	11 (39.3)			
Level of education					
Secondary	375 (68.9)	169 (31.1)	$\chi^2 = 1.943$	0.193 – 0.209	0.201
Tertiary	51 (77.3)	15 (22.7)			
Residence					
With family	245 (63.8)	139 (36.2)	$\chi^2 = 24.152$	0.000 – 0.000	**<0.001**
Alone	92 (84.4)	17 (15.6)			
Schooling status					
In school	358 (69.2)	159 (30.8)	$\chi^2 = 0.561$	0.458 – 0.477	0.466
Out of school	68 (73.1)	25 (26.9)			
Employment status					
Employed	50 (65.8)	26 (34.2)	$\chi^2 = 0.675$	0.414 – 0.434	0.424
Unemployed	376 (70.4)	158 (29.6)			
Monthly Income (₦)					
<70,000	336 (67.7)	160 (32.3)	$\chi^2 = 5.525$	0.019 – 0.024	**0.023**
> 70,000	90 (78.9)	24 (21.1)			
Main Device Used					
Phone	416 (69.6)	182 (30.4)	1.059+	0.358 – 0.377	0.365
Laptop / Tablet	10 (83.3)	2 (16.7)			
Data affordability					
Affordable	268 (73.0)	99 (27.0)	$\chi^2 = 4.446$	0.033 – 0.040	**0.038**
Unaffordable	158 (65.0)	85 (35.0)			

**Islam, ATR; +Fisher's Exact Test*

Respondents aged 20 - 24 years demonstrated higher exposure, 147 (82.1%), compared with respondents aged 15 - 19 years, 279 (64.7%), suggesting that increasing age was associated with greater exposure to online sexual content. This association between age group and exposure to online sexual content was statistically significant ($\chi^2 = 18.156$, $p < 0.001$). Male respondents demonstrated higher exposure, 194 (77.3%), compared with female respondents, 232 (64.6%), indicating that male respondents were more likely to be exposed to online sexual content. This association between sex and exposure to online sexual content was statistically significant ($\chi^2 = 11.251$, $p = 0.001$). Edo non-indigenes demonstrated slightly higher exposure, 198 (71.0%), compared with Edo indigenes, 228 (68.9%), suggesting minimal ethnic differences in exposure to online sexual content. However, there was no statistically significant association between ethnicity and exposure to online sexual content ($p = 0.596$).

Christian respondents demonstrated slightly higher exposure, 409 (70.3%), compared with respondents practising other religions, 17 (60.7%), indicating that Christian respondents tended to report slightly greater exposure to online sexual content. However, there was no statistically significant association between religion and exposure to online sexual content ($p = 0.295$). Respondents with tertiary education demonstrated higher exposure, 51 (77.3%), compared with respondents with secondary education, 375 (68.9%), suggesting that higher educational attainment was associated with increased exposure to online sexual content. However, there was no statistically significant association between level of education and exposure to online sexual content ($p = 0.201$). Respondents living alone demonstrated markedly higher exposure, 92 (84.4%), compared with respondents living with family, 245 (63.8%), indicating that independent living increased exposure to online sexual content. This association between

residence and exposure to online sexual content was statistically significant ($\chi^2 = 24.152$, $p < 0.001$).

Respondents out of school demonstrated slightly higher exposure, 68 (73.1%), compared with respondents in school, 358 (69.2%), suggesting that respondents out of school tended to demonstrate greater exposure to online sexual content. However, there was no statistically significant association between schooling status and exposure to online sexual content ($p = 0.466$). Unemployed respondents demonstrated slightly higher exposure, 376 (70.4%), compared with employed respondents, 50 (65.8%), although the trend indicated minimal variation in exposure by employment status. There was no statistically significant association between employment status and exposure to online sexual content ($p = 0.424$). Respondents earning above ₦70,000 demonstrated higher exposure, 90 (78.9%), compared with respondents earning below ₦70,000, 336 (67.7%), suggesting that higher income increased exposure to online sexual content. This association between monthly income and exposure to online sexual content was statistically significant ($\chi^2 = 5.525$, $p = 0.023$).

Laptop/tablet users demonstrated slightly higher exposure, 10 (83.3%), compared with phone users, 416 (69.6%), suggesting minimal differences in exposure by device used. However, there was no statistically significant association between main device used and exposure to online sexual content ($p = 0.365$). Respondents who considered internet data affordable demonstrated higher exposure, 268 (73.0%), compared with respondents who considered data unaffordable, 158 (65.0%), indicating that affordable internet access increased exposure to online sexual content. This association between data affordability and exposure to online sexual content was statistically significant ($\chi^2 = 4.446$, $p = 0.038$).

Table 12b: Sociodemographic factors and exposure to online sexual content among respondents

Variables	Exposure to Online Sexual Content		Test statistic	95% CI	p-value
	Yes (n=426) Freq. (%)	No (n=184) Freq. (%)			
Average Time Spent Online (hours)					
<4	148 (62.4)	89 (37.6)	$\chi^2 = 10.073$	0.004 – 0.007	**0.007**
4 – 6	120 (74.1)	42 (25.9)			
> 6	158 (74.9)	53 (25.1)			
Age at first exposure to sexual content online					
≤ 10	43 (52.4)	39 (47.6)	$\chi^2 = 25.811$	0.000 – 0.000	**<0.001**
11 – 13	102 (83.6)	20 (16.4)			
14 – 16	176 (72.4)	67 (27.6)			
17 – 23	105 (64.4)	58 (35.6)			
Knowledge of online sexual content					
Good	296 (88.9)	37 (11.1)	$\chi^2 = 14.415$	0.000 – 0.000	**<0.001**
Poor	61 (72.6)	23 (27.4)			
Attitude towards online sexual content					
Positive	265 (67.8)	126 (32.2)	$\chi^2 = 2.196$	0.137 – 0.150	0.143
Negative	161 (73.5)	58 (26.5)			

Respondents spending more than 6 hours online daily demonstrated the highest exposure, 158 (74.9%), while respondents spending less than 4 hours online daily demonstrated the lowest exposure, 148 (62.4%), suggesting that increasing duration of internet use increased exposure to online sexual content. This association between average time spent online and exposure to online sexual content was statistically significant ($\chi^2 = 10.073$, $p = 0.007$). Respondents first exposed between ages 11–13 years demonstrated the highest exposure, 102 (83.6%), while respondents first exposed at ≤10 years demonstrated lower exposure, 43 (52.4%), indicating that earlier

exposure increased the likelihood of continued exposure to online sexual content. This association between age at first exposure and exposure to online sexual content was statistically significant ($\chi^2 = 25.811$, $p < 0.001$).

Respondents with good knowledge demonstrated higher exposure, 296 (88.9%), compared with respondents with poor knowledge, 61 (72.6%), suggesting that better knowledge was associated with greater exposure to online sexual content. This association between knowledge level and exposure to online sexual content was statistically significant ($\chi^2 = 14.415$, $p < 0.001$). Respondents with negative attitudes had higher exposure, 161 (73.5%), than those with positive attitudes, 265 (67.8%), suggesting that respondents with negative attitudes tended to report slightly greater exposure to online sexual content. However, there was no statistically significant association between attitude toward online sexual content and exposure ($p = 0.143$).

Table 13a: Predictors of exposure to online sexual content among respondents

Variables	β (regression coefficient)	OR	95% C.I. for OR		p-value
			Lower	Upper	
Age (years)	0.232	1.261	1.058	1.503	**0.009****
Sex					
Male*		1			
Female	-0.689	0.502	0.259	0.976	**0.042****
Ethnicity					
Edo non-indigenes*		1			
Edo indigenes	-0.084	0.920	0.507	1.668	0.783
Religion					
Christianity*		1			
Other	-0.200	0.819	0.214	3.137	0.770
Level of education					
Secondary*		1			
Tertiary	0.779	2.179	0.514	9.241	0.291
Residence					
With family*		1			
Alone	-0.096	0.908	0.468	1.761	0.776
Schooling status					
In school*		1			
Out of school	-0.953	0.386	0.119	1.252	0.113
Employment status					
Employed*		1			
Unemployed	0.457	1.579	0.612	4.074	0.345
Monthly Income (₦)					
<70,000*		1			
> 70,000	0.024	1.025	0.446	2.352	0.954
Main Device Used					
Phone*		1			
Laptop / Tablet	0.068	1.070	0.118	9.704	0.952
Data affordability					
Affordable*		1			
Unaffordable	-0.443	0.642	0.352	1.171	0.148
Average Time Spent Online (hours)					
<4*		1			
4 – 6	0.249	1.283	0.609	2.702	0.512
> 6	0.235	1.264	0.611	2.615	0.527

*OR: Odds ratio; CI: Confidence interval; * Reference category; ** $p < 0.05$; $R^2 = 8.8 – 15.7\%$*

The analysis shows that increasing age significantly increased the odds of exposure to online sexual content (OR = 1.261, 95% CI: 1.058–1.503, p = 0.009). Female respondents were significantly less likely to report exposure compared with males (OR = 0.502, 95% CI: 0.259–0.976, p = 0.042). Respondents with tertiary education had higher odds of exposure (OR = 2.179), although this was not statistically significant.

The trend observed suggests that increasing age increased the likelihood of exposure to online sexual content, while female sex reduced the likelihood of exposure. Respondents with higher educational attainment and longer internet use also tended to demonstrate greater odds of exposure, although these relationships were not statistically significant.

There was a statistically significant predictive association between age and exposure to online sexual content (p = 0.009), as well as sex and exposure (p = 0.042). However, ethnicity (p = 0.783), religion (p = 0.770), level of education (p = 0.291), residence (p = 0.776), schooling status (p = 0.113), employment status (p = 0.345), monthly income (p = 0.954), main device used (p = 0.952), data affordability (p = 0.148), and average time spent online (p = 0.512 and p = 0.527) were not significant predictors of exposure.

Table 13b: Predictors of exposure to online sexual content among respondents

Variables	β (regression coefficient)	OR	95% C.I. for OR		p-value
			Lower	Upper	
Age at first exposure to sexual content online					
≤ 10*					
11 – 13	1.153	3.167	1.055	9.504	**0.040****
14 – 16	0.346	1.414	0.565	3.536	0.459
17 – 23	-0.251	0.778	0.280	2.161	0.630
Knowledge of online sexual content					
Good*		1			
Poor	-0.782	0.458	0.243	0.861	**0.015****
Attitude toward online sexual content					
Positive*		1			
Negative	0.192	1.212	0.651	2.258	0.545

*OR: Odds ratio; CI: Confidence interval; * Reference category; ** $p < 0.05$; $R^2 = 8.8 – 15.7\%$*

This showed that respondents with good knowledge of online sexual content had higher odds of exposure compared with respondents with poor knowledge. Respondents with negative attitudes toward online sexual content also demonstrated slightly higher odds of exposure than respondents with positive attitudes, although this was not statistically significant. Similarly, respondents first exposed to online sexual content at earlier ages demonstrated greater odds of exposure in later years.

The trend observed indicates that increasing knowledge of online sexual content and earlier exposure to online sexual content increased the likelihood of subsequent exposure. Respondents with negative attitudes also appeared more likely to report exposure, although the relationship was weak.

Knowledge level significantly predicted exposure to online sexual content ($p < 0.001$), showing that respondents with good knowledge were significantly more likely to be exposed to online

sexual content. Age at first exposure also significantly predicted exposure ($p < 0.001$), indicating that respondents exposed at earlier ages had significantly greater likelihood of continued exposure. However, attitude toward online sexual content did not significantly predict exposure ($p > 0.05$).

SECTION E

SEXUAL BEHAVIOUR OF RESPONDENTS

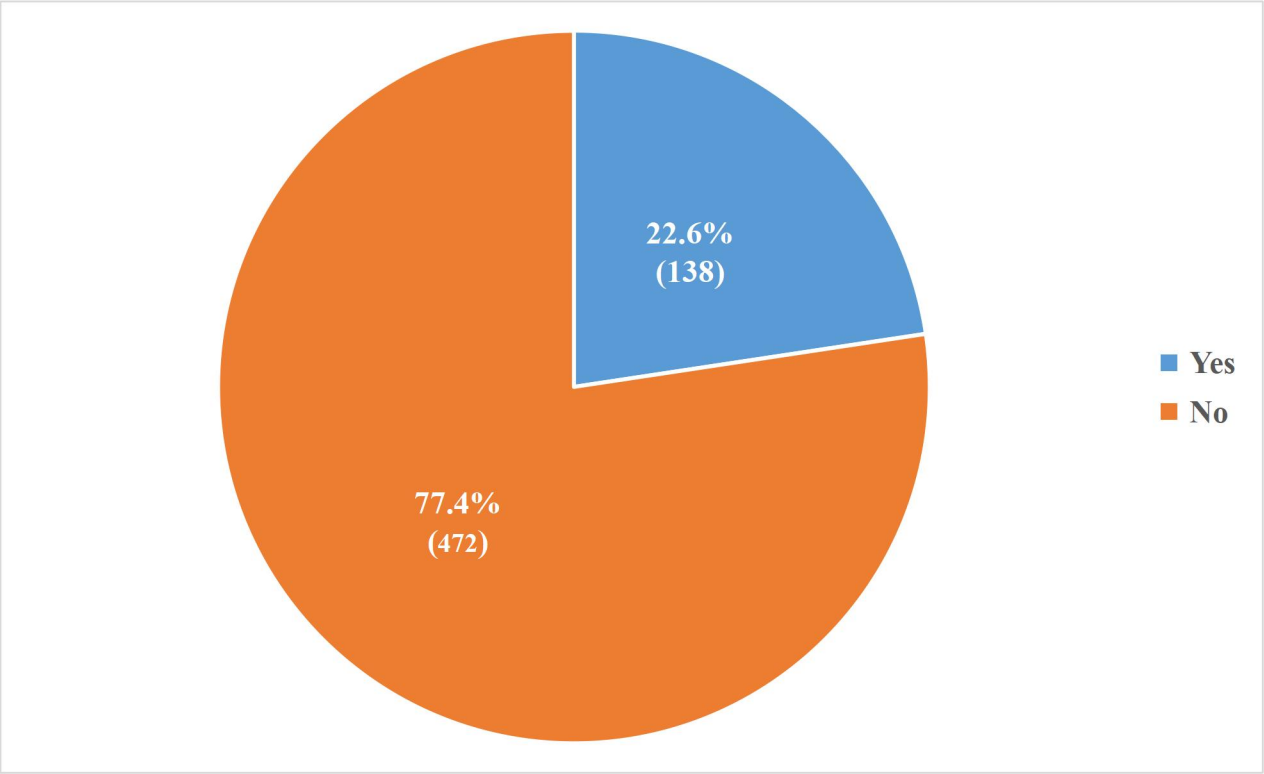

Figure 4: Prevalence of sexual initiation among respondents.

A total of 138 (22.6) respondents had engaged in sexual intercourse, while 472 (77.4%) had not.

Table 14: Sexual behaviours and practices among sexually active respondents

Variables	Frequency (n = 138)	Percent
Age at sexual debut (years)		
<15	21	15.2
> 15	117	84.8
Number of sexual partners in last 12 months		
None	32	23.2
1 – 2	78	56.5
> 2	28	20.3
Condom use at last sexual encounter		
Yes	67	48.6
No	71	51.4
Frequency of condom use in the last 12 months		
Always	52	37.7
Sometime	56	40.6
Never	52	21.7
Ever used emergency contraception		
Yes	30	21.7
No	108	78.3
Ever engaged in transactional sex		
Yes	24	17.4
No	114	82.6
Had sex after alcohol or drug use in the past 12 months		
Yes	30	21.7
No	108	78.3
First sexual experience influenced by something seen online		
Yes	21	15.2
No	117	84.8
Ever felt pressured or forced to have sex		
Yes	47	34.1
No	91	65.9
Age between partners		
Same age	21	15.2
1 – 2	50	36.2
3 – 5	30	21.7
> 5	16	11.6
N/A	21	15.2
Verbal consent unnecessary for initiating sexual act		
Yes	55	39.9
No	83	60.1
Woman's value in a relationship depends on her physical appearance		
Yes	61	44.2
No	77	55.8

The result showed that 117 (84.8%) sexually active respondents reported sexual debut after 15 years of age, while only 21 (15.2%) reported sexual debut before 15 years. The majority 78 (56.5%) of respondents reported having 1 - 2 sexual partners in the last 12 months, while 28 (20.3%) reported more than 2 sexual partners. Condom use at last sexual intercourse was low, as 71 (51.4%) respondents reported not using condoms, compared with 67 (48.6%) who used condoms. Furthermore, only 52 (37.7%) respondents reported always using condoms in the last 12 months, while 30 (21.7%) had used emergency contraception. Transactional sex was reported by 24 (17.4%) respondents, while 30 (21.7%) reported having sex after alcohol or drug use.

The trend observed indicates that although most respondents initiated sex after 15 years and had relatively few sexual partners, risky sexual practices such as inconsistent condom use, transactional sex, and substance-related sexual activity were still present among a considerable proportion of respondents. The findings also showed that most, 117 (84.8%) respondents reported that their first sexual experience was not influenced by online content, and 91 (65.9%) that they had never been pressured or forced into sex.

No test of statistical association was reported for this table because the table was descriptive. However, the findings suggest the presence of moderately risky sexual practices among sexually active respondents, particularly regarding condom use and substance-related sexual behaviour.

SECTION F

INFLUENCE OF ONLINE SEXUAL CONTENT ON SEXUAL INITIATION AND PRACTICES AMONG RESPONDENTS

Table 15: Influence of OSC exposure on sexual initiation and practices among respondents

	n = 426 Freq. (%)				
Variables	**Always**	**Often**	**Sometimes**	**Rarely**	**Never**
Exposure to sexual content online makes me curious about sex	39 (9.2)	38 (8.9)	126 (29.6)	85 (20.0)	138 (32.4)
I have tried a sexual act after seeing it online	30 (7.0)	26 (6.1)	65 (15.3)	63 (14.8)	242 (56.8)
I seek out online content to satisfy my sexual curiosity	39 (9.2)	31 (7.3)	84 (19.7)	87 (20.4)	185 (43.4)
I discuss sexual topics I find online with friends	16 (3.8)	32 (7.5)	65 (15.3)	91 (21.4)	222 (52.1)
Watching online sexual content helps me learn more about sexual health and safety	30 (7.0)	40 (9.4)	125 (29.3)	92 (21.6)	139 (32.6)
I tried unsuccessfully to stop viewing sexual content	85 (20.0)	48 (11.3)	71 (16.7)	51 (12.0)	171 (40.1)
I spent longer viewing sexual content than intended	37 (8.7)	28 (6.6)	58 (13.6)	85 (20.0)	218 (51.2)
Viewing sexual content interfered with work or school	55 (12.9)	23 (5.4)	57 (13.4)	67 (15.7)	224 (52.6)
I continued viewing despite negative consequences	34 (8.0)	32 (7.5)	68 (16.0)	73 (17.1)	219 (51.4)

The result showed that 126 (29.6%) respondents sometimes felt curious about sex after exposure to online sexual content, while 138 (32.4%) reported never experiencing such curiosity. Most respondents, 242 (56.8%), reported never trying a sexual act after seeing it online, while 65 (15.3%) sometimes did so. Similarly, 185 (43.4%) respondents reported never seeking online sexual content to satisfy sexual curiosity, while 84 (19.7%) sometimes sought such content.

Majority, 222 (52.1%) of respondents reported never discussing sexual topics found online with friends. The trend observed indicates that although a substantial proportion of respondents were exposed to online sexual content, most respondents did not frequently translate exposure into direct sexual practices or behavioural imitation.

However, a moderate 39 (9.2%) proportion still reported curiosity about sex, attempts to imitate sexual acts, and use of online sexual content for sexual curiosity or sexual health learning. The findings also showed behavioural tendencies suggestive of problematic exposure, as 85 (20.0%) respondents always tried unsuccessfully to stop viewing sexual content, while 37 (8.7%) always spent longer viewing sexual content than intended.

No statistical association was reported for this table because it was descriptive in nature. However, the pattern of responses suggests that online sexual content exposure may contribute to sexual curiosity, behavioural experimentation, and compulsive viewing tendencies among some respondents.

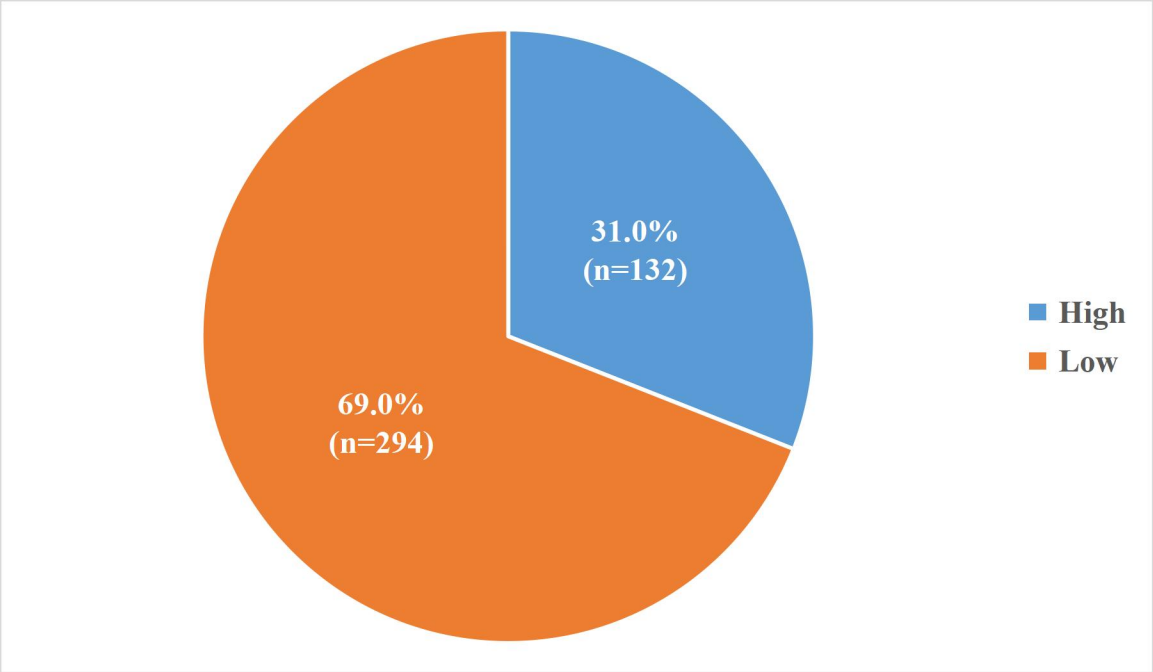

Figure 5: Level of influence of OSC exposure among respondents.

A total of 294 (69.0%) respondents reported a low level of influence from OSC exposure, while 132 (31.0%) reported a high level of influence.

Table 16a: Sociodemographic characteristics and influence of OSC on sexual initiation and practices

Variables	Level of Influence		Test statistic	95% CI	p-value
	High (n=132) Freq. (%)	Low (n=294) Freq. (%)			
Age group (years)					
15 – 19	90 (32.3)	189 (67.7)	$\chi^2 = 0.612$	0.431 – 0.451	0.443
20 – 24	42 (28.6)	105 (71.4)			
Sex					
Male	72 (37.1)	122 (62.9)	$\chi^2 = 6.254$	0.014 – 0.019	**0.015**
Female	60 (25.9)	172 (74.1)			
Ethnicity					
Edo non-indigenes	63 (31.8)	135 (68.2)	$\chi^2 = 0.120$	0.743 – 0.760	0.753
Edo indigenes	69 (30.3)	159 (69.7)			
Religion					
Christianity	123 (30.1)	286 (69.9)	$\chi^2 = 3.991$	0.056 – 0.065	0.060
Other*	9 (52.9)	8 (47.1)			
Level of education					
Secondary	120 (32.0)	255 (68.0)	$\chi^2 = 1.506$	0.249 – 0.266	0.260
Tertiary	12 (23.5)	39 (76.5)			
Residence					
With family	85 (34.1)	164 (65.9)	$\chi^2 = 2.782$	0.104 – 0.116	0.111
Alone	47 (26.6)	130 (73.4)			
Schooling status					
In school	114 (31.8)	244 (68.2)	$\chi^2 = 0.771$	0.386 – 0.405	0.396
Out of school	18 (26.5)	50 (73.5)			
Employment status					
Employed	15 (30.0)	35 (70.0)	$\chi^2 = 0.026$	1.000 – 1.000	>0.999
Unemployed	117 (31.1)	259 (68.9)			
Monthly Income (₦)					
<70,000	106 (31.5)	230 (68.5)	$\chi^2 = 0.235$	0.690 – 0.708	0.701
> 70,000	26 (28.9)	64 (71.1)			
Main Device Used					
Phone	127 (30.5)	289 (69.5)	1.731+	0.285 – 0.302	0.297
Laptop / Tablet	5 (50.0)	5 (50.0)			
Data affordability					
Affordable	77 (28.7)	191 (71.3)	$\chi^2 = 1.718$	0.188 – 0.204	0.195
Unaffordable	55 (34.8)	103 (65.2)			

Islam, ATR; +Fisher's Exact Test

Respondents aged 15 - 19 years experienced higher influence 90 (32.3%) of online sexual content compared to those 42 (28.6%), aged 20 - 24 years, indicating a trend where younger adolescents are marginally more affected. However, this difference was not statistically significant ($p = 0.443$), showing that age was not a strong determinant of influence on sexual initiation and practices. Male respondents experienced higher influence 72 (37.1%) compared to females 60 (25.9%), indicating a clear trend of greater behavioural susceptibility among males. This association was statistically significant ($p = 0.015$), showing that sex is an important determinant of the influence of online sexual content on sexual practices. Edo indigenes 69 (30.3%) and non-indigenes 63 (31.8%) had almost similar levels of influence, showing no meaningful trend across ethnic groups. There was no statistically significant association between ethnicity and influence ($p = 0.753$), indicating ethnicity does not affect behavioural outcomes from exposure.

Respondents of other religions reported higher influence 9 (52.9%) compared to Christians 123 (30.1%), suggesting a possible trend of variation across religious groups; however, this difference was not statistically significant ($p = 0.060$), thus, religion was not significantly associated with influence on sexual practices. Respondents with secondary education had higher influence 120 (32.0%) compared to those with tertiary education 12 (23.5%), suggesting a trend where lower education is associated with greater influence. However, this was not statistically significant ($p = 0.260$), meaning education level did not significantly determine behavioural influence. Those living with family experienced higher influence 85 (34.1%) compared to 47 (26.6%) living alone, showing a slight but inconsistent trend. There was no statistically significant association between residence and influence ($p = 0.111$).

In-school respondents had slightly higher influence 114(31.8%) compared to out-of-school respondents 18(26.5%), but the difference was minimal. There was no statistically significant association between schooling status and influence ($p = 0.396$). Unemployed respondents 117(31.1%) and employed respondents 15(30.0%) showed nearly identical levels of influence, indicating no clear trend. There was no statistically significant association between employment status and influence ($p > 0.999$). Respondents 106(31.5%) earning <₦70,000 had higher influence than 26(28.9%) earning >₦70,000, suggesting a weak and inconsistent trend. There was no statistically significant association between income and influence ($p = 0.701$).

Table 16b: Sociodemographic characteristics and influence of OSC on sexual initiation

Variables	Level of Influence		Test statistic	95% CI	p-value
	High (n=132) Freq. (%)	Low (n=294) Freq. (%)			
Average Time Spent Online (hours)					
<4	43 (29.1)	105 (70.9)	$\chi^2 = 2.408$	0.284 – 0.302	0.297
4 – 6	33 (27.5)	87 (72.5)			
> 6	56 (35.4)	102 (64.6)			
Age at first exposure to sexual content online					
≤ 10	13 (30.2)	30 (69.8)	$\chi^2 = 5.053$	0.164 – 0.179	0.170
11 – 13	39 (38.2)	63 (61.8)			
14 – 16	55 (31.3)	121 (68.8)			
17 – 23	25 (23.8)	80 (76.2)			
Knowledge of online sexual content					
Good	87 (29.4)	209 (70.6)	$\chi^2 = 8.989$	0.002 – 0.005	**0.003**
Poor	30 (49.2)	31 (50.8)			
Attitude toward online sexual content					
Positive	66 (24.9)	199 (75.1)	$\chi^2 = 12.122$	0.000 – 0.001	**<0.001**
Negative	66 (41.0)	95 (59.0)			
Ever had sex					
Yes	53 (40.8)	77 (59.2)	$\chi^2 = 8.374$	0.004 – 0.006	**0.004**
No	79 (26.7)	217 (73.3)			

Respondents who spent more than 6 hours online experienced higher influence 56 (35.4%) compared to those spending 4 - 6 hours 33 (27.5%) and less than 4 hours 43 (29.1%), showing a trend where increased screen time is associated with greater behavioural influence. However, this relationship was not statistically significant (p = 0.297), indicating that time spent online alone does not significantly determine influence. Those first exposed at ages 11 - 13 years had the highest influence, 39 (38.2%), compared to those exposed at ≤10 years, 13 (30.2%), and 17 - 23 years, 25 (23.8%), showing a trend where earlier exposure increases behavioural influence.

However, this association was not statistically significant ($p = 0.170$), although the pattern suggests a potential risk factor.

Respondents with poor knowledge experienced significantly higher influence 30 (49.2%) compared to those with good knowledge 87 (29.4%), indicating a clear trend where low knowledge increases vulnerability to behavioural influence. This was statistically significant ($p = 0.003$), showing that knowledge level is an important determinant of behavioural outcomes. Respondents with negative attitudes had higher influence 66 (41.0%) compared to those with positive attitudes 66 (24.9%), showing a strong trend where negative perceptions are associated with increased behavioural influence. This relationship was statistically significant ($p < 0.001$), indicating that attitude significantly affects sexual behaviour outcomes. Respondents who had ever had sexual intercourse experienced higher influence 53 (40.8%) compared to those who had never had sex 79 (26.7%), showing a clear trend that prior sexual activity is associated with stronger behavioural influence. This association was statistically significant ($p = 0.004$), indicating that sexual experience is an important predictor of influence from digital media exposure.

Table 17a: Predictors of influence of OSC on sexual initiation

Variables	β (regression coefficient)	OR	95% C.I. for OR		p-value
			Lower	Upper	
Age (years)	0.212	1.236	1.035	1.476	**0.019****
Sex					
Male*		1			
Female	-0.482	0.617	0.370	1.030	0.065
Ethnicity					
Edo non-indigenes*		1			
Edo indigenes	-0.203	0.816	0.496	1.341	0.422
Religion					
Christianity*		1			
Other	0.752	2.121	0.601	7.482	0.243
Level of education					
Secondary*		1			
Tertiary	-0.277	0.758	0.176	3.266	0.710
Residence					
With family*		1			
Alone	-0.524	0.592	0.341	1.028	0.063
Schooling status					
In school*		1			
Out of school	-0.375	0.687	0.197	2.396	0.556
Employment status					
Employed*		1			
Unemployed	0.250	1.284	0.588	2.805	0.530
Monthly Income (₦)					
<70,000*		1			
> 70,000	-0.454	0.635	0.338	1.194	0.159
Main Device Used					
Phone*		1			
Laptop / Tablet	0.177	1.193	0.245	5.814	0.827
Data affordability					
Affordable*		1			
Unaffordable	0.355	1.427	0.859	2.368	0.170
Average Time Spent Online (hours)					
<4*		1			
4 – 6	0.134	1.143	0.598	2.184	0.686
> 6	0.354	1.424	0.756	2.685	0.274

*OR: Odds ratio; CI: Confidence interval; * Reference category; ** $p < 0.05$; R^2=14.1 – 19.7%.*

The analysis showed that respondents who spent 4 - 6 hours online daily had higher odds of experiencing high influence of online sexual content compared with respondents spending less than 4 hours online (OR = 1.143), while respondents spending more than 6 hours online also demonstrated higher odds of influence (OR = 1.424).

The trend observed suggests that increasing internet use increased the likelihood of influence of online sexual content on sexual initiation and practices. Respondents with higher online exposure appeared more likely to experience behavioural influence from online sexual content, although the strength of the relationship was weak.

Average time spent online did not significantly predict influence of online sexual content on sexual initiation and practices, as respondents spending 4 - 6 hours online ($p = 0.686$) and those spending more than 6 hours online ($p = 0.274$) did not demonstrate statistically significant increased odds of influence compared with respondents spending less than 4 hours online.

Table 17b: Predictors of influence of OSC on sexual initiation

Variables	β (regression coefficient)	OR	95% C.I. for OR		p-value
			Lower	Upper	
Age at first exposure to sexual content online (years)					
≤ 10*		1			
11 – 13	0.265	1.304	0.552	3.077	0.545
14 – 16	-0.160	0.852	0.368	1.974	0.709
17 – 23	-0.605	0.546	0.210	1.418	0.214
Knowledge of online sexual content					
Good*		1			
Poor	1.112	3.042	1.612	5.740	**0.001****
Attitude toward online sexual content					
Positive*		1			
Negative	0.909	2.481	1.506	4.086	**<0.001****
Ever had sex					
Yes*		1			
No	-0.753	0.471	0.266	0.833	**0.010****

*OR: Odds ratio; CI: Confidence interval; * Reference category; ** $p < 0.05$; R^2=14.1 – 19.7%.*

This table showed that respondents with poor knowledge of online sexual content were more likely to experience high influence of online sexual content on sexual initiation and practices compared with respondents with good knowledge (OR = 3.042, 95% CI: 1.612–5.740). Respondents with negative attitudes toward online sexual content also had higher odds of high influence compared with respondents with positive attitudes (OR = 2.481, 95% CI: 1.506–4.086). Respondents who had never had sex were less likely to experience high influence compared with respondents who had ever had sex (OR = 0.471, 95% CI: 0.266–0.833).

The trend observed indicates that poor knowledge, negative attitudes toward online sexual content, and previous sexual experience increased the likelihood of influence of online sexual content on sexual initiation and practices. Earlier exposure to online sexual content also appeared to increase influence levels, although this relationship was not statistically significant.

Knowledge level significantly predicted influence of online sexual content on sexual initiation and practices ($p = 0.001$), showing that respondents with poor knowledge were significantly more likely to experience high influence compared with respondents with good knowledge. Attitude toward online sexual content also significantly predicted influence ($p < 0.001$), indicating that respondents with negative attitudes were significantly more likely to experience high influence. Ever having had sex significantly predicted influence ($p = 0.010$), showing that respondents who had never had sex were significantly less likely to experience high influence. However, age at first exposure to online sexual content did not significantly predict influence ($p = 0.545$, $p = 0.709$, and $p = 0.214$).

CHAPTER FIVE

DISCUSSION

This study found that most youths in Ugbowo have a high level of knowledge and awareness about online sexual content (OSC). Many respondents were familiar with sexually explicit materials online and could identify different types of OSC. This shows that seeing sexual content online is now a regular part of many young people's digital lives. The widespread awareness may be linked to more young Nigerians owning smartphones, having better internet access and more often using social media. Services like WhatsApp, TikTok, Instagram, Telegram and X (formerly Twitter) are now part of the daily routines for many adolescents and young adults. These platforms can expose users to sexual content, whether they are searching for it or come across it through ads, trending videos, recommendations, peer sharing, or pop-ups. Cheaper smartphones and mobile data have likely made this exposure even more common. These findings are similar to studies in Ibadan and Lagos, which also reported high awareness and exposure to sexually explicit internet materials among young people[25,61]. A review from the Netherlands found that exposure to online sexual content is becoming more common among adolescents worldwide as internet access and digital media use grow[62]. This high awareness matters because repeated exposure to online sexual material can shape young people's views on sexuality, relationships, body image, consent, and gender roles. It also shows that online media are now a key source of sexual information for many adolescents and young adults, especially where frank discussions about sexuality are rare.

The study also identified the early age at first exposure to online sexual content as an important finding. Respondents reported a mean age of first exposure of 14 years, with some having OSC before age 10. This suggests that many adolescents are exposed to sexually explicit materials in a

crucial phase of emotional, psychological and sexual development, when beliefs and behaviour patterns are still forming. Contributing factors may include increased access to smartphones, unsupervised internet use, curiosity during puberty, peer influence, and accidental exposure through social media or unsolicited content. Restricted or uncomfortable discussions about sexuality in homes and schools may further prompt adolescents to seek information online prior to receiving formal sexuality education.

These findings correspond to research from the United States, which found that many adolescents are exposed to sexually explicit materials during early adolescence and that such exposure is associated with risky sexual behaviour and earlier sexual initiation[63]. Additional evidence indicates that children and adolescents are increasingly exposed to online sexual material at younger ages due to extensive internet access and insufficient digital protection systems[64]. Initial exposure to sexually explicit material may contribute to distorted perceptions of sexuality, unrealistic relationship expectations and risky sexual attitudes before emotional maturity is reached. Such exposure may also affect later sexual decision-making and increase vulnerability to unsafe sexual practices.

The study also demonstrated a significant association between educational status and knowledge of online sexual content, with in-school respondents exhibiting greater knowledge than out-of-school youths. This may be attributed to increased access to digital technologies, peer communication and information sharing environments within school settings. Schools may also facilitate more frequent discussions about sexuality and internet use compared to non-school environments. Similar studies have found that internet exposure and participation in online sexual conduct are higher among youths with greater access to internet enabled environments, illustrating the role of educational institutions in forming access to sexual information and

technological literacy[61,65]. Consequently, out-of-school youths may lack structured sexuality education and primarily rely on unregulated online sources, increasing their vulnerability to false information, unhealthy sexual attitudes and risky behaviours.

The study found a significant association between age and knowledge of online sexual content, with older respondents generally showing higher knowledge levels than younger participants. This may be due to older youths having more years of internet use, greater social media engagement and increased independence and interest in sexuality. These findings are consistent with previous reviews indicating that exposure to online sexual content increases with age during adolescence as autonomy and internet access expand[62]. A national survey in the United States further demonstrated that increased exposure with age may lead to cumulative psychological and behavioural effects if appropriate education and guidance are lacking[66]. This underscores the importance of age-specific sexuality education and developmentally appropriate digital literacy interventions.

Social media have developed as a primary channel through which youths are exposed to online sexual content. Platforms such as WhatsApp, TikTok, Instagram, Telegram and X played significant roles in shaping respondents' exposure patterns, mirroring the evolving nature of sexual exposure in the digital era. The centrality of social media in communication, entertainment and information exchange between adolescents and young adults contributes to this trend. Algorithms often subject users to sexually suggestive materials through short videos, advertisements, trending content and peer sharing, even without active searching. The results are consistent with UNICEF reports identifying social media and mobile internet as major channels of digital exposure among adolescents globally[64], and with studies illustrating the role of internet enabled devices and internet platforms in enhancing exposure among Nigerian youths[25]. The

embedding of sexually suggestive material into everyday social media experiences has important public health implications, as it increases the likelihood of repeated and accidental exposure among adolescents.

The study also found that some respondents viewed online sexual content as more informative or accessible than formal sexual education from parents, schools or religious institutions. This underscores a growing dependence on digital platforms for sexual information, especially in situations where discussions about sexuality are culturally sensitive. Consequently, adolescents may prefer to seek information online rather than engage with parents, teachers or religious leaders. This finding corresponds to reports indicating that adolescents increasingly use digital media as a primary source of health and sexuality information, especially where comprehensive sexual education is lacking[64,65]. However, online sexual content may present unrealistic, inaccurate, or harmful portrayals of sexuality, relationships, consent, and gender expectations. Reliance on unregulated online material increases vulnerability to false information, distorted beliefs and unhealthy behaviours. These findings show the urgent need for comprehensive sexuality education, digital competence training, enhanced parental communication and improved adolescent online protection systems.

The study revealed that a substantial proportion of respondents held permissive attitudes toward online sexual content, with many perceiving OSC exposure as common and socially acceptable among youths. This reflects the increasing normalisation of sexually explicit online content within contemporary youth culture, probably driven by the assimilation of social media and internet use within the daily life. Continuous exposure to sexualized media content via various channels may reduce the perceived seriousness of online sexual exposure. Peer influence and the desire to conform to modern social norms may further contribute to the acceptance of OSC as a

routine aspect of youth life. These findings are consistent with a systematic review from the Netherlands, which found that repeated exposure to online sexual content fosters the normalisation of pornography use and permissive sexual attitudes among adolescents[62], as well as with studies from the United States indicating that exposure to sexually explicit media increases permissive sexual attitudes and behaviours[63]. The normalisation of OSC is significant because it may lower risk perception regarding unsafe sexual practices, encourage acceptance of unhealthy relationship behaviours, and increase vulnerability to risky sexual experimentation and distorted expectations about intimacy.

Contrary to the permissive attitudes observed, the study also found that many youths perceived OSC as conflicting with moral, cultural and religious values. This emphasizes a significant internal conflict for young people who are often exposed to sexual content online while being raised in socially conservative environments. Nigerian society is strongly influenced by religious and moral teachings that discourage open sexual expression, yet broad access to internet enabled devices exposes youths to global digital cultures with more open portrayals of sexuality. This tension between traditional values and the digital environment may underpin these conflicting attitudes. The finding is in line with reports from UNICEF's that adolescents globally are increasingly exposed to digital sexual content that may conflict with local societal and family values[64], and ssthat inconsistent sources of sexual information can lead to confusion as well as conflicting emotions among adolescents[65]. This moral conflict has public health significance, as it may contribute to guilt, secrecy, emotional distress, and reluctance to seek appropriate sexual and reproductive health information or services.

The study identified problematic beliefs regarding consent, with some respondents believing that verbal consent is unnecessary before initiating sexual activity. This elicits concerns about the

young people's understanding of consent, bodily autonomy and healthy sexual relationships. Many online sexual materials do not explicitly address consent, as well as repeated exposure to such content can distort perceptions among impressionable youths. Furthermore, social conventions that discourage open discussions about sexuality and gender equality may contribute to an inadequate understanding of consent. This evidence is consistent with previous research indicating that repeated exposure to sexually explicit materials can shape adolescents' beliefs about sexual relationships and gender interactions[62], and with UNESCO's guidelines highlighting the importance of consent education and healthy relationship communication among adolescents[65]. Poor understanding of consent can increase the risk of sexual coercion, unhealthy relationships, gender-based violence, and diminished respect for bodily autonomy.

The study also found evidence of harmful gender-role perceptions among some respondents, particularly the belief that a woman's value is primarily based on physical appearance. This suggests that exposure to OSC may reinforce unhealthy stereotypes about women and relationships. Many forms of online sexual content depict women mainly as objects of physical attraction with limited stress on emotional connection, equality or mutual respect. Repeated exposure to these portrayals may shape attitudes and expectations regarding gender roles over time. This finding is consistent with research showing that pornography exposure can influence adolescents' perceptions of gender roles and sexual expectations[62] and supports UNICEF's concerns about the impact of digital media on adolescent identity formation and social attitudes[64]. Harmful gender stereotypes can contribute to unhealthy relationships, objectification, emotional abuse and reduced gender equality.

The study also identified a significant association between negative or conflicted attitudes toward OSC and greater behavioural influence from OSC. Respondents who reported stronger moral

conflict were still likely to experience behavioural influence from exposure. This may be explained by the fact that awareness of the negative effects of OSC does not necessarily prevent exposure or its behavioural impact, particularly in environments where exposure is frequent and difficult to avoid. Adolescents may experience a disconnect between personal values and actual behaviour, highlighting the complexity of adolescent sexual behaviour in the digital era. These results indicate that moral awareness alone is insufficient to protect young people from the influence of online sexual content without practical computer literacy, emotional support and evidence-based sexuality education.

A major finding of this study was the high prevalence of exposure to online sexual content among youth in Ugbowo, with nearly seven out of ten respondents reporting previous exposure to OSC. This widespread exposure is likely caused by increased access to smartphones, mobile internet services and social media platforms. The use of internet-enabled devices has made access to online content easier, more private, and more frequent than in previous generations. These outcomes are consistent with local reports, where high exposure to sexually explicit internet materials was observed among young persons[25], and with an International review indicating that exposure to online sexual content is increasingly common among adolescents worldwide[62]. Such widespread exposure increases the likelihood of population-level behavioural influences, including risky sexual behaviour, unhealthy sexual attitudes, and distorted perceptions of relationships and consent.

The study also found that many respondents encountered online sexual content accidentally through social media feeds, unsolicited links, advertisements, and peer sharing, indicating that exposure to OSC is often unintentional. The design of modern online platforms, which frequently promote sexually suggestive materials through algorithms and entertainment content,

increases the likelihood of accidental exposure. This finding is consistent with studies which reported that many children and adolescents experienced unwanted exposure to internet pornography[66,64]. Repeated accidental or unintended exposure may gradually normalise sexual content and influence behaviour among adolescents who are emotionally unprepared.

The study further found that living arrangements influenced exposure patterns, with respondents living alone or outside direct parental supervision showing increased exposure rates. Reduced supervision increases opportunities for unrestricted internet use and private media consumption, while independent living may increase peer influence and reduce behavioural restrictions. This finding corresponds to research indicating that parental monitoring and supervision are protective factors against risky online behaviour among adolescents[64]. These results underscore the protective role of family supervision and communication in the formation of adolescent digital behaviour.

An important finding of this study was that respondents who engaged in sexual intercourse were significantly more likely to show higher levels of behavioural influence from OSC. Repeated exposure to sexually explicit materials may shape sexual curiosity, normalise sexual experimentation, and influence attitudes toward sexual activity, leading adolescents and young adults to imitate behaviours seen online or become more willing to engage in sexual relationships. This finding is consistent with a study in the United States which found that exposure to sexually explicit media was associated with earlier sexual initiation and risky sexual behaviour among adolescents[63], as well as with studies concluding that repeated pornography exposure may influence adolescent sexual behaviour and expectations[62]. The public health significance is considerable, as early and risky sexual activity increases vulnerability to sexually transmitted infections, HIV, unintended pregnancy, unsafe abortion, and psychosocial consequences.

The study also showed a significant association between poor OSC knowledge and greater behavioural influence from OSC. Respondents with limited knowledge were more susceptible to behavioural influence, possibly because a lack of understanding of sexuality, media literacy or the unrealistic character of online sexual material increases vulnerability to accepting online portrayals as normal or desirable. This finding accentuates the protective role of accurate sexual education and media literacy. Adolescents equipped with critical thinking skills are more likely to assess and question unhealthy online sexual portrayals. Enhancing knowledge may reduce harmful behaviour influence and support healthier sexual decision-making among youths.

The study also revealed a high rate of condom non-use among sexually active respondents, with more than half reporting that they did not use condoms during their last sexual encounter. Possible explanations include poor risk perception, inadequate sexual health education, peer influence, or the influence of online sexual materials that seldom depict safer sexual practices. This finding is particularly important, as inconsistent condom use increases the risk of HIV transmission, sexually transmitted infections, unintended pregnancy and other adverse reproductive health outcomes. It supports concerns raised by international organisations regarding adolescent vulnerability to risky sexual practices in the context of limited sexual health knowledge and inadequate access to youth-friendly reproductive health services.

CONCLUSION

The study demonstrated that exposure to online sexual content is widespread and deeply embedded in the daily digital experiences of youths in Ugbowo. Exposure begins early, awareness is widespread, and social media serves as a primary pathway for adolescents to encounter sexual material and obtain sexual information. The knowledge and awareness of OSC were generally high among many respondents. Internet platforms now act as key sources of sexual information for many youths, especially in situations where open discussions about sexuality are limited within families, schools and communities. The results reflect the growing effect of digital media on adolescent sexual learning and development in contemporary society.

The study further showed that many youths perceived online sexual content exposure as normal within their peer groups, although a significant proportion still viewed such exposure as conflicting with moral, cultural and religious values. This tension between traditional social principles and modern digital realities accentuates the complexity of the environment in which adolescents navigate sexuality and relationships. Additionally, the presence of problematic beliefs regarding consent and gender roles suggests that repeated exposure to certain online sexual materials may shape unhealthy perceptions about relationships, bodily autonomy and interpersonal behaviour.

A high prevalence of exposure to online sexual content was observed, with many youths encountering sexually explicit material both through accidental and unintentional exposure through social media, peer sharing, advertisements and internet browsing. Curiosity, easy access to the internet, and reduced supervision were identified as the main factors influencing exposure patterns. These findings highlight the extent to which sexually explicit materials are integrated into mainstream digital spaces accessible by adolescents and young adults. Importantly, the study found a significant relationship between exposure to online sexual content and sexual behaviour

among youth. Exposure to OSC was associated with previous sexual relations, and poor knowledge of OSC increased susceptibility to behavioural influence. The high rate of condom non-use among sexually active respondents raises concerns about potential reproductive health consequences linked to unhealthy sexual attitudes and risky practices. Collectively, this evidence indicates that online sexual content is an important public health concern with implications for adolescent sexual health, reproductive wellbeing, gender relations, and psychosocial development.

RECOMMENDATIONS

To The Federal Ministry of Education

1. The Federal Ministry of Education should strengthen comprehensive sexuality education within secondary and tertiary institutions, with emphasis on digital literacy, consent education, healthy relationships, media literacy, and responsible internet use.

To the Federal Ministry of Health

2. The Federal Ministry of Health should integrate adolescent online sexual health education into existing youth-friendly reproductive health programs across Nigeria.

To Government regulatory agencies and Policy makers

3. Government regulatory agencies such as the National Information Technology Development Agency (NITDA) and the Nigerian Communications Commission (NCC) should collaborate with internet service providers and technology companies to strengthen child online protection systems, age-verification measures, and regulation of sexually explicit online advertisements.

4. Policymakers should support nationwide public awareness campaigns on safe internet use, online sexual exposure, and adolescent reproductive health.

To Schools and Educational Institutions

1. Schools should incorporate age-appropriate sexuality education and digital media literacy into health education curricula from early adolescence.

2. Educational institutions should strengthen guidance and counselling units to provide confidential support for students experiencing risky sexual behaviour, peer pressure, compulsive OSC viewing, or confusion regarding sexuality-related issues.

3. Schools should organize regular seminars and workshops on online safety, consent, healthy relationships, and responsible social media use.

4. Universities and secondary schools should collaborate with healthcare professionals and public health educators to conduct periodic adolescent sexual health awareness programs.

To Parents and Families

1. Parents and caregivers should encourage open, respectful, and non-judgmental discussions about sexuality, relationships, consent, and internet use with adolescents.

2. Parents should improve supervision of adolescents' internet activities through practical measures such as parental controls, monitoring of screen time, and guidance on safe internet practices.

3. Families should promote healthy gender attitudes, mutual respect, and positive relationship values within the home environment.

4. Parents should begin sexuality education early enough to equip adolescents with accurate information before exposure to misleading online materials occurs.

To Healthcare Providers and Public Health Professionals

1. Healthcare providers should incorporate routine assessment of online sexual exposure and risky sexual practices during adolescent and youth-friendly clinic consultations.

2. Public health professionals should strengthen community-based awareness campaigns on the influence of online sexual content on adolescent behaviour and reproductive health.

3. Youth-friendly health services should provide accessible counselling on safer sex practices, consent, digital behaviour, and healthy relationships.

4. Public health practitioners should collaborate with schools and community organizations to promote online safety education among adolescents.

To Religious and Community Leaders

1. Religious and community leaders should promote balanced and youth-friendly sexuality discussions that combine moral guidance with accurate reproductive health information.

2. Community leaders should support programs that encourage healthy gender norms, respect for consent, and positive adolescent development.

3. Religious institutions should collaborate with schools, parents, and healthcare providers to create supportive environments where adolescents can obtain accurate guidance regarding sexuality and online behaviour.

To Social Media and Technology Companies

1. Social media companies should strengthen content moderation systems to reduce adolescent exposure to sexually explicit materials on their platforms.

2. Technology companies should improve parental control tools and age-restriction systems accessible to Nigerian families.

3. Social media platforms should reduce algorithm-driven promotion of sexually suggestive content to adolescents and minors.

4. Technology companies should partner with public health agencies to promote online safety campaigns targeted at youths.

To Future Researchers

1. Qualitative studies should be conducted to better understand adolescents' lived experiences, perceptions, and coping mechanisms regarding online sexual exposure
2. Further research should explore the mental health consequences of prolonged exposure to online sexual content among Nigerian youths.
3. Future studies should investigate gender differences, parental supervision, compulsive pornography use, and rural-urban variations in OSC exposure.

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APPENDICES

APPENDIX A: QUESTIONNAIRE

INFLUENCE OF EXPOSURE TO ONLINE SEXUAL CONTENT ON THE SEXUAL BEHAVIOUR OF YOUTHS IN UGBOWO, BENIN CITY.

This questionnaire is designed to collect information for an academic research study. All information provided will be treated with strict confidentiality and used solely for research purposes. Participation is voluntary, and respondents may withdraw at any timebe obtained.

Do you agree to participate? [ ] Yes [ ] No

SECTION A: SOCIO-DEMOGRAPHIC INFORMATION

Please tick ([ ]) or fill in the appropriate option.

1. Age (as at last birthday): _____ years

2. Sex: Male [ ] Female [ ]

3. Ethnic Group: _____

4. Religion: Christianity [ ] Islam [ ] African traditional religion [ ] Others [ ]

5. Marital status: Single [ ] Married [ ] Separated [ ] Divorced [ ]

6. Level of Education: Graduate [ ] Undergraduate [ ] Post Graduate [ ] Out-of-school [ ]

7. Current occupation/status: Full-time student [ ] Part-time student [ ] Employed [ ] Unemployed [ ] Apprentice/Trainee [ ]

8. Who do you live with? Alone [ ] With room mate Off-campus accommodation [ ] With parents / Guardian [ ] Others (please specify):_____

9. Household Internet Access: Yes [ ] No [ ]

10. Average monthly allowance: less than ₦20,000[ ] ₦21,000– ₦50,000[ ] ₦51,000 – ₦100,000[ ] more than ₦100,000 [ ]

11. Main Internet Device: Phone[ ] Tablet [ ] Laptop [ ] Desktop [ ]

12. Data affordability:Very unaffordable[ ] Unaffordable [ ] Affordable [ ] Very affordable [ ]

13. Average time spent online daily: Less that 4 hours [ ] 4 hours – 6hours [ ] 6hours – 8hours [ ] 8hours – 10hours [ ] more than 10hours

14. Platforms commonly used (tick all applied): Instagram [ ] TikTok [ ] X/Twitter [ ] Facebook [ ] YouTube [ ] Porn sites [ ] Whatsapp [ ] Other: _____

15. Age at first exposure to sexual content online: ____ years

SECTION B: KNOWLEDGE

Instruction: Tick all options you believe are correct

16.Do you know what Online Sexual content is? [ ] Yes [ ]No (If No, skip to section C)

17.How did you hear about online sexual content? [ ] Friends [ ]Parents [ ]Teachers [ ]Social media [ ]Church

18.Which of the following describe online sexual content? [ ] Images or videos depicting sexual acts [ ] Sexual health education materials [ ] Suggestive images intended to stimulate sexual interest [ ] Erotic stories or explicit sexual text online [ ] Humorous cartoons without sexual meaning

19. Which platforms commonly host sexual content online? [ ] Social media platforms [ ] Streaming platforms that block all sexual scenes [ ] Dedicated pornography websites [ ]Messaging applications where links are shared [ ] Academic journal websites

20. Which are examples of online sexual content? [ ]Explicit pornographic videos [ ] Educational reproductive health animations [ ] Sexualised dance clips or suggestive videos [ ] Erotic chat conversations [ ] Non-sexual online advertisements

21. Which of the following describe problematic use of sexual content online? [ ]Occasional viewing out of curiosity [ ] Repeated unsuccessful attempts to stop viewing [ ] Continued viewing despite harm to work or relationships [ ] Viewing sexual content strictly for academic purposes [ ] Constant preoccupation with accessing sexual content

22. Which effects may occur following repeated exposure to sexual content? [ ] Earlier sexual initiation among youth [ ] Guaranteed accurate sexual knowledge [ ] Unrealistic expectations

about sex [ ] Increased likelihood of risky sexual behaviour [ ] Guaranteed protection from sexually transmitted infections

24. Which actions may protect youth from harmful online sexual exposure? [ ] Parental control software or filters [ ] Unrestricted internet use without supervision [ ] Parent-child discussions about online risks [ ] Comprehensive sexuality education [ ] Sharing explicit materials with minors for education

25. Which statements about privacy and online sexual content are correct? [ ] Sharing explicit images without consent may be illegal [ ] Saving someone's explicit images without permission has no ethical implications [ ] Privacy settings may reduce unwanted exposure [ ] Deleting images guarantees they disappear permanently online [ ] Sharing sexual images involving minors is illegal

SECTION C: ATTITUDE AND PATTERN OF EXPOSURE TO ONLINE SEXUAL CONTENT

Instruction: Tick options you believe are correct

26.Have you ever seen sexually explicit or suggestive content online? [ ] Yes [ ] No (If No, skip to Section G)

27.Have you seen sexual content online in the past 12 months? [ ] Yes [ ] No

28.Have you seen sexual content online in the past 3 months? [ ] Yes [ ] No

29.How often do you come across or view sexual content online? [ ] Daily [ ] Weekly [ ] Monthly [ ]Rarely

30.How did you encounter the content? (tick all that apply)[ ] Intentional search [ ]Accidental exposure [ ] Sent by friends [ ] Pop-up advertisements [ ] Shared links in online groups

31.Which type of sexual content do you mostly see online?(tick all that apply) [ ] Images [ ] Explicit Videos [ ]Erotic stories [ ] Educational videos [ ]Sexual chat

32.Which platforms do you mostly use to access sexual content online? (Tick all that apply)

[ ]TikTok [ ] Instagram [ ] YouTube [ ] Pornographic websites [ ] WhatsApp [ ] X [ ] Snapchat Others _____

33.Have you ever shared sexual content with others online? [ ] Yes [ ] No

34.Reasons for viewing sexual content?(tick all that apply) [ ] Curiosity [ ] Boredom [ ] Stress relief [ ] Peer pressure [ ] Relationship reasons [ ] Sexual interest

SECTION D: PERCEPTIONS AND SOCIAL ACCEPTABILITY

Instruction: Please tick to indicate your level of agreement with each statement. (SD= Strongly Disagree, D= Disagree, N= Neutral, A= Agree, SA =Strongly Agree)

S/N	Statement	SD	D	N	A	SA
35	Watching sexual content online is common among youths					
36	Society is becoming more accepting of sexual content online					
37	The sexual lifestyles shown online are what youths actually practice					
38	Viewing sexual content online does not affect moral values					
39	I feel comfortable discussing sexual topics seen online with friends					
40	Exposure to online sexual content may sometimes provide sexual education					
41	Online content provides a more honest view of sex than school or church					
42	My family discourages viewing sexual content online					
43	My friends believe viewing sexual content online is acceptable					
44	Risks associated with sex (STIs, Pregnancy) is minimal online					
45	My religious beliefs discourage viewing sexual content online					
46	Online sexual content is a reliable source of information for sexual health					

SECTION E: INFLUENCE OF DIGITAL MEDIA EXPOSURE

Instruction: Please tick to indicate your level of agreement with each statement.

During the past 6 months, how often have you experienced the following? (N= Never, R=Rarely, S= Sometimes, O= Often, V= Very often)

S/N	Statement	N	R	S	O	V
47	Exposure to sexual content online makes me curious about sex					
48	I have tried a sexual act after seeing it online					
49	I feel a verbal 'yes' is not necessary to initiate sexual act in real life					
50	A woman's value in a relationship is her physical appearance					
51	I discuss sexual topics I find online with friends					
52	I tried unsuccessfully to stop viewing sexual content					
53	I spent longer viewing sexual content than intended					
54	Viewing sexual content interfered with work or school					
55	I continued viewing despite negative consequences					

SECTION F: DETERMINANTS

Instruction: Tick all options you believe are correct

57.Have you ever had sexual intercourse? [ ]Yes [ ]No (If No, skip to Section G)

58.Age at first sexual intercourse _____

59.Number of sexual partners in past 12 months _____

60.Did you use a condom the last time you had sex? [ ] Yes [ ] No

61.How often did you use condoms in the past 12 months? [ ]Always [ ]Sometimes [ ]Never

62.Have you ever used emergency contraception (e.g morning after pills) [ ]Yes [ ]No

63.Have you ever exchanged sex for money or gifts? [ ] Yes [ ] No

64.Have you had sex after alcohol or drug use in the past 12 months? [ ] Yes [ ] No

65.Was your first sexual experience influenced by something seen online? [ ]Yes [ ]No [ ]Not sure

66.Have you ever felt pressured or forced to have sex? [ ] Yes [ ]No

67..If you have a sexual partner, what is the age gap between you? [ ]Same age [ ]1-2 years [ ]3-5 years [ ]More than 5 years [ ]Not applicable

68.Drug use in the past 30 days? [ ] Yes [ ]No

69.Sexual curiosity level? [ ]Very low [ ]Low [ ] Moderate [ ]High [ ] Very high

70.Do you feel peer pressure to have sex? [ ]Yes [ ] No

71.Alcohol use in the past 30 days? [ ] Yes [ ] No

72.What is your family structure? [ ]Both parents present [ ]Single parent [ ]Guardian [ ]Living alone

73.Do your parents /guardian monitor your internet use? [ ] Yes, Strictly [ ]Yes, Occasionally [ ]Rarely [ ]Never

74.Do you discuss sexual matters with your parents? [ ]Yes, Often [ ] Yes, Sometimes [ ]Rarely [ ]Never

75.Do you own a personal internet-enabled device? [ ] Yes [ ] No

76.Do you know how to adjust privacy settings on social media and apps? [ ] Yes [ ]No

APPENDIX B: INFORMED CONSENT FORM

TITLE OF RESEARCH: INFLUENCE OF EXPOSURE TO ONLINE SEXUAL CONTENT ON THE SEXUAL BEHAVIOUR OF YOUTHS IN UGBOWO, BENIN CITY, EDO STATE, NIGERIA.

NAME AND AFFILIATION OF INVESTIGATOR:

Omataye Blessing Asemah and Blessing Oritseburanran Mone

Department of Public Health and Community Medicine,

University of Benin Teaching Hospital,

PMB 111 Ugbowo, Benin-Lagos Express Road,

Benin City, Edo State.

Email: omataye.asemah@med.uniben.edu, blessing.mone@med.uniben.edu

PURPOSE OF RESEARCH: The purpose of this research is to assess the level of exposure to online sexual content among youths, to determine how such exposure influences their sexual attitudes and behaviours.

PROCEDURES INVOLVED IN THE STUDY: In this study, questions will be asked regarding the knowledge of online sexual content and perception, prevalence and pattern of online sexual content accessed by youths, the influence of accessing these contents and the determinants of risky sexual behavious among youths in Ugbowo, Benin City, Edo State.

CONFIDENTIALITY: All data collected will be treated with utmost confidentiality. Patients who volunteer to participate in this study will be given a unique study number, and data will be collected. Participants' information will be stored safely secured by codes in computers. All those handling data will not at any time reveal participants' identity.

FINANCIAL COMPENSATION: There shall be no monetary compensation for participation in this study.

VOLUNTARY PARTICIPATION: Your participation in this study is entirely voluntary. If you desire to withdraw from this study at any time, no punitive measures will be meted against you for your withdrawal. Your refusal to participate or withdraw from the study will not involve any negative consequences or loss of benefits to which you are otherwise entitled.

RISK: It is not expected that any harm will come to you because of your participation in this study. The study does not entail any activity that would harm you.

BENEFIT: The findings from this study will help identify patterns of behaviour and provide information that may guide public health interventions aimed at improving youth sexual health.

FINANCIAL SPONSORSHIP: This study will be sponsored by the principal investigators.

The under-listed may be contacted in case you have any clarifications to make:

Omataye Blessing Asemah and Blessing Oritseburanran Mone

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OR

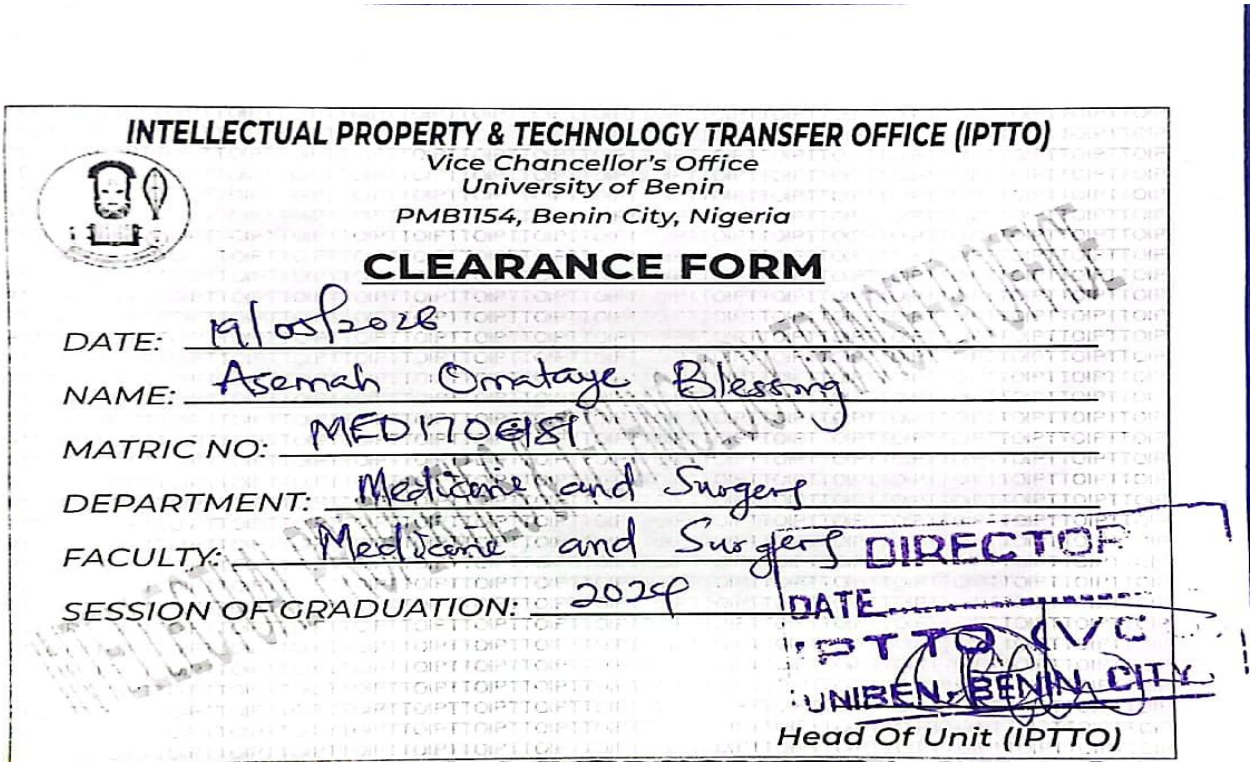
Ethics and Research Committee,

University of Benin Teaching Hospital,

Phone Number: +234-706-333-133

APPENDIX C

PLAGIARISM SLIP

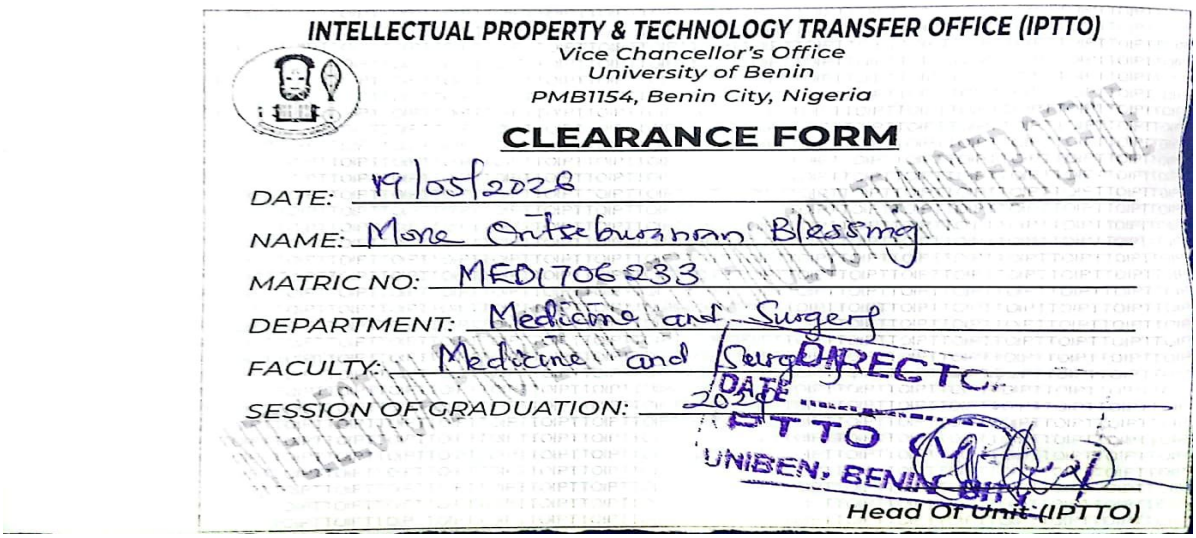


INTELLECTUAL PROPERTY & TECHNOLOGY TRANSFER OFFICE (IPTTO)
Vice Chancellor's Office
University of Benin
PMB1154, Benin City, Nigeria

CLEARANCE FORM

DATE: 19/05/2026
NAME: Asemah Omataye Blessing
MATRIC NO: MED1706181
DEPARTMENT: Medicine and Surgery
FACULTY: Medicine and Surgery
SESSION OF GRADUATION: 2024

DIRECTOR
DATE
IPTTO (VC)
UNIBEN, BENIN CITY
Head Of Unit (IPTTO)



INTELLECTUAL PROPERTY & TECHNOLOGY TRANSFER OFFICE (IPTTO)
Vice Chancellor's Office
University of Benin
PMB1154, Benin City, Nigeria

CLEARANCE FORM

DATE: 19/05/2026
NAME: More Ontebuwanan Blessing
MATRIC NO: MED1706233
DEPARTMENT: Medicine and Surgery
FACULTY: Medicine and Surgery
SESSION OF GRADUATION: 2024

DIRECTOR
DATE
IPTTO (VC)
UNIBEN, BENIN CITY
Head Of Unit (IPTTO)

APPENDIX D: ETHICAL CLEARANCE

HEALTH RESEARCH ETHICS COMMITTEE (HREC)

UNIVERSITY OF BENIN TEACHING HOSPITAL

P.M.B. 1111 BENIN CITY NIGERIA Telephone: 052-600418 Website: ubth.org

CHIEF MEDICAL DIRECTOR
Prof. (Mrs) I.N Ize-Iyamu

DIRECTOR OF ADMINISTRATION
Jim Uwadie, Esq

CHAIRMAN
Prof. (Mrs.) Antoinette N. Ofili

HREC OFFICE:
Committee email: ubthresearchethics@gmail.com
Registration Number:
NHREC-UBTH-HREC/24/12/2022B

PROTOCOL NUMBER: ADM/E 22/A/VOL. VII/14865491272124

PROPOSAL TITLE: "INFLUENCE OF EXPOSURE TO ONLINE SEXUAL CONTENT ON THE SEXUAL BEHAVIOUR OF YOUTH IN UGBOWO, BENIN CITY.

PRINCIPAL INVESTIGATOR(S): ASEMAH OMATAYE BLESSING, MONE ORITSEBURANRAN BLESSING

DEPARTMENT/INSTITUTION: DEPARTMENT OF PUBLIC HEALTH AND COMMUNITY MEDICINE, SCHOOL OF MEDICINE, UNIVERSITY OF BENIN, BENIN CITY, EDO STATE, NIGERIA

DATE CONSIDERED: MARCH 31ST, 2026

DECISION OF THE COMMITTEE: APPROVED

THIS APPROVAL DATES 31/03/2026 TO 19/03/2027. IF THERE IS DELAY IN STARTING THE RESEARCH, PLEASE INFORM THE HREC SO THAT THE DATES OF APPROVAL CAN BE ADJUSTED ACCORDINGLY

REMARK:

CHAIRMAN: PROF. (MRS) A.N. OFILI SIGNATURE & DATE: Sign. 31/3/2026

Date.....

BENIN CITY P.M.B. 1111

SUPERVISOR (S): PROF E. O. OGBOGHODO

DECLARATION BY INVESTIGATOR(S):
PROTOCOL NUMBER (please quote in all enquiries)
Note that no participant accrual or activity related to this research may be conducted outside of these dates and you are to furnish the committee with the research activities at the completion of the study. All informed consent forms used in this study must carry the HREC assigned number and duration of HREC approval of the study. In multiyear research, endeavor to submit your annual report to the HREC early in order to obtain renewal of your approval and avoid disruption of your research. No changes are permitted in the research without prior approval by the HREC except in circumstances outlined in the Code. The HREC reserves the right to conduct compliance visit your research site without previous notification.

Signature & Date..... 31/3/2026

ubthresearchethics@gmail.com

Registration Number: NHREC/24/01/2020