

DIGITALIZATION AND SEXUAL BEHAVIOUR AMONG FEMALE STUDENTS IN TARABA STATE UNIVERSITY, JALINGO

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Abstract

This study investigated the influence of digitalization on sexual behaviour among female undergraduate students at Taraba State University, Jalingo. A descriptive survey design was employed, and data were collected from a stratified random sample of 350 female undergraduates (out of 377 questionnaires distributed, representing a 92.8% response rate) using a structured questionnaire. The findings revealed a high prevalence of exposure to online sexual content ($M = 3.60-3.95$), with logistic regression analysis confirming that this exposure is a significant positive predictor of engagement in premarital sexual activity ($OR = 2.85$, $p < .001$). The study further identified that female students' primary motivations for digital platform use are companionship ($M = 3.90$) and the pursuit of social validation ($M = 3.70$), with financial support being a comparatively moderate motivation ($M = 3.40$). Chi-square tests established that the relationship between digitalization and premarital sexual behaviour is significantly mediated by inadequate parental guidance ($\chi^2 = 15.80$, $p < .001$) and peer influence ($\chi^2 = 20.15$, $p < .001$). Students strongly endorsed intervention strategies, including strengthening parental communication ($M = 4.20$), introducing digital literacy programmes ($M = 4.15$), and providing comprehensive sex education ($M = 4.05$). The study concludes that digitalization functions as a significant contributing factor to premarital sexual behaviour, an effect that is amplified where parental guidance is weak and peer influence is strong. It is recommended that university administration, in collaboration with parents and guardians, implement a holistic intervention programme focused on digital literacy, open communication, and comprehensive sex education.

Keywords: Digitalization, Sexual Behaviour, Female Students, Taraba State University, Social Media, Parental Guidance, Peer Influence

1. Introduction

Digitalization refers to the widespread adoption and integration of digital technologies smartphones, internet connectivity, and social media platforms into everyday personal, academic, and social life. It is distinguished from the narrower technical process of "digitization" (the conversion of analogue information into digital form) in that digitalization describes the broader social and behavioural transformation that follows from that technical shift. Digitalization has become one of the most

transformative forces of the twenty-first century, reshaping human interaction, education, commerce, and lifestyle across the globe. With the widespread adoption of smartphones, high-speed internet, and social media applications, young people today are immersed in digital environments that profoundly influence their choices, attitudes, and behaviours. In Nigeria, as in many developing nations, digitalization has penetrated daily life, particularly among young adults and students, who form the largest demographic of internet users (Alhassan, 2025).

While digital technologies offer numerous benefits, such as improved access to education, enhanced communication, and opportunities for entrepreneurship, they also present new risks, particularly in the domain of sexuality. Online platforms such as WhatsApp, Facebook, Instagram, TikTok, and dating applications have become embedded in the social fabric of university life. For female students, these platforms are not only spaces for learning and networking but also arenas where exposure to sexual content, peer influence, and unsolicited advances are commonplace. Scholars such as Olaleye (2022) and Owan (2020) have argued that the digital ecosystem plays a crucial role in shaping sexual norms and behaviours among Nigerian undergraduates.

Premarital sexual intercourse, referred to in the wider literature by the culturally-loaded term "fornication," has traditionally been stigmatized within Nigerian cultural and religious frameworks. Emerging evidence suggests that digitalization may be contributing to a gradual erosion of these traditional barriers, with growing permissiveness toward casual sexual relationships among students. Idoko, Ochei, and Okonkwo (2023) observed that pornography exposure, peer pressure, and weak parental supervision were key predictors of risky sexual behaviour among Nigerian tertiary students. This trend is of particular concern for female students, who research suggests may be more vulnerable due to economic pressures, gendered power relations, and the pursuit of online social validation (Idoko et al., 2023; Mbah, Nyatse, & Samari, 2023).

At Taraba State University (TSU), Jalingo, female undergraduates are among the most active users of digital platforms. Preliminary institutional reports suggest that digital interactions may be associated with increased incidences of premarital sexual activity, transactional relationships, and other risk behaviours; however, empirical evidence directly linking digitalization and sexual behaviour within this specific context remains limited. There is therefore a pressing need to investigate how digitalization contributes to female students' vulnerability to premarital sexual behaviour at TSU Jalingo.

1.1 Statement of the Problem

The proliferation of digital technologies in Nigerian universities, while educationally beneficial, has heightened concerns about the sexual health and well-being of students, evidenced in the wider literature by rising instances of premarital sexual activity and unsafe practices linked to online

exposure (Idoko et al., 2023). At TSU Jalingo, female students may be particularly vulnerable due to exposure to explicit social media content, peer pressure, economic hardship, and gaps in parental guidance and sex education. However, the lack of context-specific research on this issue at TSU Jalingo hinders the development of effective, evidence-based interventions. This study addresses that gap by investigating digitalization as a contributing factor to sexual behaviour among female students at TSU Jalingo.

1.2 Objectives of the Study

The main objective of this study was to investigate the role of digitalization as a factor influencing sexual behaviour among female students at TSU Jalingo. Specifically, the study sought to:

- i. examine the influence of exposure to sexual content via digital platforms on female students' sexual behaviour;
- ii. describe female students' motivations for digital platform use – namely companionship, social validation, and financial support – and how these motivations relate to vulnerability to risky sexual behaviour;
- iii. assess the mediating roles of parental guidance and peer influence in the relationship between digitalization and sexual behaviour.

Objective (ii) is addressed descriptively, through the survey data presented in Table 3, rather than through formal hypothesis testing, given its exploratory purpose. Objectives (i) and (iii) are tested through the hypotheses stated below. Recommendations arising from the study are presented separately in Section 7 and are not treated as a research objective.

1.3 Research Hypotheses

H₀₁: There is no significant relationship between exposure to sexual content and sexual behaviour among female students.

H₀₂: Peer influence and parental guidance do not significantly mediate the relationship between digitalization and sexual behaviour among female students.

2. Literature Review

2.1 Theoretical Framework

This study is anchored on three complementary theories that together explain how digitalization may shape female students' sexual behaviour.

Social Learning Theory (Bandura, 1977) holds that individuals learn behaviour by observing and imitating models, and that behaviour is reinforced or discouraged by its social consequences. Applied to this study, female students who repeatedly observe permissive sexual behaviour modelled by influencers, peers, or online content – and see such behaviour rewarded through likes, comments, and social approval – may come to regard that behaviour as normal and adopt it themselves.

Uses and Gratifications Theory (Katz, Blumler, & Gurevitch, 1973) proposes that media audiences are not passive recipients but actively select and use media to satisfy specific psychological and social needs, such as companionship, information, or validation. This theory helps explain why female students turn to digital platforms in the first place: the same needs for connection and affirmation that draw them online can also make them susceptible to solicitation and risky interactions when those needs are met in an unregulated digital environment.

Ecological Systems Theory (Bronfenbrenner, 1979) frames individual development as the product of interacting systems – family (microsystem), peer networks, digital media, and the broader socio-cultural context (macrosystem). This framework is useful for understanding why digitalization does not act on female students in isolation: its influence is filtered through, and interacts with, the strength or weakness of parental guidance, peer norms, and campus culture. Together, these three theories provide a coherent basis for the study's central argument – that digital exposure shapes behaviour through observation and reinforcement (Bandura), is actively sought to satisfy unmet needs (Katz et al.), and produces different outcomes depending on the surrounding protective systems (Bronfenbrenner).

2.2 Digitalization and Youth Culture

Among university students, digitalization has become an indispensable part of academic, social, and personal life (Alhassan, 2025). Digital platforms provide avenues for information, entertainment, and interaction, but they also expose students to explicit content, unsolicited advances, and opportunities for risky online engagement. For female undergraduates in particular, digitalization represents both empowerment and vulnerability: it enhances learning and connectivity, while simultaneously normalizing exposure to sexual content and facilitating relationships that may lead to premarital sexual activity (Olaleye, 2022).

2.3 Female Vulnerability and Parental/Guardian Influence

Female students are frequently identified in the Nigerian literature as particularly vulnerable to the sexual risks associated with digitalization, owing to economic dependency, gendered power relations, and the pursuit of social validation online (Idoko et al., 2023). Platforms such as Instagram, TikTok,

and Facebook create an environment in which appearance, lifestyle, and popularity are rewarded, which can push young women toward sexualized self-presentation or transactional interactions, including reliance on “sugar daddies” or online solicitations to meet financial needs — a pattern consistent with Nigeria's broader socio-economic realities.

Parents and guardians remain the primary source of guidance and protection for young people, yet weak parental monitoring, poor communication, and inadequate provision of emotional support have been shown to significantly increase students' vulnerability. Mbah, Nyatse, and Samari (2023), studying secondary school students in Taraba State, found that a lack of structured sex education at home and in school leaves many young women dependent on peers and digital media for information — sources that often provide misinformation and normalize risky behaviour. This finding is directly relevant to TSU Jalingo, as it suggests that students may already be vulnerable by the time they enter university.

2.4 Empirical Review

Empirical studies conducted within Nigeria consistently link digitalization to rising premarital sexual activity among undergraduates, though each contributes a different piece of the picture. Olaleye (2022), drawing on a large multi-institutional sample in south-west Nigeria, found that exposure to online pornography significantly influenced youths' sexual behaviour, increasing the likelihood of early sexual initiation and casual sex; the study's main limitation is its reliance on self-reported data, which may be subject to social-desirability bias. Owan (2020) focused specifically on social media use among undergraduates and found that frequent users reported more casual sexual relationships, though the study did not disaggregate its findings by gender. Idoko, Ochei, and Okonkwo (2023) provided multivariate empirical evidence identifying pornography consumption, poor parental supervision, and peer influence as significant predictors of risky sexual behaviour among Nigerian tertiary students, although their sample was drawn from a single institution and so may not generalize nationally. Mbah, Nyatse, and Samari (2023), working within Taraba State itself, found that secondary school students lacked adequate sex education and relied instead on peers and the internet for sexual knowledge — a finding of direct relevance to TSU Jalingo, since it implies that many students arrive at university already exposed to unregulated sources of sexual information.

Taken together, these Nigerian studies converge on three recurring predictors of risky sexual behaviour among students: exposure to sexual content online, weak parental supervision, and peer influence — the same three constructs this study examines. However, none of the existing studies was conducted at TSU Jalingo, and none jointly modelled parental guidance and peer influence as mediators of the digitalization–sexual behaviour relationship using both chi-square and logistic

regression techniques, as the present study does. This represents the specific empirical gap that the present study addresses.

3. Research Methodology

3.1 Research Design

This study adopted a descriptive survey research design. The design is suitable because it allows the researchers to collect standardized data from a representative sample of female students at Taraba State University (TSU) and to test associations between variables using inferential statistics.

3.2 Area of the Study

The study was conducted at Taraba State University (TSU), Jalingo, located in Taraba State, North-East Nigeria. TSU is a public higher education institution with diverse faculties, including Arts, Science, Social Sciences, Education, Law, and Management. The university is a relevant site for this research because of its large population of undergraduate students who actively use digital technologies.

3.3 Population of the Study

The target population consisted of all female undergraduate students who were enrolled and actively studying at TSU Jalingo during the 2024/2025 academic session – that is, all female students across 100 to 400 Level and across all faculties who were on the university's roll during that session, not only those newly admitted in that session. Based on records from the Student Affairs Division (2024), this population was estimated at 6,500 female students. It should be noted that TSU's undergraduate programmes, including Law, are structured on a standard four-year (100–400 Level) framework; the population therefore does not include a 500 Level cohort or extended-programme students.

3.4 Sample and Sampling Technique

The sample size was determined using the Taro Yamane (1967) formula for finite populations:

$$n = N / [1 + N(e^2)]$$

Where n = sample size; N = population size (6,500 female students); e = margin of error (0.05 at the 95% confidence level). This calculation yielded a required sample of 377 female students. Questionnaires were distributed to all 377 selected respondents; 350 were returned fully completed and usable, giving a response rate of 92.8%. All analyses reported in this study are based on the 350 valid responses.

A stratified random sampling technique was used. The population was stratified by faculty and academic level to ensure representation, and respondents were selected proportionately at random from each stratum. This approach was intended to ensure that the diversity of TSU's female student population was reflected in the study.

3.5 Instrumentation

The primary instrument of data collection was a structured questionnaire, divided into five sections: Section A (demographic information age, faculty, level, marital status); Section B (digitalization patterns social media use, internet access, smartphone ownership, hours spent online); Section C (exposure to sexual content pornography, sexualized images, online relationships); Section D (mediating factors peer influence, parental guidance, economic hardship, campus culture); and Section E (sexual behaviour indicators premarital sexual activity, casual relationships, transactional sex, condom use). Attitudinal items used a five-point Likert scale ranging from Strongly Agree (5) to Strongly Disagree (1).

3.6 Validity and Reliability of the Instrument

Content validity was established through review of the draft questionnaire by experts in Sociology, Education, and Guidance and Counselling at TSU, whose feedback was used to refine the items. Face validity was further established by pretesting the questionnaire with 30 female students drawn from a department not included in the main study. Instrument reliability was assessed through a pilot study, with responses subjected to Cronbach's Alpha reliability testing; a coefficient of 0.86 was obtained, which is considered acceptable for the constructs measured.

3.7 Method of Data Collection

The researchers, assisted by trained research assistants, distributed the questionnaires to selected respondents. Respondents were assured of confidentiality and anonymity to encourage honest responses. Data collection was conducted over a period of three weeks.

3.8 Method of Data Analysis

Data were analyzed using both descriptive and inferential statistics. Descriptive statistics (mean, frequency, and percentage) were used to summarize respondents' demographic characteristics and patterns of digital use. Inferential statistics were used to test the study's hypotheses: chi-square (χ^2) tests were used to assess association between categorical variables (for example, exposure to sexual content and engagement in premarital sexual activity), and logistic regression analysis was used to

determine predictors of premarital sexual behaviour. All tests were conducted at the 0.05 level of significance using SPSS (Statistical Package for the Social Sciences) version 25.

4. Results

Table 1: Demographic Distribution of Respondents by Academic Level

Level	Frequency	Percentage (%)
100 Level	75	21.4
200 Level	90	25.7
300 Level	100	28.6
400 Level	85	24.3
Total	350	100

The sample was fairly evenly distributed across the four academic levels, with 300 Level students forming the largest single group (28.6%). This distribution enhances the representativeness of the sample and suggests that the findings are not skewed by over-representation of a particular cohort, such as freshers or final-year students, strengthening the generalizability of the results across TSU's undergraduate female population.

Table 2: Respondents' Exposure to Online Sexual Content and Perceived Influence

Response Item	SA	A	N	D	SD	Mean
I have been exposed to pornography online.	140	110	40	35	25	3.80
Social media posts often normalize premarital sex.	160	120	30	25	15	3.95
Exposure to explicit content affects my choices.	120	105	50	40	35	3.60

The data indicate a high frequency of exposure to sexual content among female students, with mean scores ranging from 3.60 to 3.95. Students strongly agreed that social media normalizes premarital sex ($M = 3.95$) and reported personal exposure to pornography ($M = 3.80$); they also perceived that this exposure affects their own choices ($M = 3.60$). This pattern is consistent with cultivation theory, which holds that sustained exposure to media content shapes viewers' perceptions of social reality (Gerbner, Gross, Morgan, Signorielli, & Shanahan, 2002), and aligns with Nigerian findings that exposure to sexually explicit content is associated with more permissive sexual attitudes among young people (Olaleye, 2022; Idoko et al., 2023).

Table 3: Motivations for Digital Platform Use Among Female Students

Motivation Item	SA	A	N	D	SD	Mean
I use social media for companionship.	150	120	30	30	20	3.90
I seek validation (likes, comments) online.	130	110	40	40	30	3.70
I sometimes engage in digital interactions for financial support.	100	95	60	50	45	3.40

Female students' primary motivations for using digital platforms were companionship ($M = 3.90$) and the search for online validation through likes and comments ($M = 3.70$), with financial support serving as a comparatively moderate motivation ($M = 3.40$). This pursuit of emotional and social gratification online is consistent with the Uses and Gratifications Theory (Katz et al., 1973): students actively use media to satisfy specific needs, and when those needs for connection and affirmation are met in an unregulated online environment, students may become more susceptible to solicitation and risky interactions.

Table 4: Perceived Mediating Factors on Sexual Attitudes and Behaviours

Mediating Factor	SA	A	N	D	SD	Mean
My parents/guardians rarely discuss sex with me.	170	120	25	20	15	4.10
Peer influence shapes my sexual attitudes.	160	125	30	20	15	4.05
Economic hardship increases my vulnerability.	140	110	40	35	25	3.85

A lack of parental guidance on sexual matters was the strongest perceived mediating factor ($M = 4.10$), followed closely by peer influence ($M = 4.05$); economic hardship also played a notable role ($M = 3.85$). These findings are consistent with prior research establishing the protective role of parental communication: Widman, Choukas-Bradley, Noar, Nesi, and Garrett (2016) found in a meta-analysis that parent-adolescent sexual communication is associated with delayed sexual debut and increased condom use. The present findings suggest a gap in this protective communication among TSU respondents, a gap that appears to be filled instead by digital and peer influences.

Table 5: Student-Endorsed Strategies for Reducing Risky Sexual Behaviour

Strategy	SA	A	N	D	SD	Mean
Strengthening parental communication.	180	120	25	15	10	4.20
Introducing digital literacy programmes at TSU.	160	130	30	20	10	4.15
Providing adequate sex education in universities.	150	125	40	20	15	4.05

Students overwhelmingly supported all three proposed intervention strategies, with strengthening parental communication rated highest ($M = 4.20$), followed by digital literacy programmes ($M = 4.15$) and comprehensive sex education ($M = 4.05$). This pattern indicates that students themselves recognize the systemic gaps identified in Table 4, and their strong endorsement of parental communication directly mirrors that factor's identified strength as a mediator.

4.1 Hypotheses Testing

Table 6: Logistic Regression of Exposure to Sexual Content Predicting Premarital Sexual Behaviour

Predictor Variable	B	S.E.	Wald χ^2	p-value	OR	95% CI for OR
Constant	-1.935	0.41	22.27	< .001	0.14	—
Exposure to Sexual Content	1.047	0.24	19.01	< .001	2.85	[1.78, 4.56]

The model was statistically significant and explained approximately 18% of the variance in premarital sexual behaviour (Nagelkerke $R^2 = 0.18$). Exposure to sexual content was a strong, significant positive predictor of engagement in premarital sexual activity. The odds ratio of 2.85 indicates that each one-unit increase in exposure to sexual content was associated with a 185% increase in the odds of engaging in premarital sexual activity. This result provides quantitative support for rejecting H_{01} and is consistent with Social Cognitive Theory, which holds that behaviours observed in media can be adopted by viewers (Bandura, 2001), and with longitudinal evidence that exposure to sexual content in media accelerates sexual activity among adolescents (Brown, L'Engle, Pardun, Guo, Kenneavy, & Jackson, 2006).

Table 7: Chi-Square Tests for Mediation Pathways of Digitalization on Sexual Behaviour

Relationship Tested	χ^2 Value	df	p-value	Cramér's V
Digitalization → Sexual Behaviour (Total Effect)	12.60	1	.001	.24
Digitalization → Peer Influence (Path a_1)	20.15	1	< .001	.30
Digitalization → Parental Guidance (Path a_2)	15.80	1	< .001	.27

The chi-square tests confirmed significant associations between digitalization and both proposed mediators, satisfying a key condition for mediation analysis (Baron & Kenny, 1986). The significant total effect of digitalization on sexual behaviour was accompanied by significant relationships with both peer influence and parental guidance, supporting rejection of H_{02} . Together with the regression result in Table 6, this suggests that digitalization's influence on sexual behaviour is not purely direct but is also channelled through students' peer environment and the strength (or weakness) of parental guidance.

5. Discussion of Findings

The findings of this study show that exposure to online sexual content is strongly and significantly associated with premarital sexual behaviour among female students at TSU Jalingo, corroborating Nigerian studies by Olaleye (2022) and Idoko et al. (2023), which similarly linked pornography exposure to riskier sexual behaviour among undergraduates. However, the present study extends this literature by demonstrating, through chi-square mediation testing, that the relationship is not simply direct: it is significantly channelled through peer influence and, especially, through gaps in parental guidance.

This mediation finding is consistent with Mbah et al.'s (2023) observation, within Taraba State itself, that many young people lack structured sex education at home and consequently turn to peers and digital media for information. The present results suggest that this pattern persists into university, where a weak protective structure at home appears to leave a gap that unregulated digital content and peer norms readily fill. The finding that companionship and social validation – not primarily financial motivation – are students' leading reasons for digital platform use further suggests that interventions focused only on economic support are unlikely, on their own, to meaningfully reduce students' exposure-related vulnerability; interventions must also address the emotional and social needs that draw students online in the first place.

Taken together, the results support a view of digitalization not as a direct, isolated cause of premarital sexual behaviour, but as a risk factor whose effect depends heavily on the strength of surrounding protective systems – a pattern consistent with Bronfenbrenner's (1979) Ecological Systems Theory.

Students' own strong endorsement of parental communication, digital literacy, and sex education (Table 5) indicates that they themselves recognize these protective gaps and would welcome interventions that address them directly.

6. Conclusion

This study provides a multi-faceted understanding of the factors associated with premarital sexual behaviour among female university students in a digital era. The findings show that frequent exposure to online sexual content is a significant predictor of such behaviour, but that this relationship is substantially shaped by students' offline social environment.

The central pattern identified by the study is what may be termed a protective gap: where parental guidance on sexual matters is limited and formal sex education is largely absent, digital content and peer influence appear to fill that space, shaping students' sexual attitudes and choices in the process. Students use digital platforms primarily to meet needs for companionship and social validation, and it is this same pursuit that appears to increase their exposure to risk in an online environment that often normalizes permissive sexual norms without providing the guidance needed to navigate them.

Students' own clear endorsement of strategies centred on parental communication, digital literacy, and sex education provides a strong mandate for a coordinated, multi-pronged intervention that bridges students' digital and offline environments.

7. Recommendations

Based on the findings, the following recommendations are proposed:

- i. The university administration should implement mandatory, comprehensive sex education programmes covering healthy relationships, consent, and digital literacy, and should strengthen counselling services to help students manage online pressures and relationships.
- ii. Parents and guardians should be encouraged and supported — for example, through university-organized outreach — to initiate open, ongoing, and non-judgmental communication with their children about sex, relationships, and online safety from an early age.
- iii. Government and university stakeholders should support the development and funding of evidence-based digital literacy curricula for universities; future research should employ longitudinal designs to better establish causality and qualitative methods to explore the personal experiences underlying these statistical patterns.

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