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Between Privacy and Risk: Health Implications Linked to the Use of Sexual Wellness Devices among Female Students in Nigerian Universities

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Abstract

The use of sexual wellness devices among female university students is an emerging phenomenon in Nigeria, with implications for sexual health, mental well-being, and healthcare utilization. This study examined the accessibility, utilization patterns, hygiene practices, perceived benefits, reported symptoms, and healthcare-seeking behaviours associated with sexual wellness device use among female students across fifteen federal universities. A cross-sectional survey was conducted among 600 female students, supplemented with key informant interviews (KIIs) and focus group discussions (FGDs) involving university health workers, including gynaecology nurses and medical officers. Data were collected using structured questionnaires for students and semi-structured interview guides for health workers, and analyzed using descriptive and thematic approaches. Findings revealed that vibrators were the most commonly used devices (68%), with online vendors being the primary source (59%). Usage patterns varied from occasional to frequent use, often influenced by peer networks and personal autonomy. Hygiene practices were inconsistent, with only 41% of students reporting regular cleaning before and after use, while 16% admitted to sharing devices. Students reported several health symptoms, including vaginal itching (31%), abnormal discharge (27%), and lower abdominal discomfort (19%), yet healthcare utilization was low; 41% relied on self-medication and 29% sought no treatment. Despite these risks, students reported benefits such as sexual satisfaction, stress relief, improved sleep, and body awareness. Findings from KIIs and FGDs highlighted stigma, lack of guidance, and limited youth-friendly services as key barriers to safe use and timely healthcare access. The study recommends systematic sexual health education, safe use guidelines, and confidential healthcare services to promote responsible use of sexual wellness devices and mitigate associated health risks among female students.

Keywords: Sexual wellness devices, female students, hygiene practices, health risks, healthcare utilization.

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Introduction

Sexual and reproductive health has increasingly been framed within the broader concept of sexual wellness, emphasizing autonomy, safety, and informed choice rather than moral judgement. Globally, sexual wellness devices are now recognized as part of self-care and sexual health management for adult women, particularly in high-income countries where regulation, product safety standards, and clinical guidance are well established (Simmons, et al., 2024; Zimbile, 2025). The use of sexual wellness devices has expanded beyond older age groups to include young adults, especially female university students, driven by increased digital access, privacy, and evolving attitudes towards female sexuality. In the United States, the United Kingdom, and parts of Western Europe, the use of sexual wellness devices among young women has been widely documented and normalized within sexual health discourse (Bale, 2023; Francis, & McEwen, 2024). These societies benefit from strong regulatory frameworks that ensure medical-grade materials, clear usage guidelines, and integration of sexual wellness education into healthcare systems. As a result, while device use is common, associated health risks are often mitigated through informed use, access to healthcare professionals, and timely clinical intervention when complications arise.

In contrast, studies from Africa reveal a more complex and less regulated usage. Although empirical data remain limited, emerging evidence suggests a rising trend in the use of sexual wellness devices among young women in urban centres and tertiary institutions, facilitated by online marketplaces and informal vendors (Narayan, & Das, 2024). Unlike developed settings, many African countries lack clear regulatory oversight for these products, increasing the risk of exposure to substandard materials, improper device design, and inadequate hygiene instructions. Therefore, the current regulatory gap in Africa and places users at higher risk of gynaecological complications that are rarely captured in official health statistics.

In Nigeria, cultural conservatism and persistent stigma surrounding female sexuality further complicate this issue. Despite these social constraints, anecdotal clinical observations and recent campus-based surveys indicate a noticeable increase in the use of sex toys and vibrators among female university students (Majors, 2025; Perez, 2025). The trend is largely driven by privacy, anonymity offered by online shopping platforms, peer influence, and the perceived safety of non-penetrative sexual alternatives. However, secrecy surrounding use often prevents open discussion, health education, and early reporting of adverse effects. From a gynaecological perspective, the health risks associated with improper or prolonged use of sexual wellness devices are significant. These include vaginal irritation, micro-abrasions, mucosal inflammation, and disruption of the vaginal microbiota, which may predispose users to recurrent infections such as bacterial vaginosis and candidiasis (Bilankulu, 2024). Poor-quality devices made from non-medical-grade materials may also introduce chemical hazards, leading to allergic reactions or toxic exposure. In addition, excessive vibration intensity and prolonged use have been linked to genital numbness, pelvic discomfort, and altered sexual response in some users.

Beyond physical health risks, psychosocial and mental health hazards also warrant attention. Among female students, device use has been associated with stress relief and sexual self-exploration, but in some cases, it may contribute to emotional dependency, social withdrawal, or heightened secrecy due to fear of stigma (Selingo, 2024). In the Nigerian university context, where academic pressure, financial stress, and limited access to mental health services already exist, unregulated device use may intersect with broader mental health vulnerabilities, further complicating student well-being. From field study, the growing use of sexual wellness devices among female students in Nigerian universities reflects a global shift in sexual behaviour but occurs within a uniquely constrained socio-cultural and regulatory environment. Unlike developed countries where health risks are mitigated through education and policy, Nigerian female students often navigate device use without professional guidance or institutional support. This study is therefore critical in identifying the emerging health risks and hazards associated with this trend, while providing evidence to inform sexual health education, university health services, and regulatory policy aimed at safeguarding the reproductive and mental health of young women in Nigeria.

Methodology

The study was conducted across fifteen federal universities purposively selected from Nigeria's six geopolitical zones to achieve broad regional, cultural and institutional representation (See appendix 1). A stratified multi-stage sampling technique was adopted. From each university, 40 female students of reproductive age were selected, giving a total student sample size of 600 respondents. Student selection was carried out through systematic random sampling across faculties and levels of study to ensure proportional representation and minimize selection bias.

In addition to the student survey, key informant interviews were conducted with health workers drawn from the medical centres and teaching hospitals of the selected universities. These included gynecology nurses, medical officers and public health personnel who were purposively selected based on their professional roles and direct experience with female student health issues. Data from students constituted the quantitative component of the study, while information from health workers provided qualitative information to contextualize patterns of sexual device use, reported symptoms and healthcare utilization. Together, this approach strengthened the robustness of the findings, while maintaining a clearly defined overall student sample size of 600 respondents (see table in appendix).

A cross-sectional analytical research design was adopted to examine accessibility, utilization patterns, and health implications associated with the use of sexual wellness devices among female students. Both quantitative and qualitative data were generated. Primary quantitative data were obtained using a structured, anonymous, self-administered questionnaire designed to capture socio-demographic characteristics, patterns of device use, hygiene practices, perceived benefits, reported symptoms, and healthcare utilization. Qualitative data were sourced through key informant interviews with selected health workers (SHWs) and focused group discussions (FGDs) with female students to provide contextual understanding and explanatory depth. Instruments were pre-tested in a non-selected university to establish validity and reliability. Quantitative data were analyzed using descriptive statistics.

Result and discussion

The socio-demographic profile in Table 1 shows that the study population is dominated by young, unmarried female students, with over half of the respondents aged 20–24 years and 93 percent single. This age group represents the most sexually active and exploratory phase of young adulthood, which aligns closely with the subject matter of this study on the accessibility, utilization patterns and health implications of sexual wellness devices among female students. The concentration of respondents in the 300–400 level suggests a cohort that is more exposed to peer influence, digital media and privacy afforded by university life, factors that may encourage experimentation with such devices. In addition, the high proportion of students living off-campus points to increased personal autonomy and reduced institutional surveillance, which may further shape patterns of device use and related health behaviours. Taken together, these characteristics provide an important context for understanding why sexual wellness device use is gaining traction among female students and how age, marital status, academic exposure and living arrangements may influence both perceived benefits and associated health risks. The data presented in this table were obtained from a structured questionnaire administered to 600 female students during the field survey.

Table 1: Socio-Demographic Characteristics of female students

Variable	Category	Frequency	Percentage (%)
Age (years)	18–19	96	16.0
	20–24	342	57.0
	25–29	162	27.0
Marital status	Single	558	93.0
	Married	42	7.0
Level of study	100–200	174	29.0
	300–400	312	52.0
	500+	114	19.0
Accommodation	On-campus	228	38.0
	Off-campus	372	62.0

Source: Authors fieldwork, 2025

The results in Table 2 indicate that vibrators are the most commonly used sexual wellness devices, reported by 68 percent of respondents, followed by clitoral stimulators and the use of multiple devices. This pattern is consistent with findings from studies in developed countries, which show that sexual vibrators are often preferred due to their ease of use, affordability and discreet design (Dewitte, & Reisman, 2021; Waskul, & Anklan, 2020; Rullo, et al., 2018). Similar trends have also been reported in African university settings, where increasing digital exposure and changing sexual norms among young women have contributed to wider acceptance of such devices (Commey, et al., 2024; Okoye, & Saewyc, 2024). The fact that nearly one in five respondents reported frequent use suggests that device utilization is not merely experimental but, for some students, part of a regular sexual or stress-relief routine, a trend increasingly observed among female undergraduates in Nigeria.

The dominance of online vendors as the primary source of acquisition further reflects the role of privacy, anonymity and easy access in shaping usage patterns. Over half of the respondents obtained devices online, aligning with previous studies that link e-commerce platforms and social media marketing to increased uptake of sexual wellness products among young adults (Devi, et al., 2024). During the KIIs, health workers echoed these observations. For instance, A.O., a nursing officer in the Gynaecology Unit of one university medical centre, noted that many students who present with genital discomfort admit, upon probing, that they purchased devices online without adequate guidance on safe use or hygiene.

Findings from the FGDs supported these observations. C.N., a public health officer with the University Health Services, noted that peer influence strongly affects first-time users, who often learn about sexual wellness devices from friends or roommates. S.I., a senior midwife at the Reproductive Health Clinic, added that frequent users are more likely to report symptoms such as irritation or recurrent infections, particularly when devices are shared or not properly cleaned. These professional insights are consistent with existing literature, which links frequent use and poor hygiene of sexual wellness devices to a higher risk of vulvovaginal symptoms (Jana, 2024). Plate 1 illustrates examples of these devices (A, B, C, and D).

Table 2: Patterns of Sexual Wellness Device Use among female students

Variable	Category	Frequency	Percentage (%)
Type of device used	Vibrator	408	68.0
	Clitoral stimulator	126	21.0
	Multiple devices	66	11.0
Frequency of use	Occasionally (≤ 2 /month)	264	44.0
	Regular (1–2/week)	222	37.0
	Frequent (≥ 3 /week)	114	19.0
Source of device	Online vendors	354	59.0
	Friends/peers	162	27.0
	Local shops	84	14.0

Source: Authors fieldwork, 2025.

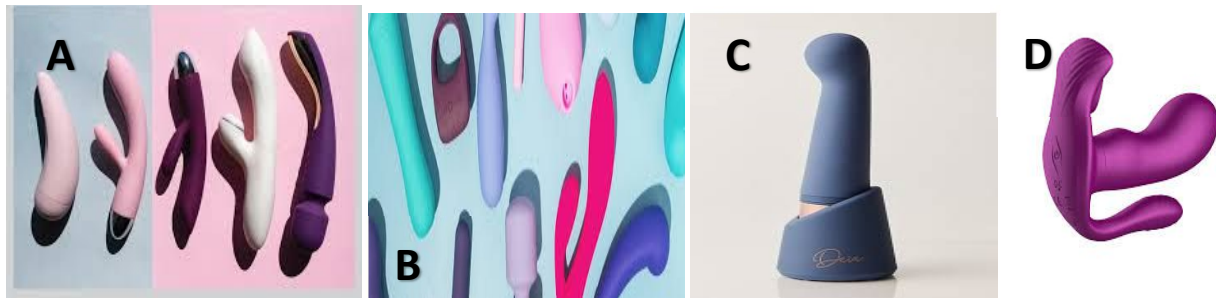


Plate 1: Sexual wellness devices A, B, C and D

The data in Table 3 reveal significant variations in hygiene practices among female students using sexual wellness devices. Only 41 percent reported cleaning devices before and after each use, while a substantial proportion cleaned only sometimes (38%) or rarely/never (21%). This is consistent with findings from previous studies in both developed and African contexts, which indicate that inconsistent hygiene practices among young women contribute to an elevated risk of genital irritation, infections, and disruption of vaginal microbiota (Anastasya, 2024; Nsereko, et al., 2021). Regarding cleaning methods, over half of the respondents (53%) used soap and water, which is considered safe, whereas 29 percent relied on water alone, and 18 percent used inappropriate agents such as detergents or alcohol, highlighting a gap in knowledge and safe practices.

Responses from healthcare workers during KIIs and FGDs provided further insight into these patterns. A.O., a nurse in the Gynaecology Unit, noted that many students are unaware of proper device maintenance, often leading to recurrent infections or mucosal irritation. M.B., a medical officer in the Family Medicine Department, confirmed that shared use of devices reported by 16 percent of students was a common contributor to cross-contamination and urinary tract symptoms. FGDs reinforced these observations, with students acknowledging peer influence and curiosity as reasons for device sharing, despite awareness of hygiene risks. These findings underscore the need for targeted sexual health education and intervention programs in universities, focusing on correct device cleaning, safe storage, and discouraging sharing to reduce preventable gynaecological complications.

Table 3: Hygiene Practices Related to Device Use among students

Hygiene practice	Category	Frequency	Percentage (%)
Cleaning before & after use	Always	246	41.0
	Sometimes	228	38.0
	Rarely/Never	126	21.0
Cleaning method	Soap & water	318	53.0
	Water only	174	29.0
	Inappropriate agents	108	18.0
Device sharing	Yes	96	16.0
	No	504	84.0

Source: Fieldwork, 2025

The findings in Table 4 indicate that female students perceive multiple benefits from the use of sexual wellness devices, with sexual satisfaction emerging as the most frequently reported benefit (77%). This aligns with global studies that have documented the role of such devices in enhancing sexual pleasure and promoting positive sexual self-exploration among young women (Kilic Onar, 2024; Ciaralli, & Vercel, 2024). In addition to sexual satisfaction, stress relief (59%) and improved body awareness (52%) were also commonly reported, suggesting that device use is not limited to sexual gratification but extends to emotional regulation and personal well-being, which is consistent with findings from similar studies in university populations in Africa and Nigeria (Yahaya, et al., 2023; Odedairo, 2023).

Detail from the KIIs and FGDs reinforce these quantitative findings. A.O., a nurse in the Gynaecology Unit, observed that students often report using devices as a coping mechanism for academic stress and anxiety, particularly during examination periods. M.B., a medical officer in the Family Medicine Department, noted that several students explicitly linked device use to better sleep patterns and emotional relaxation. FGD participants echoed these perspectives, explaining that device use allows private exploration of sexual needs, promotes self-confidence, and provides a temporary reprieve from academic and social pressures. Together, these findings demonstrate that sexual wellness devices serve multiple psychosocial and physiological functions for female students, highlighting their relevance in discussions of reproductive and mental health within university settings.

Table 4: Perceived Benefits of Device Use by female students

Perceived benefit	Frequency	Percentage (%)
Sexual satisfaction	462	77.0
Stress relief	354	59.0
Improved sleep	246	41.0
Emotional relaxation	288	48.0
Body awareness	312	52.0
Total	600	100

Source: Authors fieldwork, 2025

The results in Table 5 indicate that a notable proportion of female students using sexual wellness devices report health-related symptoms, with vaginal itching (31%) and abnormal discharge (27%) being the most common. Lower abdominal discomfort and urinary symptoms were reported by 19 percent and 16 percent of respondents, respectively. These findings are consistent with prior studies in both developed and African contexts, which link inconsistent device hygiene, sharing of devices, and prolonged or frequent use to vulvovaginal irritation, infections, and urinary tract complications (Elorfaly, 2024; Daher, et al., 2022; Ojha, et al., 2025). The fact that 46 percent of respondents reported no symptoms highlights that not all users experience adverse effects, suggesting that careful use and proper hygiene may mitigate some health risks.

Key informant interviews and focus group discussions provided further insight into these patterns. *A.O.*, a nurse in the Gynaecology Unit, observed that most symptomatic students present with mild but recurrent complaints, often exacerbated by poor cleaning practices or sharing devices. *M.B.*, a medical officer in the Family Medicine Department, noted that these symptoms frequently go unreported due to stigma or embarrassment, resulting in delayed treatment. FGD participants echoed this view, with some acknowledging self-medication or reliance on peer advice rather than visiting the university health centre. These findings suggest that while sexual wellness devices offer perceived benefits, their use carries measurable health risks, reinforcing the importance of targeted sexual health education, safe hygiene practices, and accessible clinical support within university settings.

Table 5: Reported Health Symptoms Associated with Use by female students

Reported symptom	Frequency	Percentage (%)
Vaginal itching	108	18.0
Abnormal discharge	72	12.0
Lower abdominal discomfort	246	41.0
Urinary symptoms	174	29.0
No symptoms reported	108	18.0
Total	600	100

Source: Authors fieldwork, 2025

The data in Table 6 show that healthcare utilization among female students for symptoms associated with sexual wellness device use is relatively low, with only 18 percent visiting university health centers and 12 percent seeking care at private clinics. A substantial proportion relied on self-medication (41%), while 29 percent did not seek any treatment. These trends align with previous research in Nigeria and other African contexts, which highlights that stigma, privacy concerns, and fear of judgment often discourage young women from accessing formal sexual and reproductive health services (Taiwo, et al., 2023; Olajubu, et al., 2025). Result from KIIs and FGDs further explain these patterns. *A.O.*, a nurse in the Gynaecology Unit, noted that students frequently report embarrassment or fear of being judged by healthcare providers, which contributes to delayed presentation and self-care practices. *M.B.*, a medical officer in the Family Medicine Department, observed that students often attempt home remedies or consult peers before approaching medical professionals. FGD participants confirmed this behaviour, explaining that confidentiality concerns and limited awareness of safe practices influence their healthcare choices. Collectively, these findings suggest that while sexual wellness device use is increasing, gaps in healthcare

engagement persist, underscoring the need for confidential, youth-friendly services and targeted sexual health education in university settings.

Table 6: Healthcare Utilization for Reported Symptoms by female students

Healthcare response	Frequency	Percentage (%)
Visited university health centre	108	18.0
Visited private clinic	72	12.0
Self-medication	246	41.0
No treatment sought	174	29.0
	600	100

Source: Authors fieldwork, 2025

Conclusion

The findings of this study demonstrate that sexual wellness device use among female university students in Nigeria is increasingly prevalent, particularly among young, unmarried students aged 20–24 years. Vibrators are the most commonly used devices, primarily acquired through online vendors, and usage patterns range from occasional to frequent, reflecting both exploratory and routine behaviours. While students report significant perceived benefits, including sexual satisfaction, stress relief, improved sleep, emotional relaxation, and body awareness, the study highlights critical gaps in safe use and hygiene practices, with a notable proportion cleaning devices inconsistently or using inappropriate methods. Health-related symptoms such as vaginal itching, abnormal discharge, lower abdominal discomfort, and urinary issues are prevalent, particularly among those with poor hygiene practices or who share devices.

Despite the health implications, formal healthcare utilization remains low, with many students relying on self-medication or avoiding treatment altogether due to stigma, privacy concerns, and limited awareness. Insights from healthcare workers through KIIs and FGDs underscore the importance of confidential, youth-friendly sexual health services, targeted education on safe device use, and accessible clinical support. The study revealed a dual reality: sexual wellness devices provide psychosocial and sexual benefits, but without appropriate guidance, education, and healthcare access, they pose measurable health risks. These findings underscore the need for university-based interventions that integrate sexual health education, safe use practices, and responsive healthcare provision to protect the well-being of female students while acknowledging evolving sexual behaviours.

Recommendations

From the study findings, the following recommendations were made;

- i. Implement targeted sexual health education programmes in universities to raise awareness about safe use, proper hygiene, and storage of sexual wellness devices.
- ii. Establish confidential, youth-friendly healthcare services within university medical centres to encourage timely reporting and management of device-related symptoms.
- iii. Promote peer-led awareness campaigns to address misconceptions, reduce stigma, and reinforce safe practices among female students.

- iv. Encourage responsible device acquisition, highlighting the risks of shared devices and unregulated online purchases.
- v. Integrate mental health support and stress management interventions alongside sexual health education, given that device use is partly linked to stress relief and emotional regulation.
- vi. Develop clear guidelines and policies at university level on sexual wellness and reproductive health to ensure consistent messaging and access to resources.
- vii. Facilitate partnerships with healthcare professionals to provide workshops, counselling, and guidance on sexual wellness and reproductive health.

References

- Anastasya, S. (2024). Understanding the Relationship Between Knowledge, Vaginal Hygiene Practices, and Vaginal Discharge in Adolescents. *International Journal on Health and Medical Sciences*, 2(2), 53-62.
- Bale, C. (2023). Raunch or romance? Framing and interpreting the relationship between sexualized culture and young people's sexual health. In *Investigating Young People's Sexual Cultures* (pp. 69-80). Routledge.
- Bilankulu, S. P. (2024). *Undergraduate Students' Knowledge of Sexually Transmitted Infections and the Long-term Effects of Sexually Transmitted Infections at a Higher Education Institution in Gauteng, South Africa* (Master's thesis, University of Johannesburg (South Africa)).
- Ciaralli, S., & Vercel, K. (2024). Affording pleasure: the role of objects in women's and AFAB individuals' sexual self-knowledge and pleasure. *Consumption Markets & Culture*, 27(2), 133-151.
- Commey, I. T., Amoadu, M., Obeng, P., Okantey, C., Boso, C. M., Agyare, D. F., ... & Hagan Jr, J. E. (2024). Sexting among College Students in Africa: A Scoping Review of Prevalence, Risk Factors, and Impact. *Sexes*, 5(3), 285-299.
- Daher, A., Albaini, O., Siff, L., Farah, S., & Jallad, K. (2022). Intimate hygiene practices and reproductive tract infections: A systematic review. *Gynecology and Obstetrics Clinical Medicine*, 2(3), 129-135.
- Devi, L., Rajendran, L., & Radhakrishnan, S. (2024). Understanding the consumer's intention to purchase reproductive health products from e-commerce sites. *African Journal of Reproductive Health*, 28(10), 167-178.
- Dewitte, M., & Reisman, Y. (2021). Clinical use and implications of sexual devices and sexually explicit media. *Nature Reviews Urology*, 18(6), 359-377.
- Elorfaly, H. M. A. (2024). The relation between genital hygiene behaviors in women and urinary tract infection in any period of life. *Egyptian Journal of Hospital Medicine*, 97(1), 3811-3819.
- Francis, D., & McEwen, H. (2024). Normalizing intolerance: The efforts of Christian Right groups to block LGBTIQ+ inclusion in South African schools. *Culture, Health & Sexuality*, 26(2), 236-247.
- Jana, A. D. (2024). The Relationship Between Knowledge Level and Vaginal Hygiene Practices to Abnormal Vaginal Discharge in Adolescents. *Idea: Future Research*, 2(1), 37-46.
- Kilic Onar, D. (2024). *Examining the role of women's self-pleasure in relationships: Individual and dyadic analyses* (Doctoral dissertation, University of Southampton).
- Majors, S. C. (2025). *Analyzing Sexual Risk Behaviors Among University Students: A Pilot Study* (Master's thesis, North Carolina Agricultural and Technical State University).

- Narayan, P., & Das, S. (2024). Socio-Cultural variations in Consumer preferences on Sexual Wellness Products in Urban and Rural Communities: A Comprehensive Analysis. *Danadyaksa: Post Modern Economy Journal*, 2(1), 58-77.
- Nsereko, E., Moreland, P. J., Dunlop, A. L., Nzayirambaho, M., & Corwin, E. J. (2021). Consideration of cultural practices when characterizing the vaginal microbiota among African and African American women. *Biological research for nursing*, 23(1), 91-99.
- Odedairo, O. D. (2023). Promiscuous Technologies: Shifting Notions of Gender and Sexuality in Nigeria's Digital Public Sphere. *Saudi J. Humanities Soc Sci*, 8(10), 311-317.
- Ojha, S., Vishwakarma, P. K., Mishra, S., & Tripathi, S. M. (2025). Impact of urinary tract and vaginal infections on the physical and emotional well-being of women. *Infectious Disorders-Drug Targets*, 25(1), E310524230589.
- Okoye, H. U., & Saewyc, E. (2024). Influence of socio-contextual factors on the link between traditional and new media use, and young people's sexual risk behaviour in Sub-Saharan Africa: a secondary data analysis. *Reproductive health*, 21(1), 138.
- Olajubu, A. O., Olowokere, A. E., & Naanyu, V. (2025). Barriers to Utilization of Sexual and Reproductive Health Services among Young People in Nigeria: A Qualitative Exploration Using the Socioecological Model. *Global Qualitative Nursing Research*, 12, 23333936241310186.
- Perez, J. (2025). *Reproductive Health Practices in Community College: Students' Perspectives* (Doctoral dissertation, Barry University).
- Rullo, J. E., Lorenz, T., Ziegelmann, M. J., Mehofer, L., Herbenick, D., & Faubion, S. S. (2018). Genital vibration for sexual function and enhancement: best practice recommendations for choosing and safely using a vibrator. *Sexual and Relationship Therapy*, 33(3), 275-285.
- Selingo, L. (2024). *Exploring the Lived Experiences of Sexual Minority Women in Emerging Adulthood Who Use Substances* (Doctoral dissertation, The University of Wisconsin-Milwaukee).
- Simmons, K., Llewellyn, C., Bremner, S., Gilleece, Y., Norcross, C., & Iwuji, C. (2024). The barriers and enablers to accessing sexual health and sexual well-being services for midlife women (aged 40–65 years) in high-income countries: A mixed-methods systematic review. *Women's Health*, 20, 17455057241277723.
- Taiwo, M. O., Oyekenu, O., & Hussaini, R. (2023). Understanding how social norms influence access to and utilization of adolescent sexual and reproductive health services in Northern Nigeria. *Frontiers in Sociology*, 8, 865499.
- Waskul, D., & Anklan, M. (2020). "Best invention, second to the dishwasher": Vibrators and sexual pleasure. *Sexualities*, 23(5-6), 849-875.
- Yahaya, A. D., Mohammed, A., & GarbaGama, U. (2023). Women's Satisfaction with the Use of Sex and Reproductive Information in the North-Western States of Nigeria. *International Journal of Applied Technologies in Library and Information Management*, 9(1), 1-12.
- Zimbile, F. R. (2025). Using stepped care to strategically organize ehealth and promote self-care: experiences from public sexual health care in the Netherlands.

Appendix- Table on Sample Distribution of Students and Health Workers by University

S/N	Federal University	Number of Female Students	Number of Health Workers	Total Sample per University
1	University of Lagos	40	5	45
2	University of Ibadan	40	5	45
3	Obafemi Awolowo University	40	5	45
4	Ahmadu Bello University	40	5	45
5	University of Nigeria, Nsukka	40	5	45
6	University of Benin	40	5	45
7	University of Port Harcourt	40	5	45
8	University of Jos	40	5	45
9	Bayero University, Kano	40	5	45
10	University of Calabar	40	5	45
11	Ahmadu Bello University Zaria (Faculty-based selection)	40	5	45
12	Federal University of Technology, Akure	40	5	45
13	University of Maiduguri	40	5	45
14	University of Ilorin	40	5	45
15	Federal University of Agriculture, Abeokuta	40	5	45
Total		600	75	675

Source: Authors fieldwork, 2025