STIGMATISATION, RELIGIOUS BELIEFS, PEER INFLUENCE AS SOCIAL DETERMINANTS OF REPRODUCTIVE HEALTH SERVICES UTILISATION AMONG UNDERGRADUATES IN UNIVERSITY OF ILORIN, ILORIN, NIGERIA

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Abstract

Utilisation of reproductive health services (RHS) is essentially not only to prevent health issues such as sexually transmitted infections but to enhance fertility and overall quality of life. However, some factors may influence utilisation of these services which may be linked to undesirable health consequences. The objectives of the study were to determine if stigmatisation, religious beliefs, and peer influence are social determinants of reproductive health services utilisation among undergraduates in University of Ilorin, Nigeria. A descriptive survey research was adopted for the study. The population comprised all 46,657 undergraduates of University of Ilorin, Nigeria. Four hundred and eleven (411) respondents were sampled. A multi-stage sampling procedure was adopted for sample selection. A researchers-structured questionnaire validated and tested for the reliability was used for data collection. The reliability was established through split-half method and a co-efficient of 0.86 was obtained using Cronbach Alpha. The research questions were answered with the use of descriptive statistics of percentage and mean. The findings of the study were that stigmatisation; religious beliefs; and peer influence are social determinants of reproductive health services utilisation among undergraduates in University of Ilorin, Nigeria. The study concluded that stigmatisation, religious beliefs, and peer influence predict students' behaviour in regard to the use of reproductive health services. The study recommended that students should take ownership of their health choices by reducing stigma through knowledge, respecting religious values while prioritising well-being, and using peer influence as a positive force. This would empower them to make informed, responsible decisions about reproductive health services.

Keywords: Reproductive Health Services, Stigmatisation, Religious Beliefs, Peer Influence, Utilisation

Introduction

Reproductive health services (RHS) are not merely a facet of healthcare; they are fundamental pillars of human survival and continuity of life. The ability to procreate and make informed decision about reproductive health is a crucial factor in the existence of humanity, shaping not only an individual future but also the future of generations to come. For undergraduates, who are most adolescents transiting to adulthood and making critical life choices, optimal access and utilisation of reproductive health services becomes even more paramount. Thus, reproductive health services are not limited to contraceptive use, counselling, Human Immunodeficiency Virus (HIV) voluntary counselling and testing (VCT), treatment of reproductive tract infections and sexually transmitted infections (STIs).

According to WHO (2021), young people are individuals between 10 and 24 years, and they experience a series of physiological, psychological and social changes that expose them

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to unhealthy sexual behaviours such as early sex experimentation, engaging in unsafe sex and having multiple sexual partners. These unhealthy sexual behaviours keep them at risk of facing RH problems such as teenage pregnancies, unsafe abortion, STIs and HIV/AIDS (Odo et al., 2018). Young people often lack basic sexual and reproductive health knowledge, and access to affordable and confidential reproductive health services (Masood, & Alsonini, 2017). Globally, high morbidity and high mortality rates among young people are mainly caused by RH problems (Agu et al., 2021).

A study by Nmadu et al. (2020) investigated the challenges that adolescents face when trying to access RHS. The study found three main types of barriers: individual, social, and health system barriers. Individual barriers revolved around factors like inadequate knowledge about RHS and negative attitudes towards it among adolescents. Social barriers include influences from peers, parents, community norms, and religious beliefs. Adolescents, especially in conservative settings, may avoid seeking care for fear of being judged by healthcare providers, peers, or community members. French et al. (2017) emphasized how, in Nigerian communities, societal expectations of virginity and moral purity further exacerbate the issue, especially for unmarried adolescents, reinforcing a culture of silence around sexual and reproductive health matters. This culture which prompts the fear of being stigmatised resulting to poorer health outcomes, including unplanned pregnancies and untreated sexually transmitted infections (STIs), as adolescents may feel discouraged from accessing contraception or other vital reproductive health services (Nmadu et al., 2020). Moreover, stigmatisation associated with sexual health can have far-reaching psychological impacts, resulting in stress, depression, and diminished quality of life among adolescents and others affected by these societal pressures (Stone, 2016). Kazmerski et al. (2018) reiterated that the sensitive and private nature of sexual health topics in African societies contributes to a culture of silence, where adolescents fear judgment or ostracization if they seek necessary care. According to Kansal et al., (2017), many participants reported stigma as a significant barrier to accessing these services. In Nigeria, this fear of stigmatisation discourages adolescents from utilizing essential reproductive health services, further compounding the issues of unwanted pregnancies, STIs, and other sexual health risks.

Religious norms often dictate what is considered acceptable behaviour, influencing the accessibility and dissemination of SRH education. In many religious contexts, discussions around sexual health, contraception, and reproductive rights are limited, as these subjects are regarded as taboo. Religious teachings that emphasise sexual abstinence until marriage and restrict access to contraceptives can further hinder the utilisation of SRH services (Alomair, et al., 2020). Moreover, these religious restrictions may disproportionately impact young people, particularly adolescents, who may not have access to adequate information and services. Furthermore, certain religious groups actively oppose the use of contraception and safe abortion services, as Azevedo et al. (2017) noted in their study, creating an environment where adolescents are discouraged from seeking these services. Consequently, while religious values may promote certain aspects of health, such as family unity and moral behaviour, they can also act as barriers to comprehensive SRH education and services, potentially leading to adverse health outcomes. Chandra-Mouli et al. (2017) noted that certain religious doctrines categorise premarital sexual intercourse as a violation of moral codes, and as a result, adolescents are culturally expected to remain abstinent until marriage. This expectation places significant pressure on young individuals to conform to societal standards, even when they may be sexually active. In many communities, particularly in rural and conservative areas, traditional beliefs and norms can discourage the use of reproductive health services. For instance, some communities may perceive family planning as unnecessary or harmful, leading to low uptake of contraception (Denno et al., 2015). Religious beliefs also play a role in shaping attitudes toward reproductive health. In some Nigerian communities, religious leaders exert significant influence over health-seeking behaviours, and certain religious groups oppose the

use of contraception or safe abortion services (Azevedo et al., 2017). These cultural and religious barriers contribute to the underutilisation of reproductive health services, particularly among women and adolescents in rural areas. The influence of religious doctrines is not unique to Nigeria. For instance, Addo and Gyamfuah (2015) found similar patterns in Ghana, where adolescents were discouraged from using contraception or seeking abortion services due to religious teachings. This discouragement stems from the perception that such actions are morally wrong, leading to adolescents feeling disempowered and reluctant to engage with RHS.

As adolescents grow, the influence of peers often becomes stronger, while parental guidance tends to decrease. Peer interactions can heavily affect perceptions and behaviours related to sexual and reproductive health, particularly because adolescents often seek advice and information from their friends (Abubakari et al., 2020). However, peer-driven information is frequently inaccurate or incomplete, which may lead to misconceptions about sexual health and reproductive services. This social dynamic can result in risky sexual behaviours and a reluctance to seek appropriate reproductive health services, thereby highlighting the importance of promoting accurate information within peer groups (Ezenwaka et al., 2020). Abubakari et al. (2020) asserted that peers are often a primary source of sexual health information for young people, and their opinions can greatly influence the decision to use SRH services. Peer influence can manifest in several ways, including the encouragement or discouragement of seeking SRH services, the adoption of contraceptive methods, and openness about sexual health concerns. However, the nature of this influence is not always positive. Adolescents may internalise negative peer attitudes towards SRH services, such as viewing contraceptive use as a sign of promiscuity or associating certain services, like STI testing, with shame and embarrassment. These negative perceptions can significantly deter adolescents from seeking necessary care (Abubakari et al., 2020). Moreover, peer group norms play a crucial role in shaping attitudes toward sexual activity and health-seeking behaviours. In many cases, the desire to conform to peer expectations can result in risky sexual behaviours and reluctance to access SRH services. Adolescents who engaged in discussions about SRH with their peers were more likely to utilise SRH services, demonstrating the positive potential of peer influence when accurate information is shared (Wachamo et al., 2020; Abubakari et al., 2020).

The universal access to SRHS is essentially one of the primary goals of the United Nations Sustainable Development Goals (SDG) (SDG 3.7 and 5.6) (United Nations, 2015). To this effect, some universities in Nigeria developed SRH related policies and strategies, and regularly carry-out SRH awareness campaigns in their institutions, most of them established health facilities within the universities. These investments are supposed to result to adoption of healthier behaviours by the students and lead to improved utilisation of university based SRH services. Despite these investments, universities have not realized a significant decrease in the number of students engaging in risky sexual behaviours (Oniyangi et al., 2019; Ologele et al., 2021). For example, the number of students engaging in unprotected sex under the influence of alcohol and drugs and those who engage in sex for favours is significantly high (Chigbu et al., 2022). Also, the researchers observed low utilisation rates of RHS among undergraduates in University of Ilorin. This observation raises concerns about factors determining the use of SRHS among students in University of Ilorin. Therefore, this study investigated social determinants of reproductive health services utilisation among undergraduates in University of Ilorin, Ilorin, Nigeria. Specifically, the study:

1. determine if stigmatisation is a social determinant of reproductive health services utilisation among undergraduates in University of Ilorin, Nigeria.
2. ascertain if religious beliefs is a social determinant of reproductive health services utilisation among undergraduates in University of Ilorin, Nigeria.

3. confirm if peer influence is a social determinant of reproductive health services utilisation among undergraduates in University of Ilorin, Nigeria.

The study answered the following research questions:

1. Will stigmatisation be a social determinant of reproductive health services utilisation among undergraduates in University of Ilorin, Nigeria?
2. Will religious beliefs be a social determinant of reproductive health services utilisation among undergraduates in University of Ilorin, Nigeria?
3. Will peer influence be a social determinant of reproductive health services utilisation among undergraduates in University of Ilorin, Nigeria?

Methodology

Descriptive survey research design was employed for the study. The design was appropriate for the study because the design aligns with the study's objectives of describing the current state of a population regarding multiple determinants, such as stigmatisation, religious beliefs and peer influence, without manipulating any variables. The population for the study comprised of all undergraduates in University of Ilorin, Nigeria. University of Ilorin has a total population of forty-six thousand, six hundred and fifty seven (46,657) students (Academic Support Services, 2024). University of Ilorin has a total number of sixteen (16) faculties. The target population for this study are all thirteen thousand, five hundred and seventy-four (13,574) students in five selected faculties.

The sample size for this study was 411 respondents. The sample size was determined by Research Advisor (2006) which asserted that for a target population 13,574, a sample size that is adequate enough for the study is 374. However, in order to cater for possible voluntary or involuntary withdrawal of participants from the study which may tamper with the adequacy of the sample size of 374, a 10% attrition rate which is 37 was added to the proposed sample size of 374 resulting to 411 respondents. A multi-stage sampling procedure was adopted for this study. This includes cluster, simple random, proportionate and convenience sampling techniques. **Stage 1:** Cluster sampling technique was used to divide the population into sixteen (16) faculties because the faculties were already in clusters. **Stage 2:** Proportionate sampling technique was used to 33% of the faculties identified as clusters in the University of Ilorin. This resulted in the use of five out of the 16 faculties in the University of Ilorin. **Stage 3:** Simple random sampling technique was used to select five out of the sixteen faculties. The researcher made a complete list of all 16 faculties in the University of Ilorin, assigned a number to each faculty and used a drawing lots technique to choose 5 faculties involved in the study.. The researcher wrote the numbers 1 to 16 on pieces of paper, shuffled them, and drawn five (5) randomly without replacement. The 5 faculties corresponding to the randomly selected numbers were included in the study. After the selection was done, faculties of Arts, Clinical Sciences, Engineering, Law and Physical Sciences were sampled.

Stage 4: Proportionate sampling technique was used to select 3.03% of the population of the selected faculties. The percentage used ($\% = \frac{Sample\ Size}{Target\ Population} \times 100$) was to achieve the already determined 411 sample. Therefore, 159 respondents were selected from Arts, 32 respondents were selected from Clinical Sciences, 99 respondents were selected from Engineering, 31 respondents were selected from Law and 90 respondents were selected from Physical Sciences. In total, a sample size of four hundred and eleven (411) respondents were selected for the study. **Stage 5:** Convenience sampling technique was used for the selection of the four hundred and eleven (411) respondents for the study. This enabled the researcher to administer the research instrument to participants who are willing and ready to participate in the study at their various areas within their faculties.

Table 1: **Sample Size for the Study**

S/N	Name of Faculty	Population	3.03% of population	Sampled Respondents

1	Arts	5252	159.1	159
2	Clinical Sciences	1057	32.0	32
3	Engineering	3263	98.9	99
4	Law	1032	31.3	31
5	Physical Sciences	2970	90.0	90
	Total	**13,574**		**411**

Source: Field Survey (2024)

The research instrument used in gathering and collecting data for this study is a researchers' structured questionnaire. The questionnaire was titled "Questionnaire on Social determinants of Reproductive health services utilisation among Undergraduates". The questionnaire was closed ended and based on modified 4-point Likert format rating scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD). To ascertain the content and face validity of the instrument, copies of the questionnaire carefully constructed by the researcher were validated by three (3) experts. After that, the researchers ensure that appropriate suggestions and recommendations from the experts were imbibed in the final draft of the instrument to improve the quality of the instrument.

To determine the reliability of the instrument, the researcher adopted a split-half method of one-time administration. The instrument was administered to twenty (20) respondents from Faculty of Education, University of Ilorin once, which is not part of the faculties used for the study. The data obtained from the instrument administered were computed and analysed using Cronbach Alpha statistics. A reliability coefficient of 0.86 was obtained which is high enough to show that the research instrument is reliable for the study. Approval to carryout this study was obtained from the Registrar, University of Ilorin. The consents of all participating individuals were sought before the administration commenced and none of the participants was coerced to be part of the study. The administration of the instrument was carried out by the researchers. The researchers were obligated to maintain professional integrity, unbiased and subjective quest for facts and knowledge. Data and information gathered from respondents were kept highly confidential and prompt retrieval of completely filled questionnaires was ensured to avoid loss. The data obtained during administration were sorted, coded and subjected to appropriate statistical analysis. The descriptive statistics of percentage and mean was used to answer the research questions using Statistical Package for Social Sciences (SPSS) version 20.0.

Results

Research questions were answered using descriptive statistics of percentage and mean. In answering the research questions, participants' responses were subjected to item-by-item analysis of mean. Given that the questionnaires on each of the social determinants considered contained items structured in a four-response-type, a cut-off score of 2.50 was used as the baseline for determining participants' responses. Therefore, items found with the mean scores equal or above 2.50 were affirmed as the social determinants of reproductive health services utilisation while items with mean scores below 2.50 were affirmed otherwise.

Research Question 1: Will stigmatisation be a social determinant of reproductive health services utilisation among undergraduates in University of Ilorin, Nigeria?

Table 2: Descriptive Analysis on Stigmatisation as a Social determinant of Reproductive health services utilisation

S/N	ITEMS	SA	A	D	SD	Mean

1.	I feel judged by others when I seek reproductive health services	104 (25.3%)	157 (38.2%)	40 (9.7%)	110 (26.8%)	2.62
2.	I avoid using reproductive health services so that people will not think negatively of me	93 (22.6%)	140 (34.1%)	55 (13.4%)	123 (29.9%)	2.49
3.	I am worried that using reproductive health services will make others think I am sexually active.	72 (17.5%)	155 (37.7%)	69 (16.8%)	115 (28.0%)	2.45
4.	Seeking reproductive health services makes me feel embarrassed.	94 (22.9%)	219 (53.5%)	0 (0.0%)	98 (23.8%)	2.75
	Average Mean					**2.58**

Table 2 shows that it was disaffirmed that respondents avoid using RHS so that people will not think negatively of them; and they are worried that using RHS will make others think they are sexually active. However, it was affirmed that they felt judged by others when seeking RHS; and seeking RHS makes them feel embarrassed. Essentially, it was affirmed that stigmatisation is a social determinant of reproductive health services utilisation among undergraduates in University of Ilorin, Nigeria.

Research Question 2: Will religious beliefs be a social determinant of reproductive health services utilisation among undergraduates in University of Ilorin, Nigeria?

Table 3: Descriptive Analysis on Religious Beliefs as a Social determinant of Reproductive health services utilisation

S/N	ITEMS	SA	A	D/	SD	Mean
5.	My religion encourages abstinence and, therefore, I do not feel the need to use reproductive health services.	177 (43.1%)	187 (45.5%)	29 (7.1%)	18 (4.4%)	3.27
6.	I believe that seeking reproductive health services is against the will of God.	212 (51.6%)	163 (39.7%)	36 (8.8%)	0 (0.0%)	3.43
7.	My religion promotes seeking medical help, including reproductive health services, when necessary.	74 (18.0%)	207 (50.4%)	9 (2.2%)	121 (29.4%)	2.57
8.	I believe my religion should not interfere with my decision to seek reproductive health services.	112 (27.3%)	272 (66.2%)	18 (4.4%)	9 (2.2%)	3.19
	Average Mean					**3.12**

Table 3 shows that it was affirmed that respondents' religion encourages abstinence and, therefore, they do not feel the need to use reproductive health services; they believe that seeking reproductive health services is against the will of God; respondents' religion promotes seeking medical help, including reproductive health services, when necessary; they believe their religion should not interfere with their decision to seek reproductive health services. Essentially, it was affirmed that religious beliefs be a social determinant of reproductive health services utilisation among undergraduates in University of Ilorin, Nigeria.

Research Question 3: Will peer influence be a social determinant of reproductive health services utilisation among undergraduates in University of Ilorin, Nigeria?

Table 4: Descriptive Analysis on Peer Influence as a Social determinant of Reproductive health services utilisation

S/N	ITEMS	SA	A	D	SD	Mean

9.	I am more likely to seek reproductive health services if my peers talk positively about them.	188 (45.7%)	196 (47.7%)	18 (4.4%)	9 (2.2%)	3.37
10.	I feel more comfortable using reproductive health services when I know my friends are using them too.	83 (20.2%)	301 (73.2%)	18 (4.4%)	9 (2.2%)	3.11
11.	I avoid using reproductive health services because my friends might judge me.	11 (2.7%)	293 (71.3%)	98 (23.8%)	9 (2.2%)	2.75
12.	I hesitate to use reproductive health services because my friends might think I am sexually active.	100 (24.3%)	195 (47.4%)	107 (26.0%)	9 (2.2%)	2.94
	Average Mean					**3.04**

Table 4 shows that it was affirmed that participants are likely to seek RHS if their peers talk positively about them; they feel more comfortable using RHS when they know their friends are using them too; they avoid using RHS because their friends might judge them; and hesitate to use RHS because their friends might think they are sexually active. Essentially, it was affirmed that peer influence is a social determinant of reproductive health services utilisation among undergraduates in University of Ilorin, Nigeria.

Discussion of Findings

The finding affirmed that stigmatisation is a social determinant of reproductive health services utilisation among undergraduates in University of Ilorin, Nigeria. This study's finding is linked to respondents' assertions that they felt judged by others when seeking RHS; and seeking RHS makes them feel embarrassed. This finding corroborated that of Kazmerski et al. (2018) who reiterated that the sensitive and private nature of sexual health topics in African societies contributes to a culture of silence, where adolescents fear judgment or ostracization if they seek necessary care. Also, it was revealed that many participants reported stigma as a significant barrier to accessing these services (Kansal et al., 2017). In Nigeria, this fear of stigmatisation discourages adolescents from utilizing essential reproductive health services, further compounding the issues of unwanted pregnancies, STIs, and other sexual health risks. Additionally, there may be stigmatisation associated with seeking reproductive health services, especially for adolescents who are not married or sexually active. Fear of judgment from healthcare providers, family members, or the community may deter adolescents from accessing services such as contraception or STI treatment (Nmadu et al., 2020).

It was also revealed that religious beliefs is a social determinant of reproductive health services utilisation among undergraduates in University of Ilorin, Nigeria. The finding comes up because the respondents affirmed that their religion encourages abstinence and, therefore, they do not feel the need to use reproductive health services; they believe that seeking reproductive health services goes against their religious values; their religion promotes seeking medical help, including reproductive health services, when necessary; they believe their religion should not interfere with their decision to seek reproductive health services. This finding is in agreement with the report of Chandra-Mouli et al. (2017) which stated that certain religious doctrines categorise premarital sexual intercourse as a violation of moral codes, and as a result, adolescents are culturally expected to remain abstinent until marriage. This expectation places significant pressure on young individuals to conform to societal standards, even when they may be sexually active. In many communities, particularly in rural and conservative areas, traditional beliefs and norms can discourage the use of reproductive health services. For instance, some communities may perceive family planning as unnecessary or harmful, leading to low uptake of contraception (Denno et al., 2015). In some Nigerian communities, religious leaders exert significant influence over health-seeking behaviours, and

certain religious groups oppose the use of contraception or safe abortion services (Azevedo et al., 2017). These cultural and religious barriers contribute to the underutilisation of reproductive health services, particularly among women and adolescents in rural areas.

Hypothesis three revealed that peer influence is significantly a social determinant of reproductive health services utilisation among undergraduates in University of Ilorin, Nigeria. This finding is linked with assertion of the respondents that they are likely to seek RHS if their peers talk positively about them; they feel more comfortable using RHS when they know their friends are using them too; they avoid using RHS because their friends might judge them; and hesitate to use RHS because their friends might think they are sexually active. This finding is in line with Abubakari et al. (2020) who asserted that peers are often a primary source of sexual health information for young people, and their opinions can greatly influence the decision to use SRH services. Peer influence can manifest in several ways, including the encouragement or discouragement of seeking SRH services, the adoption of contraceptive methods, and openness about sexual health concerns. However, the nature of this influence is not always positive. Adolescents may internalise negative peer attitudes towards SRH services, such as viewing contraceptive use as a sign of promiscuity or associating certain services, like STI testing, with shame and embarrassment. These negative perceptions can significantly deter adolescents from seeking necessary care (Abubakari et al., 2020). Adolescents who engaged in discussions about SRH with their peers were more likely to utilise SRH services, demonstrating the positive potential of peer influence when accurate information is shared (Wachamo et al., 2020; Abubakari et al., 2020).

Conclusions

Based on the findings of the study, the conclusions were that fear of judgment related to sexual health issues can deter undergraduates of University of Ilorin, Nigeria from seeking services. Religious beliefs can influence undergraduates in University of Ilorin attitudes towards RHS utilisation.Peer attitudes can impact undergraduates in University of Ilorin decisions about seeking reproductive health services.

Recommendations

Based on the conclusions of the study, the following recommendations were made:

1. Students should seek confidential reproductive health services to reduce fear of judgment.
2. Students should balance faith values with accurate health information to make responsible choices.
3. Students should surround themselves with supportive peers who encourage healthy decisions.

References

Abubakari, S. W., Abu, M., Yidana, Z., Apraku, E. A., & Mutaru, I. G. (2020). Young people's experiences in accessing sexual and reproductive health services in sub-Saharan Africa from 1994 to 2019 - A content analysis. *International JOURNAL OF SEXUAL AND REPRODUCTIVE HEALTH CARE*, 3(1), 017-026. https://dx.doi.org/10.17352/ijsrhc.000011

Academic Support Services. (2024). *Re: Request for population of students*. University of Ilorin

Addo, I. Y., & Gyamfuah, A. I. (2015). Utilization of reproductive health services among young people in Sawua, Ghana. *Clinical Medicine Reviews in Patient Care, 3*(1), 1–6. https://doi.org/10.4137/CMRPC.S29924

Agu, I. C., Mbachu, C. O., Ezenwaka, U., Okeke, C., Eze, I., Arize, I., Ezumah, N., & Onwujekwe, O. (2021). Variations in utilization of health facilities for information and services on sexual and reproductive health among adolescents in South-East, Nigeria. *Nigerian Journal of Clinical Practice*, *24*(11), 1582–1589. https://doi.org/10.4103/njcp.njcp_48_21

Alomair, N., Alageel, S., Davies, N., & Bailey, J. (2020). Factors influencing sexual and reproductive health of Muslim women: a systematic review. *Reproductive Health,* 17(1). https://doi.org/10.1186/s12978-020-0888-1

Azevedo, M. J., Uwemedimo, O., & Ehiri, J. (2017). Health disparities in sub-Saharan Africa: A case study of reproductive health in Nigeria. *International Journal of Public Health, 62*(1), 3-10. https://doi.org/10.1007/s00038-016-0908-1

Chandra-Mouli, V., Parameshwar, P. S., Parry, M., Lane, C., Hainsworth, G., Wong, S., Menard-Freeman, L., Scott, B., Sullivan, E., Kemplay, M., & Say, L. (2017). A never-before opportunity to strengthen investment and action on adolescent contraception, and what we must do to make full use of it. *Reproductive Health,* 14(1), 85. https://doi.org/10.1186/s12978-017-0347-9

Chigbu, E. F., Ofojebe, E. N., Nnadi, G. C., Uzoekwe, H. E. & Mokwelu, B. O. (2022). Parenting styles as determinant of sexual behaviour of in-school adolescents in South East, Nigeria. *European Journal of Education Studies,* 9(2), 79-106. https://doi.org/10.46827/ejes.v9i24152

Denno, D. M., Hoopes, A. J., & Chandra-Mouli, V. (2015). Effective strategies to provide adolescent sexual and reproductive health services and increase demand and community support. *Journal of Adolescent Health*. https://doi.org/10.1016/j.jadohealth.2014.09.012

Ezenwaka, U., Mbachu, C., Ezumah, N., Eze, I., Agu, C., Agu, I., & Onwujekwe, O. (2020). Exploring factors constraining utilization of contraceptive services among adolescents in Southeast Nigeria: an application of the socio-ecological model. *BMC Public Health,* 20(1). https://doi.org/10.1186/s12889-020-09276-2

French, V. A., Steinauer, J. E., & Kimport, K. (2017). What Women Want from Their Health Care Providers about Pregnancy Options Counseling: A Qualitative Study. *Women's Health Issues: Official Publication of the Jacobs Institute of Women's Health*, *27*(6), 715–720. https://doi.org/10.1016/j.whi.2017.08.003

Kansal, S., Singh, S., & Kumar, A. (2017). Awareness of legal and social issues related to reproductive health among adolescent girls in rural Varanasi. *Indian Journal of Public Health*, *61*(1), 26–32. https://doi.org/10.4103/0019-557X.200248

Kazmerski, T. M., Sawicki, G. S., Miller, E., Jones, K. A., Abebe, K. Z., Tuchman, L. K., Ladores, S., Rubenstein, R. C., Sagel, S. D., Weiner, D. J., Pilewski, J. M., Orenstein, D. M., & Borrero, S. (2018). Sexual and reproductive health care utilization and preferences reported by young women with cystic fibrosis. *Journal of Cystic Fibrosis: Official Journal of the European Cystic Fibrosis Society*, *17*(1), 64–70. https://doi.org/10.1016/j.jcf.2017.08.009

Masood, M. S. A., & Alsonini, N. A. A. (2017). Knowledge and attitude about reproductive health and family planning among young adults in Yemen. *International Journal of Population Research*, *2017*, 1895472, 1-9. https://doi.org/10.1155/2017/1895472

Nmadu, A. G., Mohammed, S., & Usman, N. O. (2020). Barriers to adolescents' access and utilisation of reproductive health services in a community in north-western Nigeria: A qualitative exploratory study in primary care. *African Journal of Primary Health Care & Family Medicine*, *12*(1), e1–e5. https://doi.org/10.4102/phcfm.v12i1.2307

Odo, A. N., Samuel, E. S., Nwagu, E. N., Nnamani, P. O., & Atama, C. S. (2018). Sexual and reproductive health services (SRHS) for adolescents in Enugu state, Nigeria: a mixed methods approach. *BMC Health Services Research*, *18*(1), 92. https://doi.org/10.1186/s12913-017-2779-x

Ologele, I., Bakare, N. E., Abdullahi, I., Ijaodola, T. K., & Stephen, J. A. (2021). Assessment of Premarital Sex, Causes among Undergraduates of the University of Ilorin, Nigeria. *Journal of Capital Development in Behavioural Sciences,* 9(1), 142-157.

Oniyangi, S. O., Jamiu, A. T., Umar, I. B., Ahmad, M. G., & Sindama, H. (2019). Prevalence of Premarital Sex among Adolescents in Kulende, Sango in Ilorin South Local Government Area, Kwara State, Nigeria. *Indian Journal of Public Health Research & Development, 11*(1), 890-894. https://doi.org/10.37506/v11/i1/2020/ijphrd/ 193946

Research Advisor (2006). Sample size table. https://www.reseach-advisors.com/tools/SampleSize.htm

Stone, P. K. (2016). Biocultural perspectives on maternal mortality and obstetrical death from the past to the present. *American Journal of Physical Anthropology*, *159*(Suppl 61), S150–S171. https://doi.org/10.1002/ajpa.22906

United Nations (2015). *Transforming our world: the 2030 agenda for sustainable development. A/RES/70/1.* United Nations. https://sdgs.un.org/2030agenda

Wachamo, D., Tegene, Y., Tibeso, A., & Washo, A. (2020). Sexual and reproductive health services utilization and associated factors among college students in West Arsi Zone, Oromia Region, Ethiopia. *The Scientific World Journal*, *2020*, 1-7. https://doi.org/10.1155/2020/3408789

World Health Organisation. (2021). *Adolescent health in the South-East Asia Region.* https://www.who.int/southeastasia/health-topics/adolescent-health