

**Original Article**

Social Determinants of Reproductive Health Outcomes Among Women of Child-Bearing Age in Ilorin West Local Government Area, Kwara State, Nigeria

Alabi Yusuf

Department of Public Health, Faculty of Basic Medical Sciences, Al-Hikmah University, Ilorin, Kwara State, Nigeria.

ARTICLE INFO	ABSTRACT
Article History Received: 25th December, 2025 Accepted: 10th January, 2026 Available online: 30th January, 2026	Background: Reproductive health outcomes among women of childbearing age are influenced by multiple social determinants. This study examined the associations between social factors and reproductive health outcomes among women of childbearing age. Methodology: A descriptive cross-sectional survey design was employed. Using multistage sampling, 398 women of childbearing age were selected from five randomly selected wards in Ilorin West LGA. Data were collected using a validated structured questionnaire with a four-point Likert scale. Descriptive statistics (frequency, percentages) and chi-square tests of association were used for data analysis at $\alpha = 0.05$ significance level. Results: The study revealed that 72.9% (n=290) of respondents reported positive associations between reproductive health services and health outcomes. Income level showed the strongest association (92.0%, n=366), followed by education level (71.3%, n=284), age (55.2%, n=220), and marital status (54.8%, n=218). Chi-square analysis revealed a statistically significant association between reproductive health service access and health outcomes among women of childbearing age ($\chi^2 = 201.219$, df = 12, $p < 0.001$). Conclusion: Income level and education are the most significant social factors associated with reproductive health outcomes among women of childbearing age in Ilorin West LGA.
Keywords: Social determinants Reproductive health outcomes Women of childbearing age	
Corresponding Author: Alabi Yusuf Department of Public Health, Faculty of Basic Medical Sciences, Al-Hikmah University, Ilorin, Kwara State, Nigeria. Phone number: +2349126232774 Email: yusufalabiolatunji2410@gmail.com	Please cite this article as: Yusuf, A. (2026). Social Determinants of Reproductive Health Outcomes Among Women of Child-Bearing Age in Ilorin West Local Government Area, Kwara State, Nigeria. <i>Al-Hikmah Journal of Health Sciences</i> , 5(1), 103-110.

Introduction

Reproductive health is a fundamental aspect of overall health, encompassing the physical, mental, and social well-being in matters related to the reproductive system. It involves a range of issues, including sexual health, family planning, infertility, and the prevention and treatment of sexually transmitted infections (STIs) (Gani et al., 2023). One of the core components of reproductive health is sexual health, which includes

the ability to have a satisfying and safe sexual life without the risk of infection or unintended pregnancies (Gani et al., 2023)

Women of childbearing age, typically defined as those between 15 and 49 years old, constitute a critical demographic segment, particularly in the context of reproductive health, maternal and child health, and socio-economic development (National Population Commission, 2019). One of the primary concerns for

women of childbearing age is reproductive health. This includes access to family planning services, safe pregnancy and childbirth, and the prevention and treatment of sexually transmitted infections (STIs). Ensuring that women have access to comprehensive reproductive health services is vital for reducing maternal mortality, preventing unintended pregnancies, and promoting overall well-being (Hogan *et al.*).

Statement of the Problem

Despite global commitments to improving reproductive health as articulated in the Sustainable Development Goals (SDG 3.1, 3.7), reproductive health indicators in Nigeria remain suboptimal (WHO, 2021; United Nations, 2020). Maternal mortality and morbidity rates have exceeded national averages in Kwara State, North-Central Nigeria, this is exhibited with limited recent empirical data on the underlying social determinants (Federal Ministry of Health, 2020).

Ilorin West Local Government Area (LGA), the most urbanized and densely populated LGA in Kwara State, presents a unique socio-demographic profile characterized by ethnic diversity, varying educational attainment, mixed economic activities, and diverse cultural practices (National Population Commission, 2019). Despite this heterogeneity, comprehensive, community-based research examining the specific social factors influencing reproductive health outcomes in this context remains limited. Existing public health reports provide aggregate data that fail to capture the nuanced interactions between education, income, marital status, age, and cultural beliefs in shaping reproductive health outcomes among women of childbearing age in this locality (Kwara State Ministry of Health, 2021).

Justification of the Study

This study addresses a critical knowledge gap in the understanding of social determinants of reproductive health in Ilorin West LGA, Kwara State. While national surveys such as the Nigeria Demographic and Health Survey provide valuable aggregate data, they often lack the granularity necessary to inform local policy and programmatic interventions (NPC & ICF, 2019). In Ilorin West LGA with its unique socio-demographic profile characterized by urban-rural heterogeneity, ethnic diversity, and varied economic activities warrants localized investigation.

The findings will provide evidence to guide targeted interventions by the Kwara State Ministry of Health, local government authorities, non-governmental organizations, and community-based organizations. By identifying the most significant social barriers to reproductive health, this research will contribute to the

design of context-specific health promotion strategies, policy reforms, and resource allocation decisions aimed at reducing maternal mortality and morbidity and improving overall reproductive health outcomes among women of childbearing age in Ilorin West LGA.

Objectives of the Study

The general objective investigated the association between social factors and reproductive health outcomes among women of childbearing age (15-49 years) in Ilorin West Local Government Area, Kwara State, Nigeria.

Specific Objectives:

1. To assess the reproductive health outcomes among women of childbearing age in Ilorin West LGA, Kwara State.
2. To determine the associations between social factors (education level, income, age, marital status, and cultural beliefs) and reproductive health outcomes among women of childbearing age in Ilorin West LGA, Kwara State.

Research Questions

What are the reproductive health outcomes among women of childbearing age in Ilorin West Local Government Area, Kwara State? What are the associations between social factors (education level, income, age, marital status, and cultural beliefs) and reproductive health outcomes among women of childbearing age in Ilorin West Local Government Area, Kwara State?

Research Hypotheses

H₀: There is no statistically significant association between social factors (education level, income, age, marital status, and cultural beliefs) and reproductive health outcomes among women of childbearing age in Ilorin West Local Government Area, Kwara State.

Scope and Limitation of the Study

This study focused on examining the associations between social factors (education level, income, age, marital status, and cultural beliefs) and reproductive health outcomes among women of childbearing age (15-49 years) in Ilorin West Local Government Area, Kwara State, Nigeria. The study was conducted across five randomly selected wards (Ajikobi, Alanamu, Adewole, Ogidi, and Oko-erin). A descriptive cross-sectional survey design was employed, and data were collected using a structured, validated questionnaire. Limitations: Cross-sectional design: The study assessed associations at a single point in time, limiting the ability to infer causality between social factors and reproductive health outcomes.

Research Methodology

Research Design

A descriptive research design of survey type was adopted for the study. This method was used because it requires the researcher to collect information for the purpose of describing the study in details.

Population of the Study

The target population cut across all twelve wards in Ilorin West Local Government Area of Kwara State. The Local Government Area consists of 35,122 women of childbearing age (National Population Commission, 2006).

Sample and Sampling Techniques

The sample size for this study is determined using the Leslie Kish formula:

$$n = Z^2pq / d^2$$

where;

n= the required sample size

Z= 19,894

p = 2% of women of childbearing ages mothers

q= 1-p

d² = margin of error set at 0.5 (precision set at 10% of the calculated sample size will be added for non-responses).

Therefore, the total sample size of respondents was 398.

A multistage sampling procedure combining probability and non-probability techniques was employed:

Stage 1 (Simple Random Sampling): Using the Fish Bowl method (simple random sampling), five wards (Ajikobi, Alanamu, Adewole, Ogidi, and Oko-erin) were randomly selected from the 12 wards in Ilorin West LGA.

Stage 2 (Proportionate Allocation): The sample size of 398 was proportionately allocated to the five selected wards based on the estimated population of women of childbearing age in each ward (obtained from the National Population Commission).

Stage 3 (Simple Random Sampling): Three communities were randomly selected from each of the five wards, yielding a total of 15 communities.

Stage 4 (Purposive Sampling): Respondents who met the inclusion criteria (women aged 15-49 years, residents of the selected communities, and willing to participate) were purposively selected from households in each community.

Inclusion Criteria: Women aged 15-49 years (childbearing age), resident in the selected communities for at least six months and those willing to provide informed consent

Exclusion Criteria: Women below 15 years or above 49 years, non-residents or temporary visitors and women unwilling to participate or unable to provide informed consent.

Research Instrument

A researcher's structured questionnaire consists of two sections, A and B. Section A of the questionnaire seeks information on the demographic status of the respondents, while Section B was used to elicit information on the variables under study. The questionnaire was a closed-ended type of four-point Likert rating scale format of; strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD).

Validity of the Instrument

Validity simply refers to the ability of an instrument to measure what it intends to measure (Swanson, 2014). It is generally regarded as the most important property of measurement. In order to ascertain the validity of the instrument, the drafted copy of the questionnaire was given to three (3) other experts in the Department of Public Health, Faculty of Health Science, Al-Hikma University, Ilorin, Nigeria. Their suggestions and comments were used to make the final draft of the instrument.

Reliability of the Instrument

The reliability of the instrument was established using a test-retest method. Twenty (20) copies of the questionnaire were administered to women of childbearing age in Oloje ward (a ward not included in the main study sample) and re-administered to the same respondents after a two-week interval. Responses from both administrations were analyzed using Pearson's Product-Moment Correlation Coefficient (PPMC). A correlation coefficient of $r = 0.82$ was obtained, indicating high reliability and internal consistency of the instrument (Tavakol & Dennick, 2011). A correlation coefficient above 0.70 is generally considered acceptable for research instruments (Nunnally & Bernstein, 1994).

Ethical Consideration

Ethical approval was obtained from Kwara State Ministry of Health Ethical Committee, Ilorin (ERC/MOH/2025/09/518) with the use of school identity card to enable the researcher obtain approval for the study. Informed consent from respondent's prior administration of the questionnaire was ensured, the objectives of this study were clearly explained to the participants. Respondents were assured that the data collected would be used for academic purpose only. The principle of confidentiality and anonymity was upheld throughout the study as participants were

not required to disclose their personal information on the questionnaire.

Method of Data Analysis

Data collected were cleaned, coded, and entered into IBM SPSS Statistics version 27.0 for analysis. Descriptive statistics (frequency counts, percentages, means, and standard deviations) were used to summarize socio-demographic characteristics of respondents and responses to items on reproductive health outcomes.

Chi-square test of association was employed to test the null hypothesis at $\alpha = 0.05$ level of significance. The chi-square test is appropriate for examining associations between categorical variables (McHugh, 2013). In this study, it was used to determine whether there is a statistically significant association between

social factors (independent variables: education, income, age, marital status, cultural beliefs) and reproductive health outcomes (dependent variable: positive vs. negative responses to reproductive health items).

The decision rule was: If the calculated chi-square value (χ^2) is greater than the critical chi-square value at the specified degree of freedom and alpha level ($p < 0.05$), the null hypothesis is rejected, indicating a significant association between the variables.

Results and Findings

Answer to Research Questions

Research Question 1: What are the reproductive health outcomes among women of childbearing age in Ilorin West Local Government Area, Kwara State?

Table 1: Percentile Analysis of Reproductive Health Outcomes Among Women of Childbearing Age

S/N	ITEMS	SA	A	Positive Response	D	SD	Negative Response
4.	Access to reproductive health services significantly improves the overall health and well-being of women of childbearing age.	170 (42.7%)	183 (46.0%)	353 (88.7%)	40 (10.1%)	05 (1.3%)	45 (11.3%)
5.	Adequate reproductive health education reduces the risks of complications during pregnancy and childbirth for women of childbearing age.	163 (41.0%)	160 (40.2%)	323 (81.2%)	51 (12.8%)	24 (6.0%)	75 (18.8%)
6.	Lack of access to contraception negatively impacts the quality of life for women of childbearing age.	89 (22.4%)	122 (30.7%)	211 (53.1%)	108 (27.1%)	79 (19.8%)	187 (46.9%)
7.	Reproductive health services are crucial in preventing sexually transmitted infections among women of childbearing age	101 (25.4%)	136 (34.2%)	237 (59.5%)	99 (24.9%)	62 (15.6%)	161 (40.5%)
8.	Cultural beliefs and societal norms hinder the effective utilization of reproductive health services by women of childbearing age.	150 (37.7%)	174 (43.7%)	324 (81.4%)	47 (11.8%)	27 (6.8%)	74 (18.6%)
	Mean			290 (72.9%)			108 (27.1%)

Table 1 presents the reproductive health outcomes among women of childbearing age in Ilorin West LGA. The majority of respondents (88.7%, n=353)

agreed that access to reproductive health services significantly improves overall health and well-being. Similarly, 81.2% (n=323) acknowledged that adequate

reproductive health education reduces pregnancy and childbirth complications, while 81.4% (n=324) recognized that cultural beliefs and societal norms can hinder effective utilization of reproductive health services. Overall, the mean positive response rate across all items was 72.9% (n=290), significantly higher than the mean negative response rate of 27.1% (n=108). This indicates that the majority of women of childbearing age in Ilorin West LGA recognize the

importance of reproductive health services and report positive perceptions of reproductive health outcomes.

Research Question 2: What are the associations between social factors (education level, income, age, marital status, and cultural beliefs) and reproductive health outcomes among women of childbearing age in Ilorin West Local Government Area, Kwara State?

Table 2: Percentile Analysis of Social Factors Associated with Reproductive Health Outcomes Among Women of Childbearing Age

S/N	ITEMS	SA	A	Positive Response	D	SD	Negative Response
9.	The level of education significantly influences a woman's reproductive health decisions.	184 (46.2%)	100 (25.1%)	284 (71.3%)	66 (16.6%)	48 (12.1%)	114 (28.7%)
10.	Income level is a major determinant of access to reproductive health services.	164 (41.2%)	202 (50.8%)	366 (92.0%)	23 (5.8%)	09 (2.3%)	32 (8.0%)
11.	Cultural beliefs and practices strongly impact reproductive health choices.	72 (18.1%)	104 (26.1%)	176 (44.2%)	150 (37.7%)	72 (18.1%)	222 (55.8%)
12.	Age is an important factor in determining the quality of reproductive health care received.	110 (27.6%)	110 (27.6%)	220 (55.2%)	144 (36.2%)	34 (8.5%)	178 (44.7%)
13.	Marital status affects a woman's access to and utilization of reproductive health services.	80 (20.1%)	138 (34.7%)	218 (54.8%)	102 (25.6%)	78 (19.6%)	180 (45.2%)

Table 2 presents respondents' perceptions of the associations between social factors and reproductive health outcomes. Income level was identified as the most significant social factor, with 92.0% (n=366) of respondents agreeing that income is a major determinant of access to reproductive health services. This was followed by education level, with 71.3% (n=284) agreeing that education significantly influences reproductive health decisions. Age was perceived as an important factor by 55.2% (n=220) of respondents, while marital status was acknowledged by 54.8% (n=218) as affecting access

to and utilization of reproductive health services. Cultural beliefs and practices showed the weakest association, with only 44.2% (n=176) agreeing that they strongly impact reproductive health choices, while 55.8% (n=222) disagreed or strongly disagreed.

Test of Hypotheses

H0: There is no statistically significant association between social factors (education level, income, age, marital status, and cultural beliefs) and reproductive health outcomes among women of childbearing age in Ilorin West Local Government Area, Kwara State.

Table 3: Chi-Square Analysis on Association Between Social Factors and Reproductive Health of Women of Childbearing Ages

Variable	N	df	Cal. χ^2 value	Crit. χ^2 value	P value	Remark
Association Between Social Factors and Reproductive Health of Women of Childbearing Ages	398	12	201.219	21.026	0.000	H0 Rejected

Table 3 presents the results of the chi-square test of association between social factors and reproductive health outcomes. The calculated chi-square value ($\chi^2 = 201.219$) is substantially greater than the critical chi-square value ($\chi^2 = 21.026$) at 12 degrees of freedom and $\alpha = 0.05$ significance level. The p-value ($p < 0.001$) is less than the alpha level of 0.05. Based on these results, the null hypothesis (H_0) is rejected. This indicates that there is a statistically significant association between social factors (education level, income, age, marital status, and cultural beliefs) and reproductive health outcomes among women of childbearing age in Ilorin West Local Government Area, Kwara State. This finding suggests that social determinants play a crucial role in shaping reproductive health outcomes in this population, with income and education emerging as the most influential factors based on descriptive analysis.

Discussion of Findings

Results from table 1 showed that the study revealed 72.9% of women of childbearing age in Ilorin West LGA reported positive reproductive health outcomes and perceptions, including recognition of the importance of reproductive health services, access to contraception, and antenatal care. Specifically, 88.7% of respondents acknowledged that access to reproductive health services significantly improves overall health and well-being, while 81.2% agreed that reproductive health education reduces pregnancy and childbirth complications. These findings align with the work of Adeyemi and Adekanbi (2019), who demonstrated that reproductive health services positively influence women's health status by reducing maternal mortality and morbidity risks in Nigeria. Similarly, the World Health Organization (2021) emphasizes that comprehensive reproductive health services are central to promoting gender equality and women's empowerment globally. However, gaps persist in specific areas such as contraceptive access (53.1%) and STI prevention knowledge (59.5%), indicating areas where targeted interventions are needed.

Research question two identified income level as the most significant social factor associated with reproductive health outcomes, with 92.0% of respondents agreeing that income is a major

determinant of access to reproductive health services. This finding is consistent with the social determinants of health framework (Solar & Irwin, 2010; Marmot et al., 2020) and corroborates previous research by Artiga and Hinton (2018),

WHO, found that financial capacity significantly influences women's access to quality reproductive health facilities and services. In resource-constrained settings like Ilorin West LGA, where out-of-pocket healthcare expenditure is common, economic barriers can limit women's ability to afford contraception, antenatal care, skilled birth attendance, and postnatal services (Adjiwanou & LeGrand, 2014; Yaya et al., 2020).

Education level emerged as the second most significant factor (71.3%), supporting the extensive body of evidence demonstrating that educated women have better reproductive health knowledge, more autonomy in decision-making, and greater utilization of modern reproductive health services (Behrman, 2015; Adedini et al., 2019; Ahinkorah et al., 2021). Education empowers women to make informed choices about family planning, recognize danger signs during pregnancy, and seek timely healthcare (Stephenson et al., 2021).

Hypotheses findings revealed a statistically significant association between social factors and reproductive health outcomes ($\chi^2 = 201.219$, $p < 0.001$), supporting the rejection of the null hypothesis. This robust statistical association underscores the critical role of social determinants in shaping reproductive health in this population. The finding aligns with the work of Obisesan et al., (2018), who observed that reproductive health services significantly reduce maternal mortality and morbidity, thereby enhancing quality of life for women of childbearing age. Similarly, Okunola et al., (2019) emphasized the implications of reproductive health services for gender equity and women's rights. However, it is important to note that the cross-sectional design of this study limits causal inference. While the study demonstrates associations between social factors and reproductive health outcomes, it cannot definitively establish causality or temporal relationships. Longitudinal studies and intervention research are needed to further elucidate causal pathways and evaluate the

effectiveness of interventions targeting social determinants.

Conclusion

This study examined the associations between social factors and reproductive health outcomes among women of childbearing age in Ilorin West Local Government Area, Kwara State, Nigeria. The findings revealed that: The majority (72.9%) of women of childbearing age recognize the importance of reproductive health services and report positive reproductive health outcomes, though gaps persist in contraceptive access and STI prevention knowledge. Income level is the most significant social factor associated with reproductive health outcomes (92.0%), followed by education level (71.3%), age (55.2%), and marital status (54.8%). Cultural beliefs and practices showed the weakest association (44.2%). There is a statistically significant association between social factors and reproductive health outcomes among women of childbearing age in Ilorin West LGA ($\chi^2 = 201.219$, $p < 0.001$).

Recommendations

Based on the findings of this study, the following recommendations are made:

1. To the Kwara State Ministry of Health:

1. Strengthen the implementation of the National Health Insurance Scheme (NHIS) and state-level health insurance programs to reduce out-of-pocket expenditure and financial barriers to reproductive health services, particularly for low-income women.
2. Expand reproductive health service delivery points, particularly in underserved communities within Ilorin West LGA, ensuring availability of comprehensive services including family planning, antenatal care, skilled birth attendance, postnatal care, and STI prevention and treatment.
3. Establish quality assurance mechanisms to ensure that reproductive health services meet evidence-based standards and are delivered in a respectful, client-centered manner.

2. To Ilorin West Local Government Authority:

4. Implement targeted community-based reproductive health education programs that address knowledge gaps in contraceptive use, STI prevention, and maternal health, with particular focus on women with low educational attainment and adolescent girls.

3. To Women and Families:

5. Prioritize reproductive health by seeking

timely antenatal care, utilizing skilled birth attendants for delivery, and accessing postnatal care services.

6. Make informed decisions about family planning and utilize modern contraceptive methods based on individual needs and circumstances.
7. Engage in health-seeking behaviors proactively, including regular health check-ups, early detection and treatment of reproductive health problems, and STI screening where appropriate.

References

- Abiodun, O.M., Balogun, O.R. & Fawole, A.A. (2017). Aetiology, clinical features and treatment outcome of intrauterine adhesion in Ilorin, Central Nigeria. *West Africa Journal of Medicine*; 26:298-301.
- Adeyemi, O., & Adekanbi, D. (2019). Reproductive health services and maternal health outcomes: Evidence from Nigeria. *Journal of Public Health and Epidemiology*, 11(3), 45-52.
- Adiri, F., Ibrahim, H.I., Ajayi, V., Sulayman, H.U., Yafeh, A.M. & Ejembi, C.L. (2020). Fertility behaviour of men and women in three communities in Kaduna state, Nigeria. *Africa Journal of Reproductive Health*. 2020;14(Special issue 3):97-105.
- Artiga, S., & Hinton, E. (2018). *Beyond health care: The role of social determinants in promoting health and health equity*. Health.
- Balbo, N., Billari, F. C., & Mills, M. (2023). "Fertility in Advanced Societies: A Review of Research". *European Journal of Population*. 29 (1): 1-38.
- Behrman, J. R. (2015a). The impact of education on HIV prevention. *Journal of Public Health in Africa*, 6(2), 34-39.
- Berkman, L. F., & Kawachi, I. (2014). *Social epidemiology (2nd ed.)*. Oxford University Press.
- Dunson, D.B. (2019). "Day-specific probabilities of clinical pregnancy based on two studies with imperfect measures of ovulation". *Human Reproduction*. 14 (7): 1835
- Gani, I., Ara, I., & Dar, M. A. (2023). Reproductive Health of Women: a comprehensive review. *International Journal of Current Research in Physiology and Pharmacology*.
- Ghazal, S. (2014). "Egg Transport and Fertilization". *Global Library of Women's Medicine*, 1756-2228. Retrieved May 8, 2016.
- Hayford, S. R. & Morgan, S. P. (2018). "Religiosity and Fertility in the United States: The Role of

A. Yusuf (2026). *Al-Hikmah Journal of Health Sciences*, 5(1), 103-110.

- Fertility Intentions". *Social Forces*. 86 (3): 1163–1188.
- Hogan, M. C., Foreman, K. J., Naghavi, M., Ahn, S. Y., Wang, M., Makela, S. M., & Murray, C. J. L. (2015). Maternal mortality for 181 countries, 1980–2018: A systematic analysis of progress towards Millennium Development Goal 5. *The Lancet*, 375(9726), 1609-1623.
- National Population Commission (NPC) [Nigeria] and ICF. (2019). *Nigeria Demographic and Health Survey 2018*. Abuja, Nigeria, and Rockville, Maryland, USA: NPC and ICF.
- Obisesan, O., Adekanbi, D., & Onasoga, O. (2018). The impact of reproductive health services on gender equality and women's empowerment in Nigeria. *Gender and Development Journal*, 26(1), 63-78.
- Obuna, J. A. (2022). Women's sexual and reproductive health across different life stages: A comprehensive review. *International Journal of Women's Health*, 14, 213-227.
- Oluwaseun, M. A., & Akinbobola, O. I. (2018). The impact of maternal education on reproductive health care-seeking behavior in Nigeria. *Journal of Public Health and Epidemiology*, 10(3), 80-86.
- World Bank. (2018). *World development report: Learning to realize education's promise*. The World Bank.
- World Health Organization (WHO). (2015). *Adolescent pregnancy*. Geneva: WHO. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/adolescent-pregnancy>.
- World Health Organization (WHO). (2018). *WHO recommendations on adolescent sexual and reproductive health and rights*. WHO.