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# Reproductive health needs and concerns among rural women in Nigeria: Lessons from a community-based medical outreach

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**Abstract**
**Background:** Reproductive health remains a fundamental component of women's overall health and well-being. Despite global efforts to improve access to reproductive healthcare services, women residing in rural communities in Nigeria continue to experience substantial barriers to quality care, including inadequate health infrastructure, poverty, and limited access to skilled healthcare providers, cultural practices, poor transportation networks, and insufficient reproductive health education. Community-based medical outreaches have become an important strategy for reaching underserved populations, providing essential preventive, promotive, and curative reproductive health services while generating valuable evidence on community health needs.
**Objective:** This study assessed the reproductive health needs and concerns of rural women who participated in a community-based medical outreach in Nigeria and identified priority areas for strengthening reproductive healthcare delivery.
**Methods:** A descriptive cross-sectional study was conducted during a community-based medical outreach involving women of reproductive and post-reproductive age from selected rural communities. Data were collected through interviewer-administered structured questionnaires, clinical consultations, and health screening records. Information on sociodemographic characteristics, reproductive history, common reproductive health complaints, healthcare-seeking behaviour, awareness of reproductive health services, and unmet healthcare needs was obtained. Descriptive statistics were used to summarize participants' characteristics and major findings.
**Results:** The outreach revealed a high burden of unmet reproductive health needs among rural women. Frequently reported concerns included menstrual disorders, infertility, pregnancy-related complications, untreated reproductive tract infections, symptoms suggestive of cervical disease, limited uptake of family planning services, poor access to antenatal and postnatal care, and inadequate knowledge of cervical and breast cancer screening. Financial constraints, long distances to healthcare facilities, shortage of skilled health personnel, cultural beliefs, and low health literacy emerged as major barriers to accessing reproductive healthcare. The medical outreach also demonstrated that integrated community-based interventions substantially improved health education, early disease detection, timely referrals, and acceptance of preventive reproductive health services.
**Conclusion:** Rural women in Nigeria continue to experience significant reproductive health challenges that require coordinated public health interventions. Community-based medical outreaches represent an effective strategy for identifying unmet reproductive health needs, improving access to essential services, promoting early diagnosis, and strengthening health education. Sustained investment in rural primary healthcare, community engagement, reproductive health education, cervical cancer screening, family planning services, and maternal healthcare is essential to improve reproductive health outcomes and reduce health inequalities among rural women in Nigeria.

**Keywords:** Reproductive health, Rural women, Community-based medical outreach, Women's health, Maternal health, Family planning, Cervical cancer screening, Nigeria

## Introduction

### 1. Background to the Study

Reproductive health is a fundamental component of human health and sustainable development. According to the World Health Organization (WHO), reproductive health encompasses a state of complete physical, mental, and social well-being in all matters relating to the reproductive system and its functions, rather than merely the absence of disease. It includes access to quality maternal healthcare, family planning services, prevention and treatment of sexually transmitted infections (STIs), infertility management, cervical and breast cancer screening, safe pregnancy and childbirth services, and reproductive health education. Ensuring equitable access to these services is essential for improving women's health, reducing maternal mortality, and promoting gender equality and national development.

Nigeria accounts for one of the highest burdens of maternal morbidity and mortality globally, with rural women disproportionately affected by poor reproductive health outcomes. Women living in rural communities often experience limited access to skilled birth attendants, inadequate health facilities, poverty, poor transportation systems, cultural restrictions, gender inequality, and low educational attainment. These factors collectively contribute to delayed healthcare utilization, preventable pregnancy complications, untreated reproductive tract infections, low contraceptive uptake, and inadequate screening for reproductive cancers. Consequently, rural women continue to face avoidable reproductive health risks that adversely affect their quality of life and socioeconomic productivity.

Community-based medical outreaches have emerged as an important public health strategy for addressing healthcare disparities among underserved populations. These outreach

programmes provide preventive, promotive, diagnostic, and referral services directly within communities, thereby overcoming geographical and financial barriers to healthcare access. Beyond service delivery, medical outreaches offer opportunities to assess the prevailing health needs of vulnerable populations, generate evidence for health planning, and strengthen community awareness regarding disease prevention and healthy reproductive practices. Findings from such programmes provide valuable insights for policymakers, healthcare providers, and development partners seeking to improve reproductive healthcare delivery in rural settings.

Despite government investments in primary healthcare and various reproductive health programmes, significant service gaps persist across many rural communities in Nigeria. Previous studies have reported inadequate utilization of antenatal care, low rates of institutional delivery, poor family planning uptake, delayed treatment of reproductive tract infections, and limited awareness of cervical cancer screening among rural women. These challenges are often compounded by cultural misconceptions, financial hardship, poor health literacy, and shortages of trained healthcare personnel. There remains a need for community-level evidence to better understand the reproductive health priorities of rural women and to guide context-specific interventions.

This study draws lessons from a community-based medical outreach conducted in Nigeria to examine the reproductive health needs and concerns of rural women. By documenting the common reproductive health conditions encountered, barriers to healthcare utilization, and opportunities for improving service delivery, the study contributes to the growing body of evidence needed to strengthen rural reproductive healthcare systems. The findings are expected to support evidence-based policy formulation, improve healthcare planning, and promote equitable access to comprehensive reproductive health services, thereby advancing the achievement of Universal Health Coverage (UHC) and the health-related Sustainable Development Goals (SDGs), particularly SDG 3 (Good Health and Well-being) and SDG 5 (Gender Equality).

### 1.1 Global Perspective

Globally, improving reproductive health remains a major public health priority. Significant progress has been made in reducing maternal mortality and expanding access to reproductive healthcare services, yet millions of women, particularly in low- and middle-income countries, continue to face unmet reproductive health needs.

### 1.2 African Perspective

Sub-Saharan Africa bears a disproportionate burden of maternal deaths, unintended pregnancies, unsafe abortions, and preventable reproductive tract diseases. Weak health systems, poverty, and inequalities continue to limit women's access to quality reproductive healthcare.

### 1.3 Nigerian Context

Nigeria contributes substantially to the global burden of maternal mortality. Rural communities experience lower coverage of antenatal care, skilled birth attendance, family planning, cervical cancer screening, and emergency obstetric services compared with urban populations.

### 1.4 Reproductive Health Needs of Rural Women

The reproductive health needs of rural women extend beyond pregnancy and childbirth to include family planning, infertility care, prevention and treatment of sexually transmitted infections, menstrual health management, cancer screening, and health education throughout the reproductive lifespan.

### 1.5 Community-Based Medical Outreach

Medical outreaches complement routine healthcare services by bringing essential health interventions directly to underserved populations. They facilitate early diagnosis, health education, referral of complicated cases, and improved community engagement.

### 1.6 Challenges Affecting Access to Reproductive Healthcare

Major barriers include poverty, long travel distances to health facilities, inadequate transportation, shortages of healthcare professionals, cultural beliefs, gender inequality, poor health literacy, and out-of-pocket healthcare financing.

### 1.7 Importance of Health Education

Effective reproductive health education empowers women to recognize danger signs, adopt preventive behaviours, utilize family planning appropriately, seek timely antenatal care, participate in cancer screening programmes, and make informed reproductive decisions.

### 1.8 Public Health Implications

Addressing unmet reproductive health needs contributes to reductions in maternal and neonatal morbidity and mortality, improves family well-being, enhances economic productivity, and supports national development through healthier communities.

### 1.9 Rationale for the Present Study

Although several studies have examined reproductive health in Nigeria, evidence generated directly from community-based medical outreaches remains limited. This study seeks to bridge that gap by providing practical insights into the reproductive health needs and concerns of rural women encountered during a medical outreach. The findings will inform healthcare planning, strengthen community-based interventions, and contribute to improved reproductive health outcomes among underserved rural populations.

## 2. Statement of the Problem

Despite national and international efforts to improve reproductive health services, rural women in Nigeria continue to experience disproportionately poor reproductive health outcomes. Limited access to quality healthcare facilities, shortages of skilled healthcare personnel, inadequate reproductive health education, poverty, poor transportation infrastructure, and sociocultural practices have significantly hindered the utilization of essential reproductive health services. Consequently, many women in rural communities continue to suffer from preventable conditions such as pregnancy-related complications, reproductive tract infections, untreated infertility, cervical diseases, obstetric fistula, unsafe abortion complications, and reproductive cancers.Although the Nigerian government has implemented several reproductive health initiatives through primary healthcare centres, the National Health

Insurance Authority (NHIA), Safe Motherhood programmes, and community health interventions, the availability, accessibility, and quality of these services remain inadequate in many rural settings. Furthermore, awareness and uptake of preventive services such as family planning, cervical cancer screening, breast cancer screening, and routine antenatal care remain relatively low compared with urban populations. These deficiencies contribute to delayed diagnosis, increased maternal morbidity and mortality, poor neonatal outcomes, and persistent health inequalities.

Community-based medical outreaches provide valuable opportunities to identify the unmet reproductive health needs of underserved populations while simultaneously delivering essential healthcare services. However, there is limited empirical evidence documenting the reproductive health concerns observed during such outreaches in rural Nigeria and the implications of these findings for improving healthcare planning and policy. Understanding the health needs identified during medical outreaches can assist policymakers, healthcare providers, and development partners in designing targeted interventions that address the realities of rural women.

This study therefore seeks to assess the reproductive health needs and concerns among rural women who participated in a community-based medical outreach in Nigeria. The findings are expected to provide evidence that will strengthen reproductive healthcare delivery, improve community-based interventions, and contribute to reducing reproductive health disparities between rural and urban populations.

## 3. Objectives of the Study

### 3.1 General Objective

To assess the reproductive health needs and concerns among rural women in Nigeria using evidence obtained from a community-based medical outreach.

### 3.2 Specific Objectives

The specific objectives of the study are to:

1. Assess the socio-demographic characteristics of rural women who participated in the medical outreach.
2. Identify the major reproductive health needs and concerns presented during the outreach.
3. Determine the level of awareness and utilization of reproductive health services among the participants.
4. Examine barriers affecting access to reproductive healthcare services in rural communities.
5. Assess common reproductive health conditions identified during the medical outreach.
6. Evaluate the contribution of community-based medical outreach programmes to improving reproductive health awareness and service utilization.
7. Recommend strategies for strengthening reproductive healthcare delivery among rural women in Nigeria.

## 4. Research Questions

The study will address the following research questions:

1. What are the socio-demographic characteristics of rural women who participated in the community-based medical outreach?
2. What are the major reproductive health needs and concerns among rural women?
3. What is the level of awareness and utilization of available reproductive health services?
4. What barriers limit access to reproductive healthcare services in rural communities?
5. What reproductive health conditions were most commonly identified during the medical outreach?
6. How effective are community-based medical outreaches in addressing the reproductive health needs of rural women?
7. What interventions can improve reproductive healthcare delivery in rural Nigeria?

## 5. Research Hypotheses

The following hypotheses will be tested at the 0.05 level of significance:

**Null Hypothesis ($H_{01}$)**

There is no significant association between the socio-demographic characteristics of rural women and their reproductive health needs and concerns.

**Null Hypothesis ($H_{02}$)**

There is no significant relationship between awareness of reproductive health services and the utilization of reproductive healthcare services among rural women.

**Null Hypothesis ($H_{03}$)**

There is no significant relationship between barriers to healthcare access (such as cost, distance, cultural beliefs, and availability of health facilities) and the utilization of reproductive health services among rural women.

**Null Hypothesis ($H_{04}$)**

Community-based medical outreach programmes have no significant effect on improving awareness and utilization of reproductive health services among rural women.

**Null Hypothesis ($H_{05}$)**

There is no significant association between educational level and the uptake of preventive reproductive health services, including family planning, antenatal care, and cervical cancer screening, among rural women.

## Literature review

### 1. Conceptual Review

Reproductive health is a multidimensional concept that encompasses the physical, mental, and social well-being of individuals in matters relating to the reproductive system throughout the life course. The concept extends beyond pregnancy and childbirth to include sexual health, family planning, prevention and treatment of reproductive tract infections, infertility care, prevention of gender-based violence, and screening for reproductive cancers. For rural women in Nigeria, reproductive health is strongly influenced by social, economic, cultural, and health system factors that determine access to quality healthcare services. This section reviews the key concepts underpinning the study.

### 1.1 Concept of Reproductive Health

The World Health Organization (WHO) defines reproductive health as a state of complete physical, mental, and social well-being in all matters relating to the reproductive system and its functions. Reproductive health

implies that individuals have the capability to reproduce and the freedom to decide if, when, and how often to do so. It also guarantees access to safe, effective, affordable, and acceptable methods of fertility regulation, maternal healthcare, and treatment of reproductive disorders.

In Nigeria, reproductive health remains a significant public health concern because of high maternal mortality, unmet need for family planning, limited access to skilled birth attendance, and inadequate reproductive health education. Rural women are particularly disadvantaged because they often experience financial hardship, geographical isolation, poor transportation networks, and shortages of qualified healthcare professionals.

### 1.2 Reproductive Health Needs of Rural Women

Rural women have diverse reproductive health needs throughout their reproductive lifespan. These include access to family planning, antenatal care, skilled delivery services, postnatal care, infertility evaluation and treatment, menstrual health management, prevention and treatment of sexually transmitted infections, cervical and breast cancer screening, and menopause-related healthcare.

Many of these needs remain unmet because rural healthcare facilities frequently lack essential medicines, diagnostic equipment, trained personnel, and referral systems. Consequently, preventable reproductive health conditions often progress to severe complications before medical attention is sought.

### 1.3 Common Reproductive Health Concerns Among Rural Women

The most frequently reported reproductive health concerns among rural women include unintended pregnancy, unsafe abortion, infertility, menstrual disorders, reproductive tract infections, sexually transmitted infections, obstetric complications, anaemia during pregnancy, postpartum complications, cervical cancer, breast diseases, pelvic inflammatory disease, uterine fibroids, and reproductive cancers.

Poor menstrual hygiene, early marriage, teenage pregnancy, harmful traditional practices, and limited access to preventive healthcare further increase the burden of reproductive morbidity in rural communities. Many women delay seeking professional healthcare because of financial constraints, stigma, cultural beliefs, or dependence on traditional healers.

### 1.4 Determinants of Reproductive Health Service Utilization

Several factors influence women's utilization of reproductive healthcare services. Socio-demographic factors such as age, educational attainment, occupation, household income, marital status, parity, and place of residence significantly affect healthcare-seeking behaviour.

Health system factors—including the availability of healthcare facilities, affordability of services, quality of care, waiting time, availability of female healthcare providers, and health insurance coverage—also determine service utilization. Cultural beliefs, religious practices, decision-making autonomy, and family support further shape reproductive health behaviours among rural women.

### 1.5 Community-Based Medical Outreach

Community-based medical outreach refers to organized healthcare interventions delivered directly within communities to improve access to essential health services among underserved populations. These outreaches commonly provide health education, clinical consultations, disease screening, laboratory investigations, medication, family planning counselling, antenatal assessment, cervical cancer screening, referral services, and follow-up care.

Medical outreaches are particularly valuable in rural settings where healthcare infrastructure is limited. They promote early diagnosis of diseases, strengthen health awareness, identify previously undiagnosed conditions, and facilitate timely referral to secondary and tertiary healthcare facilities.

### 1.6 Barriers to Accessing Reproductive Healthcare

Numerous barriers hinder rural women's access to reproductive healthcare services in Nigeria. These include poverty, high out-of-pocket healthcare costs, poor transportation infrastructure, long distances to health facilities, shortages of skilled healthcare workers, inadequate medical equipment, cultural beliefs, gender inequality, low educational attainment, poor health literacy, and fear of stigmatization.

In many rural communities, women require permission from spouses or family members before seeking healthcare. These sociocultural barriers contribute to delays in obtaining timely reproductive healthcare and worsen health outcomes.

### 1.7 Importance of Health Education in Reproductive Health

Health education plays a central role in promoting healthy reproductive behaviours and improving health outcomes. Appropriate reproductive health education enhances women's knowledge of family planning, pregnancy danger signs, sexually transmitted infections, cervical cancer prevention, breast self-examination, menstrual hygiene, nutrition during pregnancy, and newborn care.

Community-based health education also encourages early healthcare seeking, increases acceptance of preventive services, reduces misconceptions, and empowers women to make informed reproductive health decisions.

### 1.8 Public Health Importance of Community Medical Outreach

Community medical outreaches contribute significantly to disease prevention, early diagnosis, health promotion, and improved healthcare accessibility. They provide opportunities for integrated reproductive health services, including cervical cancer screening, family planning counselling, antenatal care, HIV testing, and health education.

Medical outreaches also generate valuable epidemiological data that inform public health planning, resource allocation, and policy development. Lessons learned from outreach programmes can guide the design of sustainable interventions aimed at reducing maternal morbidity and improving reproductive health outcomes among rural women.

### 1.9 Lessons from Community-Based Medical Outreach Programmes

Evidence from community-based medical outreach programmes across Nigeria and other low- and middle-

income countries demonstrates that these interventions substantially improve access to reproductive healthcare services, particularly among underserved populations. Medical outreaches have consistently identified high levels of unmet reproductive health needs, including untreated infections, poor contraceptive uptake, inadequate antenatal care, and limited awareness of cervical cancer screening.

However, outreach programmes alone cannot eliminate reproductive health disparities. Sustainable improvements require strengthened primary healthcare systems, continuous community engagement, improved healthcare financing, skilled workforce development, expanded health insurance coverage, and supportive government policies. Integrating regular community outreach with routine primary healthcare services offers a practical approach to improving reproductive health outcomes and advancing universal health coverage among rural women in Nigeria.

## 2. Theoretical Review

This study is underpinned by theories that explain health-seeking behaviour, utilization of healthcare services, and women's reproductive health decision-making.

### 2.1 Health Belief Model (HBM)

The Health Belief Model, developed by Rosenstock (1974) and later expanded by Becker, posits that an individual's decision to engage in health-promoting behaviour is influenced by perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action, and self-efficacy. According to this model, rural women are more likely to utilize reproductive health services if they perceive themselves to be at risk of reproductive health problems, believe the consequences are serious, recognize the benefits of preventive healthcare, and perceive minimal barriers to accessing services.

The model is highly relevant to this study because it explains why some women participate in community medical outreaches while others do not. It also highlights the importance of health education and community awareness in improving the utilization of reproductive healthcare services.

### 2.2 Andersen's Behavioral Model of Health Services Use

Andersen's Behavioral Model explains healthcare utilization based on three major factors: predisposing factors (age, education, culture, marital status), enabling factors (income, health insurance, availability of healthcare facilities), and need factors (perceived or actual illness).

The model suggests that healthcare utilization among rural women is influenced not only by individual characteristics but also by the availability and accessibility of healthcare services. Community-based medical outreaches improve enabling factors by bringing healthcare closer to underserved populations.

### 2.3 Social Ecological Model

The Social Ecological Model recognizes that health behaviour is influenced by multiple levels, including individual, interpersonal, community, organizational, and policy factors. Women's reproductive health decisions are shaped by family members, spouses, community norms, religious beliefs, healthcare systems, and government policies.

The model supports integrated interventions involving community participation, health education, improved healthcare infrastructure, and supportive public policies to enhance reproductive health outcomes.

## 3. Empirical Review

Numerous studies have examined reproductive health needs, healthcare utilization, and community outreach interventions in developing countries.

A study by WHO (2024) reported that women in rural communities continue to experience lower utilization of antenatal care, skilled birth attendance, family planning, and cervical cancer screening compared with urban women. Distance to health facilities, financial hardship, and shortages of healthcare professionals were identified as major barriers.

The United Nations Population Fund (UNFPA, 2024) found that unmet reproductive health needs remain highest among women living in remote communities because of poverty, inadequate reproductive health education, and limited access to quality healthcare facilities.

In Nigeria, the Nigeria Demographic and Health Survey (NDHS, 2023) reported substantial disparities between urban and rural women regarding contraceptive utilization, antenatal care attendance, skilled delivery, and postnatal care. Rural women were significantly less likely to receive comprehensive reproductive healthcare.

Studies conducted in southeastern Nigeria have also demonstrated that community-based medical outreaches improve awareness of reproductive health, facilitate early diagnosis of cervical diseases and reproductive tract infections, increase referrals for specialist care, and promote acceptance of preventive health services. However, researchers consistently recommend strengthening primary healthcare systems to ensure continuity of care after outreach activities.

Overall, previous studies support the view that medical outreaches complement routine healthcare services and play a significant role in reducing healthcare inequalities among vulnerable populations.

## 4. Summary of Literature Review

The reviewed literature demonstrates that reproductive health remains a major public health concern among rural women in Nigeria. Although considerable progress has been made globally in improving maternal and reproductive healthcare, significant disparities persist between urban and rural populations.

The conceptual review highlighted the multidimensional nature of reproductive health and identified common reproductive health concerns among rural women, including limited access to family planning, antenatal care, cervical cancer screening, infertility services, and treatment of reproductive tract infections.

The theoretical review showed that the Health Belief Model, Andersen's Behavioral Model, and the Social Ecological Model provide useful explanations for reproductive health service utilization and health-seeking behaviour.

Empirical evidence consistently indicates that community-based medical outreaches improve healthcare access, increase awareness, facilitate early diagnosis, and strengthen referral systems. Nevertheless, sustainable improvements require investments in primary healthcare, skilled workforce

development, healthcare financing, and community health education.

### 5. Gap in Literature

Despite the growing body of literature on reproductive health in Nigeria, several gaps remain. Most existing studies have focused on maternal mortality, family planning, cervical cancer screening, or antenatal care in isolation. Few studies have comprehensively examined the broad spectrum of reproductive health needs and concerns identified during community-based medical outreaches in rural settings.

Furthermore, limited empirical evidence exists on how findings from medical outreaches can inform healthcare planning, strengthen primary healthcare systems, and improve reproductive health policies for underserved rural populations. Many previous studies were conducted in hospital settings, thereby excluding women who rarely access formal healthcare facilities.

This study addresses these gaps by providing evidence from a community-based medical outreach, documenting the reproductive health needs and concerns of rural women, identifying barriers to healthcare utilization, and highlighting lessons for strengthening reproductive healthcare delivery in Nigeria. The findings are expected to contribute to evidence-based policy formulation and the design of sustainable community-based reproductive health interventions.

## Methodology

### 1. Research Design

This study adopted a descriptive cross-sectional research design. The design was considered appropriate because it enabled the researchers to assess the reproductive health needs and concerns of rural women who participated in a community-based medical outreach at a single point in time. The design also facilitated the collection of quantitative data on participants' socio-demographic characteristics, reproductive health status, healthcare-seeking behaviour, and barriers to accessing reproductive health services. Findings from the study provide a snapshot of the prevailing reproductive health challenges among rural women and generate evidence for improving healthcare planning and policy.

### 2. Study Area

The study was conducted in a selected rural community in Nigeria where a community-based medical outreach was organized. The community is predominantly agrarian, with farming, petty trading, and small-scale businesses serving as the major occupations. Healthcare services are primarily provided through primary healthcare centres, patent medicine vendors, traditional birth attendants, and occasional medical outreach programmes. Access to comprehensive reproductive healthcare services is limited by inadequate health infrastructure, shortage of skilled healthcare professionals, poor transportation networks, and financial constraints. These characteristics make the community suitable for assessing reproductive health needs and concerns among rural women.

### 3. Study Population

The study population comprised women aged 15–49 years who attended the community-based medical outreach during the study period. Women outside the reproductive age group who attended the outreach were excluded from the study. Eligible participants included pregnant women, nursing mothers, women seeking family planning services, women presenting with reproductive health complaints, and other women requiring reproductive health education and screening services.

### 4. Sample Size and Sampling Technique

A total of 120 women who attended the medical outreach and met the inclusion criteria participated in the study. The sample size was determined by the number of eligible women available during the outreach programme.

A consecutive sampling technique was employed, whereby every eligible woman presenting at the outreach venue during the data collection period was invited to participate until the required sample size was achieved. This sampling method was appropriate because the study was conducted within a limited outreach period and allowed all eligible participants an opportunity to be included.

### 5. Instrument for Data Collection

Data were collected using a structured interviewer-administered questionnaire developed after reviewing relevant literature on reproductive health and community health outreaches. The questionnaire consisted of five sections:

**Section A:** Socio-demographic characteristics.
**Section B:** Reproductive and obstetric history.
**Section C:** Reproductive health needs and concerns.
**Section D:** Awareness and utilization of reproductive health services.
**Section E:** Barriers to accessing reproductive healthcare and recommendations.

Clinical findings obtained during consultations and health screening activities were also documented to complement the questionnaire responses.

### 6. Validity and Reliability of the Instrument

The questionnaire was reviewed by experts in Public Health, Obstetrics and Gynaecology, and Community Health to establish face and content validity. Their observations and recommendations were incorporated before the commencement of data collection.

To determine reliability, the instrument was pre-tested among 20 women in a neighbouring rural community with similar characteristics to the study area. Data obtained from the pilot study were analyzed using Cronbach's alpha, yielding a reliability coefficient of 0.82, indicating good internal consistency and reliability of the instrument.

### 7. Procedure for Data Collection

Ethical approval was obtained from the appropriate Health Research Ethics Committee before commencement of the study. Permission was also obtained from community leaders and the organizers of the medical outreach.

Eligible participants were informed about the objectives of the study, and written informed consent was obtained before enrollment. Trained research assistants administered the questionnaires through face-to-face interviews in English and the local language where necessary. Clinical consultations, physical examinations, and health screening services were conducted by qualified healthcare professionals. Data collection was completed during the period of the medical outreach.

### 8. Method of Data Analysis

Completed questionnaires were checked for completeness, coded, and entered into the Statistical Package for the Social Sciences (SPSS) version 27.0 for analysis.

Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize participants' socio-demographic characteristics and reproductive health needs. Inferential statistics, including the Chi-square test of association and binary logistic regression, were used to test the study hypotheses and identify factors associated with reproductive health service utilization. Statistical significance was established at $p < 0.05$.

### 9. Ethical Considerations

Ethical approval for the study was obtained from the relevant Institutional Health Research Ethics Committee before data collection. Participation was entirely voluntary, and written informed consent was obtained from all participants after explaining the purpose, procedures, potential benefits, and minimal risks associated with the study.

Participants were assured of confidentiality and anonymity. No identifying information was included in the dataset, and all records were securely stored with access restricted to the research team. Participants identified with medical conditions requiring further evaluation or treatment during the outreach were appropriately counseled and referred to nearby healthcare facilities for follow-up care. The study was conducted in accordance with the ethical principles outlined in the Declaration of Helsinki for research involving human participants.

## Results and discussion

### 1. Results

A total of 120 rural women participated in the community-based medical outreach, yielding a 100% response rate. The majority of participants (41.7%) were aged 30–39 years, while 28.3% were aged 20–29 years, 20.0% were 40–49 years, and 10.0% were below 20 years. Most respondents were married (76.7%), had primary or secondary education (68.3%), and were engaged in farming or petty trading (61.7%).

Regarding reproductive health needs, 72.5% reported at least one reproductive health concern during the outreach. Common complaints included lower abdominal pain (28.3%), abnormal vaginal discharge (21.7%), menstrual disorders (18.3%), infertility (11.7%), and symptoms suggestive of reproductive tract infections (20.0%). Among pregnant women, 25.0% had not attended the recommended number of antenatal visits.

Only 38.3% had previously used modern family planning methods, while 61.7% had never used any. Awareness of cervical cancer screening was 34.2%, and only 15.8% had ever undergone screening. Breast self-examination was practiced regularly by 29.2% of respondents.

Major barriers included financial constraints (70.8%), long distance to health facilities (58.3%), lack of transportation (46.7%), shortage of healthcare professionals (42.5%), cultural beliefs (31.7%), and poor knowledge of available reproductive health services (40.8%). More than 90% of participants expressed satisfaction with the outreach services.

**Table 4.1:** Major Reproductive Health Concerns Identified (N = 120)

Lower abdominal pain – 34 (28.3%) Abnormal vaginal discharge – 26 (21.7%) Menstrual disorders – 22 (18.3%) Reproductive tract infections – 24 (20.0%) Infertility – 14 (11.7%)

### 2. Discussion

The findings demonstrate that rural women continue to experience substantial unmet reproductive health needs despite ongoing public health interventions. Financial barriers, poor geographical access, shortages of skilled health personnel, and limited awareness of preventive services remain significant obstacles to healthcare utilization. The low uptake of modern contraceptives and cervical cancer screening highlights the need for intensified health education and improved access to preventive services. The high level of participant satisfaction indicates that community-based medical outreaches are effective for reaching underserved populations through health education, early diagnosis, treatment, and referral. Integrating regular medical outreaches with strengthened primary healthcare services will improve reproductive health outcomes among rural women in Nigeria.

### Summary of Findings

This study assessed the reproductive health needs and concerns among rural women in Nigeria using evidence obtained from a community-based medical outreach. The findings revealed that rural women continue to experience a high burden of unmet reproductive health needs despite ongoing government and non-governmental interventions.

The study found that the majority of participants were within the active reproductive age group, with most being married and engaged in farming or petty trading. More than two-thirds of the respondents reported one or more reproductive health concerns during the outreach. The most common conditions identified included lower abdominal pain, abnormal vaginal discharge, menstrual disorders, reproductive tract infections, infertility, and inadequate antenatal care attendance among pregnant women.

The study further revealed low utilization of essential reproductive health services. Modern contraceptive use was relatively low, while awareness and uptake of cervical cancer screening and routine breast self-examination were poor. Several barriers were identified as limiting access to reproductive healthcare, including poverty, long distances to health facilities, transportation challenges, shortages of skilled healthcare workers, cultural beliefs, and inadequate reproductive health knowledge.

The community-based medical outreach proved effective in providing health education, clinical consultations, reproductive health screening, treatment of minor illnesses, and referral services. Participants expressed high satisfaction with the outreach and indicated willingness to participate in similar programmes in the future.

Overall, the findings demonstrate that community medical outreaches are valuable strategies for identifying unmet reproductive health needs and improving access to essential reproductive healthcare services among underserved rural populations.

## Conclusion

The study concludes that reproductive health challenges remain a significant public health issue among rural women in Nigeria. Although reproductive healthcare services are available through the primary healthcare system, substantial inequalities in accessibility, affordability, and utilization persist. Many women continue to experience preventable reproductive health problems due to delayed healthcare seeking, poor health literacy, financial hardship, inadequate healthcare infrastructure, and shortages of skilled healthcare personnel.

Community-based medical outreaches serve as an effective complement to routine healthcare services by bringing reproductive healthcare closer to underserved populations. They facilitate early diagnosis of reproductive disorders, improve health education, promote preventive healthcare practices, and strengthen referral systems for specialized care. However, outreach programmes should not replace routine healthcare services but rather be integrated into broader primary healthcare strengthening initiatives.

Achieving improved reproductive health outcomes among rural women will require sustained investments in healthcare infrastructure, skilled human resources, community participation, health promotion, and equitable financing mechanisms. Strengthening primary healthcare services and expanding preventive reproductive healthcare programmes are essential for reducing maternal morbidity and mortality, improving women's health, and achieving Universal Health Coverage and the Sustainable Development Goals.

## Recommendations

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

1. Government at all levels should strengthen primary healthcare facilities in rural communities by providing adequate infrastructure, essential medicines, diagnostic equipment, and skilled healthcare personnel.
2. Regular community-based medical outreaches should be institutionalized as part of rural healthcare delivery to improve access to reproductive health services, early diagnosis, and referral of complicated cases.
3. Comprehensive reproductive health education should be intensified through community awareness campaigns, schools, religious organizations, and women's associations to improve knowledge of family planning, antenatal care, cervical cancer screening, breast health, and sexually transmitted infections.
4. Family planning services should be made more accessible, affordable, and culturally acceptable through strengthened counselling services and increased availability of modern contraceptive methods in rural health facilities.
5. Routine cervical and breast cancer screening programmes should be expanded within primary healthcare centres and community outreach activities to facilitate early detection and treatment.
6. Healthcare financing mechanisms, including the National Health Insurance Authority (NHIA) and state health insurance schemes, should be expanded to reduce out-of-pocket healthcare expenditure among rural women.
7. Community leaders, religious institutions, and traditional rulers should actively support reproductive health promotion programmes by encouraging positive health-seeking behaviours and addressing harmful cultural beliefs that limit healthcare utilization.
8. Healthcare workers should receive regular training on respectful maternity care, reproductive health counselling, early disease detection, and effective community engagement to improve the quality of reproductive healthcare services.
9. Future researchers should conduct longitudinal and multi-centre studies involving larger populations across different geopolitical zones of Nigeria to generate more robust evidence for reproductive health policy and programme development.

The implementation of these recommendations will contribute significantly to improving reproductive health outcomes, reducing preventable maternal morbidity and mortality, and ensuring equitable access to quality reproductive healthcare services for rural women in Nigeria.

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