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Knowledge Attitude and Utilization of Modern Family Planning Methods Among Women of Reproductive Age Attending Specialist Hospital Obangede Kogi State Nigeria

Olatunbosun Alice Kehinde[#1]; Emmanuel Ademola Olatunbosun[#2,] Ademola Israel Gbolahan[#3], Amosa Ramat Ayodeji[#4], Ayodele Ruth Akanji[#5]

[#1]Federal university Lokoja, Kogi State teaching service Commission Lokoja Kogi, Nigeria

[#2]Kogi State Teaching service commission

[#3]University Teaching hospital Ilorin, kwara State

[#4]Al-Hikmah University, Ilorin Kwara State

[#5]Department of Mathematical Sciences, Bingham University, Karu, Nigeria

[1]alice.olatunbosu@fulakoja.edu.ng, [5]ayodele.jolayemi@binghamuni.edu.ng

***Abstract*:** Modern family planning is a critical public health and development intervention with proven benefits for maternal and child health, fertility regulation, and socioeconomic advancement. Despite these benefits, utilization of modern contraceptive methods remains low in many parts of Nigeria. This study assessed the knowledge, attitudes, and factors influencing the utilization of modern family planning methods among women of reproductive age attending Specialist Hospital Obangede in Kogi State, Nigeria. A descriptive cross-sectional research design was adopted, involving 105 women aged 15–45 years selected through stratified random sampling from antenatal, postnatal, and family planning units. Data were collected using a structured, self-administered questionnaire and analyzed using descriptive statistics, including frequencies, percentages, and mean scores. Findings revealed that the majority of respondents (66.7%) had good knowledge of modern family planning methods, and awareness of at least one modern contraceptive method was nearly universal. Attitudes toward modern family planning were predominantly positive, with respondents acknowledging its role in preventing unwanted pregnancies, improving maternal health, and enhancing standard of living. However, misconceptions regarding side effects, particularly fears of infertility, persisted among some women. Utilization of modern family planning methods was constrained by multiple factors, notably limited access to services, socioeconomic challenges, cultural norms, religious beliefs, educational level, and spousal opposition. The study concludes that although knowledge and attitudes toward modern family planning are generally favorable, significant structural, socioeconomic, and sociocultural barriers hinder effective utilization. Addressing these challenges requires multilevel, culturally sensitive interventions that improve service accessibility, strengthen counseling, promote male involvement, and address persistent misconceptions. Such efforts are essential for increasing contraceptive uptake and improving maternal and child health outcomes in Nigeria.

Keywords: *Knowledge, Attitude, Women of Reproductive Age, Modern Family Planning, Contraceptive Utilization, Nigeria*

I. INTRODUCTION

Background and Context and a cornerstone of sustainable development [1]. Family planning, defined as the conscious decision-making process by individuals and couples to determine the timing, spacing, and number of children, plays a pivotal role in promoting maternal and child health, reducing maternal mortality, and improving socioeconomic outcomes [2]. Modern contraceptive methods encompass hormonal preparations, barrier methods, intrauterine devices, and permanent sterilization procedures that enable individuals to exercise reproductive autonomy [3]. Globally, approximately 1.9 billion women are of reproductive age, yet an estimated 218 million women in developing regions have an unmet need for modern contraception [4]. This gap between desire and access to family planning services results in significant public health challenges, including high rates of unintended pregnancies, unsafe abortions, and preventable maternal deaths [5]. Sub-Saharan Africa bears a disproportionate burden of these challenges, with contraceptive prevalence rates remaining markedly lower than global averages despite decades of family planning programs [6].

Nigeria, Africa's most populous nation, exemplifies these challenges with a contraceptive prevalence rate of approximately 20% and an unmet need for family planning estimated at 22% among married women of reproductive age [6]. The country contributes substantially to global maternal mortality, ranking among the six nations accounting for 50% of maternal deaths worldwide alongside India, Pakistan, Afghanistan, the Democratic Republic of Congo, and Ethiopia [5]. This alarming statistic underscores the urgent need to understand and address barriers to modern family planning utilization.

The relationship between contraceptive access and maternal health outcomes is well-established in epidemiological literature [3]. Countries with higher contraceptive prevalence rates consistently demonstrate lower maternal mortality ratios, reduced infant mortality, and improved child health indicators [10]. Beyond health outcomes, family planning adoption correlates with enhanced educational opportunities for women, increased economic productivity, reduced household poverty, and delayed marriage age [11]. These multidimensional benefits highlight family planning as not merely a health intervention but a critical development strategy.

A. Problem Statement

Despite extensive evidence supporting the benefits of family planning and substantial investments in reproductive health programs, utilization of modern contraceptive methods remains disappointingly low in many Nigerian communities [5]. This research focuses on Specialist Hospital Obangede in Kogi State, where anecdotal observations suggest significant gaps between knowledge, attitudes, and actual contraceptive use among women seeking maternal health services. Several interconnected factors contribute to this utilization gap. Religious doctrines and interpretations, particularly among Muslim communities, often discourage or prohibit artificial contraception, favoring natural family planning methods [13]. Cultural norms emphasizing large family sizes as symbols of prosperity, fertility as a measure of womanhood, and male dominance in reproductive decision-making create additional barriers [14]. Misconceptions about contraceptive side effects, including fears of infertility, cancer, and fetal abnormalities, persist despite evidence-based counseling efforts [15].

Healthcare system factors further compound these challenges. Limited availability of family planning services in rural and semi-urban areas, inadequate training of healthcare providers, stockouts of contraceptive commodities, and poor quality of counseling services restrict access [16]. Economic barriers, including direct costs of contraceptives and indirect costs such as transportation and time away from income-generating activities, disproportionately affect low-income women [17].

The consequences of low contraceptive uptake are profound. High fertility rates strain household resources, perpetuate intergenerational poverty, and limit women's educational and economic opportunities [18]. Short birth intervals increase risks of maternal anemia, postpartum hemorrhage, and maternal mortality while elevating infant and child mortality rates [19]. Unintended pregnancies often result in unsafe abortions, which account for approximately 13% of maternal deaths in Sub-Saharan Africa [20].

B. Significance of the Study

This research contributes to the existing body of knowledge on reproductive health in several important ways. First, it provides context-specific data on knowledge, attitudes, and utilization patterns in a semi-urban Nigerian setting, addressing the gap in localized evidence needed for targeted interventions [21]. Second, by examining the interplay between knowledge, attitudes, and behavior, the study illuminates the complex decision-making processes surrounding contraceptive adoption [22]. For healthcare providers, particularly nurses and midwives who serve as frontline family planning counselors, this research offers insights into client perspectives, misconceptions, and concerns that can inform more effective counseling strategies [23]. For health administrators and policymakers, the findings highlight specific barriers requiring systemic interventions, such as improving service accessibility, addressing religious and cultural concerns, and enhancing male involvement in family planning decisions [24]. Women and families stand to benefit directly from improved family planning services informed by this research. By identifying and addressing barriers to contraceptive use, communities can achieve better maternal and child health outcomes, reduced maternal mortality, improved birth spacing, and enhanced socioeconomic wellbeing [25]. Theoretically, the study adds to the literature on health-seeking behavior and the application of socio-ecological models to reproductive health decision-making in African contexts [26].

C. Scope and Delimitations

This study focused specifically on women of reproductive age (15–45 years) accessing maternal health services at Specialist Hospital Obangede, including those attending antenatal clinics, postnatal care, and family planning units. The research examined knowledge, attitudes, and self-reported utilization of modern contraceptive methods, excluding traditional and natural family planning approaches. The geographic scope was limited to Obangede town and its immediate environs within Okehi Local Government Area of Kogi State, Nigeria.

II. THEORETICAL AND EMPIRICAL BACKGROUND

A. Conceptual Foundations of Adult Education and Lifelong Learning

Conceptual Framework of Modern Family Planning

Family planning encompasses a range of interventions designed to help individuals and couples achieve their desired number of children at optimal intervals [27]. The conceptualization of family planning has evolved from simple birth control to comprehensive reproductive health, emphasizing informed choice, quality of care, and respect for human rights [28]. Modern family planning distinguishes itself from traditional methods through the application of scientifically validated technologies with known efficacy rates, standardized protocols, and minimal health risks when appropriately prescribed and monitored [29]. The World Health Organization categorizes contraceptive methods into several broad classifications [14]. Short-acting reversible contraceptives include combined oral contraceptive pills containing estrogen and progestin, progestin-only pills, monthly or bi-monthly injectable preparations such as Depo-Provera and Noristerat, and barrier methods including male and female condoms [15]. Long-acting reversible contraceptives encompass intrauterine contraceptive devices, both copper-bearing and hormone-releasing varieties, and subdermal implants such as Implanon and Jadelle, which provide contraceptive protection for three to five years [16]. Permanent methods include female tubal ligation and male vasectomy, procedures that should only be undertaken after thorough counseling about irreversibility [17].

Contraceptive efficacy varies significantly across methods [15]. Long-acting reversible contraceptives demonstrate the highest effectiveness with typical-use failure rates below 1% annually, primarily because they eliminate user adherence requirements [16]. Short-acting methods show wider effectiveness ranges; combined oral contraceptives achieve 91% typical-use effectiveness but approach 99% with perfect use, highlighting the critical role of consistent adherence [15]. Barrier methods, particularly male condoms, demonstrate 85% typical-use effectiveness but offer crucial dual protection against pregnancy and sexually transmitted infections [15].

Permanent sterilization procedures exceed 99% effectiveness but require careful counseling due to irreversibility [17].

B. Knowledge of Modern Family Planning Methods

Knowledge of modern family planning methods is a critical determinant of contraceptive adoption and sustained use among women of reproductive age. Contraceptive knowledge encompasses awareness of available methods, understanding of correct use, recognition of potential side effects, eligibility criteria, and appreciation of comparative effectiveness across methods [5], [27]. Numerous studies have demonstrated that adequate knowledge significantly increases the likelihood of contraceptive utilization and appropriate method choice [3], [8]. Findings from the present study revealed a generally high level of knowledge of modern family planning methods, with the majority of respondents demonstrating good knowledge. This result aligns with previous studies conducted in Nigeria and other parts of Sub-Saharan Africa, which report increasing awareness of modern contraceptive methods due to expanded reproductive health programs and improved access to health information [6], [21], [29]. Near-universal awareness of at least one modern contraceptive method among respondents further reflects the effectiveness of ongoing health education efforts within healthcare facilities. Healthcare providers emerged as the most influential source of family planning information, corroborating earlier findings that identify nurses, midwives, and other frontline health workers as key agents in disseminating contraceptive knowledge [12], [27]. The prominence of health facilities as information sources highlights the importance of strengthening provider–client communication and ensuring that counseling is accurate, comprehensive, and responsive to client concerns. Despite the generally high knowledge levels observed, gaps persisted in respondents' understanding of long-acting and permanent contraceptive methods, such as intrauterine devices, subdermal implants, and sterilization procedures. Similar knowledge gaps have been documented in earlier studies, where short-acting methods such as condoms, oral contraceptives, and injectables were more widely known than long-acting reversible methods [7], [15]. Limited awareness of these methods may restrict women's ability to make fully informed contraceptive choices and contribute to lower uptake of highly effective options.

Educational attainment has been consistently associated with contraceptive knowledge, with women who have secondary or higher education demonstrating better understanding of family planning methods than those with little or no formal education [5], [22]. This association underscores the role of education in enhancing health literacy and reinforces the need for targeted educational interventions for women with lower educational backgrounds. Overall, while the high level of knowledge observed in this study is encouraging, the persistence of method-specific knowledge gaps indicates the need for intensified, method-focused counseling and community-based education. Addressing these gaps is essential for improving informed choice and increasing utilization of effective modern family planning methods [9], [28].

C. Attitudes Toward Modern Family Planning

Attitudes toward modern family planning play a critical role in shaping reproductive health behaviors and contraceptive utilization among women of reproductive age. In the context of health behavior, attitudes refer to individuals' relatively stable positive or negative evaluations of an object, practice, or idea, which influence intentions and subsequent actions [5]. In family planning, women's attitudes toward contraception significantly determine whether available knowledge translates into actual use of modern contraceptive methods. Empirical evidence indicates that positive attitudes toward modern family planning are strongly associated with increased contraceptive uptake, improved birth spacing, and better maternal and child health outcomes [3], [8]. Women who perceive family planning as beneficial for preventing unintended pregnancies, improving maternal health, and enhancing socioeconomic wellbeing are more likely to adopt and consistently use contraceptive methods [9]. These positive perceptions are often reinforced through effective counseling, peer influence, and exposure to accurate reproductive health information. Despite growing awareness, negative attitudes toward modern family planning persist in many low- and middle-income settings, particularly in Sub-Saharan Africa [5]. Common negative attitudes include fears that hormonal contraceptives cause infertility, cancer, or other long-term health complications, as well as concerns about excessive bleeding or weight changes [7], [15]. Such misconceptions are frequently rooted in misinformation, anecdotal experiences, and cultural narratives, and they often persist even in the presence of professional health education.

Religious and cultural beliefs further shape attitudes toward modern family planning. In some communities, contraceptive use is perceived as contrary to religious teachings or cultural expectations that value large family sizes and high fertility [14], [21]. These beliefs can generate ambivalence or resistance to contraceptive use, particularly among married women whose reproductive decisions are influenced by spouses, extended family members, and religious leaders. The influence of male partners on women's attitudes toward family planning is well documented. In patriarchal societies, men often serve as primary decision-makers regarding reproductive matters, and male disapproval can significantly undermine women's willingness or ability to use contraceptives [22], [24]. Conversely, supportive partner attitudes and open spousal communication are associated with more favorable attitudes and higher contraceptive prevalence [25]. Theoretical perspectives such as the Theory of Planned Behavior provide insight into the relationship between attitudes and contraceptive behavior. According to this theory, attitudes toward a behavior, subjective norms, and perceived behavioral control jointly shape behavioral intentions, which in turn predict actual behavior [20]. Applied to family planning, this framework suggests that even when women hold positive attitudes, contraceptive use may remain low if social norms discourage use or if women perceive limited control over accessing services. Overall, attitudes toward modern family planning represent a complex interplay of personal beliefs, social influences, cultural norms, and structural constraints.

Understanding these attitudinal dimensions is essential for designing interventions that not only improve knowledge but also address fears, misconceptions, and social pressures that hinder contraceptive utilization. This underscores the importance of culturally sensitive counseling, male involvement strategies, and community-based engagement in promoting positive attitudes toward modern family planning.

D. Factors Influencing Modern Family Planning Utilization

Utilization of modern family planning methods is influenced by a complex interaction of individual, interpersonal, community, and societal factors. Although knowledge and positive attitudes are important prerequisites, empirical evidence consistently shows that they are insufficient on their own to ensure contraceptive uptake [5], [10]. Understanding these influencing factors is therefore essential for interpreting utilization patterns and designing effective interventions. At the individual level, demographic and socioeconomic characteristics such as age, parity, education, income, and occupation play significant roles in contraceptive utilization. Younger women and those with lower parity often demonstrate lower contraceptive use due to limited reproductive experience, lower perceived risk of pregnancy, or restricted access to youth-friendly services [34]. Educational attainment is particularly influential; women with secondary or higher education are more likely to use modern contraceptives because education enhances health literacy, autonomy, and decision-making capacity [5], [22]. Economic status also affects utilization, as the cost of contraceptives, transportation, and time away from work can discourage low-income women from accessing services [17], [36].

Interpersonal factors further shape contraceptive behavior, especially within marital and family contexts. Spousal communication and partner approval have been repeatedly identified as strong predictors of modern family planning use [22], [25]. In many patriarchal societies, men dominate reproductive decision-making, and male opposition can prevent women from adopting contraception even when they possess adequate knowledge and positive attitudes [23], [24]. Conversely, supportive partners and shared decision-making are associated with higher utilization, better continuation rates, and greater satisfaction with chosen methods [25]. At the community level, cultural norms, religious beliefs, and the availability and quality of family planning services exert significant influence on utilization [5], [21]. Cultural expectations that value large family sizes and view fertility as a marker of womanhood often conflict with family planning messages promoting birth spacing or limiting family size [14]. Religious interpretations may also discourage the use of modern contraceptives, restricting adherents to natural methods or complete abstinence [21]. In addition, limited availability of services, long distances to health facilities, inadequate method mix, provider bias, and poor-quality counseling reduce both access to and acceptance of modern family planning [19], [27].

Societal and structural factors include national policies, healthcare financing systems, legal frameworks, and broader patterns of gender inequality. Countries that prioritize family planning through supportive policies, public financing, and integration into primary healthcare systems tend to report higher contraceptive prevalence rates [9], [33]. Conversely, commodity stockouts, weak supply chains, and inadequate health workforce capacity undermine service delivery and discourage utilization [27], [29]. Gender inequality, reflected in limited educational and economic opportunities for women, further constrains reproductive autonomy and contraceptive decision-making [23]. The socio-ecological model provides a useful framework for understanding how these multilevel factors interact to influence contraceptive utilization [10]. It emphasizes that effective family planning interventions must move beyond individual-level education to address interpersonal relationships, community norms, and systemic barriers. This perspective is particularly relevant in Sub-Saharan African settings, where social, cultural, and structural determinants strongly mediate reproductive health behaviors. Utilization of modern family planning methods is shaped by a convergence of personal characteristics, social relationships, cultural contexts, and health system factors. Addressing these influences requires coordinated, multilevel strategies that enhance service accessibility, promote male involvement, engage community and religious leaders, and strengthen health system capacity to support informed and voluntary contraceptive use.

E. Theoretical Framework

This study is anchored on the Socio-Ecological Model of Contraceptive Use, which provides a comprehensive framework for understanding health behaviors as the product of dynamic interactions across multiple levels of influence [10]. The model moves beyond individual-level explanations by recognizing that contraceptive behavior is shaped not only by personal knowledge and attitudes but also by interpersonal relationships, community contexts, and broader societal structures. At the individual level, the model emphasizes personal characteristics such as age, educational attainment, parity, knowledge, attitudes, self-efficacy, and perceived susceptibility to unintended pregnancy [10]. These factors influence women's motivation and capacity to adopt modern family planning methods. In the context of this study, variations in knowledge levels, educational background, and perceived risks help explain differences in contraceptive utilization among women of reproductive age attending Specialist Hospital Obangede. The interpersonal level focuses on social relationships, particularly spousal and partner dynamics, family influence, and peer networks [22]. In many settings, including Nigeria, reproductive decisions are strongly influenced by male partners and extended family members. Spousal communication, partner approval, and shared decision-making facilitate contraceptive uptake, while male opposition and family pressure for large family sizes act as barriers to utilization [24], [25]. These interpersonal dynamics are critical for interpreting utilization patterns observed in this study.

At the community level, the model highlights the role of cultural norms, religious beliefs, social expectations, and the availability and quality of health services [5]. Community attitudes toward fertility, contraception, and gender roles shape women's reproductive choices, while health system factors such as service accessibility, provider attitudes, and method availability determine whether women can act on their preferences [27]. In the present study, cultural norms, religious beliefs, and limited access to family planning services emerged

as significant barriers, consistent with this level of influence. The societal or structural level encompasses national policies, legal frameworks, healthcare financing, media environments, and broader patterns of gender inequality [9], [33]. Supportive family planning policies, public funding, and contraceptive commodity security enhance utilization, whereas policy restrictions, weak supply chains, and systemic gender inequities constrain reproductive autonomy [23]. These structural factors provide the broader context within which individual and community-level influences operate. By integrating these multiple levels of influence, the socio-ecological model offers a robust lens for interpreting the findings of this study. It explains why good knowledge and positive attitudes alone may not translate into effective utilization of modern family planning methods when interpersonal, cultural, and systemic barriers persist. The model therefore guided the selection of study variables, the organization of findings, and the interpretation of results, and it underscores the need for multilevel, context-sensitive interventions to improve family planning utilization among women of reproductive age.

III. METHODOLOGY

A. Research Design

This study employed a descriptive cross-sectional research design to assess knowledge, attitudes, and utilization patterns of modern family planning methods among women of reproductive age. The descriptive approach enabled systematic documentation of current knowledge levels, attitudinal orientations, and self-reported contraceptive behaviors within the study population without manipulation of variables or long-term follow-up [37]. Cross-sectional data collection provided a snapshot of the phenomenon at a specific time point, allowing examination of associations between variables while acknowledging limitations in establishing temporal causality [38].

B. Area of the Study

The study was conducted at Specialist Hospital Obangede, located in Okehi Local Government Area of Kogi State, Nigeria. Okehi Local Government Area constitutes one of 21 administrative divisions in Kogi State, with its headquarters situated in Obangede town [39]. The area is bounded by Adavi and Lokoja Local Government Areas to the north, Akoko Edo Local Government Area to the west, and Kabba-Bunu Local Government Area to the east, encompassing predominantly Ebira-speaking populations alongside English language users [39]. Specialist Hospital Obangede was established on November 23, 1982, and serves as a secondary healthcare facility providing comprehensive medical services to Okehi Local Government Area and surrounding communities [40]. The hospital is located within walking distance of Kogi State College of Nursing and Midwifery, facilitating collaborative academic and clinical activities. Following administrative restructuring in September 2015, the facility transitioned from specialist hospital designation to general hospital status, though it retained its comprehensive service offerings [40].

The hospital infrastructure includes 67 nursing staff members, 5 medical doctors, 12 laboratory technicians and scientists, community health extension workers, and support personnel [40]. Clinical services are organized across 8 inpatient wards alongside specialized departments and units including pharmacy services, laboratory diagnostics, eye clinic, dental services, HIV/AIDS counseling and testing, family planning unit, antenatal clinic, postnatal care, and surgical theater facilities [40]. This diverse service portfolio positions the hospital as a key reproductive health service provider for the region.

C. Population of the Study

The target population comprised women of reproductive age, defined as 15 to 45 years, who accessed maternal and reproductive health services at Specialist Hospital Obangede during the study period [41]. Specifically, the population included women attending the antenatal clinic for pregnancy care, postnatal unit for postpartum follow-up, and family planning unit for contraceptive services. During the one-month data collection period, the antenatal unit served 80 women, the postnatal unit attended to 42 women, and the family planning unit registered 21 clients, yielding a total target population of 143 women [41].

This population was selected based on several considerations. Women seeking maternal health services represent a critical target group for family planning interventions, as pregnancy and the postpartum period create opportune moments for contraceptive counseling and initiation [41]. Women attending these services demonstrate health-seeking behavior and accessibility to healthcare facilities, factors relevant to understanding family planning knowledge and attitudes. The age range of 15 to 45 years encompasses the complete reproductive lifespan, enabling examination of knowledge and attitudes across different life stages and parities [41].

D. Sample Size and Sampling Techniques

The study sample size was calculated using Taro Yamane's formula for finite populations, a widely accepted method for determining appropriate sample sizes in descriptive research [42]:

$$n = \frac{N}{1 + N(e)^2}$$

Where:

- n represents the desired sample size
- N represents the target population size (143)
- e represents the margin of error, conventionally set at 0.05 (5%) for social science research [42]

Applying this formula:

$$n = \frac{143}{1 + 143(0.05)^2} = \frac{143}{1 + 0.3575} = \frac{143}{1.3575} \approx 105.34$$

The calculated sample size was rounded to 105 respondents, representing approximately 73% of the target population [42]. This sample size provides adequate statistical power for descriptive analysis while remaining feasible given time and resource constraints. The relatively high sampling fraction enhances representativeness and reduces sampling error [42].

E. Sampling Technique

A stratified random sampling technique was employed to ensure proportionate representation of women from each service unit [42]. Stratified sampling divides the population into homogeneous subgroups, or strata, before randomly selecting participants from each stratum, enhancing representativeness by ensuring important population segments are captured [42].

The three service units antenatal, postnatal, and family planning constituted the sampling strata. Within each stratum, the number of participants was determined through proportional allocation using:

$$\text{Stratum sample size} = \frac{\text{Stratum population}}{\text{Total population}} \times \text{Total sample size}$$

Calculations yielded:

- Antenatal unit: (80/143) × 105 ≈ 59 respondents
- Postnatal unit: (42/143) × 105 ≈ 31 respondents
- Family planning unit: (21/143) × 105 ≈ 15 respondents

Within each stratum, simple random sampling was implemented using a lottery method. Paper slips marked "Yes" and "No" were prepared, shuffled, and distributed. Women selecting "Yes" were invited to participate, minimizing selection bias and ensuring equal probability of inclusion [42].

F. Instruments for Data Collection

Data collection employed a structured, self-administered questionnaire developed specifically for this study [43]. The questionnaire comprised four sections: sociodemographic characteristics, knowledge, attitudes, and factors influencing family planning utilization [43].

- Section A: six items on sociodemographic (age, religion, marital status, education, number of children, occupation) [43].
- Section B: eight items assessing knowledge of modern family planning, sources of information, contraceptive experience, and barriers [43]. Knowledge scoring classified respondents as poor (0–2), moderate (3–5), or good (6–8) [43].
- Section C: six Likert-scale items measuring attitudes toward family planning, with scores >3.0 indicating positive attitudes [43].
- Section D: four items exploring influencing factors including education, religion, culture, socioeconomic status, and service availability [43].

G. Validity and Reliability of Instruments

Instrument validity was established through face and content validation by an experienced nurse educator [44]. Modifications ensured cultural appropriateness, clarity, and comprehensive coverage of objectives [44]. Reliability was assessed through a pilot study using test-retest methodology on 11 women (10% of sample size) at General Hospital Okengwe, with two-week interval administration confirming temporal stability and internal consistency [44].

H. Method of Data Collection

Data collection spanned six days, with two visits per service unit [44]. Ethical clearance and informed consent were obtained before administration. Participants received verbal explanations of purpose, voluntary participation, confidentiality, and withdrawal rights. Completed questionnaires were collected immediately, checked for completeness, and stored securely [44].

IV. DATA ANALYSIS

Data collected from the completed questionnaires were coded, entered, and analyzed using descriptive statistical techniques. The analysis was carried out using Microsoft Excel to ensure accuracy, clarity, and ease of presentation. Sociodemographic characteristics of respondents were analyzed using frequency distributions and percentages and presented in tabular form. Knowledge of modern family planning methods was assessed using responses to eight knowledge-related items. Each correct response attracted one point, yielding a maximum score of eight. Knowledge scores were categorized as poor (0–2), moderate (3–5), and good (6–8), and results were summarized using frequencies and percentages. Attitudes toward modern family planning were measured using six Likert-scale items rated on a five-point scale ranging from strongly disagree (1) to strongly agree (5). Mean scores were computed for each attitudinal statement. A mean score of 3.0 and above was interpreted as a positive attitude, while mean scores below 3.0 indicated a negative attitude. Factors influencing the utilization of modern family planning methods were analyzed using frequency counts and percentages based on respondents' selections. Identified factors included educational level, religious beliefs, cultural norms, socioeconomic status, and availability of family planning services. Results were presented using tables and charts where appropriate to enhance clarity and interpretation. All analyzed data were presented descriptively in accordance with the study objectives and research questions, without inferential statistical testing, as the study design focused on describing patterns rather than establishing causal relationships.

V. RESULTS

This section presents the findings of the study based on data obtained from 105 women of reproductive age attending antenatal, postnatal, and family planning services at Specialist Hospital Obangede, Kogi State. The results are organized in line with the study objectives and research questions, covering response rate, sociodemographic characteristics, knowledge of modern family planning methods, attitudes toward family planning, and factors influencing utilization.

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A. Response Rate

A total of 105 questionnaires were administered to eligible respondents, all of which were correctly completed and returned, yielding a response rate of 100 percent. This high response rate enhanced the reliability and representativeness of the data and minimized the risk of non-response bias.

B. Sociodemographic Characteristics of Respondents

TABLE I. Sociodemographic Characteristics of Respondents (n = 105)

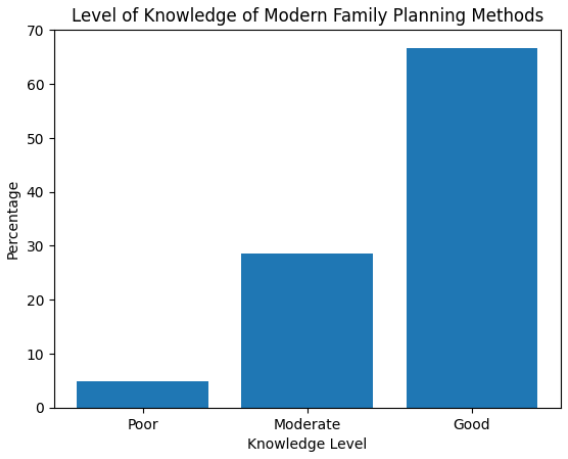
Variable	***Category***	***Frequency (n)***	***Percentage (%)***
Age (years)	*15–19*	*20*	*19.0*
	20–24	*30*	*28.6*
	25–35	*35*	*33.3*
	36–45	*20*	*19.0*
Religion	*Muslim*	*60*	*57.1*
	Christian	*35*	*33.3*
	Traditional	*10*	*9.5*
Marital Status	*Single*	*10*	*9.5*
	Married	*90*	*85.7*
	Divorced	*5*	*4.8*
Educational Level	*No formal education*	*5*	*4.8*
	Primary	*15*	*14.3*
	Secondary	*55*	*52.4*
	Tertiary	*30*	*28.6*
Parity	*1–3 children*	*85*	*81.0*
	4–6 children	*20*	*19.0*
Occupation	*Student*	*25*	*23.8*
	Unemployed	*25*	*23.8*
	Civil servant	*15*	*14.3*
	Trader	*40*	*38.1*

Analysis: As shown in Table I and Fig. 1, respondents were predominantly within the peak reproductive age range, with women aged 25–35 years forming the largest group (33.3 percent), followed by those aged 20–24 years (28.6 percent). Respondents aged 15–19 years and 36–45 years each accounted for 19 percent of the sample. Most respondents were Muslims (57.1 percent), while 33.3 percent were Christians and 9.5 percent practiced traditional religion (Table I). The majority were married (85.7 percent), highlighting the relevance of spousal influence on family planning decisions. Educationally, over half of the respondents (52.4 percent) had secondary education, 28.6 percent had tertiary education, while fewer had primary or no formal education. Most respondents (81 percent) had one to three children, and occupationally, 38.1 percent were traders, with the remainder being students, unemployed, or civil servants (Table I). All respondents were female.

C. Knowledge of Modern Family Planning Methods

TABLE II. Level of Knowledge of Modern Family Planning Methods

Knowledge Category	*Score Range*	*Frequency (n)*	*Percentage (%)*
Poor	*0–2*	*5*	*4.8*
Moderate	*3–5*	*30*	*28.6*
Good	*6–8*	*70*	*66.7*
Total		*105*	*100.0*



Analysis: As presented in Table II and illustrated in Fig. 2, assessment of respondents' knowledge of modern family planning methods revealed generally high levels of awareness and understanding. Nearly all respondents (99 percent) were aware of at least one modern contraceptive method, indicating near-universal awareness within the study population. Based on the knowledge score classification, 66.7 percent of respondents demonstrated good knowledge, 28.6 percent had moderate knowledge, while only 4.8 percent exhibited poor knowledge (Table II). This distribution suggests that the majority of women possessed adequate information regarding modern contraception. The most commonly known methods included male condoms, injectable contraceptives, and oral contraceptive pills, whereas fewer respondents demonstrated

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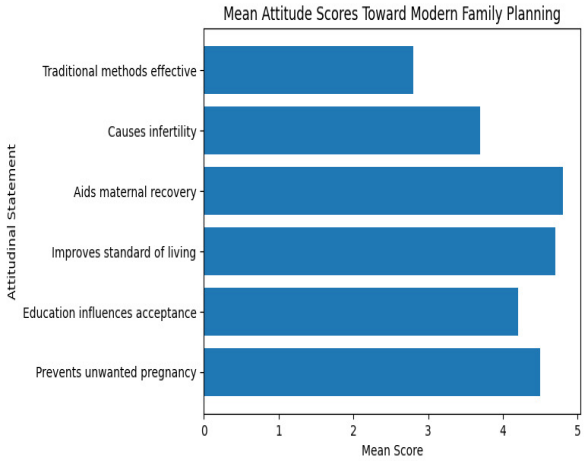
adequate knowledge of intrauterine devices, subdermal implants, and permanent sterilization methods. This pattern highlights persistent gaps in awareness of long-acting and permanent contraceptive options. Sources of family planning information included healthcare workers, mass media, family members, religious institutions, and community organizations. Notably, healthcare providers emerged as the most influential source of information, underscoring the central role of health facilities in disseminating accurate contraceptive knowledge.

D. Attitudes Toward Modern Family Planning

TABLE III. Attitudes Toward Modern Family Planning Methods

Attitudinal Statement	***Mean Score***
Family planning prevents unwanted pregnancy	*4.5*
Education influences acceptance of family planning	*4.2*
Family planning improves standard of living	*4.7*
Family planning aids maternal recovery after childbirth	*4.8*
Contraceptives can cause infertility	*3.7*
Traditional methods are effective for family planning	*2.8*

Decision Rule: Mean ≥ 3.0 = Positive attitude



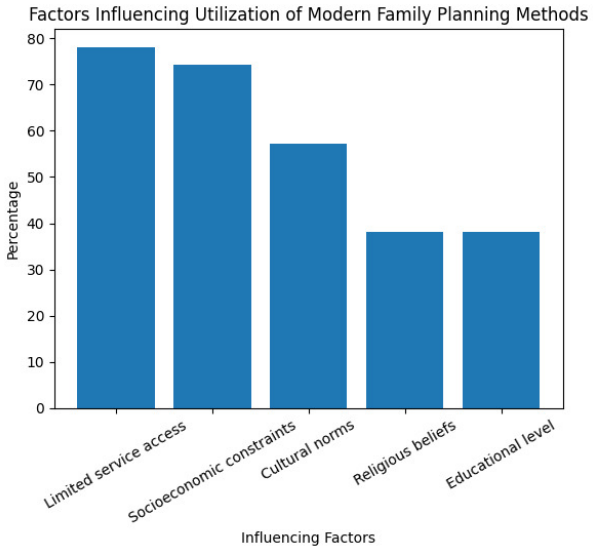
Analysis: As shown in Table III and illustrated in Fig. 3, respondents' attitudes toward modern family planning were predominantly positive. High mean scores were recorded for key attitudinal statements, indicating strong agreement with the benefits of family planning. Respondents strongly agreed that family planning prevents unwanted pregnancy (mean = 4.5) and improves standard of living (mean = 4.7). The statement that family planning aids maternal recovery after childbirth recorded the highest mean score (4.8), reflecting a strong positive perception of its health benefits. Additionally, the influence of education on acceptance of family planning methods had a mean score of 4.2, suggesting general agreement that education enhances contraceptive uptake. However, concerns regarding infertility associated with contraceptive use persisted among some respondents, with a mean score of 3.7, indicating the presence of residual misconceptions. In contrast, attitudes toward the effectiveness of traditional family planning methods were negative, with a mean score of 2.8, reflecting skepticism toward non-modern methods. Overall, the findings indicate favorable attitudes toward modern family planning; however, persistent misinformation and fear of side effects remain important challenges to utilization.

E. Factors Influencing Utilization of Modern Family Planning Methods

TABLE IV. Factors Influencing Utilization of Modern Family Planning Methods

Factor	***Frequency (n)***	***Percentage (%)***
Limited access to family planning services	*82*	*78.1*
Socioeconomic constraints	*78*	*74.3*
Cultural norms	*60*	*57.1*
Religious beliefs	*40*	*38.1*
Educational level	*40*	*38.1*
Spousal opposition and fear of side effects	—	—

Multiple responses allowed



Analysis: As presented in Table IV and illustrated in Fig. 4, utilization of modern family planning methods was influenced by multiple interrelated factors. The most frequently reported barrier was limited access to family planning services, identified by 78.1 percent of respondents. This highlights the significant role of service availability and accessibility in contraceptive uptake. Socioeconomic constraints, including cost of services and transportation, were reported by 74.3 percent of respondents, indicating that financial barriers substantially limit utilization. Cultural norms that favor large family sizes or discourage contraceptive use were identified by 57.1 percent of respondents, underscoring the influence of sociocultural expectations on reproductive behavior. Additionally, religious beliefs and educational level were each reported by 38.1 percent of respondents as factors affecting utilization. These findings suggest that religious interpretations and lower levels of formal education contribute to hesitation or non-use of modern contraceptive methods. The results demonstrate that despite good knowledge and positive attitudes, utilization of modern family planning methods is constrained by structural, socioeconomic, and sociocultural barriers, emphasizing the need for multilevel interventions.

V. DISCUSSION OF FINDINGS

This section discusses the major findings of the study in relation to the study objectives and existing empirical literature on modern family planning among women of reproductive age.

The findings revealed that the majority of respondents possessed good knowledge of modern family planning methods. Nearly all women were aware of at least one modern contraceptive method, with healthcare workers identified as the primary source of information. This high level of awareness is consistent with previous studies in Nigeria and other Sub-Saharan African settings, which attribute improved contraceptive knowledge to increased health education, antenatal counseling, and integration of family planning services into maternal health care. However, despite the overall good knowledge, gaps were observed in awareness of long-acting and permanent methods such as intrauterine devices, implants, and sterilization. Similar patterns have been reported in earlier studies, where short-acting methods were more commonly known than long-acting reversible contraceptives. These knowledge gaps may limit informed choice and contribute to lower uptake of highly effective methods.

Attitudes toward modern family planning were predominantly positive among respondents. Most women agreed that family planning prevents unwanted pregnancy, improves maternal health, enhances recovery after childbirth, and contributes to improved standard of living. These findings align with existing literature that links positive perceptions of family planning to its recognized health and socioeconomic benefits. Nevertheless, the persistence of misconceptions particularly fears that contraceptives may cause infertility indicates that positive attitudes coexist with lingering misinformation. This reflects the commonly reported knowledge–attitude–practice gap in family planning research, where favorable attitudes do not always translate into consistent contraceptive use. Despite good knowledge and positive attitudes, utilization of modern family planning methods was constrained by multiple barriers. Limited access to family planning services emerged as the most significant factor influencing utilization, followed closely by socioeconomic constraints such as cost and transportation. Cultural norms favoring large family sizes and religious beliefs that discourage modern contraceptive use also played a substantial role. In addition, spousal opposition and low educational attainment further restricted women's ability to adopt contraception. These findings are consistent with the socio-ecological perspective, which emphasizes that reproductive health behaviors are shaped by interactions between individual, interpersonal, community, and structural factors.

The findings demonstrate that improving modern family planning utilization requires more than increasing knowledge or fostering positive attitudes. Structural barriers within the health system, sociocultural expectations, economic challenges, and gender dynamics must be addressed simultaneously. Strengthening service availability, improving counseling quality, engaging men and community leaders, and implementing culturally sensitive interventions are critical for translating knowledge and positive attitudes into sustained contraceptive use among women of reproductive age.

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VI. CONCLUSION

This study found that women of reproductive age attending Specialist Hospital Obangede generally had good knowledge of modern family planning methods and predominantly positive attitudes toward their use. Despite this, utilization remains limited due to significant barriers, particularly poor access to services, socioeconomic constraints, cultural norms, religious beliefs, and spousal influence. The findings highlight a clear gap between knowledge, attitudes, and actual contraceptive practice. Addressing this gap requires multilevel interventions that improve service accessibility, dispel misconceptions, promote male involvement, and deliver culturally sensitive family planning education. Such efforts are essential for improving contraceptive uptake and advancing maternal and child health outcomes in Nigeria.

REFERENCES

[1] United Nations Population Fund, *State of World Population 2022*. New York: UNFPA, 2022.
[2] World Health Organization, *Family Planning: A Global Handbook for Providers*. Geneva: WHO, 2018.
[3] J. Cleland, A. Conde-Agudelo, H. Peterson, J. Ross, and A. Tsui, "Contraception and health," *Lancet*, vol. 380, no. 9837, pp. 149-156, 2012.
[4] Guttmacher Institute, *Adding It Up: Investing in Contraception and Maternal and Newborn Health*. New York: Guttmacher Institute, 2020.
[5] S.R. Blackstone, U. Nwaozuru, and J. Iwelunmor, "Factors influencing contraceptive use in Sub-Saharan Africa: a systematic review," *Int. Q. Community Health Educ.*, vol. 37, no. 2, pp. 79-91, 2017.

[6] National Population Commission Nigeria, *Nigeria Demographic and Health Survey 2018*. Abuja: NPC, 2019.
[7] R. Ochako, M. Mbondo, S. Aloo, et al., "Barriers to modern contraceptive methods uptake among young women in Kenya: a qualitative study," *BMC Public Health*, vol. 15, p. 118, 2015.
[8] G. Sedgh and R. Hussain, "Reasons for contraceptive nonuse among women having unmet need for contraception in developing countries," *Stud. Fam. Plann.*, vol. 45, no. 2, pp. 151-169, 2014.
[9] K. Hardee, J. Kumar, K. Newman, et al., "Voluntary, human rights-based family planning: a conceptual framework," *Stud. Fam. Plann.*, vol. 45, no. 1, pp. 1-18, 2014.
[10] A.O. Tsui, R. McDonald-Mosley, and A.E. Burke, "Family planning and the burden of unintended pregnancies," *Epidemiol. Rev.*, vol. 32, no. 1, pp. 152-174, 2010.
[11] J.B. Casterline and S.W. Sinding, "Unmet need for family planning in developing countries and implications for population policy," *Popul. Dev. Rev.*, vol. 26, no. 4, pp. 691-723, 2000.
[12] J. Bruce, "Fundamental elements of the quality of care: a simple framework," *Stud. Fam. Plann.*, vol. 21, no. 2, pp. 61-91, 1990.
[13] J. Trussell, "Contraceptive failure in the United States," *Contraception*, vol. 83, no. 5, pp. 397-404, 2011.
[14] World Health Organization, *Medical Eligibility Criteria for Contraceptive Use*, 5th ed. Geneva: WHO, 2015.
[15] B. Winner, J.F. Peipert, Q. Zhao, et al., "Effectiveness of long-acting reversible contraception," *N. Engl. J. Med.*, vol. 366, no. 21, pp. 1998-2007, 2012.
[16] R.A. Hatcher, J. Trussell, A.L. Nelson, et al., *Contraceptive Technology*, 20th ed. New York: Ardent Media, 2011.
[17] J.F. Peipert, Q. Zhao, J.E. Allsworth, et al., "Continuation and satisfaction of reversible contraception," *Obstet. Gynecol.*, vol. 117, no. 5, pp. 1105-1113, 2011.
[18] L.M. Williamson, A. Parkes, D. Wight, M. Petticrew, and G.J. Hart, "Limits to modern contraceptive use among young women in developing countries: a systematic review of qualitative research," *Reprod. Health*, vol. 6, p. 3, 2009.
[19] I.S. Speizer, D.R. Hotchkiss, R.J. Magnani, B. Hubbard, and K. Nelson, "Do service providers in Tanzania unnecessarily restrict clients' access to contraceptive methods?" *Int. Fam. Plan. Perspect.*, vol. 26, no. 1, pp. 13-20, 42, 2000.
[20] E.A. Montanaro and A.D. Bryan, "Comparing theory-based condom interventions: health belief model versus theory of planned behavior," *Health Psychol.*, vol. 33, no. 10, pp. 1251-1260, 2014.
[21] A. Gueye, I.S. Speizer, M. Corroon, and C.C. Okigbo, "Belief in family planning myths at the individual and community levels and modern contraceptive use in urban Africa," *Int. Perspect. Sex Reprod. Health*, vol. 41, no. 4, pp. 191-199, 2015.
[22] A.A. Bawah, "Spousal communication and family planning behavior in Navrongo: a longitudinal assessment," *Stud. Fam. Plann.*, vol. 33, no. 2, pp. 185-194, 2002.
[23] A.K. Blanc, "The effect of power in sexual relationships on sexual and reproductive health: an examination of the evidence," *Stud. Fam. Plann.*, vol. 32, no. 3, pp. 189-213, 2001.
[24] D. Shattuck, B. Kerner, K. Gilles, M. Hartmann, T. Ng'ombe, and G. Guest, "Encouraging contraceptive uptake by motivating men to communicate about family planning: the Malawi Male Motivator project," *Am. J. Public Health*, vol. 101, no. 6, pp. 1089-1095, 2011.
[25] A. Lasee and S. Becker, "Husband-wife communication about family planning and contraceptive use in Kenya," *Int. Fam. Plan. Perspect.*, vol. 23, no. 1, pp. 15-20, 33, 1997.
[26] R.J. Magnani, D.R. Hotchkiss, C.S. Florence, and L.A. Shafer, "The impact of the family planning supply environment on contraceptive intentions and use in Morocco," *Stud. Fam. Plann.*, vol. 30, no. 2, pp. 120-132, 1999.
[27] S. RamaRao, M. Lacuesta, M. Costello, B. Pangolibay, and H. Jones, "The link between quality of care and contraceptive use," *Int. Fam. Plan. Perspect.*, vol. 29, no. 2, pp. 76-83, 2003.
[28] A.K. Jain and K. Hardee, "Revising the FP quality of care framework in the context of rights-based family planning," *Stud. Fam. Plann.*, vol. 49, no. 2, pp. 171-179, 2018.
[29] J. Ross and J. Stover, "Use of modern contraception increases when more methods become available: analysis of evidence from 1982-2009," *Glob. Health Sci. Pract.*, vol. 1, no. 2, pp. 203-212, 2013.
[30] J. Bongaarts and K. Hardee, "The role of family planning programs in contemporary fertility transitions," in *The Global Family Planning Revolution: Three Decades of Population Policies and Programs*, W.C. Robinson and J.A. Ross, Eds. Washington DC: World Bank, 2007, pp. 422-443.
[31] K. Tumlinson, I.S. Speizer, L.H. Archer, and F. Behets, "Simulated clients reveal factors that may limit contraceptive use in Kisumu, Kenya," *Glob. Health Sci. Pract.*, vol. 1, no. 3, pp. 407-416, 2013.
[32] I. Mosha, R. Ruben, and D. Kakoko, "Family planning decisions, perceptions and gender dynamics among couples in Mwanza, Tanzania: a qualitative study," *BMC Public Health*, vol. 13, p. 523, 2013.
[33] L. Alkema, V. Kantorova, C. Menozzi, and A. Biddlecom, "National, regional, and global rates and trends in contraceptive prevalence and unmet need for family planning between 1990 and 2015: a systematic and comprehensive analysis," *Lancet*, vol. 381, no. 9878, pp. 1642-1652, 2013.

[34] V. Chandra-Mouli, D.R. McCarraher, S.J. Phillips, N.E. Williamson, and G. Hainsworth, "Contraception for adolescents in low and middle income countries: needs, barriers, and access," *Reprod. Health*, vol. 11, p. 1, 2014.
[35] Z. Moore, A. Pfitzer, R. Gubin, E. Charurat, L. Elliott, and T. Croft, "Missed opportunities for family planning: an analysis of pregnancy risk and contraceptive method use among postpartum women in 21 low- and middle-income countries," *Contraception*, vol. 92, no. 1, pp. 31-39, 2015.
[36] S. Singh and J.E. Darroch, *Adding It Up: Costs and Benefits of Contraceptive Services—Estimates for 2012*. New York: Guttmacher Institute and United Nations Population Fund, 2012.
[37] W.G. Cochran, *Sampling Techniques*, 3rd ed. New York: John Wiley & Sons, 1977.
[38] R.V. Krejcie and D.W. Morgan, "Determining sample size for research activities," *Educ. Psychol. Meas.*, vol. 30, no. 3, pp. 607-610, 1970.
[39] K.P. Suresh and S. Chandrashekara, "Sample size estimation and power analysis for clinical research studies," *J. Hum. Reprod. Sci.*, vol. 5, no. 1, pp. 7-13, 2012.
[40] D. Hubacher, I. Mavranezouli, and E. McGinn, "Unintended pregnancy in sub-Saharan Africa: magnitude of the problem and potential role of contraceptive implants to alleviate it," *Contraception*, vol. 78, no. 1, pp. 73-78, 2008.