

Prevalence And Patterns Of Contraceptive Utilisation Among Small And Medium Business Women Of Reproductive Age

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Abstract

The use of contraceptives among small and medium business women of reproductive age is a critical health issue globally, yet its prevalence and social determinants remain inadequately documented in the rural areas of Oyo State, Nigeria. This research examined the frequency, trends, and socioeconomic determinants of contraceptive use among women of reproductive age in this area. This study employed a descriptive correlational research design targeting small and medium business women aged 15-49 years attending government-owned health facilities in Akinyele LGA. Using multistage sampling techniques, 385 participants were recruited. Data collection utilised a structured questionnaire that was translated into Yoruba and validated for reliability (Cronbach's Alpha = 0.75). SPSS version 23 was used for the analysis, which included both descriptive (frequencies, percentages) and inferential (logistic and multiple regression models) statistics to assess the associations between social variables and the use of contraceptives. The study revealed low overall contraceptive prevalence among participants. Injectable methods (27.9%) and implants (22.7%) were the predominant contraceptive choices, while bilateral tubal ligation showed zero uptake. The use of contraceptives was not significantly predicted by social variables, peer influence ($\beta = -0.027$, $p > 0.05$), parental influence ($\beta = -0.007$, $p > 0.05$), or societal norms ($\beta = 0.060$, $p > 0.05$), according to multiple regression analysis. However, socioeconomic factors showed significant associations: urban residence strongly predicted higher contraceptive use (OR = 10.389, $p < 0.01$), while higher income levels above ₦100,000 demonstrated a significant negative association (OR = 0.057, $p < 0.01$).

This study identified low contraceptive prevalence in a rural part of Oyo State, with injectable contraceptives and implants being the preferred methods. Traditional social influences did not significantly impact contraceptive decisions, whereas residential setting and income level emerged as crucial determinants. These findings demonstrate the need for advocacy to improve accessibility to family planning services, while addressing economic factors, particularly in rural areas, for the improvement of the adoption of contraceptives among reproductive-aged women.

Keywords: Contraceptive use, Patterns, Peer influence, Parental influence, social norms.

1. Introduction

The usage of contraceptives stands as a vital reproductive health factor that influences population dynamics, maternal-child health outcomes, and the advancement of socioeconomic processes. The knowledge of contraceptive utilisation patterns and prevalence is vital for both health experts in family planning services, policymakers and academics for change-making in family planning research and policies. Globally, contraceptive use has seen significant progress over the past few decades, yet disparities remain (Jacqueline 2012). The United Nations (UN) reports that in 2021, about 77% of married or cohabitating women aged 15–49 had a history of using contraceptives, a significant increase from the 24% recorded in 1969. In addition, the majority of usage is of modern methods (oral pills, intrauterine devices (IUDs), injectables, and condoms), while the traditional methods (withdrawal and periodic abstinence) are less common (Haakenstad et.al., 2019).

The proliferation of contraceptive use has not addressed all existing disparities. Research indicates that roughly 257 million women globally do not use modern contraceptives, particularly those in low- and middle-income countries (LMICs). Sub-Saharan Africa and South Asia together possess the highest number of women without access to modern contraception, with 21% of women in sub-Saharan Africa and 10% of women in South Asia facing unmet contraceptive needs. The gaps in healthcare services, along with cultural restrictions and gender imbalances and insufficient healthcare facilities, cause these disparities. The usage of contraceptives differs substantially between international regions and economic development levels. A large portion of LMICs (Low and Middle Income Countries) has difficulty maintaining Contraceptive Prevalence Rates (CPRs) beyond

50%, yet high-income nations maintain CPRs ranging from 70% to higher rates. European and North American countries demonstrate CPRs of over 70% because both regions have good family planning services together with high educational standards (Yan et.al, 2020). The causal relationship between the population's contraceptive prevalence stands at below 30% in Sub-Saharan Africa and selected parts of South Asia, thus revealing the immediate necessity for focused intervention programs.

Nigeria faces numerous challenges in improving contraceptive utilisation, including limited funding for family planning programs, inadequate healthcare infrastructure, and cultural and religious barriers. However, there are also opportunities for progress. The Nigerian government has demonstrated renewed commitment to family planning through initiatives such as the Family Planning 2020 (FP2020) commitment, which aims to increase the CPR to 27% by 2024. International organisations and private sector entities working together offer possibilities for expanding contraceptive availability and bettering service quality. Population-wide contraceptive patterns show extensive differences across international regions because these areas exhibit different healthcare options and social customs, together with economic characteristics (World Health Organisation, 2024). Contraceptive use worldwide has grown substantially; however, major disparities persist most strongly between Sub-Saharan Africa along South Asian communities. The situation in Nigeria demonstrates the issues that most low and middle-income countries experience through their low CPR, combined with high unmet family planning needs. The successful resolution of these obstacles needs multiple solutions that combine more financial support with better health systems infrastructure and specific initiatives to eliminate cultural along socioeconomic obstacles (Venkatraman et.al., 2020).

Many important aspects of contraceptive utilisation research still need further understanding. Current data is scarce about the obstacles that prevent marginalised social groups from using contraceptives. They include adolescents, rural women, and those in humanitarian settings, particularly in low-resource regions like Sub-Saharan Africa (Darroch et al., 2017). Second, while regional and national statistics provide insights into contraceptive prevalence, there is a lack of in-depth qualitative studies exploring the cultural, religious, and socioeconomic factors that influence contraceptive decision-making, especially in countries like Nigeria where utilisation rates remain low (NDHS, 2018). Similarly, the effectiveness of interventions aimed at increasing contraceptive uptake, such as community-based distribution programs and mobile health initiatives, has not been thoroughly evaluated in diverse contexts (Cleland et al., 2014). Research requires

longitudinal investigations to determine how contraceptive use affects maternal-child well-being over time while it supports sustainable development goals (Starbird et al., 2016). There is a global success in improving access and usage of contraception requires policies and programs that utilise proven evidence from these gaps.

Research indicates that community-delivered contraceptive programmes, together with expanded access to long-acting reversible contraceptives (LARCs), enhance contraceptive usage rates according to the findings of the Contraceptive CHOICE Project (Secura et al., 2013). According to this study, a small and medium business woman refers to a female business owner who operates a small or medium-sized enterprise. However, limited research has been conducted regarding the specific challenges experienced by small and medium business women in Akinyele. Previous research shows these barriers need specific interventions built for local conditions, which empower business women and enhance healthcare facilities to establish fair access to family planning services (Starbird et al., 2016; Stephenson et al., 2014).

1.1 Research Questions

The research questions are:

- What is the proportion of business women of reproductive age who use contraceptives?
- What is the combined effects of social variables (parental, peer, and societal norms) on the usage of contraceptives by business women who are of reproductive age?
- What is the relative influence of social factors (Peer influence, parental influence and social norms) on contraceptive use among business women of reproductive age.

1.2 Objectives of the Study

The Research objectives are:

- Examine the proportion of business women of reproductive age who use contraceptives.
- Assess the combined effects of social variables (parental, peer, and societal norms) on the usage of contraceptives by business women who are of reproductive age.
- Determine the relative influence of social factors (Peer influence, parental influence and social norms) on contraceptive use among business women of reproductive age.

2. Literature Review

The population in Sub-Saharan Africa currently faces significant barriers to using contraceptives among its people. The current total population of 380 million people in this

region is served by only 108 million contraceptive methods for a CPR rate of 28% as of 2021. Family planning progress remains obstructed by traditional values, together with inadequate health care facilities along with elevated birth rates and restricted service accessibility. For example, in countries like Chad and South Sudan, CPRs are as low as 8% and 10%, respectively (Aliyu 2018). However, there are signs of improvement in some countries. Kenya and Rwanda have made remarkable strides, with CPRs of 58% and 53%, respectively, driven by strong political commitment, community-based distribution programs, and increased funding for family planning initiatives. These successes demonstrate that with adequate resources and political will, significant progress is possible. South Asia presents a mixed picture of contraceptive utilisation. While the region has achieved a CPR of 53%, there are significant variations between countries. India, for instance, reports a CPR of 54%, largely due to its robust family planning program and widespread availability of contraceptives. In contrast, Pakistan and Afghanistan lag behind, with CPRs of 34% and 23%, respectively, due to cultural barriers, limited healthcare access, and low levels of female education (Ram et.al. 2021). Latin America and the Caribbean have relatively high CPRs, averaging 73%. Countries like Brazil and Colombia have achieved rates above 75%, thanks to well-established healthcare systems and widespread availability of contraceptives. However, marginalised populations, such as indigenous communities and rural women, often face barriers to access.

Nigeria happens to be the most populated country in Africa, with more than 200 million people, and experiences a distinct family planning challenge due to diversity in culture and beliefs, and low adoption rate of contraceptive utilisation. Following decades of government efforts to provide access to contraception, the nation claims a contraception prevalence rate of 17%, which seems to be among the lowest in Sub-Saharan Africa, while recording a 5.3 baby birth rate among women (United Nations Population Fund Country programme document for Nigeria 2023).

The 2018 Nigeria Demographic and Health Survey shows that married women use modern contraceptives at a rate of 12% and traditional methods at 5%. Current methods of contraception constitute the standard practice among users in modern times are injectables (4%), male condoms (3%), and oral pills (2%). Although IUDs and implants are very effective long-acting reversible contraceptives (LARCs), fewer than 1 percent of women utilise them. This low uptake is attributed to limited availability, high costs, and a lack of awareness among women and healthcare providers. The family planning needs of Nigerian married women remain unfulfilled because 19% wish to prevent childbirth, yet refrain

from using contraception methods. (Oyinlola et.al., 2024). Teenagers and young women, who encounter extra obstacles including stigma, a lack of autonomy, and restricted access to youth-friendly programs, are most affected by this unmet demand. Contraceptive utilisation in Nigeria varies by region. The southern states generally report higher CPRs than the northern states, reflecting differences in education, healthcare access, and cultural norms. For example, in the Southwest region, the CPR is 25%, compared to just 3% in the North West region (National Population Census 2019). These disparities are driven by factors such as early marriage, low levels of female education, and religious opposition to family planning in the predominantly Muslim north. Data shows that urban women use modern contraceptives at rates higher than those in rural areas, where the use rates are 22% and 10%. Women who have advanced education and financial stability show higher usage of contraceptives compared to uneducated and poor women (Okigbo et.al., 2018).

The low rates of contraceptive use among small and medium business women of reproductive age in the Akinyele Local Government Area reflect regional and national trends across Africa, despite the fact that many women need access to contraception. The 2018 Nigeria Demographic and Health Survey (NDHS) showed that modern contraceptive usage stands at 12% among married women, although cultural, religious and socioeconomic factors create regional differences (Solanke, 2017). Akinyele continues to face barriers toward family planning adoption because residents experience restricted medical service availability, together with substandard educational attainment and traditional reservations about birth control (TCI Urban Health, 2017).

Ahinkorah et al. (2021) used demographic data and health surveys from 29 sub-Saharan African nations with 87,554 business women aged 15–49 to investigate the consequences of contemporary contraceptive usage in the region. Multilevel logistic regression was used to analyse the data through four models. The survey found that 29.6% of people used contemporary contraceptives. In terms of individual-level consequences, business women between the ages of 45 and 49 were less likely to use contemporary contraception (aOR = 0.33, 95% CI = 0.28, 0.39). In addition, the research found that business women in Southern Africa were more likely to use contemporary contraceptives (aOR = 5.29, 95% CI = 4.86, 5.76). D'Souza et al. (2023) reiterated that countries that place contraceptive utilisation at the forefront will achieve better reproductive health results while lowering rates of unintended pregnancies and developing sustainable outputs.

Abubakar and Abubakar (2024) reported on Nigerian modern contraceptive usage among market women. Data analyses

were conducted using secondary data from 41,821 market women aged 15–49 who participated in the 2018 Nigeria Demographic and Health Survey. The research used multivariate logistic regression to analyse the data. According to the survey, the prevalence of contraception was 12.2% for contemporary techniques and 16.6% for traditional methods. Similarly, modern contraception use was increased among market women between the ages of 40–44 (aOR = 1.07, 95% CI: 0.75–1.53).

Kundu et al. (2022) investigated the prevalence and determinants of Bangladeshi entrepreneurial women's usage of contraceptives. The research used data from the Bangladesh Demographic and Health Survey for 2017–2018, and 11,452 women between the ages of 15 and 49 were included in the analysis. To describe the associated elements of the way of using contraceptives, the suppression of multilevel multinomial logistic regression was used. The study found that just 14.58% of Bangladeshi entrepreneurial women used traditional forms of contraception, while a significant majority (72.16%) used contemporary techniques. Similarly, respondents in the 15–24 age range and older in the 35–49 age range were prohibited from using contemporary forms of birth control (RRR: 0.28, 95% CI: 0.21–0.37). Respondents with at least one child were shown to be more likely to utilise both conventional and contemporary forms of birth control (RRR: 4.37, 95% CI: 3.12–6.11).

2.1 Theoretical Framework for the Study

The Theory of Planned Behaviour (TPB), which offers a thorough framework for examining the use of contemporary contraceptives among women of reproductive age in Akinyele Local Government Area, Oyo State, Nigeria, served as the foundation for the theoretical framework of this investigation. TPB contends that intention, which is influenced by three major constructs—attitudes, subjective standards, and perceived behavioural control—is what ultimately determines contraceptive behaviour (Ajzen, 1985).

In the Akinyele context, women's attitudes toward contraceptives reflect an evaluation of potential outcomes, improved maternal health, economic stability, and reproductive autonomy against perceived risks such as side effects and cultural stigma. These attitudes are significantly mediated by socioeconomic factors, particularly education level, with higher educational attainment consistently correlating with more favorable contraceptive attitudes (Stephenson, 2014).

Subjective norms represent a critical determinant unique to this sociocultural landscape. The perceived approval or

disapproval from family members, religious authorities, and community leaders creates powerful normative pressures. In Akinyele, particularly in rural communities, traditional values and religious doctrines often conflict with modern contraceptive practices, creating normative barriers to adoption (Elfstrom & Stephenson, 2012). This social pressure operates differentially across urban-rural divides, with urban residents experiencing less restrictive normative environments.

Perceived behavioral control for women's assessment of their capacity to access and effectively use contraceptives is shaped by healthcare accessibility, financial resources, and autonomy in reproductive decision-making (Moreira, 2019). This construct explains why socioeconomic factors like income and residence emerge as significant predictors of contraceptive behavior, while traditional social influences may show weaker associations.

The TPB framework further elucidates the intention-behavior gap observed in Akinyele's contraceptive landscape. Despite favorable intentions, structural barriers, including financial constraints, inadequate healthcare infrastructure, and partner opposition, prevent women from actualising their contraceptive intentions. This discrepancy explains the persistently low contraceptive prevalence despite increasing awareness and positive attitudes.

The application of TPB provides valuable insights into intervention design. Effective strategies must address multiple determinants simultaneously: educational initiatives to reshape attitudes, community engagement to transform subjective norms, and structural improvements to enhance perceived and actual behavioral control. Specifically, programs targeting economic empowerment and healthcare accessibility in rural areas would address the socioeconomic determinants identified as significant predictors of contraceptive use.

By integrating individual psychological processes with socio-structural factors, the TPB framework offers a nuanced understanding of contraceptive behavior in Akinyele LGA, informing evidence-based interventions that can effectively navigate the complex interplay between personal and structural context in reproductive health decision-making.

3. Research Methodology

3.1 Study Design

A research design of descriptive correlational type was adopted for the study.

3.2 Study Settings

This study focused on government-owned health facilities within the Akinyele Local Government Area.

3.3 Study Population

The population of the study included small and medium business women within the childbearing age group (15-49) who attended the selected government health facilities.

3.4 Sampling Methods and Sample Size

The Leslie Kish formula was used to derive a sample size of 385 participants. The study employed a rigorous multistage sampling approach to ensure representativeness. Initially, from the 37 government-owned health facilities in Akinyele LGA, 12 facilities were purposively selected based on their high patient volume and accessibility. Proportionate sampling was then implemented, allocating 73% of the required sample from each selected facility according to their documented average weekly attendance patterns. The final selection of individual participants was conducted through simple random sampling within each facility, ensuring every eligible business woman had an equal probability of inclusion. This systematic multistage approach, combining purposive, proportionate, and random sampling techniques, maximised both pragmatic feasibility and methodological rigor, yielding a sample that accurately represented the participants who are of reproductive age, who are the main population accessing healthcare services in that region.

3.5 Data Collection

The data were collected through the use of a well-structured, self-developed instrument specifically designed to address the study objectives. The instrument consisted of five comprehensive sections. First, the socio-demographic section included 10 items addressing age, education level, marital status, religion, ethnicity, occupation, income level, number of parity, and residential location. Second, Knowledge of contraceptive use was assessed through 15 items through a 3-point Likert scale with a scale that ranges from "Not aware" to "Very aware." Third, the contraceptive use prevalence section comprised 8 items with dichotomous (Yes/No) responses and follow-up questions regarding duration and consistency of use. Fourth, patterns of contraceptive utilisation were documented through 12 items covering specific methods used, frequency, duration, switching behaviours, and reasons for method selection. Last, the social determinants section evaluated peer influence, parental influence, and social norms using 18 items on a 5-point Likert scale (each factor contains 6 items).

To ensure linguistic and cultural appropriateness, the questionnaire underwent rigorous translation from English to Yoruba language through forward and backward translation by bilingual experts, with input from the principal

investigators and research assistants to preserve conceptual equivalence. The instrument demonstrated strong measurement properties with a 0.75 Cronbach's Alpha outcome. It also has a subscale dependability with a range of 0.71 to 0.82, which suggests strong internal consistency. Prior to full implementation, a pre-test was conducted with 38 participants (10% of the sample size) from a similar but separate population to validate comprehensibility and cultural appropriateness of the instrument. For analytical purposes, contraceptive use prevalence was operationalised as the dependent variable, while socio-demographic factors, knowledge of modern methods, and social determinants served as independent variables, enabling a comprehensive multivariate analysis of factors associated with contraceptive behaviour in this population.

4. Data Analysis and Result

Statistical Product and Services Solution (SPSS) version 23 was used for analyzing the data, while statistical methods used include descriptive statistics, frequency counts and percentages, and regression analyses at a significance level of 0.05.

Results

The demographic information of the respondents was presented in Table 1 below.

Table 1: Respondents' demographic data

Characteristic	Category	Frequency	Percentage
Age	15-19	42	10.90%
	20-29	128	33.30%
	30-39	162	42.20%
	40 above	52	13.50%
Marital Status	Single	100	26.00%
	Married	284	74.00%
Religion	Islam	125	32.60%
	Christianity	259	67.40%
Ethnic Group	Yoruba	341	88.80%
	Hausa	2	0.50%
	Igbo	23	6.00%
	Others	18	4.70%
Residence	Rural	146	38.00%
	Urban	203	52.90%
	Semi-urban	35	9.10%
Access to Healthcare	Yes	368	95.80%
	No	16	4.20%
Number of Children	None	92	24.00%
	01-Feb	134	34.90%
	03-Apr	150	39.10%
	5 above	8	2.10%
	Employed	182	47.40%

Employment Status	Unemployed	76	19.80%
	Student	89	23.20%
	Others	37	9.60%
Education Level	No formal education	9	2.30%
	Primary education	14	3.60%
	Secondary education	81	21.10%
	Tertiary education	280	72.90%
Income Level	<30,000	143	37.20%
	30,001-70,000	112	29.20%
	70,001-100,000	94	24.50%
	100,001-150,000	29	7.60%
	>150,000	6	1.60%

The respondents' demographic profile, which is shown in Table 1 above, displays the respondents' demographic information. Business women within the age bracket of 30-39 years (42.2%) have the largest proportion. Those aged 20-29 (33.3%) come next, while a smaller percentage comprised individuals aged 40 and above (13.5%) and those in the youngest category of 15-19 years (10.9%). Marital status distribution indicates that a substantial majority of the respondents were married (74.0%), whereas 26.0% were single. Regarding religious affiliation, Christianity was the predominant faith (67.4%), followed by Islam (32.6%).

Ethnically, the Yoruba group accounted for the overwhelming majority of respondents (88.8%), with smaller representations from the Igbo (6.0%), Hausa (0.5%), and other ethnic groups (4.7%). The data regarding respondents' place of residence indicates that the majority lived in urban areas (52.9%), followed by rural areas (38.0%) and semi-urban areas (9.1%). Access to healthcare was reported by the vast majority (95.8%), with only 4.2% indicating a lack of healthcare access. For the number of children, 39.1% had between three and four children, 34.9% had one or two children, 24.0% had no children, and a small fraction (2.1%) had five or more children.

Employment status varied, with nearly half of the respondents (47.4%) being employed, while 23.2% were students, 19.8% were unemployed, and 9.6% were engaged in other occupational categories. Educational attainment was relatively high, with the majority (72.9%) having tertiary education, followed by those with secondary education

(21.1%), while only a small percentage had primary education (3.6%) or no formal education (2.3%).

In terms of income distribution, a notable proportion of respondents earned below ₦30,000 (37.2%), while 29.2% earned between ₦30,001 and ₦70,000. A smaller proportion reported earnings between ₦70,001 and ₦100,000 (24.5%), while fewer respondents earned between ₦100,001 and ₦150,000 (7.6%) or above ₦150,000 (1.6%).

These findings indicate that the demographic composition of the study sample is predominantly middle-aged, married, Christian, and Yoruba, with a notable urban residency pattern. The high proportion of individuals with tertiary education and widespread healthcare access suggests a relatively informed and health-conscious population. However, the existence of jobless people, those with lower incomes, and those with less formal education highlights socioeconomic inequalities that may affect access to chances for both employment and healthcare.

Research Question One: What is the proportion of business women of reproductive age who use contraceptives? To determine this, a binary logistic regression was conducted and the result is presented in Table 2 below.

Table 2: Binary Logistic Regression Analysis showing the Prevalence of Contraceptive Use among Reproductive-Aged Business Women

Characteristic	Category	df	p	Odd Ratio	95% CI for OR
				(OR)	Lower-Upper
Age Categories	15–19 RC	3	0.72	1	
	20–29	1	1	0	0.000 – 0.000
	30–39	1	0.25	0.507	0.161 – 1.598
	40 above	1	0.48	0.73	0.303 – 1.757
Marital Status	Single	1	0.13	4.631	0.625 – 34.310
	Married RC			1	
Religion	Islam	1	0.59	0.835	0.433 – 1.609
	Christianity RC			1	
Ethnic Group	Yoruba RC	3	0.55	1	
	Hausa	1	0.43	0.519	0.103 – 2.618
	Igbo	1	1	2	0.000 – 0.000
	Others	1	0.15	0.0187	0.019 – 1.811
Residence	Rural RC	2	0.01	1	

	Urban	1	0.01	10.389	1.882 – 57.357
	Semi-urban	1	0.06	4.986	0.923 – 26.938
Access to Healthcare	Yes	1	0.48	2.016	0.288 – 14.091
	No RC			1	
Number of Children	None RC	3	0.02	1	
	1–2	1	0.01	0.011	0.000 – 0.267
	3–4	1	0	0.022	0.002 – 0.280
	5 above	1	0.01	0.033	0.003 – 0.398
Employment Status	Employed RC	3	0.02	1	
	Unemployed	1	0.13	2.941	0.737 – 11.737
	Student	1	0.52	0.609	0.134 – 2.756
	Others	1	0.56	1.622	0.316 – 8.318
Education Level	No formal education RC	3	0.91	1	
	Primary education	1	1	0	0.000 – 0.000
	Secondary education	1	1	0	0.000 – 0.000
	Tertiary education	1	0.46	0.698	0.269 – 1.807
Income Level	<30,000 RC	4	0.02	1	
	30,001–70,000	1	0.02	0.095	0.013 – 0.694
	70,001–100,000	1	0.07	0.158	0.022 – 1.153
	100,001–150,000	1	0.01	0.057	0.007 – 0.471
	>150,000	1	0.02	0.054	0.005 – 0.569

Omnibus Tests of Model Coefficients				
		Chi-square	Df	Sig.
Step 1	Step	90.126	24	0
	Block	90.126	24	0
	Model	90.126	24	0
Model Summary				
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square	
1	295.659 ^a	0.211	0.331	

NOTE: RC= Reference Category, CI= Confidence Interval, OR=Odd Ratio

The binary logistic regression analysis (Table 4.2) examined

the determinants of modern contraceptive usage by business women. Results showed that the included variables served as significant predictors of contraceptive use since the omnibus test produced results of $\chi^2 = 90.126$, $df = 24$, $p < .001$. The model predicted 21.1% variance in contraceptive use based on Cox & Snell R^2 calculations and up to 33.1% according to Nagelkerke R^2 .

The data revealed no significant differences across the age categories in predicting contraceptive use ($p = .718$). While business women aged 20–29 ($OR = 0.000$) and 30–39 ($OR = 0.507$, 95% CI [0.161, 1.598]) had a reduced probability of making use of modern contraceptives compared to the 15–19 age group, the results were not statistically significant. Respondents aged 40 and above also did not differ significantly in their odds of using contraceptives ($OR = 0.730$, 95% CI [0.303, 1.757]).

Marital status showed some influence, although not statistically significant ($p = .134$). Single business women had a 4.631 times more likelihood of modern contraceptives utilisation compared to those who are married, though the confidence interval was wide (95% CI [0.625, 34.310]), reflecting variability in this estimate. Religion did not significantly predict contraceptive use ($p = .590$), with Muslim respondents having an odds ratio of 0.835 compared to their Christian counterparts (95% CI [0.433, 1.609]).

Ethnicity was not a significant predictor ($p = .546$), but some trends were noted. Although the difference was not statistically significant, respondents from the Hausa ethnic group were less likely than Yoruba to use contemporary contraception ($OR = 0.519$, 95% CI [0.103, 2.618]). Similarly respondents categorised as "others" (non-Yoruba, Hausa, or Igbo) had a lower likelihood of contraceptive use ($OR = 0.187$, 95% CI [0.019, 1.811]).

Residence emerged as a significant factor ($p = .008$). Urban resident respondents had a substantially more odd of using modern methods of contraceptives compared to those resident in rural settlement ($OR = 10.389$, 95% CI [1.882, 57.357]), with borderline significance for those in semi-urban areas ($OR = 4.986$, 95% CI [0.923, 26.938], $p = .062$).

Access to healthcare did not significantly influence contraceptive use ($p = .480$), though respondents with healthcare access had slightly higher odds ($OR = 2.016$, 95% CI [0.288, 14.091]). In addition, the number of children significantly predicts the usage of contraceptives ($p = .024$). Contraceptive use was less common among respondents with one to two children than among those without children ($OR = 0.011$, 95% CI [0.000, 0.267], $p = .005$). Similar trends were observed among respondents with three to four

children (OR = 0.022, 95% CI [0.002, 0.280], $p = .003$) and those with children up to five or more (OR = 0.033, 95% CI [0.003, 0.398], $p = .007$).

Employment status significantly impacted contraceptive use ($p = .017$). Unemployed respondents had about 300% more odds of using contraceptives than those employed (OR = 2.941, 95% CI [0.737, 11.737]), though this finding was not statistically significant ($p = .127$). Being a student or falling into the "others" category also did not significantly predict contraceptive use.

Educational level had no significant prediction on contraceptive use ($p = .908$). Respondents with tertiary education had a lower contraceptive use than no formal education respondents (OR = 0.698, 95% CI [0.269, 1.807], $p = .458$). Income level, however, emerged as a significant predictor ($p = .018$). Respondents earning between ₦30,001 and ₦70,000 had a very low likelihood to use contraceptives compared to those earning less than ₦30,000 (OR = 0.095, 95% CI [0.013, 0.694], $p = .020$). A similar trend was observed for higher income brackets, with respondents earning ₦70,001–₦100,000 (OR = 0.158, $p = .069$), ₦100,001–₦150,000 (OR = 0.057, $p = .008$), and above ₦150,000 (OR = 0.054, $p = .015$) all showing reduced odds of contraceptive use.

Table 3: Trends in the Use of Contraceptives by Reproductive-Age Business Women

Contraceptive Method	Currently Used (%)	Ever Used (%)	Method Discontinued (%)
Bilateral Tubal Ligation (Sterilisation)	0.0%	0.0%	0.0%
Injectable	27.9%	35.2%	30.0%
Oral contraceptive pills	9.4%	29.9%	23.0%
Intrauterine devices (IUDs)	1.6%	26.8%	10.0%
Implants	22.7%	47.9%	21.0%
Female condoms	10.9%	43.5%	27.0%
Emergency pills	6.8%	36.2%	15.0%
Contraceptive patches	3.1%	0.0%	9.0%
Vaginal rings	3.1%	0.0%	9.0%
Others	0.8%	0.0%	0.0%

The analysis of contraceptive use patterns (Table 3) reveals notable trends in both current and past utilisation among respondents. Injectable contraceptives turned out to be the most commonly used routine, with 27.9% of respondents currently using them, while 35.2% reported having used them at some point. The discontinuation rate for injectable was also relatively high at 30.0%, suggesting a substantial

turnover in use. Similarly, implants demonstrated significant engagement, with 22.7% of participants currently using them, and nearly half (47.9%) reporting prior use, though 21.0% had discontinued them. Oral contraceptive pills were reported as having been used by 29.9% of respondents, but only 9.4% were currently using them, indicating a high rate of discontinuation (23.0%). Female condoms followed a similar trend, with 43.5% ever using them, but only 10.9% currently doing so, and a discontinuation rate of 27.0%. Emergency contraceptive pills also showed a notable discrepancy, with 36.2% of respondents reporting prior use, while only 6.8% continued to use them regularly.

Contraceptive practice considered long-lasting, like intrauterine devices (IUDs) were used at much lower rates, with only 1.6% currently using them and 26.8% having used them at some point. The discontinuation rate for IUDs stood at 10.0%. Contraceptive patches and vaginal rings showed minimal usage, with 3.1% currently using each method and a discontinuation rate of 9.0% for both. In addition, the "Others" category exhibited low utilisation, with only 0.8% reporting current use and none reporting prior or discontinued use. Notably, bilateral tubal ligation (Sterilisation) was neither currently used nor previously adopted by any respondent, reflecting a lack of preference or accessibility for permanent contraceptive options within the study population. The overall trends suggest a higher reliance on short-term contraceptive methods, with significant turnover rates.

Research Question Two: What are the combined effects of social variables (parental, peer, and societal norms) on the usage of contraceptives by business women who are of reproductive age? Regression analysis was used to determine the joint contribution, as depicted in Table 4 below.

Table 4: Joint contribution of Social Predictors (peer influence, parental influence and social norms) on Contraceptive Use among Reproductive-Aged Business Women

R	R Square			Adjusted R Square	Std. Error of the Estimate	
0.114	0.013			0.005	89.43448	
A N O V A						
Model	SS	df	MS	F	p	Remark
Regression	39057.67	5	7811.533	0.977	>0.05	Not Sig.
Residual	2991449	374	7998.526			
Total	3030507	379				

Table 4 presents the combined significance of social

predictors (social norms, parental influence, and peer influence) on the usage of contemporary contraceptives by business women in Oyo state's Akinyele local government area who are of reproductive age. The table also shows a coefficient of multiple correlation $R = .114$, indicating a weak relationship between these predictors and contraceptive use. The R^2 value of .013 suggests that only 1.3% of the variance in contraceptive use is explained by the joint contribution of these social predictors. The adjusted R^2 (.005) confirms the minimal explanatory power of the predictors. The analysis of variance (ANOVA) results reveals that the overall regression model is not statistically significant, with $F(1, 378) = 0.977$, $p > 0.05$. This implies that the joint effect of the social predictors does not significantly contribute to explaining the variance in modern contraceptive use.

Research Question Three: What is the relative influence of social factors (Peer influence, parental influence and social norms) on contraceptive use among business women of reproductive age? The relative contribution was explained using regression analysis, as shown in Table 5 below.

Table 5: Relative contribution of Social Predictors (peer influence, parental influence and social norms) on Contraceptive Use among Business Women of Reproductive Age

Model	Unstandardised Coefficient		Standardised Coefficient	T	Sig. p
	B	Std. Error	Beta Contribution		
(Constant)	-24.461	38.388		-0.637	>0.05
Peer Influence	-0.604	1.256	-0.027	-0.48	>0.05
Parental Influence	-0.136	1.314	-0.007	-0.104	>0.05
Social Norms	1.33	1.406	0.06	0.946	>0.05

The proportional importance of social predictors (parental, peer, and societal norms) on the use of contemporary contraceptives by business women of reproductive age is shown in the data (Table 5). For every predictor, the regression analysis yields unstandardised coefficients, standardised beta values, and matching t values, as well as their significance levels: Peer influence ($\beta = -0.027$, $t = -0.480$, $p > 0.05$), Parental influence ($\beta = -0.007$, $t = -0.104$, $p > 0.05$), Social norms ($\beta = 0.060$, $t = 0.946$, $p > 0.05$). Consequently, among the respondents of reproductive age in this research, the use of contemporary contraceptives is not substantially predicted by social variables such as peer influence, parental influence, and societal norms.

5. Discussion of Findings

Consequently, among the business women of reproductive age in this research, the use of contemporary contraceptives is not substantially predicted by social variables such as peer influence, parental influence, and societal norms. Respondents between reproductive ages showed high rates of contraceptive adoption according to the study and their usage rates varied substantially depending on socio-demographic factors like age group and education level and marital and residential status. The educational achievements of the respondents, along with their younger age, influenced their preference toward contemporary contraceptive methods due to their better knowledge about reproductive health. Olugbade et al. (2020) found that women with at least a secondary education were more likely to use contemporary contraception than those with just a basic education or less. Alabi et al. (2019) also discovered that women with secondary or higher education demonstrated a 2.5 times greater probability to use modern contraceptives because educational attainment plays a crucial role in contraceptive promotion.

In addition, from the results, most people preferred injectables and implants as their contraceptive method, in contrast to intrauterine devices (IUDs) and oral contraceptive pills. The findings of Solanke et al. (2019) support long-acting reversible contraceptives (LARCs) such as implants as the most commonly used method among majority users are increasingly preferred due to their effectiveness and convenience. However, the low usage of IUDs and oral contraceptive pills suggests that there may be barriers to accessing these methods, such as lack of awareness, misconceptions, or limited availability in healthcare facilities. Addressing these barriers through targeted education campaigns and improved service delivery could help increase the uptake of birth control as it varies across a different range.

The findings suggest that the joint contribution of social predictors (peer influence, parental influence, and social norms) on the use of birth control among business women in Akinyele Local Government Area, Oyo State. Multiple correlation coefficient ($R=.114$) suggests a weak overall relationship between these social factors and contraceptive behavior. Furthermore, the coefficient of determination ($R^2 = .013$) indicates that only 1.3% of the variance in contraceptive use can be attributed to the combined effect of peer influence, parental influence, and social norms. This minimal explanatory power is further reinforced by the adjusted R^2 value of .005, which corrects for possible overestimation and confirms that these predictors do not substantially account for changes in contraceptive use among

the respondents surveyed. ANOVA results shows that joint social predictors lack significant statistical power based on the calculated F-value of 0.977 and its associated p-value threshold. The F-statistic yielded a value of 0.977 along with a p-value higher than 0.05, thus revealing the regression model has no significant power to demonstrate variations in contraceptive usage. This finding differs from the research conducted by Adekun and Ladipo (2021), who determined peer influence to be a main factor affecting contraceptive conduct among Nigerian youth. Ajayi and Adeniyi (2019) discovered that social norms play important roles in molding the preferences and contraceptive choices of young females. Other determinants that may play a greater role in contraceptive behaviour decisions within this particular demographic do not allow social components to have a measurable impact.

The regression analysis results indicates that the effect of social predictors (peer influence and parental influence, together with social norms) fails to produce significant results for contraceptive use among reproductive business women. The unstandardised coefficient shows the direction and magnitude of these relationships, but their associated t-values and p-values suggest that none of these factors make a meaningful contribution to predicting contraceptive behaviour within the study population. Peer influence, with a standardised coefficient ($\beta = -0.027$) and a t-value of -0.480, demonstrates a negligible and negative association with contraceptive use. This implies that while peer influence might be present in shaping reproductive health behaviours, its effect is not strong enough to significantly predict contraceptive uptake among respondents in this study.

Similarly, parental influence ($\beta = -0.007$, $t = 0.104$) exhibits an even weaker negative association, further suggesting that parental opinions or guidance do not play a decisive role in determining contraceptive use decisions. Social norms, with a slightly higher standardised coefficient ($\beta = 0.060$) and a t-value of 0.946, indicates a weak positive relationship; however, this effect remains statistically insignificant, as the p-value exceeds the 0.05 threshold. This finding differs from Agadjanian (2013), who demonstrated that religious and cultural norms significantly affect contraceptive adoption in Mozambique. Likewise, Daniels and Abma (2020) found that social networks and parental guidance strongly influenced birth control patterns among the younger women in the country. The divergence in results may be attributed to contextual differences, as social norms and peer influence could play a substantial role in societies where birth control is stigmatised or highly regulated by cultural expectations.

6. Conclusion and Recommendations

This study illuminates both the methods and the key

importance of utilising contraceptives among business women in Akinyele LGA, with particular emphasis on sociodemographic influences. The findings reveal a clear demographic pattern: younger women and those with higher educational attainment demonstrate significantly greater likelihood of adopting modern contraceptive methods. This correlation between education and contraceptive usage aligns with established literature on educational empowerment and informed reproductive health decision-making across diverse African contexts.

A distinctive pattern emerged regarding method preference, with a substantial inclination toward long-acting reversible contraceptives (LARCs), specifically implants (22.7%) and injectable contraceptives (27.9%). This preference reflects women's prioritisation of convenience, effectiveness, and discretion in contraceptive selection. The complete absence of bilateral tubal ligation usage suggests potential barriers to permanent contraceptive options, possibly stemming from cultural preferences for fertility preservation or limited provider capacity for surgical contraception.

Notably, contrary to prevailing theoretical frameworks and previous research, this study found no statistically significant association between traditional social influences (peer networks, parental guidance, and communal norms) and contraceptive utilisation patterns. This unexpected finding challenges conventional understanding of reproductive decision-making in similar contexts and suggests that in this population, structural and economic factors may supersede social influences. The significant associations with urban residence (OR = 10.389, $p < 0.01$) and higher income levels further supports this interpretation, indicating that accessibility, healthcare infrastructure, and economic empowerment may constitute the primary determinants of contraceptive behavior in this region.

These findings underscore the necessity for reproductive health interventions that transcend traditional socio-behavioral approaches to address fundamental structural barriers. Such interventions should prioritise economic empowerment strategies, enhanced service accessibility in rural areas, and educational initiatives that specifically target disadvantaged socioeconomic groups to effectively increase contraceptive prevalence in this population.

6.1 Strengths and Limitations

The strength of this research focuses on the broad demographics, which explains the interplay of education, age, and utilisation of contraceptives among business woman. The quantitative approach allowed for a systematic examination of these relationships, contributing empirical evidence to the discourse on reproductive health. However,

limitations exist. The reliance on self-reported data may have introduced response bias, potentially affecting the accuracy of contraceptive use reporting. Similarly, the study should be conducted within a specific local government, limiting its generalisability to other women in Oyo state. Future research should consider a mixed-methods approach to explore the underlying motivations and barriers influencing contraceptive choices beyond the factors assessed in this study.

6.2 Recommendations

1. To enhance contraceptive uptake and promote informed reproductive health decisions among women in Akinyele LGA, a comprehensive, evidence-based approach addressing the identified determinants is essential. Strategic interventions should prioritise socioeconomic factors, which emerged as significant predictors in this study.
2. Healthcare systems should implement targeted educational programs calibrated to different educational levels, with particular emphasis on reaching women with limited formal education. These programs should provide comprehensive information on the full spectrum of contraceptive options, addressing misconceptions about safety profiles while highlighting the benefits of underutilised methods such as IUDs and oral contraceptives alongside the popular injectable and implant options.
3. Healthcare providers require additional training in client-centered contraceptive counseling techniques that emphasise suitability based on individual circumstances, side effect management, and contraceptive effectiveness. Facilities should ensure consistent availability of a diverse contraceptive method mix to accommodate varied preferences and needs.
4. Given the substantial urban-rural disparity identified (OR = 10.389), policymakers should prioritise decentralisation of family planning services through mobile outreach initiatives and community-based distribution programs specifically targeting rural communities. These programs should incorporate economic empowerment components, as income level emerged as a significant determinant of contraceptive use.
5. While social factors did not demonstrate statistical significance in this study, contextually appropriate community engagement strategies may still prove valuable in creating enabling environments for contraceptive adoption. This approach should involve religious leaders, community influencers, and male partners in dialogue about reproductive health benefits at both individual and community levels.
6. Further research employing mixed-methods approaches should investigate the specific structural and economic

barriers impeding contraceptive access and utilisation, particularly examining healthcare infrastructure, provider biases, out-of-pocket costs, and transportation challenges affecting rural residents. Such evidence would facilitate the development of more precisely targeted interventions aligned with women's lived experiences and reproductive autonomy in this region.

Ethical Considerations

The Oyo State Board of Primary Healthcare accorded ethical clearance. Approval was granted (Reference No: PH/072/Vol.11/41), and informed consent was acquired from all participants. Confidentiality was preserved, and participation was voluntary. Two research assistants were employed to facilitate communication with respondents in both English and Yoruba languages.

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