Socio-economic and Demographic Determinants of Household Fertility Decisions

A Secondary Analysis of the 2018 Nigeria Demographic and Health Survey

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Abstract

This study investigates the socio-economic and demographic determinants of household fertility decisions in Nigeria. Using the family system model as a framework, a cross-sectional survey design in a retrospective study was adopted. Quantitative data were purposively obtained from the 2018 Nigeria Demographic and Health Survey (NDHS) household recode dataset. Data were analysed using descriptive, bivariate statistics and Logistic Regressions at P<0.05. The mean age at first birth of respondents was 18.8±4.0 years. The mean of children ever born (CEB) was 5.9±2.8. The CEB was highest in the North West region (36.7%), while the South East had the lowest (12.6%) sum of CEB in the six regions. The relationship between CEB and the age at first birth is statistically significant (χ^2= 8334.4, p=<0.001). Women with all children living are 2.0 times (OR=2.071, CI=1.987–2.158) more likely to increase their CEB than women who have experienced the loss of a child. Women who have no formal education are 5.8 times (OR=5.835, CI=5.504–6.186) more likely to increase their CEB than women with tertiary education. Women who used the folkloric method of contraceptives were 5.5 times more likely to increase their CEB than women using modern contraceptives. Based on the findings, it is recommended that fertility controls must be prioritized, specifically by encouraging girl child education across the nation.

Keywords: Age at first marriage, children ever born, contraception, family system, wealth index

1.   Introduction

Fertility is recognized as one of the three fundamental variables that influence the composition, size, and structure of each country's population (Upadhyay & Bhandari 2017). According to Akpa and Ikpotokin (2012), the mean number of children each woman would have, assuming every woman lived to the end of their reproductive years and gave birth following a specific fertility rate at each age, is not only a clear indication of the state of fertility but also a sign of the expected changes in the country's population. Although greater rates may make it more difficult for families to care for and educate their children in some circumstances, as well as for women to be part of the workforce, rates below two children show a population that is ageing and decreasing (Ibeji et al. 2020).

Studies have revealed that countries in sub–Saharan Africa (SSA) are undergoing a demographic change (Casterline 2017; Nibaruta *et al.* 2021). However, some states in SSA, such as Niger, Mali, and Chad, are still grappling with a change in fertility levels, and as a result, their fertility rates stay high (Bongaarts & Casterline 2013). Traditionally, most households in developing countries in Africa and Asia have favored high fertility. This is because children are regarded as a representation of both social and economic well–being in these regions. This is apparent from a common saying in Nepal: "may your progeny fill the hills and mountains". Hence, high fertility is sought because having offspring, usually sons, elevates a woman's standing within the family (Central Bureau of Statistics 2003).

Nigeria has the largest population in Africa. The nation is now ranked seventh among the ten nations with the highest population in the world (United Nations Population Division 2019). At the moment, Nigeria's population is estimated to be 229,152,217 million, but by the end of 2050, it is expected to be 377,459,883 million (Worldometers 2024). Nigeria's population will surpass 728 million by the year 2100 if current trends in fertility continue. Nigeria will surpass China and India to rank third in terms of population after those figures. The Total Fertility Rate (TFR) of Nigeria, at 5.3, remains higher than the SSA TFR average of 4.7 when compared to other African nations like Cote d'Ivoire (TFR of 4.6), Rwanda (TFR of 4.0), Ghana (TFR of 3.8),

and Kenya (TFR of 3.4). (Bongaarts 2020; United Nations Population Division 2019).

The Nigerian government's population policy goal of lowering the national population growth rate to 2% or lower by 2015 and reducing TFR by at least 0.6 children every five years by supporting child spacing through the use of family planning is still far from being met despite numerous interventions and population-related policies aimed at doing so (Ingiabuna & Uzobo 2016; National Population Commission 2004). This highlights the need for more embattled efforts to attain decreased fertility in the country for the attainment of economic development and sustainable development goals (Sachs 2012; Starbird et al. 2016).

In traditional Nigerian settings, it was difficult for women to decide whether to have their next child, the exact number of children, and when to quit having them, except for women who are highly educated career women (Caldwell & Caldwell 2002). Hence, in traditional societies, a woman's number of children was a reflection of her husband and his family's desired fertility. However, the standing of women is gradually shifting in modern society. Due to the impact of various socio-economic and demographic conditions, women's traditional household tasks are currently changing. In particular, more women are participating in income-generating activities, have higher educational status, and have significant decision-making power in the home, particularly when it comes to their reproductive health (Amaegberi & Uzobo 2021; Salami & Oladosu 2016).

These shifts in Nigerian women's roles are representative of trends across the African continent, as women are increasingly joining the labor market and engaging in income-generating activities. One country that has achieved notable progress towards gender equality is Rwanda, where women now control a sizable portion of legislative seats and are actively involved in the country's economy. Small and medium-sized businesses (SMEs) in Kenya are seeing a rise in the participation of women, which has greatly boosted the country's economy. Furthermore, there are strong initiatives in place in South Africa to assist women's reproductive health, including widespread

access to family planning and contraception (Burnet 2011; Kenyatta 2023; Kriel et al. 2023).

The problem of eliminating poverty and enhancing human well-being while guaranteeing the natural environment's sustainability is inextricably linked to fertility rates and trends (Odior & Alenoghena 2018). Target 3.7 of the Sustainable Development Goals states that by 2030, nations shall guarantee that everyone has access to family planning services, information, and education, as well as the inclusion of reproductive health in national policies and programs (United Nations Statistics Division 2021).

Studies have indicated that a household's wealth index is a key immediate factor that affects fertility behavior (Mberu & Reed, 2014; Olatoregun et al. 2014). The household wealth index is commonly used as a stand-in for other measures of economic well-being for people or their homes. Due to various undeclared sources of income and other incomplete or inaccurate information on expenses, determining an individual's or household's income may be challenging. While some previous studies have assessed the socio-economic determinants of fertility behavior in Nigeria, they have somewhat been narrowed in their scope. For instance, Obiyan et al. (2019) covered Nigerian maternal socio-economic status and fertility patterns. This study did not examine household socio-economic determinants of fertility decisions. It is on this note that this study has been designed to focus on identifying the socio-economic determinants of household fertility decisions in Nigeria.

2.   Theoretical Framework

The Family System Model of Fertility Intention, developed by authors such as Hollinger and Haller (1990), Skinner (1997), Reher (1998), and Therborn (2004), serves as the foundation for this study's theoretical framework. However, the idea was improved by Mönkediek & Bras (2017). In accordance with this theory, family systems and household characteristics function as background factors that affect people's attitudes towards having children, their subjective norms, and their behavioral control because family systems are vital components of the community in which humans

grow up and in which their fertility behavior occurs. Family systems influence the dynamics of households and how people interact with kin living within and outside of the co-residential unit by supplying norms and values that govern kin relationships (Rossi & Rossi 1990). These norms and values serve to govern responsibilities and social relationships among kin. Children's experiences within the family unit and their socialization are influenced by the types of interactions they have with their families and the types of households in which they are raised (Reher 1998). Strong family systems and close-knit family networks are regarded to positively affect children's attitudes regarding household and household-related values (Lorimer 1954).

Hence, people from places with strong family systems are likely to place a higher priority on having a household as a whole and children in particular. Therefore, people from families with strong family systems have more favorable attitudes towards fertility than people from families with weak family systems. In families with robust family structures, the family takes precedence over the individual (Reher 1998). Additionally, in these households, the family frequently serves as a source of social assistance and welfare, hence enhancing the social impact of the parents (Balbo 2012). As a result, parental control over their children's behavior is more successful (Granovetter 2005), yet Romero and Ruiz (2007) also found that this control is also more authoritarian. Therefore, in households with strong families as opposed to weak families, where individualism is more common, perceived social pressure and people's cultural expectations to engage or not to engage in particular actions, such as the number of fertility, are more relevant.

Additionally, this model states that households with strong families are more likely to meet the conditions for starting a family or having a second child than households with weak families (Newson 2009). For instance, being married and having established one's own household are viewed as important prerequisites for having children in many strong family countries, such as Spain, the Czech Republic, or Italy (Billari et al. 2002). However, young couples sometimes cannot afford independent living until they have achieved financial independence (Baizan 2001). The family system model also claims

that beginning a family is becoming more and more difficult due to rising economic uncertainty, high unemployment, and housing constraints (Ghodsee & Bernardi 2012).

As a result of perceived social pressure and (family system) normative ideas, reproduction may also be limited due to high opportunity costs and parents' desire for their children to at least preserve the family's social status (Livi-Bacci 2001). Therefore, it can be expected that strong family systems negatively affect people's subjective norms and consequently decrease the desire to have another child within the next three years, given that perceived social pressure and normative beliefs about appropriate conduct are more pertinent in strong-family households than in weak families.

Strong family systems can also be expected to negatively affect fertility intentions by increasing the imagined prerequisites for having children that affect people's perceptions of their ability to control their behavior. This is because they regulate levels of kin support and because different requirements exist for starting a family. In contrast, the generally liberal welfare state moderates these impacts in countries with weak family systems, like Sweden, by reducing the costs of fertility.

3. Materials and Methods

This study uses a cross-sectional retrospective quantitative research design with data gleaned from the current 2018 Nigeria Demographic and Health Survey (NDHS). The NDHS is a survey carried out by the National Population Commission in Nigeria with technical support from The DHS Program through ICF Macro to supply demographic and health data for planning, research, and policy-making. Women between the ages of 15 and 49 who regularly reside in particular families were sampled for the 2018 NDHS.

The graded sample for the 2018 NDHS was chosen in two stages. The 36 states and the Federal Capital Territory were divided into urban and rural areas to accomplish stratification. Using probability sampling techniques, samples were chosen individually in each stratum through a two-stage selection process. As a result, a total of about 42,000 households were included in the sample. All women

between the ages of 15 and 49 were given the 2018 NDHS women's questionnaire in a sample of 42,000 homes that were considered to be nationally representative (a full description of the methodology used in the 2018 NDHS can be found in the report released by the National Population Commission).

The Statistical Package for Social Science (SPSS v 21) was used to analyse the secondary dataset at the univariate, bivariate, and multivariate levels. Univariate statistics were used to analyse descriptive variables such as sociodemographic, socio-economic, and fertility differences in the nation. The Pearson chi-square and binary logistic regressions were used to determine the relationship between variables.

The dependent variable (DV) or outcome variable (OV) for this study is children ever born (CEB). This was originally in a continuous form but was re-categorized into low CEB (one to four children) and high CEB (five children and above). That is, women with between one and three children were recategorized as having low CEB, while those with more than four children were recategorized to high CEB. The demographic and socio-economic characteristics of reproductive women, such as age at first birth, infant mortality, region, occupational status, place of residence, educational attainment, wealth index, religion, and family structure, are the explanatory variables.

4.   Results

Respondents' Sociodemographic Characteristics

The sociodemographic characteristics of the participants indicate that women between the ages of 35 and 39 made up fewer than a quarter (21.0%) of the respondents. Also, the mean age at first birth of women within reproductive age in Nigeria was 18.8±4.07. This result shows that fertility begins at a very young age in the country. The mean number of CEB was 5.9±2.8, implying that the fertility rate in Nigeria remains very high. Also, the CEB result shows that nearly two-thirds (65.7%) of the respondents had a high fertility

rate (when TFR is 5.0 or higher), relative to those (34.3%) who had a low or ideal fertility rate.

Table 1: Respondents' Sociodemographic Characteristics

Variable	Frequency	Percentage (%)	Mean±SD
Maternal Age			
15–19	1461	1.1	
20–24	8543	6.7	
25–29	19007	14.9	
30–34	23618	18.5	
35–39	26740	21.0	
40–44	23696	18.6	
45–49	24480	19.2	
Age at First Birth	115049		18.8±4.0
15–19	69933	60.8	
20–24	32656	28.4	
25–29	9851	8.6	
30–34	2275	2.0	
35–39	302	0.3	
40–44	29	0.0	
45–49	3	0.0	
Children Ever Born (CEB)			5.9±2.8
Low	43712	34.3	
High	83833	65.7	
Residence			
Urban	44111	34.6	
Rural	83434	65.4	
Region			
North Central	21656	17.0	
North East	26293	20.6	
North West	39928	31.3	

Variable	Frequency	Percentage (%)	Mean±SD
South East	14072	11.0	
South South	12436	9.8	
South West	13160	10.3	
Religion			
Christianity	13239	39.0	
Islam	20412	60.2	
Traditionalist	273	0.8	
Mothers Educational Status			
No education	63699	49.9	
Primary	25311	19.8	
Secondary	30756	24.1	
Higher	7779	6.1	
Wealth Index Combined			
Poorest	31148	24.4	
Poorer	29448	23.1	
Middle	27120	21.3	
Richer	23210	18.2	
Richest	16619	13.0	
Maternal Occupation Status			
Unemployed	33052	25.9	
Employed	94493	74.1	
Family Setting	N= 8061		
Monogamy	5846	72.5	
Polygyny	2215	27.5	

Results from Table 1 show that the majority (65.4%) of the respondents resided in rural areas, while more than one-third (34.6%) of them were residents in urban areas. Geopolitically, the majority of the respondents (31.3%) were drawn from the North-western region relative to the South-south region with the least number (9.8%) of respondents.

The result further shows an even dichotomy between the educated and the uneducated. The result established that almost half (49.9%) of the population had no formal education, while the other half (50.0%) had formal education. The proportion of women of reproductive age with primary, secondary, and tertiary educational qualifications were 19.8%, 24.1%, and 6.1% respectively. A significant majority of the respondents practised Islam (60.2%), relative to Christians (39.0%) and traditionalists (0.8%). Nearly half (47.5%) of the respondents fell into the wealth indexes of the poorer and poorest categories, while only 31.2% fell into the richer or richest category. Most respondents (74.1%) were employed and one-quarter (25.9%) were unemployed. More than one-quarter (27.5%) of the respondents were in polygynous family settings compared to the majority (72.5%) that practice monogamy.

Bivariate Analysis

The bivariate analysis involves cross-tabulating selected sociodemographic, socio-economic, and cultural explanatory variables and the outcome variable (CEB) in the analysis. The crosstab result across regions of residence in Table 2 revealed the presence of a statistically significant association between the regions of residence and the CEB number (χ^2= 6433.5, p=<0.001). The CEB was highest in the North West region (36.7%), while the South East had the least (12.6%) sum of CEB in the six regions. The chi-square table shows that the relationship between CEB and the age at first birth is statistically significant (χ^2= 8334.4, p=<0.001). The result equally indicated that fertility generally declined as women advanced in age. However, fertility was significantly higher among women who had their first birth at 15–19 years, relative to those who first gave birth at 45–49 years old.

The result of the crosstab analysis of CEB and the mother's experience of childhood death established that a significant relationship exists between them (χ^2= 2002.7, p=<0.001). The result shows that mothers who have previously lost their child(ren) have higher (82.5%) fertility relative to those whose has not experienced child death (8.2%). On the other hand, there is a significant

association between CEB and respondents' place of residence (χ^2= 1303.9, p=<0.001). Fertility was higher among households residing in rural areas (68.9%) and lower (41.2%) among urban dwellers.

Table 2: Chi-square Analysis of the Sociodemographics and Socio-economic Variables and Fertility Decisions in Nigeria

	CEB		Chi-square χ^2	p-value
	Low	**High**		
Regions			8334.4	<0.001
North Central	8471 (19.4%)	13185 (15.7%)		
North East	7496 (17.1%)	18797 (22.4%)		
North West	9170 (21.0%)	30758 (36.7%)		
South East	5527 (12.6%)	8545 (10.2%)		
South South	5767 (13.2%)	6669 (8.0%)		
South West	7281 (16.7%)	5879 (7.0%)		
Total	**43712 (100%)**	83833 (100%)		
Age at First Birth			8334.4	<0.001
15–19	19074 (45.9%)	50859 (69.2%)		
20–24	14253 (34.3%)	18403 (25.0%)		
25–29	6115 (14.7%)	3736 (5.1%)		
30–34	1809 (4.4%)	466 (0.6%)		
35–39	270 (0.6%)	32 (0.0%)		
40–44	29 (0.1%)	0 (0.0%)		
45–49	3 (0.0%)	0 (0.0%)		
Total	41553 (100%)	73496 (100%)		
Experienced Child's Death			2002.7	<0.001
No	3590 (8.2%)	14630 (17.5%)		
Yes	40122 (91.8%)	69203 (82.5%)		
Total	43712 (100%)	83833 (100%)		

	CEB		Chi-square χ²	p-value
	Low	**High**		
Residence				
Rural	25683 (58.8%)	57751 (68.9%)	1303.9	<0.001
Urban	18029 (41.2%)	26082 (31.1%)		
Total	83434 (100%)	44111 (100%)		
Maternal Education				
No education	14785 (33.8%)	48914 (58.3%)	13002.7	<0.001
Primary	6983 (16.0%)	18328 (21.9%)		
Secondary	16927 (38.7%)	13829 (16.5%)		
Tertiary	5017 (11.5%)	2762 (3.3%)		
Total	43712 (100.0%)	83833 (100.0%)		
Paternal Education				
No education	35872 (27.5%)	35872 (46.1%)	6169.5	<0.001
Primary	4815 (12.2%)	12457 (16.0%)		
Secondary	15107 (33.7%)	15107 (19.4%)		
Tertiary	7866 (17.9%)	7863 (10.1%)		
Total	39406 (100.0%)	77744 (100.0%)		
Religion				
Christianity	4443 (36.4%)	8796 (40.5%)	66.4	<0.001
Islam	7676 (63.0%)	12736 (58.6%)		
Traditional	74 (0.6%)	199 (0.9%)		
Total	12193 (100.0%)	21731 (100.0%)		

	CEB		Chi-square χ^2	p-value
	Low	**High**		
Contraceptive Method				
No method	35765 (81.8%)	71590 (85.4%)		
Folkloric method	221 (0.5%)	489 (0.6%)		
Traditional method	1876 (4.3%)	2164 (2.6%)	401.8	<0.001
Modern method	5850 (13.48%)	9590 (11.4%)		
Total	43712 (100.0%)	83833 (100.0%)		

Furthermore, Table 2 revealed a statistically significant association between maternal (χ^2= 13002.7, p=<0.001) and paternal (χ^2= 6169.5, p=<0.001) educational status and fertility decisions. The uneducated category has the highest fertility preference. The influence of maternal secondary school education resulted in 38.7% reduced fertility and paternal secondary school education brought about a 33.7% reduction in fertility. Maternal and paternal education had a similar effect on fertility.

The result of the crosstab analysis of CEB and religion confirmed that a significant relationship exists between them (χ^2= 66.4, p=<0.001). The result shows that fertility was highest amongst people of the Islamic faith (58.6%) than Christians (40.5%) and traditionalists (0.9%) respectively.

Finally, the bivariate analysis in Table 2 demonstrated that there is a statistically significant association between CEB and methods of contraceptive use (χ^2= 66.4, p=<0.001). The table also shows that the CEB number was highest in households where there was no use of contraceptives (85.4%) compared to those that used modern methods of contraceptives (11.4%).

Multivariate analysis

Table 3 shows the results of the binary logistic regression model as relative odds. Each independent variable has a reference category with a value of 1, and the values for other categories are compared to the reference category's value.

Table 3 indicated that women who gave birth to their first child at age 15–19 years are 0.5 times (OR=0.518, CI=0.503–0.532) less likely to have increased CEB than women between the ages of 45–49 years. Similarly, women who gave birth to their first child at age 25–29 years are 0.1 times (OR=0.106, CI=0.096–0.118) less likely to have increased CEB than women between 45–49 years. Women who have not lost any child are 2.0 times (OR=2.071, CI=1.987–2.158) more likely to increase their CEB than women who have lost a child. Families residing in urban areas are 0.7 times (OR=0.798, CI=0.777–0.819) less likely to have increased CEB compared to rural areas.

Moreso, Table 3 shows that households in the lowest wealth quintile are 3.8 times more likely to have a higher CEB level than those in the highest wealth quintile (OR=3.828, CI=3.560–4.117).

Table 3: Binary Logistic Regression of CEB and Independent Sociodemographic and Economic Variables

Variables	B	Odd Ratio OR	p-value	95% CI for OR	
				Lower	Upper
Constant	0.944	2.570	<0.001***		
Age at first birth					
15–19	−0.659	0.518	<0.001***	0.503	0.532
20–24	−1.381	0.251	<0.001***	0.240	0.263
25–29	−2.242	0.106	<0.001***	0.096	0.118
30–34	−3.012	0.049	<0.001***	0.034	0.071
35–39	−22.108	0.000	0.998	.000	_
40–44	−22.000	0.000	0.999	.000	_
45–49	RC	RC	RC	RC	RC

Variables	B	Odd Ratio OR	p-value	95% CI for OR	
				Lower	Upper
Experienced child death					
No	0.728	2.071	0.000***	1.987	2.158
Yes	RC	RC	RC	RC	RC
Residence					
Urban	−0.226	0.798	0.000***	0.777	0.819
Rural	RC	RC	RC	RC	RC
Constant	−0.643	0.526	<0.001***		
Wealth Index					
Poorest	0.271	3.828	<0.001***	3.560	4.117
Poorer	0.214	2.617	<0.001***	2.470	2.774
Middle	0.272	2.012	<0.001***	1.914	2.115
Richer	0.305	1.613	<0.001***	1.540	1.690
Richest	RC	RC	RC	RC	RC
Occupation Status					
Unemployed	−0.460	0.632	<0.001***	0.614	0.650
Employed	RC	RC	RC	RC	RC
Educational Level					
No education	1.764	5.835	<0.001***	5.504	6.186
Primary	1.449	4.258	<0.001***	4.016	4.514
Secondary	0.314	1.368	<0.001***	1.297	1.444
Tertiary	RC	RC	RC	RC	RC
Constant	0.698	2.009	<0.001***		
Religion					
Christianity	−0.473	0.623	<0.001***	0.260	1.490
Islam	−0.292	0.747	<0.001***	0.312	1.784
Traditionalist	RC	RC	RC	RC	RC

Variables	B	Odd Ratio OR	p-value	95% CI for OR	
				Lower	Upper
Method of contraceptive					
No method	−0.202	0.817	<0.001***	0.729	0.915
Folkloric	1.706	5.508	<0.001***	2.344	12.943
Traditional	−0.850	0.427	<0.001***	0.321	0.569
Modern	RC	RC	RC	RC	RC
Type of union					
Monogamy	0.087	1.091	<0.001***	0.988	1.204
Polygyny	RC	RC	RC	RC	RC

Similarly, households in the middle wealth quintile are 2.0 times (OR=2.012, CI=1.914–2.115) more likely to increase their CEB than households in the richest wealth quintile. Unemployed women are 0.6 times (OR=0.632, CI=0.614–0.650) less likely to increase their CEB than women who are employed. Women who have no formal education are 5.8 times (OR=5.835, CI=5.504–6.186) more likely to increase their CEB than women with tertiary education.

Additionally, Muslim women are 0.7 times (OR=0.747, CI=0.312–1.784) less likely to have a higher CEB level than traditionalists, while Christian women were 0.6 times (OR=0.623, CI=0.260–1.490) less likely to have a higher CEB level than traditionalists. Women who do not utilize contraception in any way and those who used the traditional methods were respectively 0.8 times (OR=0.817, CI=0.729–0.915) and 0.4 times (OR=0.427 CI=0.321–0.569) less likely to increase their CEB than women using modern contraceptives. On the other hand, women using folkloric contraceptive methods are 5.5 times (OR=5.508, CI=2.344–12.943) more likely to increase their CEB than women using modern contraceptives. Women in monogamous unions were 1.0 times (OR=1.091, CI=0.988–1.204) more likely to increase their CEB than women who are in polygynous unions.

5.   Discussion

This study investigates the sociodemographic determinants of household fertility decisions using the 2018 NDHS. According to the study, there is a causal relationship between women's sociodemographic characteristics and reported CEB. The study found a reasonably higher fertility rate among women who had their first child at an early age than women who were advanced in age before having their first birth.

Furthermore, inequalities in women's fertility throughout the nation's geopolitical zones are highlighted in this study. Women in the South were more likely than those in the North to report reduced fertility. This position had also earlier been affirmed by other studies in Nigeria that have noted that the lack of use of maternal health services has caused the northern region to have high fertility rates (Adebowale 2019; Solanke 2015; Uzobo & Ayinmoro 2021). This was ascribed to several variables, such as early marriage, low levels of education, and low levels of autonomy for women (Ayo et al. 2016; Soetan & Obiyan 2019).

Additionally, findings from this study indicated that socio-economic variables were linked to fertility rates. This outcome is consistent with prior studies' findings which indicated that a rise in socio-economic status is essential to reducing fertility (Uzobo & Moroyei 2022; Williams et al. 2013). Similarly, the pattern observed was comparable to the modified model in that CEB was produced when a socio-economic indicator changed from being low to being high. Hence, as was discovered in this study, past research has demonstrated that socio-economic factors play a role in fertility behavior (Adhikari 2010; Okezie et al. 2010).

The level of education a woman has is directly related to her fertility. According to earlier research (Askew et al. 2017; Ndahindwa et al. 2014), educated mothers are more likely than illiterate mothers to have fewer and more evenly spaced deliveries, which suggests improved infant and child survival. A substantial correlation between job status and reported CEB was also discovered in this study and is supported by current data, since women who work typically have lower fertility than those who do not (Mishra & Smyth 2010).

When making choices that have an impact on their reproductive outcomes, including using contemporary contraception, working women are more likely to act independently, delaying the first marriage age and the first birth age, because raising children cuts into working time and interferes with private goals (Mishra & Smyth 2010; Patidar 2018). Another study found a direct relationship between fertility behaviour and variables like age at marriage, age at first conception, educational attainment, and employment position. As opposed to this, indirect determinants include household affluence, place of residence, husband's degree and career, religion, ethnicity, and place of birth (Adhikari 2010; Okezie et al. 2010). According to this study's findings, women who are wealthy report having fewer children than women who are poor. This outcome is in line with other research that discovered that women with high Socio-Economic Status (SES) frequently have higher levels of education which eventually correlates with having fewer children (Askew et al. 2017). This was further buttressed by other studies that revealed that to embrace family planning methods and decrease unintended births, women with high SES will probably have a greater ability to negotiate at home and higher participation in the workforce (Adebowale et al. 2016; Adhikari 2010; Porter & King 2012).

The significance of comprehending the profoundly ingrained social structures and familial interactions that impact reproductive decisions is emphasized by the Family System Model of Reproductive Intention. for every one of the important CEB predictors. The Family System Model of Fertility Intention offers a thorough framework for comprehending how background variables related to family and household dynamics affect people's intents and behaviors related to fertility. By highlighting the influence of family systems on these variables, this model helps put into context the conclusion that some determinants, such as mother age, childhood death, residency, education, religion, and contraceptive methods, have a significant impact on CEB.

6.   Conclusion and Recommendations

This study has added to the current discussion about fertility in Nigeria and the factors that influence it. The study further reiterated that sociodemographic determinants of fertility decisions remain a strong predictor of fertility. Particularly age at first birth is influenced by women's age at entry into the union.

Numerous issues are presented to women, households, and the nation by high fertility. Therefore, it becomes crucial to support laws that improve the financial standing of households. Although there have been continuous discussions about reducing fertility in many African countries, including Nigeria, this study suggests a multidimensional and local way to do so. The study, therefore, recommends the following; firstly, the government and other stakeholders must educate people in the respective regions about the inherent disadvantages of high fertility.

Secondly, this study urges the enforcement of laws to end the country's practice of young marriage. As the laws regarding child marriage are hardly enforced, especially in the Northern region and other African countries like Zimbabwe, Malawi, and Niger. Thirdly, the nation should prioritize covert measures like promoting girls' education across the country, as an empowered female is less likely to have high fertility. Finally, the government and policymakers must ensure increased availability and accessibility of modern contraceptive methods as an effective means of managing fertility increase.

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