Family structure and fertility behaviour among undergraduates of the distant learning institute in Lagos State, Nigeria.

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Abstract

Context/Background: Given the current socio-economic conditions of the Nigerian nation-state, it is logical to say that the resources needed to cater for its ever-growing population are limited and the trend has moved the nation to adopt an anti-natalist policy. However, there is a paucity of empirical studies on the influence of family structure, as an intergenerational factor, on fertility behavior in South-Western Nigeria and thus, this study investigates the association between family structure and fertility behaviour in Lagos.

Data Sources and Methods: A cross-sectional survey was conducted among 185 married undergraduates of the Distance Learning Institute at the University of Lagos, Lagos State, Nigeria. Multi-stage and simple random sampling was employed in selecting the respondents.

Findings: The study revealed that the size of an individual's family of orientation (O.R. = 1.22) and income (O.R. = 1.40) are predictors of the individual's fertility and fertility preference.

Conclusion: Attention should be given to the socio-economic factors that shape fertility behaviour and the immediate and unmet need for contraception among couples.

Keywords: Fertility behaviour, Fertility, Fertility preference, Family structure.

Introduction

In controlling population growth, Oyefara (2005) asserts that the only available parameters for the natural manipulation of the three components of population change (i.e. birth, death, and migration) in the formation of population policy are birth rate and death rate, most especially in developing countries. Since it is unethical for a government to increase death rate to control the population, the only ethical option available is the control of birth rate or fertility rate. Fertility is one means of natural human population growth. Governments around the world use fertility along with the dynamics of migration as the key factor in population control with due consideration for the consequences for national planning and effective national resource distribution. Great philosophers in ancient times like Aristotle, Plato, Confucius, Machiavelli, John Stuart Mill as well as contemporary scholars alike hold the opinion that the population-resource balance is a condition for any government to achieve improved quality of life and sustainable development among its citizens (Kunnuji, 2010; Neurath, 1994; Oyefara, 2005; Oyekanmi, 2001; Robinson, 1969). For Olusanya (2005), a rounded view development is thus one that does not overlook the population – resources balance while viewing the provision of an enhanced standard of living for the masses as essential (Olusanya cited in Oyefara, 2005:361).

In Nigeria, the importance of investigating the fertility rate is informed by Nigeria's large population and its implications for development. This leads to the importance of investigating factors that influence fertility rate as these are the factors that the government can ethically control (Oyefara, 2005). Nigeria has an anti-natalist policy. In `The National Policy on Population for Development, Unity, Progress and Self-Reliance' designed in April 1988 under President Ibrahim Babangida, one of the targets of the policy was to reduce the proportion of women bearing more than four children by 50% by 1995 and by 80% by the year 2000 (Omohan & Maliki, 2007). Also, one of the goals of the National Policy on Population for Sustainable Development of 2006 is to reduce the birth rate in the country and to achieve a child reduction rate of at least 0.6 children every five years in the total fertility rate to encourage child spacing and family planning (National Population Commission, 2006).

Nigeria is currently ranked as the most populous black nation in the world and the seventh largest country in terms of population size (Population Reference Bureau, 2015). According to the Population Reference Bureau (2015), Nigeria has an estimated population of 182 million and a population growth rate of 3.1% with an average number of 5.5 children born to a woman, i.e. Total Fertility Rate

(Nigerian Demographic and Health Survey (N.D.H.S), 2013; N.P.C. 2008; PRB, 2015). The country also stands the risk of doubling its population in less than 29 years (Kunnuji, 2010; PRB, 2015). In other words, as of 2010 the country had an estimated population of 152 million, by 2030, it would be 261.7 million, and by 2050 it would be 398 million while the land area of the country remains fixed (Kunnuji, 2010; PRB, 2016).

On one hand, the country has several pressing developmental issues. According to the United Nations Development Programme (UNDP), life expectancy rate in Nigeria is 53.5 years in 2015 (compared to 60 years in West Africa and 73 in North Africa), the population of the country living below poverty level, i.e. $1.25 dollar per day, is 64.4% (and 79.2% for people earning below two dollar per day), an Gini inequality value of 0.276 and a Gross National Income (G.N.I) per capita of $2156 (U.N.D.P, 2010, 2013 & 2014; The World Bank, 2017). 56% of the population has access to electricity (PRB, 2016). Also, Nigeria had a Human Development Index (H.D.I.) value of 0.511 in 2009 which placed it in the medium human development category and it was ranked 158th among 182 countries of the world. However, in 2010 its H.D.I value was reduced to 0.423 in 2010 which places the country in the low development category ranked 142nd among 169 countries of the world (U.N.D.P, 2009 & 2010). The country witnessed a slight increase in its H.D.I. the value in 2013 at 0.504 even though it remained in the low human development category ranking 152nd among 187 countries (U.N.D.P., 2013). Thus, the data implies that a high proportion of Nigerian are living in poverty and the environmental and socio-economic conditions necessary to bring the masses out of their suffering are substantially limited.

Logically, the weak state of Nigeria's economic and infrastructure base underscores the need to control the population. In addition, the age structure of the Nigerian population shows that 46% of the Nigerian population is within the dependency age, i.e. people in the ages below 15 years and above 65 years which means that there are more than 85 persons in the dependent ages for every 100 persons in the working ages (Kunnuji, 2010). The country also has an aggregate unemployment rate of 14.2%, a youth unemployment rate of 34.2%, an inflation rate of 18.72% (as of January 2017) and a Human Development Index of 0.514 (UNDP, 2015; Olawoyin, 2017; Trading Economics, 2017). With an estimated population of 182 million (PRB, 2015), the socio-economic indicators have shown that Nigeria may not have the adequate resources and infrastructural base to cater to its growing population.

Considering this fact, this study undertook an investigation to elicit information on the role of the family, which is the basic institution of the society, and its influence on people's fertility behaviour. Furthermore, family structures have an influence on the attitude and decisions of individuals (Anderson, 2014; Ryan, Claessens & Markowitz, 2014) and such influence can also inform one's fertility behaviour. There has been a paucity of studies that have examined the influence of family structure and fertility behaviour, especially in Nigeria. This study seeks to address this gap in knowledge on fertility by investigating how family structure shapes one's fertility behaviour in Nigeria. The fertility behaviour in this context would concern one's predisposition towards having more or fewer children based on one's fertility preference, actual fertility rate, and use of contraceptives (Solanke, 2015). For this study, fertility behaviour will focus on actual fertility and the desired number of children.

Fertility behaviour in Nigeria

In his work, `The Fertility-Inhibiting Effects of the Intermediate Fertility Variables', Bongaarts (1982) narrowed down the original list of intermediate variables to the most important group of four proximate determinants. The outlining of these four variables does not imply that the other intermediate variables are irrelevant to our understanding of fertility among humans; it only stresses the fact that they are relatively less important than these four variables (Weeks, 2008). Also, emphasis on fertility was placed on the female because if she does not engage in intercourse, she will never have a child as a man cannot give birth even if he wants to. Although other means of childbirth, like surrogate motherhood, artificial insemination, in-vitro fertilization etc. are possible and available in Nigeria, they are relatively expensive. Thus, the four proximate determinants are:

1. The age of entry into sexual unions i.e. occurrence of sexual intercourse
2. The use of contraceptives.
3. The incidence of abortion
4. Involuntary infecundity e.g. postpartum infecundity affected by breastfeeding (Weeks, 2008).

This context provides an insight into factors that permit or restrict fertility. This also shows how one's fertility behaviour is shaped. However, the interest of this study centers on what makes one predisposed towards having or not having children. Thus, the researcher is concerned with engaging in sexual intercourse, fertility preference and the use of

contraceptives. In Nigeria, various studies have been undertaken to understand the dynamics of fertility and fertility preference. Several factors like age of first marriage, age of first intercourse, employment status, wealth index, rural residence, educational attainment, and religion have been found to shape fertility (Osili & Long, 2004; Alo, 2011; Matthew & Ikpotokin, 2012; Akintunde, Lawal, Simeon, 2013; Adebiyi & Onifade, 2014; Solanke, 2015; Etukudo & Effiong, 2016). For fertility preference, several factors such as educational attainment, ethnicity, type of marriage of the respondent, urban residency, and age have been found to influence fertility preference (McCarthy & Oni, 1987; Nwakeze, 2006; Izugbara, Ezeh, Ibisomi and Mberu, 2009; Ibisomi, 2011; Umoh, Abah, Ekanem, 2012).

However, there has been little or no study that has observed fertility behaviour as a concept that goes further than actual fertility. Also, there has been a paucity of studies examining the association between family structure and fertility behaviour in Nigeria, given the enormous influence of one's socialization with the family of orientation. This study seeks to the fill this gap. This study seeks to open a debate about going further than actual fertility in the subject of fertility behaviour. Also, very few studies have examined the fertility behaviour within the South-Western part of Nigeria, especially in Lagos State. Lagos state represents the melting pot of Nigeria and has one of the most educated populace in Nigeria (NPC and ICF International, 2014). This study seeks to understand the relationship between family structure and fertility behaviour. The study examined the predictive role family structure (from the family of orientation) plays in shaping fertility behaviour of individuals in the society. The study also sought to understand the role that family type, (polygamous or monogamous), and family size plays in the respondent's actual fertility and fertility preference. Using this population, the researcher would be able to understand the subject matter from those who would be in the relatively more convenient position to provide information based on their fertility behaviour. This study will examine the following questions:

- What is the nature of fertility behaviour among DLI undergraduates in Lagos State?
- What is the impact of family size on the fertility behaviour of DLI students in Lagos state?
- What is the role of family type in the fertility behaviour of DLI students in Lagos state?

Methods

Respondents were drawn from the Distant Learning Institute (DLI) at the University of Lagos (UNILAG), Akoka-Yaba. The DLI of the University of Lagos was established in 1975 with its first batch of 501 students admitted in the 1975-1976 session. Currently, the Institute has a student population of about 6,500 students. The sample for this study consisted of 185 respondents who were randomly selected for the study. The choice of 185 respondents for this study enabled the researcher to reach every department, although not all levels, for the study of a similar number of respondents, were interviewed across all the departments. The response rate for the study was 75%. The sample was restricted to only married undergraduates at the DLI as respondents were selected from all five levels of the institute in six Departments.

Sampling and data collection

This study adopted a multi-stage technique which broke the study population into stages. This method was adopted because of the difficulty in obtaining a sampling frame for the entire study population. This method helps us to categorize the study population down to a stage where the sample frame (i.e. class list) will be available and easily accessible i.e. the list of various levels within the departments. Also, while dividing the study population into stages, two other sampling methods were used to choose other relevant levels i.e. faculties, departments, respondents respectively in the different levels. About 30 respondents were selected in each department i.e. at least 10 respondents were chosen in three levels of the department. The selection is explained in the later sections of this paper. The stages through which the population was categorized are:

Stage 1: Divide the Distant Learning Institute into faculties i.e. Faculty of Business Administration and Faculty of Education.

Stage 2: Divide faculties into departments. All the six departments were involved in the study.

Stage 3: Divide departments into levels. The levels chosen for the study were selected through the simple random sampling method.

Stage 4: Divide the respondents in the levels into sexes.

The stratified random sampling method was used to divide the population into strata that were considered important for inclusion in the study. The study was stratified into males and females to make the study gender balanced. Disproportionate stratified random sampling was used in choosing the respondents to gather data from a similar number of male and female respondents. The simple random method, i.e. the lottery method, was used in making selections from the various stages of the multi-stage sampling process. This method was used to pick the

departments under the faculty level, the levels under the departmental level and the respondents within the levels. The purposive sampling method was used in selecting respondents in their various levels as the research was directed specifically towards married individuals in each level.

Table 3.1: A table showing the choosing of respondents at the DLI, UNILAG, Akoka-Yaba

Faculty	Departments	Levels (respondents)			Total
Faculty of Business Administration	Bus Admin	200 (11)	400 (10)	500 (10)	31
	Accounting	100 (11)	300 (10)	500 (10)	31
Faculty of Education	Mathematics	100 (10)	200 (10)	400 (10)	30
	Physics	300 (10)	400 (10)	500 (11)	31
	Chemistry	200 (10)	300 (11)	400 (10)	31
	Biology	200 (11)	300 (10)	400 (10)	31

N = 185

The data collection instrument for the study was a structured questionnaire which was pretested for validity and reliability. A pilot study was conducted a month before data collection to ascertain the average amount of minutes it would take to complete one questionnaire, the suitability of the questions in addressing the questions and the correction of ambiguous concepts. The use of the quantitative method was deemed appropriate as it involved the collection of large quantitative and numerical data needed in addressing the research questions for the study. This includes the collection of numerical data such as fertility, fertility preference and family size. The questionnaire contained three sections namely: socio-demographic characteristics; family background; and fertility behaviour. The questionnaires were administered to the respondents in face-to-face interviews by trained field assistants and each interview lasted 15 minutes. The language used in administering the questionnaires was English in view of them being students in a tertiary institution.

Measures

Two indicators of fertility behaviour were employed for this study. These indicators are the respondent's actual fertility and fertility preference. The indicators were measured respectively based on the number of children respondents currently have (i.e. fertility), and how many more children the respondents would like to have (i.e. fertility preference). Data on fertility, fertility preference, and frequency of sexual intercourse were all gathered at the interval-ratio level. For fertility preference, the respondents were asked how many more children they would like to have and that number was added to the current number of children they had. For this study, family structure was captured in terms of family size (i.e. the number of children in the respondent's family of orientation), and family type (i.e. if the respondent was from a polygamous or monogamous family). For the frequency of sexual intercourse, respondents were asked the average number of times they had sex in a week within the last 12 months. The study also controlled for respondents' socio-economic factors, such as religion, income, employment status, and ethnicity. The socio-economic variables of this study were coded as: income (0 – 39,999 = 0, 40,000 – 79,999 = 1, 80,000 and above = 2), ethnicity (Yoruba = 0, Igbo = 1, Hausa/Others = 2), religion (Islam = 0, Christianity = 1), and employment status (Unemployed = 0, Employed = 1).

Analysis

Descriptive and percentage analyses were used to describe the respondents' background, family structure, and fertility behaviour. Bivariate linear regression analysis was employed to show which independent variables (i.e. family structure and socio-economic variables) were associated with the dependent variable (i.e. fertility behaviour). For the multivariate analysis, variables found to have a bivariate association with fertility behaviour were used to attain a parsimonious final model. The multivariate linear regression was adopted in analyzing the association between family size, socio-economic variables, and fertility behaviour. Linear regression was more suitable for the nature of dependent variable for the analysis, which was collected at the interval-ratio level. Also, linear regression computations enabled the calculation of the beta values with which one can ascertain the variable that had more impact on fertility behaviour, compared to other variables. Three models were generated for the multivariate analysis. Model one shows the analysis of family size, income, and fertility. Model two reveals the association between family structure and fertility preference, while model three shows the association between family structure, religion, ethnicity, and fertility preference. The beta values were generated for the multivariate regression

models to ascertain the variables that had a relatively more predictive value. For all the tests, the acceptable confidence interval is 95%. Thus, the tests were considered significant only in cases where the p-value is less than 0.05. STATA version 13 was used for the data analysis.

Ethical Considerations

The study adhered to the ethical rules of anonymity, no harm to the respondent, confidentiality, and informed consent. The ethical clearance for the study was given by the office of the Department of Sociology, University of Lagos. In line with ethical considerations, the face-to-face interviews were conducted outside the hearing distance of third parties given the sensitivity of the subject matter. Respondents were informed about the sensitive nature of the topic and interviewers had to gain the willing consent of the respondents before any interview took place. Most of the respondents were willing to participate in the study as they were informed that the findings of the study would be used only for academic purposes. Respondents were explicitly informed that they could withdraw from the interviews should any of the questions make them inconvenient. No part of the data collection involved the identifying details of the respondents, such as name, address, or telephone number. The report of the study excluded the identities or means of personal identification of the respondents.

Results

Univariate analysis

Table 4.1.1: Frequency distribution of socio-economic characteristics of the participants

Gender	**N**	**Percent**
Male	90	48.65
Female	95	51.35
Ethnicity		
Yoruba	105	57.07
Igbo	51	27.72
Hausa/Others	28	15.22
Religion		
Islam	43	23.37
Christianity	141	76.63
Employment status		
Unemployed	22	11.89
Employed	163	88.11
Income		
0 – N39,999	66	40.49
40,000 – 79,999	71	43.56
80,000 and above	26	15.95
Mean Age = 33.87 **Age Range** = 24 – 60 years		

Table 4.1.1 describes the socio-economic status of the respondent. The table shows that 90 (48.6%) of the respondents were males while 95 (51.4%) of the respondents were females. The average age of the respondents was 33.9 years. In terms of ethnicity, the respondents are mostly from the Yoruba ethnic group who made up 57% of the total sample population. Also, about 28% of the respondents were Igbo, while 15% of the respondents were from other ethnic groups like Hausa, Ebira, Itsekiri, and Efik. For religious affiliation, about 23.4% of the respondents were Muslims while 76.6% of the respondents were Christians. For employment status, 88.1% of the respondents were employed while the unemployed comprised 11.9% of the respondents. Furthermore, 40.5% of the respondents earned less than N40,000, 43.5% of the respondents earned between N40,000 to N79,999, while 16% of the respondents earned more than N80,000.

Table 4.1.2: Frequency distribution of family structure of the participants

Family background	N	Percent
Monogamous	123	67.58
Polygamous	59	32.42
Family size		
1 – 4 children	52	28.57
5 – 8 children	89	48.90
Above 8 children	41	22.53

Table 4.1.2 shows the family structure of the respondents. The table revealed that 67.6% of the respondents were from monogamous families and 32.4% of the respondents were from polygamous families. In terms of family size, about 28.6% of the respondents were from families with one to four children, 48.9% of the respondents were from families with five to eight children, while 22.5% of the respondents were from families with more than eight children.

Table 4.1.2: Frequency distribution of fertility behaviour of respondents

Fertility	N	Percent
No child	29	15.7
One child	36	19.5
Two children	58	31.4
Three children	36	19.5
Four children	21	11.4
Over four children	5	2.6
Mean fertility = 2.01		
Fertility preference		
1 – 4 children	63	34.1
5 – 8 children	105	56.8
Above 8 children	11	5.9
Mean fertility preference = **5.61**		
Correlation between fertility and fertility preference = 0.84		
Frequency of sexual intercourse		
0 – 2 times a week	63	34.1
3 – 5 times a week	78	42.2
6 – 8 times a week	14	7.6
Above 9 times a week	4	2.2
Mean frequency of sexual intercourse = 3.19		
Contraceptive use		
No	120	68.97
Yes	54	31.03

The above table shows the distribution of fertility behaviour among respondents. The study investigated fertility behaviour in terms of two indicators: actual fertility and fertility preference. In terms of fertility, 15.7% of the respondents were reported to have no children, 19.5% of the respondents had one child, 31.4% of the respondents had two children, 19.5% of the respondents had three children while 11.4% of the respondents had four children. The average number of children among the sample population was 2.01 children. Given the mean age of 33.9, there is a possibility for respondents to have more children in the future which leads to the question of fertility preference. Respondents were asked how many more children they would like to have. This figure was added to their actual fertility to obtain the fertility preference for each respondent. Thus, 34.1% of the respondents would prefer two to four children, 56.8% of the respondents prefer five to

eight children while 5.9% of the respondents said they would prefer more than eight children. The average number of children preferred among the respondents was 5.61. This study examined the fertility preference of both male and female respondents. The correlation score between fertility preference and fertility is 0.84. Thus, implies that there is a positive correlation between fertility preference and fertility as an increase in fertility preference is positively related to an increase in fertility.

In terms of frequency of sexual intercourse in a week (with their spouse), 34.1% of the respondents had sex up to two times in a week, 42.2% of the respondents had sex between three and five times in a week, 7.6% of the respondents had sex between six and eight times in a week while 2.2% of the respondents had sex for more than nine times and 14.1% of the respondents did not respond to the question. The average number of engagement in sexual intercourse was 3.12 times. For use of contraceptives in a week, 29.2% of the respondents use contraceptives, and 64.9% of the respondents did not use contraceptives.

Bivariate Analysis

Table 4.2 shows the bivariate linear regression analysis of socio-economic variables, family structure, and fertility behaviour (i.e. fertility and fertility preference). Income, ethnicity, and family type were not associated with fertility. Also, employment status and ethnicity were not associated with fertility preference.

Table 4.2: Bivariate Linear Regression Analysis of the Socio-economic variables, Family structure, and Fertility Behaviour

Variables	Coeff[s] Fertility	Coeff[s] Fertility Preference
<u>Socio-demographic variables</u>		
Employment status		
Unemployed (RC)		
Employed	0.012[0.310]	-0.031[0.474]
Income		
Below N40,000 (RC)		
N40,000 – N79,999	0.229[0.235]	-0.024[0.363]
N80,000 and above	1.065[0.318]**	1.244[0.485]*
Ethnicity		
Yoruba (RC)		
Igbo	0.001[0.232]	0.176[0.359]
Hausa/Others	-1.126[0.290]	0.231[0.452]
Religion		
Muslim (RC)		
Christianity	-0.607[0.232]*	-0.997[0.360]**
<u>Family Structure</u>		
Family type		
Monogamous (RC)		
Polygamous	0.386[0.212]	0.928[0.328]**
Family size		
0 – 4 children (RC)		
5 – 8 children	0.346[0.235]	0.724[0.358]*
Above 8 children	0.810[0.281]**	1.483[0.427]**

* p<0.05, ** p<0.01, *** p<0.001 CI = Confidence Interval
Coeff – coefficient s – standard deviation

Income was positively associated with fertility as respondents who earned more than N80,000 were more likely to have more children than respondents who earned less. Religious affiliation was associated with fertility as Christians were less likely to have more children then Muslims. Family size (from a family of orientation) was associated with fertility as respondents who came from families with more than eight children were more likely to have more children than respondents born into families with fewer than eight children.

Income, religion, family type, and family size were associated with fertility preference. Respondents who earned N80,000 and above were more likely to desire more children than respondents who earned less. Christian respondents were less likely to desire more children than Muslim respondents. Respondents from polygamous families were more likely to desire more children than respondents from monogamous families while respondents who were born into families with five to eight children and more than eight children were more likely to desire more children than respondents who were born into families with fewer than five children.

Multivariate Analysis

Table 4.3 shows the multivariate analysis between family structure, socio-economic variables, and fertility behaviour. After analyzing the various independent variables and fertility behaviour, the variables that were associated with fertility behaviour at the bivariate level were used to develop three final multivariate linear regression models. The first model tested the family size, income, religion and fertility, the second model tested family structure and fertility preference, while the third model tested family structure, income, religion, and fertility preference.

Table 4.3: Multivariate linear regression of family structure, socio-economic variables, and fertility behaviour

Variables	Model 1 b [s] (β)	Model 2 b [s] (β)	Model 3 b [s] (β)
Family Structure			
Family type			
Monogamous (RC)			
Polygamous		0.48[0.40](0.11)	0.09[0.43](0.02)
Family size			
0 – 4 children (RC)			
5 – 8 children	0.40[0.26](0.14)	0.59[0.39](0.14)	0.75[0.42](0.18)
Above 8 children	0.68[0.30](0.21)*	1.11[0.52](0.22)*	1.22[0.55](0.25)*
Socio-demographic variables			
Employment status			
Unemployed (RC)			
Employed			
Income			
Below N40,000 (RC)			
N40,000 – N79,999	0.24[0.24](0.08)		-0.02[0.36](-0.01)
N80,000 and above	1.05[0.32](0.27)**		1.40[0.50](0.24)**
Ethnicity			
Yoruba (RC)			
Igbo			
Hausa/Others			
Religion			
Muslim (RC)			
Christianity	-0.51[0.26](-0.15)		-0.70[0.40](-0.14)
Wald chi2 (5)	4.57	4.39	4.17
Prob > chi2	0.0007	0.0053	0.0007
R-sq/Adj. R-sq	0.1014	0.0558	0.1132
Obs	159	173	150

* p<0.05, ** p<0.01, *** p<0.001
* Robust standard errors are in parentheses

Model 1 is statistically significant ($p < 0.001$), and it explains 10.1% of the variations in fertility. For this model, family size and income were associated with fertility. Respondents born in families of more than eight children were more likely to have more children than respondents born in families with less than eight children. Respondents who earned more than N80,000 were more likely to have more children than respondents who earned less than N80,000. Using the beta value, income is the most significant factor in predicting fertility.

Model 2 is statistically significant ($p < 0.001$), and it explains 5.6% of the variations in fertility preference. For this model, family size was associated with fertility preference. Respondents born in a family of more than eight children were more likely to have more children than respondents born in families with fewer than eight children.

Model 3 is statistically significant ($p < 0.001$), and it explains 11.3% of the variations in fertility preference. Family size and income were associated with fertility preference. Respondents born in a family of more than eight children were more likely to desire more children than respondents born in families with fewer than eight children. Respondents who earned more than N80,000 were more likely to desire more children than respondents who earned less than N80,000. Using the beta value, family size is the most significant factor in predicting fertility.

Discussion

Most of the respondents desired to have about 5 children while their actual fertility rate is 2 children. This trend aligns with the relatively high level of sexual intercourse and the low use of contraceptives among the respondents. This agrees with the information given by the Nigerian Demographic Health Survey (2013) which puts contraceptive use in Nigeria at 15% and the fertility rate at 5.5. The survey also revealed that 12% of married men and 18% of married women want no more children. This phenomenon probably points to the unmet need for contraceptives, i.e. individuals who want to stop or delay childbirth but are not using any method of contraception. The high positive association between fertility preference and fertility aligns with the findings of other studies (e.g. Dodoo, 1998; Mason & Smith, 2000; Maharaj & Cleland, 2005). This study sought to account for the fertility preference for not only the women but also the husbands. Studies have also pointed to the influence of husband's fertility preference have on their wife's fertility (Bankole, 1995; Gipson & Hindin, 2009). In some families, the number of children given birth to is a product of a negotiation process between women and their spouse. Studies by Angin and shorter (1998) have shown that women and their husbands negotiate birth control decisions and the decision to have more children.

The models shown in the results demonstrate the dynamics of family structure and fertility behaviour among the respondents. The type of family (of orientation) does not influence the fertility behaviour of individuals because it is possible for a monogamous family to be larger in size than a polygamous family. One can come from a monogamous family of ten children while another person can be a member of a polygamous family with three children. This observation was also made by Ojelade (1982) who found out that the number of children born was higher for wives in monogamous families than wives in polygamous families. The study has also shown that respondents who are from larger families desire larger numbers of children. This is similar to the assumption that people seek to model their parents' fertility behaviour. This also reveals an intergenerational pattern of fertility behaviour as respondents from large families seek to reproduce large or relatively larger families. The trend of having large families is perceived as normatively acceptable in the traditional Nigerian society which used to be predominantly agrarian. During the pre-colonial era, such agrarian societies in Nigeria placed a high premium on children to provide labour for farming activities. The importance of childbirth is also reflected in some of the names given to children such as `Omowunmi' meaning child is desired (in Yoruba language), `Viyon' meaning child is good, `Nwadiuto' meaning child brings joy and `Nwakaego' meaning child is better than money/wealth in (Igbo language), `Oghenevwaire' meaning God brought them, `Emoefe' meaning children are wealth (in Edo language) (Akpotu, 2008; Nnorom & Kunnuji, 2008). Also, among the Yoruba, children are seen as a blessing (Olurode & Olusanya, 2003).

Income is another variable which shape fertility and fertility preference among the respondents. This agrees with the research of Alo (2011), Matthew and Ikpotokin (2012), and Solanke (2015). It is possible that earning a relatively higher income may enable respondents to have better access to modern health care services and childcare support requisite for raising the children. Also, people who earn less may be deterred from having many children given the high cost of raising the child (Wesely-Metibogun, 2014; Mmuojeke, 2017). Some of these costs may include food, transportation, health-care, education, clothing, and other miscellaneous expenses (Mmuojeke, 2017). A crude estimate of raising a child, from the ante-natal care and child delivery to nursery school and university education, is about N4.39 million (Wesely-Metibogun, 2014).

Conclusion

It is difficult to argue against the negative consequences of Nigeria's growing birth rate in the face of its harsh socio-economic realities. The nation's current realities may not provide a fair societal platform for most individuals who do not have the financial capacity to cater to large numbers of children. Given the minimum wage of N18,000.00, growing inflation, high levels of unemployment and underemployment, pervasive poverty levels, the poor infrastructural base, neglect of agrarian economic system, falling oil prices and a possible economic downturn, it is possible to predict that the real income of households will continuously shrink in the foreseeable future. This is also coupled with the fact that there is a continuous rise in the cost of education at all levels, which has attendant consequences for child illiteracy. The pupil-teacher ratio currently stands at 36:1 which indicates that the educational system is already overstretched due to the growing population (U.N.D.P., 2014). The expected years of schooling are 9 years for males (9.8) and females (8.2) while the mean years of schooling are 5.2 (U.N.D.P. 2014). The growing population also has implications for an oversaturated dependency population, i.e. people within the ages below 15 years and above 65 years. With the impending rise of illiteracy among young people, there is the risk of them joining the rising level of youth unemployment which is currently at about 50% (Oduwole, 2015). Thus, there is an urgent need for population control (Kunnuji, 2010).

One of the limitations of this study is that the sample size of this study is not representative of the population of the general population of Lagos, Nigeria, given that the study population was made up of DLI undergraduate students. The respondents of this study are relatively and possibly more educated and enlightened than the general population. For example, the contraceptive use in the sample is 29.6% compared to 15% in Nigeria in general (NPC and ICF International, 2014). Also, the study sample is not reflective of Nigeria's or Lagos' ethnic and socio-economic diversity. Thus, this study only makes general statements about the situation of fertility behaviour among DLI, which can provide a glimpse of the subject matter at a broader level of the society. Further research needs to be directed into the aspects of how family size directly relates to fertility behaviour, with analysis conducted at the qualitative level.

Nevertheless, this study has revealed the low use of contraceptives and brings the immediate need for contraceptives to the fore. The supply of contraceptives would be used meet the needs of couples who seek to space or stop their rate of childbirth. Also, the immediate need for contraceptives would accompany family planning strategies which can no longer be a luxury given the growing population and fertility rate. In the same vein, people should be aware of the need to maintain smaller families with access to family planning enhanced.

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