

Predictors of Family Size Among Men in Urban Slums of Enugu, Southeast Nigeria: A Cross Sectional Study

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Abstract

A rapidly increasing population is a threat to national development, family stability and social security. This study aimed at assessing family size preferences and its predictors among married men in urban slums in Enugu, Nigeria. A descriptive cross-sectional study that involved household survey of 381 married men living in urban slums of Enugu, Nigeria was carried out. Data was collected using pre-tested, interviewer-administered questionnaires. Data analysis was done with IBM Statistical Package for the Social Sciences (SPSS). The average actual family size was 6 people, with an average of 4 children. 62.5% had their children mixed, 27% had all males, while 10.5% had all girls. However, over 50% of respondents desired to have a family size of 8 or more, with 52.8% of them preferring to have at least 3 sons and 3 daughters. The predictors of family size were: age of respondent (AOR 2.951; CI=1.343-3.314), sex distribution (AOR 2.905; CI= 1.960-4.306), number of twins (AOR 4.720 CI= 1.821-12.231), desired number of children (AOR 7.566; CI=2.334-24.522), desire to continue childbirth (AOR 0.202; CI=0.084-0.482) and desire to have more children if income is increased (AOR 0.403; CI= 0.176-0.919). Actual and desired family size, as well as male sex preference, were high among married men in Enugu urban slums. Family size was predicted by the age of respondent, sex distribution, number of twins, the desired number of children and desire to have more children. Health education programs on population control should target urban slum dwellers to enhance human and economic development.

Keywords: Predictors, Enugu, Family size, Nigeria, Urban Slum.

Introduction

Nigeria is one of the most densely populated countries in Africa, with an approximate population of about 200 million people in an area of 920,000 km² the seventh-largest populated country in the world [1]. Family is the basic unit of every society and refers to a group of people who are related by birth, marriage or adoption, usually consisting of parents and their children. Family size refers to the number of persons in the family.

Interchangeably, it may also mean the number of children that are in a nuclear family.

Family size preference is the number of children a married couple desires which could be considered large or small, ideal or actual. A large family may consist of a minimum of 4 children and above, while a small family size would be defined by a maximum of 3 children [2]. A woman's family size is said to be the number of children she has at the end of her child-bearing years. This is also known as her total fertility capacity. The number of children a

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woman actually does have could be different from the desired number that she would like to have, but for predictive information, this desired number could give a piece of information about the actual number she might finally have.³ The size of the family could be one of the important determinants of the welfare and health of the individual, the family and the community as well as the country (Nigeria) at large [4].

The twentieth century has witnessed substantial changes in family size in Nigeria. These changes in family sizes are attributed to numerous factors/determinants. These determinants could either positively or negatively affect the overall well-being of the family and possibly the community as a result of the effects of large population size in a rural community. Such determinants need to be taken care of as possible control of such will lead to an overall increase in the community well-being. These determinants could be socio-cultural or economic in nature [5].

A large family size poses a big problem in our society at large. In Africa, most couples desire to have more children, probably as a source of honour, wealth, and prestige [5]. In Nigeria, marital fulfilment has a lot to do with childbearing. A study has shown that marital satisfaction and childbearing have a mutually reinforcing linkage [6]. The country's total fertility rate (TFR), which measures the number of children a woman is likely to have during her childbearing years, is 5.3 births [7]. A large family leads to different health-related and non-health-related challenges to especially the mother and the children.

These challenges include but are not limited to maternal morbidity and mortality, inadequate provision of shelter, food, education of the children, and inability to provide the family members with good health care. This would lead to a decrease in the standard of living, childhood nutritional deficiency and subsequent malnutrition, lack of education, overcrowding, prostitution, street hawking, increased poverty

levels, and increased under 5 morbidity and mortality [8]. Large family size has a negative effect on the health of the mothers as well [9].

In terms of children's access to quality basic life-sustaining goods like food, shelter, clothing, healthcare, and education, among others, family size is largely a determinant factor [10]. It has been noted with a disturbing concern that large family size preference and status connect to poverty, deviance and illiteracy [11]. The larger a family is, the more resources it would need for the proper upkeep of its members. In other words, having a large family can have negative effects on the health and well-being of both parents and children [12]. Grossly, large family size desirability among a significant number of people has the potency to increase population growth [13].

Furthermore, parents have limited resources to distribute among their children such that the ones available to each child are reduced as family size increases.¹³ For example, parents may invest less in a child's education when they have an unmanageable large family size [14]. Additionally, larger families may "reduce parental emotional investment" in each child, which can impede social and emotional growth and development [15]. These negative consequences are likely if one or more of the births are unintended [16].

The situation of the 'Almajiris' practiced in Northern Nigeria shows us another example of how a large family size can have a negative impact on society. Northern families usually have a large family size. The resources are not enough to cater for them all, so most of them are sent to Islamic schools that take full responsibility for training them. In this system of Islamic education, these young children migrate from their homes to Islamic schools, where they are educated about Islam and the Quran.

The desirability of large family size is not without the interplay of some underlying key socioeconomic factors. Worthy of attention and curiosity is the need to investigate some of

these socioeconomic determinants of family size preference among married couples. A couple of scholars have noted the impact of income, occupation, and religious affiliations on rising family size preferences, while others have linked the phenomenon to parental influence [17-20]. Notably, there is a variation in the family size preference among urban and rural dwellers [21]. Also, among many determinant factors influencing family size preference is the educational status of couples which has a lot to do with women's empowerment towards the use of family planning techniques and family size predisposition [21-22], [7]. The implication is that highly educated women have a smaller family size than uneducated ones [23]. Socio-culturally, religious beliefs and doctrinal practices influence the choice of family size preference among some people [24]. Other factors that jointly or independently influence family size preference among couples include the age of husband, age of women at marriage, work status of women and fertility, son preference, geographical location, place of residence, consanguineous marriages, fertility intention (ideal family size), child mortality, polygyny, husband/wife's desire for more children, wealth index and marital duration [25].

Factors influencing family size have been investigated across several societies all over the world. Some studies have been carried out on family size determinants in Nigeria, but just a few of these studies were done on urban or semi-urban populations; therefore, little is known about the determinants of desired family size in populations such as Urban Slums. There also seems to be no single study of such in an urban slum in Enugu State, Nigeria. This study was, therefore, designed to determine the actual and the desired family size among married men in Ngenevu Urban Slum and to assess the socio-cultural and economic determinants of family size among them. This study can generate the evidence needed by the

government in making policies and programs targeted at child welfare, such as those that can promote their health and education. The knowledge of the family size and its preferences would enable better health planning for the Enugu people. It would also expose the urgent need for health interventions that would focus on contraceptive use.

Methods

Study Design

This research study was a descriptive, cross-sectional study that involved a household survey of married men in Ngenevu, Urban slum of Enugu State, Nigeria.

Study Setting

This study was carried out at Ngenevu; an urban slum in Enugu North Local Government Area (LGA) of Enugu State. Enugu state is in the southeastern part of Nigeria and is located within the subtropical rainforest belt at coordinates (6.6N, 7.5E). Enugu state has 17 Local Government Areas. It is dominated by Igbo speaking ethnic groups with other minorities. As of 2006, the state had 3,267,837 inhabitants with a population density of 460 per km²[26]. Females made up 52.1% of the population. The state is predominantly rural and agrarian, with most of its working population engaged in farming, although trading and services (public services, banking, and tourism) are significant in the area. The predominant religion is Christianity. Enugu Metropolis is made up of Enugu North, Enugu South and Enugu East LGAs [27].

Ngenevu shares boundaries with the Coal Camp and the University of Nigeria Teaching hospital, Enugu (old site). It is located on top of the Onyeama Coal Mine. The occupations of residents of Ngenevu are mainly artisans, petty trading with few civil/public servants. There were 3 primary schools and no primary health facility in the area. The houses were scattered without clear cut streets or zones. Their major refuse disposal method are open dumping with

burning. Water supply for drinking and cooking were by water tankers and satchet water, and water for household chores is supplemented by hand-dug well water.

Study Population

The study population were married men resident in Ngenevu, Urban slum.

Inclusion/Exclusion Criteria

Men who have been in marriage for at least one year in Ngenevu Urban Slum were included in the study. Men who were acutely ill, absent on the day of the survey, separated, or divorced were excluded from the study.

Sampling Methods

A random cluster sampling method was used. House numbering of eligible households was done as the initial step. The number of eligible houses was divided by the sample size to determine the sampling interval. A random start was made using a random sampling method. After sampling the household that formed the random start, sampling continued systematically according to the sampling interval until the last household was sampled.

Sample Size Estimation

The sample size was calculated using the statistical formula: $N = [Z^2P(1-P)/ D^2]$, Where N is the minimum sample size, Z is the standard score at 95% confidence level, which is 1.96, P is the p-value from previous studies which is 0.67 [29] and D is margin of error tolerated (5%). Using a prevalence of the desire for more children in which a prevalence of 0.67 was obtained, and an additional 10% of the minimum sample size added to make for non-response, a total of 381 households was utilized as the sample size.

Data Collection

A pre-tested semi-structured interviewer-administered questionnaire was used for the study. Pretesting was done in another urban slum (Obiagu) different from Ngenevu being

studied. It was done using 10% of the sample size (33 married men). The structured questionnaires used for the study were designed by members of the project group, and a copy is included in the appendix. This questionnaire was guided by previous studies and pretested on a different group not resident in Ngenevu. Consent forms were developed and given to the respondents, and only those who gave their consent were sampled. The consent form was written in clear English language and translated during the interview to the local Igbo language and pidgin English to respondents. It was able to explain the essence and objective of the study. It also explained the confidentiality and the voluntary nature of participation.

Data Analysis

Collected data were pooled and analyzed using Statistical Package for the Social Sciences (SPSS version 26). Frequencies and proportions were calculated for categorical variables, while means and standard deviations were calculated for numeric variables. Statistical associations were tested using Pearson's chi-square. A p-value of <0.05 was set as a criterion for establishing statistical significance. Predictors were assessed using a Regression model.

Ethical Consideration

Ethical clearance was obtained from the Ethical Committee of the University of Nigeria Teaching Hospital (ETNTH), Ituku Ozalla. Participation was voluntary and based on written informed consent from all the participants. Only consented respondents were recruited for the study. Confidentiality and anonymity of the respondents were ensured, and this was clearly explained in the consent form.

Results

Baseline Information

A total of 381 married male respondents from Ngenevu, an urban slum within the

Enugu-North local government area, Enugu state, were interviewed, and the data extracted from them were analysed. All the data collected were analysed.

Socio-demographic Characteristics of the Respondents

The mean age of the respondents was 49 ±12 years. The majority (50.4%) of the respondents (192) married at ages less than 30 years, and about 46.5% (177) of the respondents had their first child between the ages of 30 to 34 years.

The majority (99.0%) of respondents were from the Igbo tribe, and all the respondents (100%) are Christians. All respondents (100%) were of the monogamous family type and had a Christian pattern of marriage. The other details of the socio-demographic characteristics of the respondents were shown in Table 1. Table 2 shows the respondents' educational level, occupation, and that of their wives' monthly income, and socio-economic status according to the international wealth index (IWI) score.

Table 1. Socio-demographic Characteristics of the respondents

Variable	Frequency (N=381)	Percentage (%)
Age (years)		
<45	156	40.9
45-54	103	27.0
> 54	122	32.0
Mean age ± (SD): 49 ± (12)		
Age at marriage (years)		
<30	192	50.4
30-34	148	38.8
>34	41	10.8
Mean age ± (SD): 29 ± (4)		
Age at birth of first child (years)		
<30	128	33.6
30-34	177	46.5
>34	76	19.9
Mean age ± (SD): 31 ± (4)		
Major Tribe		
Igbo	377	99.0
Yoruba	1	0.3
Others	3	0.8
Religion		
Christianity	381	100.0
Denomination		
Catholic	203	53.3
Anglican	101	26.5
Pentecostal	77	20.2
Traditional title		
Yes	22	5.8
No	359	94.2
Pattern of marriage		
Christian	381	100.0
Type of marriage		

Monogamous	381	100.0
Place of upbringing		
Urban	55	14.4
Rural	146	38.3
Semi-Urban	180	47.2

Table 2. Socio-demographic Characteristics of the Respondents

Variable	Frequency (N=381)	Percentage (%)
Occupation of respondent		
Civil servant	90	23.6
Trader	177	46.5
Artisan	78	20.5
Farmer	4	1.0
Unemployed	10	2.6
Others (Bus drivers)	22	5.8
Occupation of Wife		
Civil servant	56	14.7
Trader	241	63.3
Artisan	39	10.2
Farmer	11	2.9
Unemployed	15	3.9
Others (Cleaner)	19	5.0
Level of education		
None	21	5.5
Primary	128	33.6
Secondary	124	32.5
Tertiary and above	108	28.3
Level of education of Wife		
None	21	5.5
Primary	140	36.7
Secondary	142	37.3
Tertiary and above	77	20.2
Monthly income		
0	1	0.3
< 30,000	26	6.8
30-50,000	172	45.1
50-100,000	88	23.1
> 100,000	94	24.7
Socioeconomic status		
Poorest 20	1	0.5
Second 20	28	7.3
Middle 20	109	28.6
Fourth 20	129	33.9
Best off 20	114	29.9
Average IWI score: 68.74%, Std. dev: 18.70%		

The Mean Family Size and Actual Family Size of the Respondents

The mean family size of the respondents was 6 people, of which 56.4% (215) of the respondents had a family size of 6 or more people while 43.6% (166) of respondents had a family size less than 6 people.

Furthermore, 61.2 % (233) of participants had 4 children or less, while 38.8% (61.2) of them had more than 5 children. The average

number of children the participants had was 4 children. The sex distribution of the children recorded showed that 31.5% had more females than males while 31.0% had more males than females. Further details showed that 14.4% had all males, 12.6% one male-only and 10.5% of the respondents had all females. The number of respondents with singleton deliveries were commoner (84.3%) than those respondents with multiple births (15.7%).

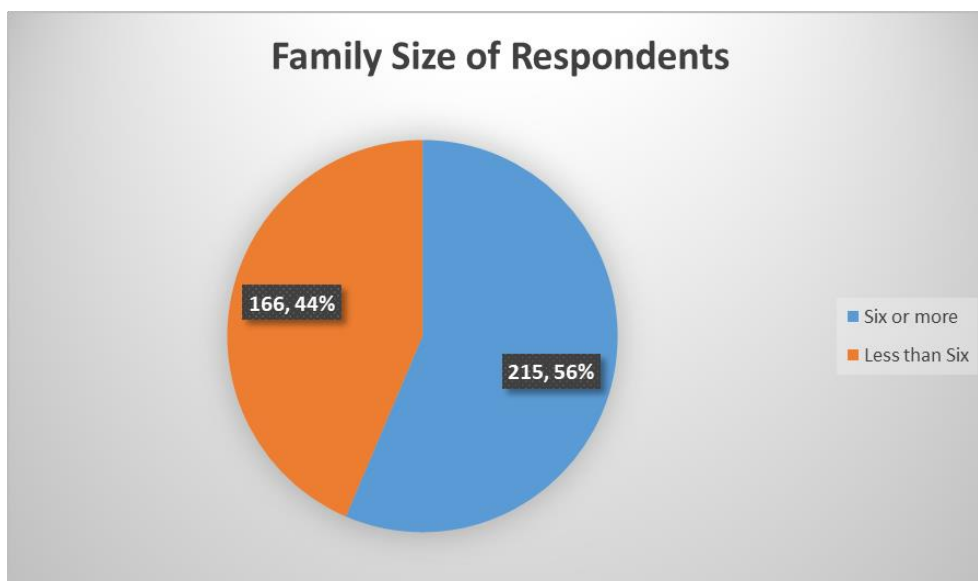


Figure 1. Family Size of the Respondents

Desired Number of Children among the Participants

A total of 206 (54.1%) of the respondents desired for more than 4 children, while 45.9% (175) of the respondents desired for 4 children or less. The average desired family size was 5 children. Table 3 shows the desired family size and sex distribution of the participants. Furthermore, when the participants were asked about their future to get to their desired family size and sex distribution, we found that a minority of respondents (31.8%, 121) affirmed that they will continue to have children till their desired gender is gotten but the majority (68.2%, 260) indicated that they won't continue to have children till their desired gender is conceived. Those who positively affirmed that

their current income status could support their family size and those that indicated that it couldn't support their family size were 55.9% (213) and 44.1% (168), respectively. Those who underwent premarital counselling on family size preferences were the minority of the population studied with just 30.2% (115), while those that didn't undergo pre-marriage counselling were the large majority of the population studied at 69.5% (265).

Furthermore, the data shows that a minority of the respondents, 30.4% (116), wanted to bear more children if their income status increased. On the other hand, more than half of the respondents, 69.3% (264), indicated maintaining their current family size even if their income level was improved.

Factors Associated with Family Size of the Participants

As shown in Table 4, the family size of the participants was significantly associated with the age of the respondent ($p < 0.001$), age at marriage ($p < 0.001$), age at first birth ($p = 0.003$), sex distribution ($p < 0.001$), number of twins ($p < 0.001$), and place of upbringing ($p < 0.001$).

Furthermore, table 5 showed that family size was also significantly associated with the wife's

occupation ($p = 0.027$), education of respondents ($p = 0.002$), education of wife ($p = 0.015$), desired number of children ($p < 0.001$), desired number of sons ($p < 0.001$), desired number of daughters ($p < 0.001$), desire to have children till desired gender is gotten ($p < 0.001$), and desire to continue childbirth ($p < 0.001$). As shown in table 6, there was a significant association between family size and the desire to have more children if income is increased ($p < 0.001$).

Table 3. Desired Family size of the respondents

Variable	Frequency (N=381)	Percentage (%)
Desired Number of Sons		
<3	180	47.2
>3	201	52.8
Average: 3 sons	-	-
Desired Number of Daughters		
<3	133	34.9
>3	248	65.1
Average: 3 daughters	-	-
Reason for Desired number of Children		
Prestige	75	19.7
Affordability	211	55.4
Cultural belief	81	21.3
Religious belief	14	3.7

Table 4. Socio-demographic Factors associated with Family Size of the Participants

Variables	Family Size		χ^2	p-value
	<6	>6 or more		
Age of the respondents (years)				
<45	103 (66.0)	53(34.0)	64.948	<0.001
45-54	41(39.8)	62(60.2)		
>54	22(18.0)	100(82.0)		
Age at marriage (years)				
<30	65 (33.9)	127(66.1)	15.321	<0.001
30-34	81(54.7)	67(45.3)		
>34	20(48.8)	21(51.2)		
Age at first birth (years)				
<30	44 (34.4)	84 (65.6)	8.819 ^a	0.003
30-34	80 (45.2)	97 (54.8)		
>34	42 (55.3)	34 (44.7)		
Denomination				
Catholic	93 (45.8)	110 (54.2)	0.889	0.346

Non- catholic	73 (41.0)	105 (59.0)		
Traditional title				
No	157(43.7)	202 (56.3)	0.067	0.795
Yes	9 (40.9)	13 (59.1)		
Sex distribution of children				
All males	78 (75.7)	25 (24.3)	124.067	<0.001
All females	36 (90.0)	4 (10.0)		
Mixed	52(21.8)	186 (78.2)		
Number of twins				
None	154(48.0)	167 (52.0)	16.091	<0.001
One or more	12 (20.0)	48 (80.0)		
Place of upbringing				
Urban	118 (50.2)	117 (49.8)	11.008	<0.001
Rural	48 (32.9)	98 (67.1)		

Table 5. Socio-demographic Variables associated with a Family size

Variables	Family Size		χ^2	p-value
	<6	>6 or more		
Respondent Occupation				
Employed	46 (5E1)	44 (48.9)	2.726	0.099
Self-employed	120(4E2)	171 (58.8)		
Wife Occupation				
Employed	32(57.1)	24 (42.9)	4.919	0.027
Self-employed	134(4E2)	191 (58.8)		
Respondent education				
< Primary	50 (33.6)	99 (66.4)	5.860	0.015
> Secondary	116(50.0)	116 (50.0)		
Socioeconomic status				
Low class	57 (44.2)	72 (55.8)	0.216	0.897
Middle class	51 (44.7)	63 (55.3)		
High class	166(43.6)	215 (56.4)		
Desired number of children				
0 to 4	113 (64.6)	62 (35.4)	58.065	<0.001
More than 4	53 (25.7)	153 (74.3)		
Desired number of Sons				
1 to 2	110(61.1)	70 (38.9)	42.701	<0.001
3 or more	56 (27.9)	145 (72.1)		
Desired number of daughters				
1 to 2	134 (54.0)	114 (46.0)	31.631	<0.001
3 or more	32(24.1)	101 (75.9)		
Reasons for desired number of children				
Prestige, culture, and belief	68 (40.0)	102 (60.0)	1.591	0.207
I can afford it	98 (46.4)	113 (53.6)		
Desire to have children till desired gender is gotten				
No	92 (35.4)	168 (64.6)	22.307	<0.001
Yes	74 (61.2)	47 (38.8)		
Desire to continue childbirth				
No	67 (26.6)	185 (73.4)	87.303	<0.001
Yes	99 (76.7)	30 (23.3)		

Table 6. Socio-economic Factors associated with a Family Size

Variables	Family Size		χ^2	p-value
	<6	>6 or more		
Monthly income				
< 50,000	77 (38.9)	121 (61.1)	3.673	0.055
> 50,000	89 (48.6)	94 (51.4)		
Income can support family				
No	65 (38.7)	103 (61.3)	2.910	0.172
Yes	101 (47.4)	112 (52.6)		
Desire to have more children if income is increased				
No	97 (36.6)	168 (63.4)	17.177	<0.001
Yes	69 (59.5)	47 (40.5)		
Had pre-marriage counseling				
No	114(42.9)	152 (57.1)	0.182	0.690
Yes	52 (45.2)	63 (54.8)		

Table 7. Socio-demographic Predictors of the Family Size of the Respondents

Variables	Category	AOR	p-value	95% Confidence Interval	
				Lower	Upper
Age of respondents (years)	<45	2.951	<0.001	1.343	3.314
	45-54				
	>54				
Age at marriage (years)	<30	1.029	0.938	0.499	2.125
	30-34				
	>34				
Age at first birth (years)	<30	0.707	0.304	0.364	1.370
	30-34				
	>34				
Sex distribution of children	All males	2.905	<0.001	1.960	4.306
	All females				
	Mixed				
Number of twins	None	4.720	<0.001	1.821	12.231
	One or more				
Wife Occupation	Employed	0.535	0.217	0.198	1.444
	Self-employed				
Respondent education	< Primary	0.901	0.798	0.407	1.998
	> Secondary				
Wife education	< Primary	1.160	0.710	0.531	2.536
	> Secondary				
Desired number of Children	<4	7.566	<0.001	2.334	24.522
	>4				
Desired number of son	<3	0.834	0.713	0.318	2.192
	>3				
Desired number of	<3	0.640	0.321	0.265	1.545

daughters	>3				
Desire to have children till desired gender is gotten	No	0.587	0.314	0.646	3.902
	Yes				
Desire to continue childbirth	No	0.202	<0.001	0.084	0.482
	Yes				
Desire to have more children if income is increased	No	0.403	0.031	0.176	0.919
	Yes				

Predictors of Family Size among the Respondents

As shown in Table 7 above, the predictors of large family size were the age of the respondent (AOR 2.951; CI=1.343-3.314), sex distribution (AOR 2.905; CI= 1.960-4.306), number of twins (AOR 4.720 CI= 1.821-12.231), the desired number of children (AOR 7.566; CI=2.334-24.522), desire to continue childbirth (AOR 0.202; CI=0.084-0.482), and desire to have more children if income is increased (AOR 0.403; CI= 0.176-0.919).

Discussion

The socio-demographic, socio-economic and socio-cultural characteristics in this study portray a lot of significances, similarities, and differences in comparison to previous studies. The age of a man at various stages is quite significant to family size [19]. The mean number of children reported in our study was 4 and it was quite lower than the Nigerian national fertility rate of 5 according to NDHS 2018 report [1]. It was discovered that respondents <45 years had a family size of < 6 while those >54 years had a predominant family size of 6 or more individuals, which shows a trend that with increasing age, family size tends to increase. This could be due to desire to want to keep having more children as one goes older [12]. The older a couple is the more the chances that they have a larger family than that of a young couple, but this was the opposite with regards to desire for a larger family size, which is like the study by [7]. Similarly, the age at marriage affects the family size, with a large family size being associated with a younger age at marriage and in contrast,

respondents aged 30-34 chose to have a large family size, but the reverse is the case among men aged >34 as the majority of them chose a large family size. This is in keeping with studies that indicate that younger age at marriage increases the reproductive life of a couple and, therefore, the chances that they will have more children [1, 7]. The shorter a couple's reproductive window, the smaller their family size [24].

The relationship between age at first birth and family size displayed an inverse relationship, as men of younger age groups as at when they had their first children had a large family size (84; 65.6%) while men of older age groups as at when they had their first children had a smaller family size (42; 55.3%). This has a logical pattern and explanation as it buttresses the point of the length of the reproductive cycle being inversely proportional to the family size seen in various studies [24].

Also, sex distribution was a factor that affected the family size as individuals with more children of the male sex had smaller family sizes (78; 75.7%) while individuals with mixed-sex distribution had larger family sizes (186; 78.2%). This was in keeping with a study that showed that families with females only had a larger family size [11]. The desired number of children by respondents predicted a large family size. Most of the respondents wanted more females than males, with about 65% desiring more females. However, affordability, cultural belief and prestige are quite significant, with about 211 respondents indicating affordability as their reason for the desired number of children. The sex distribution of children is a significant factor and predictor of family size as shown in the research study.

Majority of respondents who have all males presented with family sizes less than six in contrast to respondents who presented a mixed-sex distribution of children; family size above six. This shows that the desire to keep having children increases with the failure to achieve the desired sex preferences and vice versa [9].

Another influencing factor on family size was the number of twins born to a respondent. Respondents with at least 1 set of twins had a large family size (48; 80.0%). The reason behind this is that having a set of twins increases family size by 2 compared to a couple that has one offspring per pregnancy, which just increases the family size by 1. Therefore, a family with a set of twins would have a larger family size than that of a family without any set of twins.

Among the significant factors was the place of upbringing. Respondents who were raised in rural settings had larger family sizes (98; 67.1%). This would have to do with the attainment of education at the rural setting being lower than in the urban areas, the low rate of education about contraception contributes majorly. The occupation of the spouse influenced the family size, with more self-employed persons having a large family size and those not self-employed having a small family size (171; 58.8%). This could be because of them having enough time for their spouses, which would ultimately lead to more attempts at conception and hence a large family size.

Education was a factor, with respondents with educational status of primary and below, having large family sizes (99; 66.4%) and families with secondary education and above having an equal distribution between large and small family sizes (116; 50.0%). A majority of the respondents had attained a primary level of education and could not favor small families. One concludes that large family size preference decreases with the rise in education due to the fact that the individuals concerned are affected socially and economically by the new ideas acquired through formal education. A similar

pattern was seen with the spouse education and family size as individuals with at most a primary level of education had large family sizes (103; 63.6%) and those with at least a secondary education (112; 51.1%) do not have a family size as high as the former. The desire for a large family size can be seen to decrease with increasing education level. This corresponds with the findings of Osili & Long [28], who opined that the higher the level of education of the spouse, the smaller the family size though the influence in this study is only slight.

A desire of at most four children encouraged individuals to have small family sizes (113; 64.6%), and individuals who desired a family size of >4 had large family sizes (153; 74.3%), it could therefore be inferred that the desire of fewer children tends to cause a smaller family size. This is in line with results obtained from NDHS (2008) [1], where it was discovered that the more children a respondent desired, the greater their family size would be, while the fewer children a respondent wanted, the smaller their family size would be. Therefore, the desired number of children a family desires influences the family size.

An increased desire for more sons was associated with an increased family size (145; 72.1%), while a desire for at most 2 sons was linked with smaller family size (110; 61.1%), with Nigeria being a patriarchal country, the gender of the desired child can influence the family size with more individuals desiring sons causing an increase in the family size until the preferred gender is gotten. Studies have shown that the desire for a male child has the potential of increasing household sizes [29]. The desired gender of offspring plays a role in determining the desired family size. A desire for daughters had a proportional relationship, as the more daughters a respondent wanted, the larger the family size (101; 75.9%) and less daughters a respondent wanted, the smaller the family size (134; 54.0%). Significantly higher proportion of respondents with only females desired to have

more children than their counterparts with males only. This is in line with the findings of Obembe [12], where similar findings were discovered. The above findings were in contrast to another factor which was the desire to have children till the desired gender is gotten which showed a large family size associated with individuals with no desire to have a specific gender (168; 64.6%) while the reverse was the case as individuals who wanted a particular gender had small family sizes (74; 61.2%). It can therefore be deduced that although the desire for a specific gender affects the family size, individuals who wanted to keep having children of particular genders ended up having smaller family sizes. Another significant factor was the desire to continue childbirth, as individuals who had a continued desire for childbirth, according to the calculations above, ended up having a small family size (99; 76.7%), while individuals with no desire to continue childbirth usually had a large family size (185; 73.4%). This can be explained by the experience gotten from having a large family size as individuals who have already experienced the economic burdens of a large family chose not to want more children in the future, while those with small family sizes at the time of the interview had a desire to have more children.

Worthy of note as a factor influencing the family size is the dependency of the desire for more children on increased income. Individuals who wanted more children if their income was increased had a small family size (69; 59.5%), while those who didn't want more children even with an increased income had large family sizes (168; 63.4%). This can be explained by the fact that the larger the family size, the less chances of the respondent wanting more children as the economic impact of the family size discourages him from having more children and vice versa.

The study revealed that the predictors of the family size include: the age of respondents (AOR = 2.951; CI = 1.343 - 3.314), sex distribution (AOR = 2.905; CI = 1.960-4.306),

number of twins (AOR = 4.720; CI = 1.821-12.231), desired number of children (AOR = 7.566; CI = 2.334 - 24.512), desire for another child (AOR = 0.0202; CI = 0.084 - 0.482), desire to have more children if income is increased (AOR = 0.403; CI = 0.176 - 0.919). Whereas some of these predictors may influence the family size independently, some of them may be considered as relative predictors of family size because they do not completely affect the family size independently. Respondents below 45 years are three times more likely to have a family size of more than 6 people (more than 4 children). The current age of the respondents helps to give a probable insight to the family size of the respondent, and the study showed that majority of the respondents aged > 54 years had a family size of > 6 individuals. These findings suggest that there is a trend whereby the increase in age is proportional to an increase in family size. According to the study, respondents with all-male sex distribution in the household are three times more likely to have a family size > 6 individuals. There is an association between family size and sex distribution, whereby 186 respondents (78.2%) with a mixed-sex distribution tend to have a larger family size than those respondents with a homogenous sex distribution.

It was also noted that the majority of the respondent with no set of twins are five times more likely to have a family size of > 6 individuals. The number of twins had a predictive influence on the family size, wherein the study shows that respondents with a set of twins or more tended to have a large family size (≥ 6 individuals). This shows that the number of twins is not only a factor but also a predictor of family size, according to the study carried out. Respondents who desired < 4 number of children were eight times more likely to have a family size of < 6 individuals. Whereas those respondents who had a desire for > 4 children, according to the study, were fifty times less likely to have a family size of < 6 individuals.

Respondents who answered 'YES' as a response to the question, 'do you desire to continue childbirth?' had a family size of >6. It was also noted from the study that respondents whose the desired number of children was >4 had a family size of > 6 individuals.

Also, respondents who desire to have more children if their income is increased were twenty-five times less likely to have a family size of < 6 individuals. Those with a family size of >6 individuals did not want to increase their family size even if their income was increased, which shows that despite the income being a factor that determines the family size, those with an already large family size showed reduced interest in increasing their family size. It was also noted that the majority of the respondents with a family size <6 chose to give birth to more children if their income is increase. This simply shows that despite the income of the respondents being a predictor of the family size, it has a limit to its predictive power and may be considered as a relative predictor of family size.

It is also important to note that the level of education, according to the study carried out, had no impact on the family size. This finding is in concurrence with the findings of Osili & Long [28] who opined that the educational level of a man might not as so much impact on the household size as that of a female. This may also be due to the fact that the majority of the population studied had their highest level of education between primary and secondary levels; hence an almost homogenous result was obtained. This study was limited by lack of comparison with other slums in the same study setting, however, future studies should focus on this new area of study.

Conclusion

The mean number of children per family of the participants was 4.23, while the average desired family size was 5 children. There was a significant association between large family size and age of respondent, age at marriage, age

at first birth, sex distribution, number of twins, place of up bringing, spouse occupation, education of respondent, education of spouse, desired number of children, desired number of sons, desired number of daughters, desire to have children till the desired gender is gotten, desire to continue childbirth and the desire to have more children if income is increased. The study also showed that the predictors of the large family size were the age of respondents, sex distribution, number of twins, the desired number of children, desire for another child, and desire to have more children if income is increased.

We recommend that efforts should be made by the government and other relevant stakeholders to enlighten men and women, especially those residing in the urban slums on the availability and use of appropriate family planning services and counselling on desired family size and how to achieve them. Incentives such as subsidized healthcare services through the National Health Insurance Scheme (NHIS) should be sustained and made available to all couples with moderate family size. This could be reinforced by health education, enlightenment programmes, knowledge-based seminars, and outreach in urban slums by the state and local governments to promote the culture of standard family size maintenance. Religious organization and their leaders should intensify health education in their various programmes on the need to maintain moderate, standard, and manageable family size regardless of gender preference in the family.

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Conflicts of Interest

There are no conflicts of interest.

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