ANALYSIS OF FAMILY SIZE PREFERENCE IN AWKA, ANAMBRA STATE, NIGERIA

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Abstract

Fertility preferences are a contributor to achieving actual family size and checking population growth. Demographic transition theory uses fertility and mortality as major predicators to depict socioeconomic development. Based on demographic transition theory, this study was aimed at examining the family size preference in Awka, Anambra State. 336 respondents were purposively sampled and analysed. Descriptive statistics was used for the analysis. The study showed that 94 percent would prefer a family size of 3 or 4 children. Personal and economic reasons (48% and 42% respectively) were most considered as against religious and cultural reasons for preferred number of children. In addition to the stated reasons for the preferred family size. The study discovered that 82 percent of respondents who opted for small family size were educated and would prefer a small family size, so they can moderately provide for them the basic necessities of life, including education. 69 percent agreed that they will abide by policy mandating a specified number of children. On the other hand, 62 percent agreed to have less children if care is provided at old age, thereby reducing the need for large family size. In addition to recommending socioeconomic development and education, it is strongly recommended that care should be given to aged people through provision of old peoples home. This will allay fears of despair in old age.

Keywords: Population; Family; Family Size Preference; Large Household; Small Household.

INTRODUCTION

In addition to other factors, the ways in which populations are distributed also affect the environment. Continued high fertility in many developing regions, coupled with low fertility in more-developed regions, means that 80 percent of the global population now lives in less-developed nations (Hunter, 2000). According to the medium-fertility predictions of the 2010's UN population projections, global population may grow from 7 billion to about 10 billion at the end of the century (Bloom, 2011; UNDESA, 2011; Oudman, 2013). This growth of the world population is expected to take place mainly in developing countries, creating both opportunities and challenges for the sustainable development there (Lutz et al., 2011; Oudman, 2013). At the same time, changes in population structure in developed countries may also have potentially big effects on global sustainable development, due to the high share of the earth's resources that is being consumed in these countries (Lutz et al., 2011; Oudman, 2013). If population indeed is a major determinant of sustainable development, it would be of major importance to understand the mutual and complicated interactions of these population changes

with the environment, in order to facilitate a future development which "meets the needs of the present without compromising the ability of future generations to meet their own needs" (Oudman, 2013).

Between 1960 and 2020, Nigeria's population rose from about 45 million to over 200 million people, indicating an increase of over 400% in population size of the country. This can be attributed to the long-standing high fertility and high birth rates in the country. Population Reference Bureau (PRB) (2014), as well as Ingiabuna and Uzobo (2016), indicated that Nigeria's rate of natural increase was 2.5%. With a population of 182 million and a projected population of 397 million, by 2050, it will become the 4th most populous country in the world. Again, with regards to the total fertility rate (TFR) of Nigeria, various reports have put the TFR at 5.5 births per woman, while the average household size is put at 5 (NPC & ICP Macro, 2014; PRB, 2015; Ingiabuna & Uzobo, 2016; PRB, 2020). Egenti et al (2016) stated that with a total fertility rate (TFR) of 5.7%, the average Nigerian woman at the beginning of her childbearing years will likely give birth to approximately 6 children by the end of her lifetime.

However, during the same period when higher population growth was recorded in Nigeria, changes in environmental quality began to accelerate: heightened pollution, and increased depletion of resources, amongst others. These visible consequences of uncontrolled population growth have called the attention of various professionals in the fields of population studies. From past to present, population experts have continued to highlight the detrimental effects of overpopulation on the environment. The first known records of such works were the works of Thomas Malthus who stated that the exponential growth of population will have disastrous effect on food supplies. The demographic transition theory states that for societies to transit into modernization, there must be a sustained progress from a regime of high fertility and high mortality to a regime in which fertility and mortality are both low. This will translate into a slower pace of population growth and the consequential effects. Paul Ehrlich (Chertow, 2008) who propounded the IPAT (Impact = Population X Affluence X Technology) concept clearly stated the potency of population in impacting on the environment.

Despite the visible effects and various policies by the Government of Nigeria to control population growth, families and households seem to care very little about overpopulation. This is evident in northern Nigeria where polygamy is a common practice. There, a woman can give birth to as many as 12 children in her lifetime, while a man is permitted, by religion and law (sharia law), to marry as many as four wives. Therefore, with a man marrying up to four wives and with each wife able to give birth to 12 children, the man can have as many as 48 children in his life time.

Several factors account for why couples would prefer a large household size. Arthur (2005) stated that the belief still persists among most women in Ghana, especially for the uneducated that the most important role for a woman is to have as many children as one can continue to bear. Hinging their action on sociocultural belief (such as continuing with family lineage and having support at old age) and religious belief (on being fruitful, multiplying and replenishing the Earth), many families go ahead to have as many children as possible. When Professor Bryan Caplan (Caplan, 2012), told people that he had begun writing a book about selfish reasons to have more children, the most common reaction was, "Ah, because they'll provide for you when you're old, right?" In addition to supporting in old age, many couples in Cameroon, as in many countries in sub-Saharan Africa, like to have a large family. Previous studies have attributed this desire of having many children to the importance of children for expanding the lineage and continuing the family name, and the children's contribution to the household economy (Calves & Meekers, 1999).

This study examines the preferred household size in Awka, Anambra State, Nigeria, and the reasons for such preference. This study also examines the susceptibility of couples to having smaller household sizes if their fears for having smaller households were allayed.

LITERATURE REVIEW

Theoretical framework: Demographic Transition Theory (DTT)
This theory developed in 1945 by Frank W. Notestein, (Diggs, 2008) provides an explanation of the association between socioeconomic development and population dynamics of fertility and mortality rates (see Figure 1). The theory, which has four stages, shows high birth and death rates for Stage One. Stage Two marks a fall in death rate, while birth rate remains high. At Stage Three, birth rates start to decline and the rate of population growth decelerates. At Stage Four, societies are characterised by low birth and low death rates, while population growth is negligible.
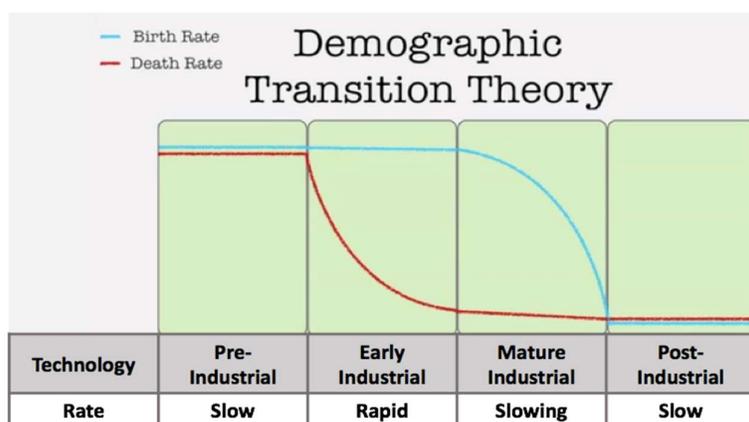

Figure 1: Demographic Transition Theory Curvy
Source: Lamb and Hannan (2020).

At Stages One and Two of the transition, high birth rates and preference for large family size are evident due to the fact that children are valued to contribute economically to the family and society, and provide care for aged parents. Preference for large family size can be attributed to the fact that children are seen as assets rather than liability. However, at Stages Three and Four, the opposite view holds, as children are seen as liabilities rather than assets. The preference for large family size changes, as most couples opt for small family sizes. Determination of preferred and mean family size can be a measure for classification in DTT.

Review of Related Literature
Arthur (2005) stated that the trend towards large family sizes has a tendency to cause a world population explosion, which could plunge poor developing countries into further poverty and helpless wretchedness. Widespread poverty makes it difficult for couples to cater for large household families. New Telegraph (2016) reported that Nigeria ranked first in Africa and third globally on the incidence of child malnutrition. Akombi, Agho, Merom, Renzaho and Hall (2017) reported that stunting was highest in Niger (43.9%), Mali (38.3%), Sierra Leone (37.9%) and Nigeria (36.8%) in West Africa. While Niger (36.4%), Nigeria (28.7%), Burkina Faso (25.7%), Mali (25.0%) recorded the highest number of underweight children in West

Africa. The issues of stunting and malnutrition have their roots in the socioeconomic background of parents and their inability to effectively cater for their mostly large households.

Mbah, Mgbemena and Ejike (2016) in analysing poverty incidence in Awka, revealed that 49 percent of their respondents were considered to be poor, with 0.17 poverty gap index and a 0.03 severity of poverty index. However, the indicators were considered to be modest when compared with the national rates. The results reported by Igbokwe, Emengini and Ojiako (2019) revealed that between 1990 and 1998. Awka urban area grew from 27.92% to 31.19%, to an area of 14437.68 hectares and 1999, 31.19% to 33.67%, to an area of 15586.73 hectares between 1999 and 2008, and 33.67% to 37.24%, to an area of 17237.45 hectares between 2008 and 2017. Trend of change analysis indicated that urban area had an annual rate of change of 0.62% between 1990 and 1999, 0.43% between 1999 and 2008 and 0.56% between 2008 and 2017. As the population of the geographical space is expanding so is the urban perimeter. Chunwate et al (2019) points out that increase in population led to increase in urban sprawl in the study area. Onuoha (2020) reported population pressure on education and health facilities in Awka. The Nigeria Demographic and Health Survey (NDHS) (National Population Commission, 2013) showed that total fertility rate by states in south east are 4.7 Births per woman for the 3 years prior to the survey, Ebonyi 5.3; Enugu 4.8; Imo 4.8; Abia 4.2 and Anambra 4.2 recorded the least in the region. It can be said that the fertility rate in the state can be attributed to their family size preference and to demographic transition.

Large family size is defined in this study as a family comprised of father, mother and five children or more. Such family size comes with attendant implications of poor health, inability to provide adequately for the education of the children, and the inability to fulfil one's dreams where the socio-economic status and standard of living are low. A small family size on the other hand is seen as a family with an average not exceeding four children. More so, such a family may be considered on the grounds of the ability to adequately cater for the needs of the family with a touch of some luxury. Implications of a small family size are the ability for one to enjoy the necessities of life, with the choice to afford and enjoy certain luxuries of life. A small family would consequently be considered to be one that consists of between 1- 4 children and their parents.

METHODOLOGY

Study Area

Geographically, Awka lies between latitudes 6º 09" N and 6º 19" N and longitudes 7º 01" E and 7º12" E. Figure 3 shows Awka and other communities. Using the 2006 national population census figure of 189, 654 and population growth rate of 2.8%, Awka is projected to have a population of 263, 998 in 2020. Awka is the administrative capital of Anambra State. Anambra State is one of the states in the Southeast geopolitical zones of Nigeria. Though Anambra State has been in existence, the present geographical space known as Anambra State was created in 1991 following the carving out of Enugu State from the previously exiting Anambra State. This old Anambra State was created in 1976 from part of East Central State, and its capital was Enugu. Anambra State is located on latitude 5^0 30" to 6^0 40" North of the equator and on longitude 6^0 40" to 7^0 20" East of the Prime Meridian. Boundaries are formed by Delta State to the west, Imo State to the south, Enugu State to the east and Kogi State to the north (see figure 2). The origin of the name is derived from the Anambra River (Omambala) which is a tributary of the River Niger.

Anambra is the eighth most populated state in the Federal Republic of Nigeria and the second most densely populated state in Nigeria after Lagos State. The 2006 national population census

puts population density in Anambra at an average of 860 persons/km^2 (2,200 persons/sq mi). The Nigerian national population census of 2006 puts the population of Anambra at 4,177,828. With a state population growth rate of 2.2%, year 2020 population is projected to be 5,464,599. With a landmass of 4,844 km^2 (1,870 sq mi) the population density will be 1,128/km^2. The stretch of more than 45 km between Oba and Amorka contains a cluster of numerous thickly populated villages and small towns giving the area an estimated average density of 1,500–2,000 persons per square kilometre. Awka as earlier stated is the state capital and as such serves as one of the urban centres and populated area of the state. Igbokwe, Emengini and Ojiako (2019) noted that the territory has grown to an area of about 172. 344 Km^2. The population in Awka includes Federal and State Government Workers, business people trading in assorted kinds of wares, Job applicants, Corps Members and a large number of university students from such institutions like: Pauls University and Nnamdi Azikiwe University, as well as indigenes of the State amongst others.
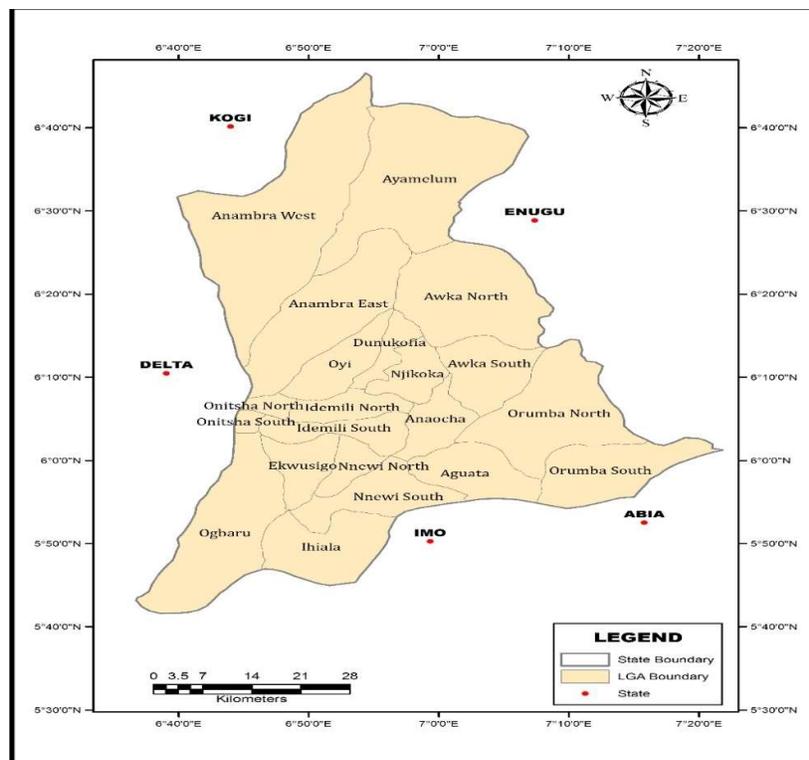

Figure 2: Map of Anambra State
Source: Geospatial Analysis Mapping and Environmental Research Solutions (2018)
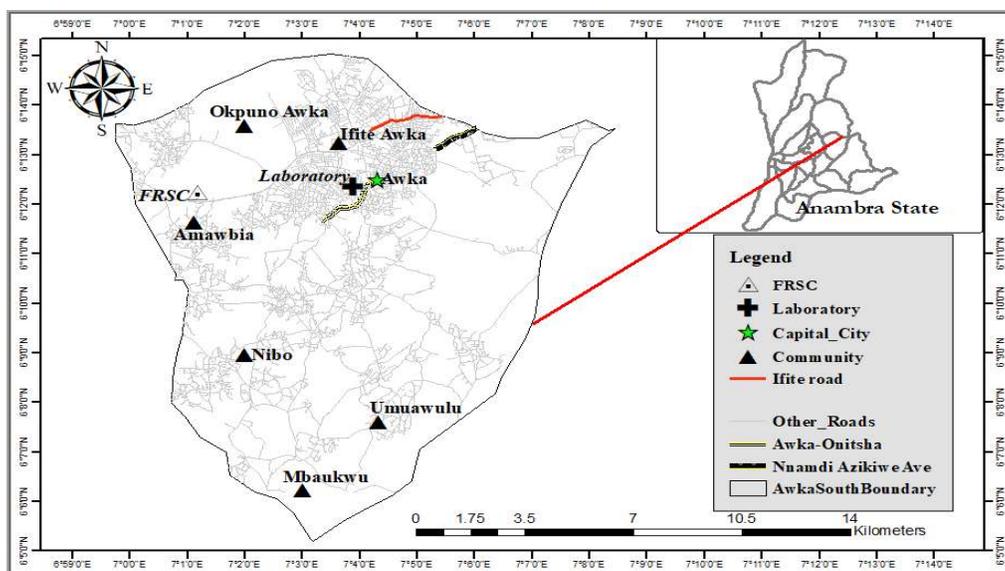
Figure 3: Map of Awka Capital Territory.
Source: Tonnie-Okoye, Iheukwumere, Nkwocha and Igboanugo (2020)

Survey design method was used. This involved personal interviews, and questionnaire administration. The interviews were held with individuals who could neither read, write or who had no time to attend to the questionnaire. Their responses were filled into the questionnaire during the course of the interview. The survey research sampling was purposively based on married couples and adults of marriageable age (20-45 years) as these range are the most involved in child bearing. Using a confidence level of 95%, error margin of 5% and a population size of 263, 998 a sample size of 384 respondents was determined using Leslie's formula.

Sample size determination:

$$N = \frac{Z^2PQ}{D^2}$$

Where:

N = Minimum sample size when p is >10,000

Z = Standard normal deviate at 95% (1.96)

P = estimated prevalence at (0.5).

Q = 1 – P

D = tolerance error using 95% confidence limit (0.05)

$$\frac{(1.96)^2 \text{ X } 0.5 \text{ X } (1-0.5)}{(0.05)^2}$$

$$\frac{3.8416 \text{ X } 0.25}{0.0025} = 384$$

Following the determined sample size, 384 questionnaires were used for the survey. However, 336 were returned and analysed. The return rate is put at 88%. Descriptive statistics was used for the analysis. Results are presented in the next section.

RESULTS AND DISCUSSION

Demography

The total number of analysed questionnaires is 336, with 56 percent and 44 percent, male and female respondents respectively (see Table 1). The number of respondents with tertiary education were 81 percent of the total, while the percentage of respondents with secondary and primary education stood at 16 percent and 3 percent respectively. Self-employed made up 38 percent, followed by respondents employed by private owned businesses (19%). 13 percent were government employed workers while 12 percent were unemployed. 18 percent chose not to state their occupation. The marital status of respondents is as follows: Single 56 percent; Married 44 percent.

Table 1: Demographic Data of Respondents

ITEM	VARIABLE	RESPONSE RATE	PERCENTAGE (%)
Sex			
	Male	189	56
	Female	147	44
	Total	**336**	**100**
Education			
	Primary	11	3
	Secondary	52	16
	Tertiary	273	81
	Total	**336**	**100**
Occupation			
	Civil Servants	44	13
	Private Sector Employed	65	19
	Self Employed	126	38
	Unemployed	40	12
	Not Stated	61	18
	Total	**336**	**100**
Marital Status			
	Single	189	56
	Married	147	44
	Divorced	0	0
	Total	**336**	**100**

Current and Preferred Family Size

Majority of the respondents (60%) had no children. These involved both unmarried respondents and couples less than 5years in marriage with no child. 27 percent had 1 or 2 children, while

12 percent had 3 or 4 children and 1 percent had 5 or 6 children. None of the respondents had above 7 children. See Table 2.

Table 2: Current and Expected Number of Children

	None	1-2	3-4	5-6	>7
Current Number of Children	202 (60%)	90 (27%)	40 (12%)	4 (1%)	0 (0%)
Preferred/Expected Number of Children	2 (1%)	18 (5%)	315 (94%)	1 (0%)	0 (0%)

The result for preferred number of Children is presented in Table 2. It was discovered that 94 percent (315 respondents) would prefer a family size of 3 or 4 children. This shows that couples would prefer small household size over large household size. This result shows a declining and changing perspective. Such changing perspective has its tendency to aid lowering of rapid population growth. This result is also lower than the 2013 NDHS mean for southeast states put at approximately 5. Matsumoto and Yamabe (2013) revealed that the mean preferred number of children in Hyogo, Japan is about 3. This result is also similar to the findings of Dibaba and Mitike (2016) which revealed a preferred family size of about 4 for their study conducted in Assela Town, Ethiopia. Estimates of trends in preferred family size from 43 countries in Sub-Saharan and North Africa, the Middle East, Asia and Latin America in which two or more Demographic and Health Surveys (DHS) have been conducted as presented by Bongaart (2011), shows that at the time of their survey, the average desired family size for Sub-Saharan Africa (5.1 children per woman) was higher than the averages for North Africa and the Middle East (3.2), Asia (2.7) and Latin America (2.7). When the result for sub Saharan Africa is compared with the result of this study, it can be deduced that there is a decrease in family size preference. Based on the time span between both studies and the recorded decrease, this result is in contrast to the position of Bongaart (2011) stating that it will take more than a century to reach a desired family size of two children. With socioeconomic development, demographic transition leading to the desired family size of two can be achieved in less than a century in the study area.

Reason for Family Size Preference

For obvious reasons, trends in family size preferences have important implications for trends in fertility. Fertility is one of the most important elements in population dynamics that has significant contribution towards changing population size and structure over time (Amente et al, 2017). Having examined the family size preferences of these respondents, the researchers also examined the reasons behind their preferred family size. This section allowed multiple responses as desired by the respondents. The result showed that personal and economic reasons (48% and 42% respectively) were most considered as against religious and cultural reasons for preferred number of children in the study area (see Table 3).

Table 3: Reasons for Preferred Number of Children

	Religious	Economic	Personal	Cultural	Not Stated
Reason for Preferred Number of Children	41(10%)	168(42%)	189(48%)	0 (0%)	1 (0%)

According to Bongaart (2011), conventional demographic theory holds that socioeconomic development reduces desired family size during the transition from traditional agricultural to modern industrial society. This is correlated by Arthur (2005), it was realised by him that choice of family size is influenced by the socio-economic variables in the Municipality of Brong, Ahafo Region of Ghana. Bongaart (2011) citing Notestein (1945; 1953) stated that as countries develop, the theory posits, the cost of having children rises and the benefits wane, leading parents to want fewer children. In addition, declines in child mortality reduce the number of births needed to achieve a given family size, as well as the uncertainty surrounding child survival; thus, parents can plan their families with more confidence.

In addition to the stated reasons for the preferred family size presented in Table 3, the study discovered that 82 percent of respondents who opted for small family size were educated and would prefer a small family size. They expect that, for this size, it would be easier to provide basic necessities of life, including education. Kissiedu–Addi (2017), while studying family size preferences among female migrant workers at Agbogbloshie, Ghana, indicates that education affects family size preferences. Abatan, and Ogunsakin (2016) also revealed that educational attainments increase couples' tendency to limit their number of children. They showed also that rural areas are more likely to have more children than their urban contemporaries. This can easily be attributed to the disparity in education and socioeconomic development between urban and rural areas.

Willingness to Accept Measures for Limiting the Number of Children
Sixty-nine (69) percent of the sample, representing 231 respondents, agreed that they will accept and abide by policy mandating a specified number of children or less (see Table 4). Following overwhelming population growth rate, the Chinese Government decreed the one child policy in 1979 to curtain the rapid multiplication. By the year 2000, China's growth rate had dropped to 1.6%, from 2.9% (Hesketh, Zhou, & Wang, 2015). 31 percent representing 105 respondents, refused the acceptance of any law or policy mandating a smaller number of children. The interaction with respondents showed that education is a significant factor affecting the acceptance of policy for family size regulation. On the other hand, 62 percent (209 respondents) agreed to have less children if care is provided at old age. Caplan (2012) revealed that couples' preferences for children included sake of care at old age. Odimegwu et al (2018) states that factors responsible for large family size preferences in the sub-Sahara Africa region include perception of children as old age security.

Table 4: Willingness to accept measures for less Children

	YES	Percentage (%)	NO	Percentage (%)
Accepting policy for less children	231	69	105	31
Accepting to have less children if Government provides care for aged people till death	209	62	127	38

CONCLUSION

The role played by population variables in the development of a country cannot be overemphasized. This is because, majority of the programmes and policies most governments implement are either directly or indirectly linked with population dynamics and characteristics, all of which are geared towards sustainable development (Ingiabuna & Uzobo, 2016). In other words, for any meaningful development to occur, and proper allocation and utilization of resources be sustainable, population planning and management must follow the collection of population statistics. In addition to respondents having preference for small family size of 3-4 children, the study showed that economic and personal reasons were responsible for such preference. Population planning may require that measures be put in place to educate couples on the benefits of small household sizes. This will help sustain the changing perspective from preferring large family size to small family size. Based on the result in Table 3 and the demographic transition theory, socioeconomic development has proven to be a contributory factor in declining preference for large family size. Socioeconomic development and education is recommended in sustaining the declining trend. In addition to recommending socioeconomic development and education, it is strongly recommended that care should be given to aged people (above 70years) through provision of old people's home. This will allay fears of despair in old age, thereby discouraging couples from having large households for future sake. Incentives should be initiated for small household families of 4 and less.

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