Family Size Preferences among Women in Anambra State of Nigeria

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Abstract

In order to address the problem of excess population in relation to available resources, family size preferences among Women in Anambra State of Nigeria has been discussed in this paper. It is believed that reliable data on it may highlight some of the factors necessary in the formulation and implementation of appropriate population control measures. The main source of data for the study is the Anambra Fertility Survey (AFS) conducted between 1 August and 20 September 1990. Other sources include the 1990, 1999 and 2003 Nigeria Demographic and Health Surveys (NDHS) and the 1981/82 Nigeria Fertility Survey (NFS). The data was analysed using simple statistical measures, cross-tabulations and Multiple Regression Analysis. Results of the analyses show that, just like achieved fertility, ideal family size is high and varied directly as age, duration of marriage and number of children dead and inversely as age at first marriage and level of education among other factors. It is therefore, recommended that deliberate effort be made to ensure that women are educated up to Secondary school level before they are allowed to marry. Intensive Healthcare Delivery Programmes are also recommended to reduce the number of children dead.

Keywords: Ideal family size, Family size preference, Desired family size, Achieved fertility, Completed family size

Introduction

The problem of excess population in relation to available resources has been a source of concern to most developing countries of the World including Nigeria. The contribution of migration to population growth is usually considered negligible when compared with the contribution of natural increase. With the reduction in mortality rate arising from improved health care delivery programmes, high level of fertility remains the major cause of high population growth rate in most developing countries.

In Nigeria, high level of fertility has been observed by many scholars including Olusanya (1972), Halilu (1987), FOS (1992), and NPC (2000 and 2003). Variation in fertility levels among regions in Nigeria has also been observed by Ukaegbu (1977), Okore (1980), NPB (1984), FOS (1992), and NPC (1998, 2000 and 2004).

Fertility level is known to be influenced by demographic, cultural and socio-economic variables. Available information on these variables by regions in Nigeria indicates that South-Eastern Nigeria (and the Igbos in particular) has more of those characteristics that tend to impede fertility than other regions. These, according to NPB (1984), FOS (1992) and NPC (1998, 2000 and 2004) include high incidence of marital instability, high age at first marriage and age at first birth, high percentage of never married, high percentage of women who ever used and were currently using modern methods of contraception. Other such characteristics are high percentage of educated women, resident in urban areas and belonging to modern occupational categories. The same region was also shown to have one of the highest levels of fertility among the regions in Nigeria.

This inconsistency appears to violet some explanations earlier offered for the persistent high fertility in Nigeria. In attempts to explain it, some scholars attribute the inconsistency to desire of some societies to adhere to their cultural ideals. These ideals include family size preferences arising from perception and value of children. In his study, Caldwell (1976) observed that children have demonstrable values in developing societies. They accept responsibility for the care of parents in old age, bolster the family's political power and hence, give it economic advantages. They ensure the survival of lineage or family name and in some societies, undertake the necessary religious services for the ancestors. The observed inconsistency and the need to bring the population under control have made the study of the influence of the tendency of many societies to adhere strictly to their ideals, especially on matters of procreation, worthwhile.

According to Campbell (1990), family size preferences could be measured by "Desired' and 'Ideal' or preferred family size. Desired family size is currently normative because it is subject to an individual's social and economic disposition overtime. Ideal family size, on the other hand, reflects an attitude based on culture that is constantly normative, not depending on socio-economic disposition overtime. According to Berent (1983) family size preferences are of capital importance for better understanding of the direction of future fertility trends. NPB (1984) observed that when information on fertility preferences is combined with data on achieved fertility or with data on number of surviving children gives a clear picture of the future fertility potentials of the respondents. Therefore, accurate and reliable data on family size preferences could serve to predict future fertility level. It may be a good indicator of on-set of fertility decline and may, therefore, be relevant in the formulation, and implementation of appropriate population policy. Wastes arising from implementation of wrong family planning measures could be minimized by using the knowledge of the relationship between ideal and achieved family sizes.

Furthermore, Anambra State chosen for this study is one of the States in South- Eastern

region of Nigeria with characteristics that are typical of the region. Many demographic studies have been carried out in this part of the country but none seemed to have its focus on family size preferences. This, coupled with availability of data, helped to motivate this study.

This study therefore, aims at providing information on the nature of the relationship between family size preferences and demographic, cultural and socio-economic variables which might be relevant in the formulation, planning and implementation of population control measures. Specifically, the study (i) examined the levels, trend and differentials of ideal family size preferences (ii) compared completed family size with the ideal family size of women aged 40 years and above and (iii) established the factors that have significant influence on the family size preferences among women in Anambra State of Nigeria. Based on the results of these analyses, recommendations were made.

Materials and Methods

The main source of data for this study is the Anambra Fertility Survey (AFS) conducted in three Local Government Areas of former Anambra State between 1st August and 20th September 1990. Other sources include the 1981/82 Nigeria Fertility Survey (NFS), the 1990, 1999 and 2003 Nigeria Demographic and Health Surveys (NDHS).

Data on ideal family size was collected based on the question "if you could choose exactly the number of children to have in your whole life, how many would that be?". Certain problems have been identified with the use of fertility preferences to study achieved fertility. Ryder and Westoff (1965) identified the problems of lack of uniformity in the formulation of questions on fertility preferences and inconsistencies, non-response, lack of numerical answers, overlapping replies and poor idea of ideal family size. FOS (1992) also observed the problem of lack of idea of conscious reproductive choice among a large proportion of surveyed women and high proportion of non-numerical responses such as "It is upto God". NPB (1984) also noted that responses to such attitudinal questions in societies that are largely uniformed about methods of controlling fertility to the desired level or with a high degree of fatalism towards fertility may have little intrinsic meaning in them and little value in predicting future fertility behaviour. It also observed that the surveyed women hardly gave figures less than the number of children they already have as the number they desired to have. That is they often give responses that would rationalize their past fertility performance. Ezeh (1991) sees the non-numeric desires as an inward desire not to have as many children as possible but outward reluctance to do anything about it. Farooq and Adeokun (1976) attribute it to an attempt by the respondents to avoid direct confrontation with an issue beyond their control.

The data were analysed using simple statistical measures, cross-tabulations and multiple regression analysis. In the multiple regression analysis ideal family size preference was used as the dependent variable (Y) while demographic and socio-economic variables such as age, marital status, religion, place of residence, level of education and occupation of the surveyed women were used as the independent variable (X).

Results and Discussion

Levels and trend of ideal family size preferences in Nigeria: Mean ideal family size preferences (MIFSP) among women in Nigeria and South Eastern Nigeria are shown in Table 1.

Table 1: Mean ideal family size preferences (MIFSP) among women in Nigeria and South-Eastern (S.E.) Nigeria

	1981/82 NFS	1990 NDHS	1990 AFS	1999 NDHS	2003 NDHS
NIG	8.25	5.8	-	6.2	6.7
S.E	8.61	5.9	5.8	5.8	5.3

As Table 1 shows, mean ideal family size preferences (MIFSP) from the 2003 NDHS are about 6.7 children per Nigeria woman and about 5.3 children per woman in South-Eastern Nigeria. This is quite high when compared with the data from the developed and some developing countries. The 2003 Ghana Demographic and Health Survey (GDHS) observed a mean ideal family size preference of 4.4 children per woman. Campbell (1990) obtained a MIFSP of 5.64 children among men in Western Area of Sierra Leone. Berent (1983) found that the average ultimate expected number of children per women was 2.13 in Bulgaria and 2.8 in Spain. Ekanem (1978) observed a mean desired family size of 8.0 children per woman in Eastern Nigeria, which he said is very high. Table 1 also shows that MIFSP among women in the South-Eastern Nigeria decreased from about 8.61 children per women in the 1981/82 NFS to about 5.3 children per woman in the 2003 NDHS.

Orubuloye (1987) and Ezeh (1991) attribute the high family size preference to high bride price. Explaining further, Ezeh (1991) noted that high bride price confers on men the absolute right over the women's procreative powers. Thus, even though age at first marriage is higher for educated women than for others, they still have to prove their womanhood and incur the favour of their husbands and his lineage by being prolific. Among the Igbos, Okore (1987) observed that the fact that children are sources of wealth and status to a couple in a society also lead to large family size as ideal. In his opinion, Ekanem (1978) attributed the high value he obtained to lumping together of all women irrespective of their socio-economic status and parity.

The need to continue a lineage has made the presence of at least one male child in every home necessary. Thus, the arrival of a male child strengthens the position of the wife in the family but lack of it often leads to broken marriages or polygamy. Orubuloye, on his part, noted that sons are traditionally expected to support their parents and above all perpetuate the family name by marrying and raising children. Girls, on the other hand, are not under strict pressure to do all these

for their parents once they are married. In the attempt to ensure the presence of at least one male child in the family a society may see nothing wrong in a woman having as many as 10 or more children. The incidence of child death may also lead to large family size preference. In fact Ageh-Gbede (1989) observed that women with high experience of child death desire larger family sizes than others.

Differentials of ideal family size preferences: The mean ideal family size preferences (MIFSP) among the surveyed women in the 1990 AFS according to some of their background characteristics are shown in Table 2. As Table 2 shows, ideal family size varied with age, marital status, type of marriage, age at first marriage, duration of marriage, number of children dead and use of contraception. Other factors on basis of which ideal family size varied include childhood place of residence, level of education, occupation and religious affiliation of the surveyed women.

Analysis by age shows that MIFSP increased consistently from 5.3 children for women aged 15-19 years to 6.4 children for women aged 45-49 years. Similar age pattern of variation in family size preferences was also observed in the FOS (1992) and NPC (2000 and 2004). Ideal family size was found to be highest in for widows with MIFSP of 6.0 children who also constituted majority of the older women. The divorced/separated women have the smallest MIFSP of 4.6 children per woman. With regards to type of marriage, MIFSP was higher (7.4 children) for women in polygamus marriage than for women in monogamous marriage with MIFSP of 5.6 children per woman. Age at first marriage was found to be inversely related to ideal family size preferences. As Table 2 also shows, MIFSP decreased from 6.2 children for women whose first marriages occurred at ages under 20 years to 5.3 children for women whose first marriage took place at ages 25 years and above. Ideal family size was also found to be positively related to duration of marriage for ever-married women and the number of children a woman had lost through death. MISFP was found to have increased from 5.2 children per woman with less than five years marital duration to 6.6 children per women whose marital duration was 25 years or more. MIFSP also increased from 5.7 children for women who have lost no child to 7.8 children for those who have lost three or more children. Women who were not using any method of contraception have a mean ideal family size 6.1. MIFSP of women using traditional methods was 5.7 children while that of those using modern methods was 5.4. Perhaps those women with smaller MIFSP are doing something to avoid exceeding their ideals while those with higher family size as ideal are less likely to do anything to limit family sizes.

Family size preferences appear to be inversely related to the level of education of the surveyed women. Mean ideal family size decreased from 7.4 children for women with at most incomplete primary education to 4.9 children per woman with at least post-secondary education. According to their occupations, women in Agriculture have the highest MIFSP of 8.1 children.

Perhaps this is to reduce the cost of hired labour or maybe food from agriculture will help to reduce the cost of bringing up children. This is followed by the MIFSP of women in sales and services. Women in Professional, Technical, Administrative and Managerial Occupations have the smallest MIFSP of 5.1 children. By their religious groups, traditional religious worshippers have the highest mean ideal family size of 8.5, followed by non-adherents to any religious group with 6.6 children. Moslems have the smallest mean ideal family size of 5.4 children followed by Christians with 5.65 children per woman. In their respective studies in Sierra Leone, Ghana and Nigeria, Davies (1989), Ageh-Gbede (1989) and Kalu (1988) observed that Moslems have higher family size preferences than the Christians.

Comparison of completed and ideal family sizes: The mean number of children ever born (MNCEB) to women aged 40 years and above is used as the measure of completed family size. This may not be free from error as it depends, to a large extent on age at first marriage, marital duration, marital stability and other nuptiality variables. The mean ideal family sizes preferences (MIFSP) and the mean number of children ever born (MNCEB) to surveyed women aged 40 years and above are shown for Nigeria and South-Eastern Nigeria in Table 3.

As Table 3 shows, the MIFSP and MNCEB for women aged 40 years and above agree very closely in magnitude. In all except the 2003 NDHS, the MIFSP is slightly higher than the MNCEB, the difference in most cases not exceeding one. For the women aged 40 years and above, the comparison according to some of their background characteristics shown on Table 2 indicates that except the figures based on less than ten cases, the highest difference (2.4 children) between MNCEB and MIFSP was observed among women in Traditional religion. This is followed by the differences observed among women in Agriculture and Polygamous unions whose MIFSP exceeds MNCEB by 1.9 and 1.6 children respectively. These groups are made up of mainly those with little or no education who may not have understood the concept of ideal family size very well Both MNCEB and MIFSP varied directly as duration of marriage and number of children dead and inversely related to age at first marriage and level of education. With respect to marital status both MIFSP and MNCEB are minimum for separated/divorced women and maximum for currently married women. By type of marriage, MIFSP is higher in polygamous union than in monogamous union but MNCEB is higher in monogamous than polygamous unions. Both MIFSP and MNCEB are minimum for women using modern methods of contraception. However, MIFSP is highest for women who were not using any method of contraception for whom MNCEB is also high. By their religious affiliations, MNCEB and MIFSP are highest for traditional religions worshippers and lowest for Moslems.

In general there appears to be close agreement in size between mean ideal family size (MIFSP) and mean number of children ever born

Table 2: Mean Ideal Family Size Preferences (MIFSP) and Mean Number of Children Ever Born (MNCEB) to all women and to women aged 40 years+ by some of their characteristics

Characteristics	All Women		Women Aged 40 Years+		
	MIFS	No of Women	MIFS	MNCEB	No of Women
All	5.8	1748	6.3	6.0	504
A. AGE					
5-19	5.3	8			
0-24	5.7	108			
5-29	5.6	408			
0-34	5.6	417			
5-39	5.7	313			
0-44	6.2	269			
5-49	6.4	225			
B. Marital Status					
Never Married	5.1	30	5.6	(5.3)	6
Currently Married	5.8	1576	6.4	6.1	417
Widowed	6.0	106	6.0	5.4	67
Separated/Divorced	4.6	36	4.9	4.6	14
C. Type of Marriage					
Monogamy	5.6	1555	6.1	6.0	424
Polygamy	7.4	163	7.3	5.7	74
D. Age at First Marriage					
Under 20 Years	6.2	808	6.6	6.4	256
20 – 24	5.5	697	6.1	5.7	181
25 Years +	5.3	213	5.6	5.0	61
E. Duration of Marriage					
Under 5 Years	5.2	222	4.0	2.5	2
5 – 14	5.7	741	5.9	5.0	22
15 – 24	5.9	525	6.1	5.5	242
25 Years +	6.6	230	6.6	6.6	232
F. No. of Children Dead					
0	5.7	1485	6.1	5.7	385
1	6.2	188	6.5	6.7	83
2	6.9	52	7.2	6.7	26
3+	7.8	23	9.9	7.8	10
G. Use of Contraception					
Modern	5.4	571	5.7	5.8	169
Traditional	5.7	333	6.2	6.2	125
None	6.1	844	6.6	5.9	230
H. Education					
None/Primary Incomplete	7.4	330	7.3	6.4	172
Primary	5.9	303	6.0	6.2	142
Secondary/Technical	5.3	569	5.9	5.5	89
Post-Secondary	4.9	331	5.2	5.1	75
I. Occupation					
Pro./Tech./Admin./Managerial	5.1	391	5.4	5.4	98
Clerical	5.3	316	5.9	5.5	49
Sales/Services	6.1	644	6.3	6.1	245
Agriculture	8.1	158	7.9	6.0	62
Production	5.7	114	6.4	6.5	40
Others	5.3	63	(6.6)	(3.0)	1
Unemployed	5.4	62	(7.0)	(6.4)	9
J. Religion					
Catholic	5.7	1022	6.3	6.0	301
Protestant	5.6	538	5.7	5.7	140
Traditional	8.5	94	8.7	6.3	34
Islam	5.4	17	(5.4)	(5.2)	5
Others	5.8	65	6.4	6.1	21
None	6.6	12	(6.7)	(5.7)	3

Table 3: MNCEB and MIFSP of Women age 40 years+ for Nigeria and South-Eastern Nigeria

Source / Year	NIGERIA		SOUTH-EAST	
	MIFSP	MNCEB	MIFSP	MNCEB
1981/82 NFS	7.76	5.41	8.61	6.53
1990 NDHS	7.00	6.49	7.20	6.99
1990 AFS	na	na	6.30	6.00
1999 NDHS	7.05	6.12	7.00	6.92
2003 NDHS	7.75	6.80	6.05	6.60

na = not available

(MNCEB). There also appears to be positive correlation between MIFSP and MNCEB. That is, there is the tendency for MIFSP to be high where MNCEB is and vice versa. However, MIFSP appears to be slightly higher than MNCEB in almost all cases.

Correlates of family size preferences: In order to identify the variables that have significant effects on family size preferences the multiple regression analysis was used to isolate the net effect of each of the variables under consideration. The results of this analysis are shown in Table 4 indicates that age, marital status, type of marriage, age at first marriage, use of contraception, place of residence, level of education, occupation and religious affiliation of the surveyed women were found to have significant influences on the ideal family size at 5 percent level of significance. Specifically, age, duration of marriage and number of children dead were found to be directly related to family size preferences while age at first marriage and level of educational attainment were found to be inversely related to it when other variables were held under control. On the average, a unit increase in the age of the women results in an increase of 0.015 in ideal family size while a unit increase in age at first marriage results in a decrease of 0.041 in ideal family size. With regards to educational attainment, ideal family sizes of women with at most a secondary education are significantly greater than that of the reference category (Post-secondary). The values by which the ideal family sizes of these categories exceed that of the reference category decreased as level of education increased. By their marital status, only the ideal family sizes of never married and currently married women are significantly greater than that of the reference category (Divorced/Separated) by 1.059 and 1.066 respectively. The smaller ideal family sizes of women in Divorced/Separated and Widowed categories may be attributable to the hardship accompanying children upbringing in single parent homes. Ideal family was also found to be significantly higher for women in polygynous than for those in monogamous (reference category) marriages. This may be attributable to competition among women in polygynous marriage to have a lion share of household/family property and attract societal prestige. Ideal family size was also found to be significantly higher for women who did not use any method of contraception than for these who did.

Childhood place of residence of the surveyed women was also found to have significant effect on family size preference. Ideal family size of women brought up in rural areas is significantly greater than that of those who grew up in urban areas by about 0.208. By their occupations, women in Sales/Services and Agriculture only were found to have ideal family sizes significantly greater than that of the reference category (Prof/Tech./Admin./ Manag./Clerical) by 0.211 and 0.938 respectively. Ideal family size was found to be significantly higher for adherents to traditional religion than for others. The demographic and socio-economic variables considered altogether accounted for about 34 percent of the total variation in ideal family size preference.

Table 4: Multiple regression analysis of ideal family size on some demographic and socio-economic characteristics

Variable and Category	Variable Name	B	P-value
A. Age	Q26A	0.015	0.002
B. Marital Status			
Divorced/Separated	RC*		
Never Married	MS1	1.059	0.008
Currently Married	MS2	1.066	0.000
Widowed	MS2	0.534	0.059
C. Type of Marriage			
Monogamy	RC*		
Polygamy	TM2	0.444	0.001
D. Age of First Marriage	Q45E	-0.441	0.000
E. Use of Contraception			
Yes	RC*		
No	Ck0	1.051	0.000
F. Place of Residence (Childhood)			
Urban	RC*		
Semi-Urban/Rural	CHR2	0.208	0.006
G. Education			
Post-Secondary	RC*		
None/Prim.	EDUC1	1.282	0.000
Incomplete	EDUC2	0.543	0.000
Primary	EDUC3	0.312	0.001
Secondary/Technical			
H. Occupation			
Prof./Tech./Admin./ Manag./Clerical	RC*		
Sales/Service	OCC4	0.211	0.018
Agriculture	OCC6	0.938	0.000
Others	OCC9	-0.943	0.516
Unemployed	OCC10	-0.147	0.444
I. Religion			
Islam	RC*		
Catholic	REL1	0.357	0.192
Protestants	REL2	0.155	0.574
Traditional	REL5	1.188	0.000
Others	REL7	0.392	0.222
Constant		**3.942**	**0.000**

Multiple R = 58203, R^2 = 0.33876, Sigf. F = 0.00000, F = 46.16221, RC = Reference Category*

Available information on the correlates of achieved fertility shows that, like ideal family size, number of Children Ever Born (CEB) varies directly as the age of mother and duration of marriage and inversely as the age at first marriage and level of education of the surveyed women. Like the ideal family size also, CEB was found to be significantly lower for widowed than for the never married and currently married women and significantly higher for women resident in rural than those in urban areas. However, while ideal family size was found to be significantly higher for women in polygynous than monogamous unions, number of children ever born

was found to be significantly lower for women in polygynous than monogamous unions. In other words, women in polygynous homes, whose ideal family size is higher, perhaps because of the perceived benefits, actually achieve less than women in monogamous homes. This may be attributable to reduced coital frequency assumed to exist in polygynous union because the women see their husbands only according to an agreed schedule. Moreover, some polygynous unions arise as a result of childlessness among older wives. The achieved fertility of the younger wives, therefore, tends to under estimate the actual of the women in the polygynous homes.

Summary, recommendation and conclusion; In summary, family size preferences increased as age, duration of marriage and number of children dead increased and decreased as the age at first marriage and level of education of the women increased. Ideal family size was also found to be significantly higher for never married and currently married women than for divorced/separated and widowed. It was found to be significantly higher for women in polygamous than monogamous unions and also significantly higher for women who grew up in rural than urban areas. Furthermore, ideal family size was found to be significantly higher for women not using any method of contraception than for others. According to their occupations, ideal family sizes of women in Sales/Services and Agriculture were found to be significantly higher than those of women in other occupations. Women adherents to traditional religion were found to have ideal family sizes significantly higher than those of other religious groups. Achieved fertility has also been found to exhibit similar patterns of variation with the background characteristics of respondents except type of marriage. Women in polygynous union prefer higher family size but achieve less than women in monogamous union.

Furthermore, when mean ideal family size and mean completed family size were compared for various variables it was found that the two are close to each other in magnitude. They also exhibit similar patterns of variation with almost all the background characteristics of the respondents except type of marriage. All these suggest that achieved fertility can be predicted using the ideal family size preferences. In view of these, it is recommended that deliberate effort be made to ensure the education of women up to secondary level before they are allowed to go into marriage. Also, the existing legislation on minimum age at first marriage should be made more functional and appropriate agencies properly mobilized to enforce it.

Furthermore, there are indications that fertility can reduce if women can be sure of survival of few children. Therefore, it is suggested that implementation of the health care delivery programme be intensified. In view of the close agreement between ideal family size and achieved fertility both in level, trend and pattern of variation it is clear that correctly reported data on family size preferences of a society can be used to predict the achieved fertility of the society. It is hoped that this result could be used to explain any observed level of achieved fertility and to reduce the problems arising from lack of accurate and current data on achieved fertility.

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References

Ageh – Gbede, J. K. 1989, "Family size preference among Ghanaian women". Unpublished MA Thesis, University of Ghana, Legon.

Berent, J., 1988, Family size preference in Europe and U.S.A. ultimate expected number of children" WFS Comparative Studies, No. 26, October.

Caldwell, J. C. 1976, "Towards A Restatement of Demographic Transition Theory". Population and Development Review, September –December.

Campbell, E. K. 1992, "Family size preferences Among Males and their Implications for Fertility Behaviour: A case study of Western Area of Sierra Leone" UN-RIPs News letter no. 40, January –June.

Davies, A. S. F., 1989, "Family size preferences Among Women in the Western Area of Sierra Leone" Unpublished M. A. Thesis, University of Ghana, Legon.

Ekanem, I. I. 1978, "Ways of controlling of Family Size: A Case Study of Eastern Nigeria", in Opong et. al (eds), Marriage, Fertility and Parenthood in West Africa, ANU, Canberra.

Ezeh, A. C. 1991, "Gender Difference in Reproductive orientation in Ghana: A New Approach to understanding Africa" Demographic and Health Surveys World Conference, Vol.1, Washington D.C. August 5-7.

Farooq, G. M. and Adeokun, L. A, 1976, "Impact of Rural Family Planning Programme in Ishan, Nigeria 1969 –1972" Studies in Family Planning, Vol.7, No. 6

Federal Office of Statistics, (FOS), 1992 Nigeria Demographic and Health Survey 1990, Lagos.

Halilu, P. H. (1987), "Fertility and Nuptiality Levels Patterns and Differentials in Nigeria", Unpublished M. Phil Thesis, University of Ghana, Legon.

Kalu, S.I., 1988, "Household Structure and Fertility in Nigeria", Unpublished M. Phil Thesis, University of Ghana, Legon.

National Population Bureau (NPB), 1984, Nigeria Fertility Survey 1981/1982, Principal Report, Vols. 1 and 2, Lagos.

National Population Commission (NPC), 1998, 1991 Population Census of Nigeria, Analytical Report at National Level, Abuja.

National Population Commission (NPC), 2000, Nigeria Demographic and Heath Survey, 1999.

National Population Commission (NPC), 2004, Nigeria Demographic and Health Survey, 2003.

Okore, A. O., 1987, "The Fertility Determinants Among the Igbo in Eastern Nigeria", The Cultural Roots of Africa Fertility Regimes, Proceedings of the Ife Conference; February 25 –March 1

Olusanya, P. O., 1972, "Population Growth and its Components: The Nature and Direction of Population Change" in Caldwell et. al. (eds), Population Growth and Socio-Economic Change in west Africa,.

Orubuloye, I. O. 1987, "Some Socio-Cultural Factors influencing the Determinants of Fertility, Selected case studies in Nigeria", The Cultural Roots of African Fertility Regimes, Proceedings of the Ife Conference; February 25 –March 1, 1987.

Ryder, N. B. and Westoff, C.P., 1965 "Fertility Planning Status in United States Demography, Vol.6: No. 4.

Ukaegbu, A. O. 1977 "Fertility of Women in polygynous union in Rural Eastern Nigeria" Journal of Marriage and Family. Vol.39 No. 2, May.