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Fertility levels and family planning in rural Nigeria: an assessment of Akokwa community, Imo state

1990

FERTILITY LEVELS AND FAMILY PLANNING IN RURAL NIGERIA: AN ASSESSMENT OF AKOKWA COMMUNITY, IMO STATE.

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PRESENTED TO THE
DEPARTMENT OF SOCIOLOGY
UNIVERSITY OF IBADAN
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AS PART OF THE REQUIREMENTS FOR THE AWARD OF A MASTER OF SCIENCE DEGREE IN SOCIOLOGY.

NOVEMBER, 1990.

DEDICATION

TO GRANDMOTHER MADAM CELINA OWAKU MBERU;
TO AUNTIES ESONWANNE AGODI, KATE MBERU,
FELICIA MBERU AND LETICIA OKEY;
AND TO THE EVERGREEN MEMORY OF MY PARENTS
LATE MR DANIEL MBERU AND MRS HULDER MBERU.

CERTIFICATION

I certify that the content of this dissertation are the authentic report of the study carried out by MBERU, BLESSING UCHENNA, under my supervision, in the Department of Sociology, University of Ibadan for a Masters degree in Sociology.

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ACKNOWLEDGEMENT

In this work, I was largely supported by a good number of people. First of all, I wish to express my heartfelt appreciation and gratitude to my Supervisor, Dr Uche Isiugo-Abanihe, whose guidiance, constrctive criticisms, expert suggestions and humane dispositions throughout the various stages of this work are invaluable and greatly improved its final quality.

I wish to appreciate the assistance of the Imo State University, Okigwe, for the opportunity granted me to pursue this M.Sc. degree programme, and specially acknowledge the assistance of the Council for the Development of Economic and Social Research in Africa (CODESRIA), for financial grants towards the preparation of this thesis.

My unalloyed appreciation goes to the students of Imo State University and borthers, who left their studies to help in the administration of questionnaires at Akokwa. They are Bernard Udeh, Solomon Umunna, Iloabanafor Ikeagwuonu, Onyebuchi Iloanusi, Okey Asoqwo, Kenneth Ikejiaku, Elisha Ananike and Joseph Enweka. Also are Mr Boniface Dim, Hezekiah Udoye, Sam Okwara and Miss Ngozi Mberu.

I am particularly encouraged by friends such as Ifeanyi Onyeonoru, Alex Ezeh, Nelson Onuoha, Aloy Onyeka,

T.C. Chineke, Sister Chii Nnorom, and of course my 'Landlord' EMEKA OHAGI. So was friends, P.K. Abiona, Femi Solaja, Bukky Salami and Classmates.

I wish to express my thanks to Mr Berty Agodi Joel Munonye, Samuel Nwosu, Mark Unegbu, Theodore Agodi, Pius Amaeze, Kevin Ahanonu and Ifeanyi Mberu for their different mercies.

Above all, I want to specially thank my HEAVENLY FATHER, GOD ALMIGHTY from WHOM all mercies and loving kindness have not ceased to flow to me. Blessed be His Holy Name.

- Mberu, Blessing Uchenna.

TABLE OF CONTENTS

		PAGE
TITLE	.. ..	i
DEDICATION	.. ..	ii
CERTIFICATION	.. ..	iii
ACKNOWLEDGEMENT	.. ..	iv
TABLE OF CONTENTS	.. ..	vi
LIST OF TABLES	.. ..	vii
ABSTRACT	.. ..	viii
CHAPTER ONE: BACKGROUND TO THE STUDY		
1.1 Introduction	.. ..	1
1.2 Statement of Problems	...	5
1.3 Objectives of Study	..	10
1.4 Significance of Study	..	12
1.5 Akokwa Community, A Background Review		14
CHAPTER TWO: LITERATURE REVIEW AND THEORETICAL ORIENTATION		
2.1 Review of Relevant Literature	..	29
2.2 Theoretical Orientation	..	69
2.3 Hypothesis of Study	..	96
CHAPTER THREE: THE STUDY METHODOLOGY		
3.1 Scope of Study ..	..	98
3.2 Sample Design and Techniques	..	99
3.3 Data Collection Methods	..	104
3.4 Data Preparation ..	..	108

3.5 Data Analytical Techniques .. 108

3.6 Problems of the Study .. 109

CHAPTER FOUR: DATA PRESENTATION AND ANALYSES

4.1 Demographic Characteristics of Respondents 112

4.2 Further Analyses of Data and Test of Hypotheses 120

4.3 Other Findings of the Study .. 204

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary of Study and Conclusions .. 214

5.2 Recommendations 220

BIBLIOGRAPHY

APPENDICES

LIST OF TABLES

TABLES		PAGE
4.1	Percentage Distribution of Respondents by Age Group	112
4.2	Percentage Distribution of Educational Status of Respondents ..	116
4.3	Percentage Distribution of Occupation of Respondents	118
4.4	Reported Annual Income of Respondents	119
4.5	Percentage Distribution of Women by Children Ever born ..	121
4.6	Percentage Distribution of Women by their Ideal Family size ..	122
4.7	Reasons for Ideal Family Size ..	123
4.8	Mean Children Ever Born by the Women by their Levels of Education ..	128
4.9	Ideal number of Children by Level of Education	131
4.10	Percentage Distribution of Respondents by Sex Preference	133
4.11	Reasons for Sex Preference ..	136
4.12	Effect of Sex Preference on Fertility	138
4.13	Mean Number of Boys desired by Women of Different Educational Attainment	142
4.14	Ideal Family Size per Woman, If She is sure of their Survival ..	146
4.15	Respondents' Knowledge of Specific Family Planning Methods ..	158
4.16	Approval of Use of Family Planning	162
4.17	Methods of Family Planning Approved by Respondents	163

4.18	Will Respondents use Family Planning to stop Childbearing after Ideal Family size is Reached	166
4.19	Ever Used any Family Planning Method	167
4.20	Current use of Family Planning Methods	169
4.21	Distance of Home of Respondents to a Family Planning Service Source by Effect on use of family planning method	177
4.22	Percentage Distribution of Respondents by Sources of Information on Family Planning Available to them ..	186
4.23	Percentage Distribution of Respondents by whether or not they have heard, support and will abide by 4 Children policy	190
4.24	Support the Four Children Policy by Education	192
4.25	Will Abide or not by level of Education	194
4.26	Economic Influence on Desired number of Children by the Direction of the Influence	197
4.27	Reasons for Abstinence During Breastfeeding	202
4.28	Community Rules or Norms Against Family Planning	205

ABSTRACT

This study is an attempt to assess fertility levels and family planning practices in a rural Nigerian community. It utilized survey data gathered from 312 women aged 15-49 years. In all, eleven hypotheses were tested using chi-square and Analysis of Variance test instruments.

It was found that the ideal family size in the community is 6 children per woman. When the effect of mortality on fertility is controlled, the ideal family size came down to 5.4 children per woman. Infant and child mortality was found to be very low, approximating 9.5 children per 100 births and this appears to have a long history within the community. We discovered that the community's social norms, which emphasizes training of children acts as a check on high fertility levels, keeping it at levels which income and available resources can adequately take care of. This provide adequate care for children and hence low levels of child mortality.

Sex preference for boys was discovered to be significant and this have a positive influence on fertility. The present economic situation was found to have a fertility reducing effect.

Knowledge of family planning methods appears to be very high with 92% of the respondents knowing at least a method. However as it concerns specific methods, knowledge is skewed in favour of traditional than modern methods. Attitudes towards family planning is positive as it concerns traditional methods but negative towards modern methods, which are percieved as dangerous to health and part of the practices of morally decadent societies. Actual use of family planning methods is quite low. Again 80% of ever users, have used traditional methods. It was found that communal norms are not against family planning. Distance was found to influence accessibility and use of contraception and respondents indicate that they will be encouraged to use contraception if a clinic is located in their area.

Government information system on family planning was discovered to be very inefficient or non-existent in the grassroots. This leaves primary relationships as the main sources of information for as many as 80% of the women. This creates room for massive misinformation and misunderstanding of family planning, its rationale and sideeffects. Breastfeeding practice was found to be universal but the duration of breastfeeding is declining considerably. The mean length of breastfeeding within the study population was found to be 13 months.

Education was found to be a very significant factor which influences virtually all aspects of fertility behaviour, as well as knowledge, attitude and practice of family planning. Educated women were also found to support fertility reducing policies than less educated women.

In all, we concluded that much needed to be done by government to encourage the adoption of measures to reduce fertility levels by the adoption of family planning. To this end, some recommendations were made.

CHAPTER ONE

BACKGROUND OF THE STUDY

1.1.1 INTRODUCTION

The concern for human population growth rates has been expressed worldwide over the years. Among the components of population change (fertility, mortality and migration), fertility has attracted most attention. This attention stems from the realization that fertility is a major expansionary force in population dynamics, and a major counteracting force to population attrition. More so, the forces causing fertility decline in a population are more complex than those causing mortality decline (Bogue, 1971:1). Graff (1977) re-echoed the same view, when he stated that fertility as a demographic variable has been given the most attention in terms of recognising the role it plays in population dynamics, yet it remains the most inexplicable. The modern concern for excess fertility in the developing countries, according to Brackett (1980), evolved in the 1950s and 1960s as it became increasingly obvious that rapid population growth was seriously hampering development and eroding the already meagre standards of living in many developing countries.

The accelerating population increases in recent years, and the prospects of even more rapid growth in the near future, due to declining mortality, have dramatized the urgent need for better understanding of the level and conditions of fertility and their impact along with that of other relevant demographic factors, upon the development process and the life and well being of individual families and communities. (Gyorgy et al (1972). As part of the increasing concern on population growth rates, the United Nations Organization in 1972 declared 1974, the world population year and called for concerted world action on population matters. The World Fertility Surveys (WFS) was initiated in 1972 largely in response to this announcement with the primary objective of assisting countries to acquire the scientific information that would permit them to interpret the fertility of their population (WFS, 1984:1).

According to its publications, the World Fertility Surveys achieved its major objectives, and the importance of its findings can be located among others in their utilization in various countries and in various ways to chart public policy discussions and decisions.

The results from the survey in Cameroon was said to have played a significant role in the government's decision to establish a National Population Commission. The observed high level of fertility and low level of contraception in Kenya was partly responsible for the formulation of the Integrated Rural Health Family planning programme 1982 - 1988. (WFS Final Report, 1987:).

Improving the quality of life is the central concern of all human endeavour. However, the achievement of human welfare is hindered to a great extent by a high rate of population growth. To counter this, most governments not only ascertain their fertility levels but also pursue goals aimed at an urgent reduction of fertility levels. Srikantan (1977), observed that one principal means for ensuring a decline in fertility is an availability of organized family planning services.

Despite the findings of the World Fertility Surveys and the programmes it informed, the population growth rate is still very high especially in developing countries. In these countries, current fertility levels far exceed those required to attain moderate population growth,

let alone bring about an eventual end to such growth (WFS 1984). Particularly, the population of Africa is on the threshold of unprecedented growth. For the next 10 to 20 years, the demographic situation in most African nations is virtually given. There is little that can be done to alter the size of population to any significant degree. This is not the case with the long-term growth potential. The cummulative effect of even small changes in growth rates made now would be substantial in the long run. Population policies must however, be based on emerging demographic trends, inter-relationships among demographic variables, and socio-economics factors in the African context (World Bank, 1980).

It is against the background of the increasing population growth rates, and the need for action to control it based on research findings, that this project is designed as a means of assessing fertility trends and the relationships among demographic variables as well as knowledge, Attitude and practice of family planning in a rural Nigerian community. This is an effort informed among other things by the importance

of data in any effort at population engineering both at a micro or macro level of any society.

1.2 STATEMENT OF PROBLEMS

The population of Nigeria has been increasing astronomically. According to estimates, Nigeria's population will reach 165 million by the year 2000, and 280 million by the year 2015. This rate of increase is attributed to high levels of fertility in the country against falling rates of mortality. All available evidence, indicates that the level of reproduction has been persistently high for the last three or four decades and still remains so at present (National Population Policy, 1988:3). This level of growth has been observed earlier than 1988. In its second National Development Plan 1970 - 74, the Government of Nigeria stressed that, "Nigeria is going through a demographic transition phase of a rising birth rate and declining death rate leading to a potentially high rate of population growth. Available evidence suggests an estimated population growth rate of 2.5 percent per annum."

It has become obvious that rapid population growth seriously hinders the rapid improvement of human welfare all over the world. This recognition among others informed the launching of the 1988 National Population Policy for development, Unity, progress and self-reliance, by the Government, with a major objective of controlling fertility rates through the use of family planning techniques. Section 4.2.3 of the policy stated that one of the objectives shall be to make family planning means and services to all couples and individuals easily accessible at affordable cost at the earliest possible time, to enable them to regulate fertility. Among the strategies for achieving this is that special attention shall be paid to educating and motivating the population at grassroots level on the health, social and demographic values of family planning.

The above objective is in line with public programmes to reduce fertility, which always seek to reduce the demand for children, to delay childbearing and to maximize contraceptive use. But the success of family planning programmes ultimately hinges on their ability to meet the individual needs of a spectrum of

potential clients. Regardless of how efficient and timely family planning services are provided, if potential clients do not accept contraception and if they do not practice it, consistently and effectively, neither the objectives of the programme nor the clients will be met (Ainsworth, 1985:2). To forestall this from occurring, Davis (1967) in his analysis of current family planning programmes recommended the study of motivational factors of fertility in order to also manipulate them to achieve fertility control. He states that, "there is no reason to abandon family planning programmes; contraception is a valuable technological instrument. But such programs must be supplemented with equal or greater investments in research and experimentation to determine the required socio-economic measures". This kind of view was stated earlier concerning rural Korea by Yang et al (1965), when they wrote that the creation of efficient family planning services demands knowledge and experience of what is acceptable and effective in Korean communities especially in the rural areas, where the birth rate appears to be higher than in the cities.

In the Nigerian situation, one of the major problems is that there is little concern and activities into the

kind of research being recommended here. There is a lack, if not absence, of fertility studies and information in Nigeria on a regular basis. Okore (1980) observed, "inspite of her population size and relative wealth, Nigeria still faces a dearth of demographic survey studies in general and fertility in particular. Censuses have not provided any substantially reliable and/or adequate source of demographic information".

It has to be recognized that there are fertility analyses that have been done in Nigeria. Such analyses however are based on surveys conducted by individual researchers and by a few institutions. Again, these surveys were disproportionately located in South - Western Nigeria, with very few carried out in the Eastern and Mid Western regions. Also the bulk of the available evidence in South-Western Nigeria, related to towns and urban areas, apparently neglecting rural areas (Okore, 1980).

The population policy launched in 1988, recognized the importance of involving rural dwellers in fertility control as mentioned above. This is not unconnected with the fact that about 70% of Nigeria's population

lives in rural areas. They are regarded as more culturally bound to factors that favour high fertility, their levels of education is low, in some cases, they are inaccessible to health and family planning officials and often have indirect link with modern communication systems. Olusanya (1969) observed that rural communities are generally characterized by relative homogeneity, a predominantly agrarian economy, a higher degree of illitracy and earlier marriage and childbearing. This characteristics have been found in many studies all over the world to be inversely associated with attitudes favourable to fertility and subsequently to fertility itself. The neglect of this segment of the population in the little demographic studies in Nigeria is therefore a gravious omission in the national quest for fertility controls.

In view of the dearth of demographic information in Nigeria as a whole, moreso rural areas, espcially in Eastern Nigeria, this project becomes necessary as a means of attempting to fill the gap. The ultimate problem of the study is to describe fertility levels, and explain its motivations, as well as the description and explanation of knowledge, Attitudes and Practice (KAP)

of family planning in an Eastern Nigerian rural community - Akokwa - in Ideato Local Government Area, Imo State. Family planning is emphasized because it is a cardinal instrument of fertility control of the Nigerian Government as stated in the 1988 population policy. The whole exercise is very relevant moreso as Gyorgy et al (1972) stated, "costly errors may be avoided, and progress accelerated if through training and research, knowledge is developed that will enable policy makers to direct the course of demographic change and to apply their knowledge of demographic conditions in the establishment and evaluation of development goals".

1.3 OBJECTIVE OF STUDY

In the light of the problems stated above, this study would pursue the following specific objectives:

1. To determine the characteristics of those drawn into the sample in terms of their present fertility levels or family size.
2. To find out the socio-cultural factors that influence fertility levels or family size.
3. To determine the levels of knowledge, Attitude and practice of family planning in the study area

as well as the socio-cultural and economic factors that influence the adoption of family planning. Here, particular attention will be paid to the levels of education and employment status of women as well as their husband's influence.

4. To find out the methods of family planning very most accepted in the community. Attempt will be made to correlate level of acceptance with availability, cost and effect on health, of family planning methods.

5. To determine the acceptability, effectiveness and the probability of future successes of the population policy on limiting family size in the country and

6. To provide baseline data on a rural community as a looking glass for other rural communities at least in Eatern Nigeria, and as a means of comparison with data from other parts of the country and the world at large.

1.4 SIGNIFICANCE OF STUDY

This study is significant to the extent that the fertility levels to be determined will give an indication of the future trend of the population of the country particularly in rural areas. Moreso, the data to be provided on Knowledge, Attitude and Practice of family planning would provide an insight into what exists in rural areas as it concerns these variables. The importance of such data as a basis of comparison between communities, and as a basis for measuring population dynamics in the future cannot be overemphasized. The data to be generated can also act as a basis for demographic discussions and decisions as it concerns rural areas especially in Eastern Nigeria.

The significance of this study also lies in its ability to yield information on the direction of attitude of rural Nigerians towards small family size and family planning practices. There is not a clear statement as to that direction in recent years. At best their attitudes can be defined as fluid or ambiguous.

Fertility study of this nature is relevant to the study of over-population and modernization as well as

the study of implementation of government fertility control programmes. Gyorgy et al (1972) stated that one of the important demographic questions that emerge from any family planning programme or project, relate to the number of births that have been averted through the use of contraceptive methods as a result of the programme. Programme achievement can also be measured from other points of view, notably and especially in young programmes, by the changes in knowledge and practice of family planning that may be attributed to organized family planning activities. This project is therefore a move to answer this important demographic question as it concerns a rural Nigerian community. The answer to be obtained is hoped to be clear enough to measure the effectiveness of government information machinery on the subject of fertility control. It's shortcomings would be highlighted and how to improve it identified. The future course of family planning activities would also be charted.

This study has both sociological and anthropological relevance to the extent that studies on fertility levels and its determinants touches purely at the primary

unit of social organization - the family. Family size and family planning have roots in customs, and traditions, religious beliefs and practices as well as authority relationship within the family institution especially as it concerns decision making.

The significance of this study can also be identified on the basis that it will be yet another contribution to the existing body of knowledge on demographic research as well as a motivating guide to future research in this hitherto neglected segment of our population.

Finally, this study has relevance as an attempt at helping to build up individual student survey capability, which is a necessary foundation in building up a national survey capability in population studies and analysis.

1.5 AKOKWA COMMUNITY: BACKGROUND REVIEW

1.5a Geographical Location, Population and History

Akokwa is a community in Mbanasa clan in Ideato Local Government Area, Imo State of Nigeria. It is located within latitude 5° 45' North of the Equator, and longitude 7° East of the Greenwich meridian. Akokwa occupies a unique position about eighteen kilometres North-East of Orlu and about fifty five kilometres

north of Owerri - the Imo State capital. It is a community located at the boundary of Imo and Anambra States. Akokwa is bounded in the north by Uga and Umuchu communities in Aguata Local Government Area of Anambra State; in the south by Osina and Obodoukwu towns; in the east by Uzii and Arondizuogu towns, and in the West by Isiokpo town, all in Ideato local Government Area, Imo State. Even though, it can be said that Akokwa is relatively attaining the status of an urban community, before the coming of the Europeans about 1904, Akokwa has always been a well ordered traditional independent community. This traditional heritage of the people is still very much embedded in their social structure despite the pervasive social change that accompanies urbanization and mordenization, even westernization.

According to the 1963 population census of Nigeria, Akokwa had a population of twenty-three thousand, two hundred and ninety five (23,295), which is 32.46% of the total population recorded for Mbanasa Local county and 13.90% of the entire population of Orlu North-East county council. By this population figure, Akokwa has the largest population among the communities that make

up Mbanasa Clan. Also, by the unaccepted 1973 population census of Nigeria, a population of about forty thousand (40,000), was recorded for the community. Following the annual growth rate of about three per cent for the country and going by the 1963 population figure, the population of Akokwa community shall fall between fifty and sixty thousand people.

It is worthy of note that this projected population are not all living permanently in the town. Rural-urban migration is a major phenomenon in the town. As is characteristic of many rural areas in Nigeria, majority of the young and educated are out of the community, living in different parts of the country and the world. To this extent, majority of the indigenous population permanently residing in the town are the aged, the illitrate and the very young. The phenomenon of population turnaround in terms of urban-rural migration is also very much observable. This is more pronounced on temporary but continuous basis on weekends, when sons and daughters of the town who reside in different parts of the country, do return home for various community based programmes like meetings, launching ceremonies for self-help development projects, festivals, marriage and funeral

ceremonies. However, these people do leave the community by Sunday evenings to their different places of work and trade.

Rural - rural migration has produced a large proportion of permanent residents in Akokwa Community. These migrants are from different rural communities of Imo and Anambra States. This wave of migration into Akokwa town became pronounced in the mid-seventies, when there was expansion in building construction in the town, being part of the fall-out of the oil boom and even the past - civil war reconstruction. This attracted artisans of the building industry and consequently traders and other manual workers. Prominent among migrant workers, are government workers especially teachers who are engaged in different primary and secondary, as well as commercial schools in the town.

As to the origin and theory of Akokwa's existence, there is considerable doubt. One school of thought believes that Akokwa originated from Itu in Ohaozara Local Government Area, Imo State. The father of the town was called "Okwa", who was said to have migrated from Itu during the heat of extreme hostilities and as a result of inter-tribal wars, and settled at the place now called "Aka-okwa". The other school of thought does not accept the migration

theory. It says that the original father of the land was a man called Ohaigiri who did not migrate from any place. He was said to have begotten a man called Akokwa whose name the town bears. Akokwa it is said was a very intelligent man, and was well beloved by Ohaigiri his father. His name originated from "Ako" which denotes wisdom and intelligence. In supporting the latter school of thought, Mazi Mbagwu Ogbete (aged about 80 years in 1972) had this to say: "We started with the name Akokwa. We are not immigrants and we did not migrate into Akokwa. I heard this from our fathers. God gave us where we now live. I cannot tell you when Akokwa started. The fact is that we are as old as the world itself" (Isichei, 1977: p.108).

It is therefore, evident, that there are two sharp areas of difference between these schools of thought - origin and spelling. It is worthy of note that the spelling caused a serious controversy in 1962 between the two factions of the town, for which the Nsikak Commission of Enquiry was instituted by the Government of the former Eastern Nigeria, to determine the correct spelling of the town. The decision was, however unanimous

on "Akokwa". While there is no ample or valid evidence to substantiate the claim that "Aka-okwa" originated from Itu, which has been regarded as ficticious, evidence weighs more on the side of the non-migration theory (Oranika, 1975). The two schools of thought however agreed on the point that Akokwa or Aka-okwa had six sons namely, Ezeaga, Okwara, Akwu, Opia, Owerri and Okegwu. The descendants of these children formed today the six villages in Akokwa town. The villages are named as follows: Umuokwara, Umuezeaga, Umuopia, Akwu, Owerre and Umukegwu.

The descendants of Okwara called Umuokwara had always held the paramount chieftancy title of the town. Occassionally however, the descendants of Ezeaga - Umuezeaga - challenge the seniority of Okwara and the claim of his descendants to the chieftancy title. However, no acceptable evidence has been adduced to disprove Okwara's seniority and claim to the chieftancy which devolves in the oldest male child and his heirs. The traditional ruler of Akokwa today by title "Obi of Akokwa" came from the Okwara lineage. The six villages have chiefs whose offices are subject but not inferior, to the office of the Obi of Akokwa. It is worthy to note

that each village is subdivided into kindreds with kindred heads taking charge of political authority. In all, there are twenty-five kindreds in the community.

From the foregoing, it becomes evident that the community is a closely knit political and cultural system, To this extent, there are little if any differences in terms of the culture of any part of the community. In all, the life ways of the people are closely knit together into one system, having negligible, if any variations at all. Their family and marriage patterns, as well as festivals are all the same as is observable in the town today.

b. Occupation of the People

The main economic stay of Akokwa people is agriculture. Akokwa was noted in the past for farm work, hence the old saying among their neighbours: "AkọOkwa na ọrụ ji" (Akokwa and farm work). Akokwa has from time immemorial been famous for farm work (Isichei, 1977). Such crops produced in large quantities are yam - the chief crop, cocoyam, cassava, vegetables, among others.

Animal rearing is another source of wealth for Akokwa people. Animals kept include goats, pigs, dogs, fowls and sheep. These animals count among a man's wealth

in Akokwa, especially in past years and among the aged today. This occupation however, did not use to favour everyone because most of the time, some of the animals die off before they reach the age of maturity when they are sold. In the olden days when money was not yet introduced a wealthy man in Akokwa was known by the number of goats, sheep, pigs, fowls, wives and children he has and the length of his yam barn. This measure of wealth has been offered as one of the reasons why polygyny was prevalent among the people and why the culture favoured high fertility rates.

Trading was also a prominent occupation of Akokwa people. The main market in the town is Orie market. It is a market that used to hold once in a four days week, but these days, it is almost a daily market. In the olden days, Akokwa traders, travelled to distant markets like those at Oguta, Uzuakoli, Bende, Uburu and even Onitsha. Today, the trend continues. In different parts of the country and beyond, Akokwa indigenes are found among the cream of prominent business-men and in industrialists. This phenomenon, coupled with education accounts for the rural-urban migration

prominent in the town today.

Today, Akokwa is progressively being transformed through urbanisation, westernization and various elements of social change. As a result, most of the traditional occupations are being deemphasized, but not farming and trading. The occupation of the inhabitants of the town has spread to modern occupations. Thus we have today in Akokwa doctors, nurses, teachers, photographers, motor and motorcycle mechanics, brick layers, cabinet makers, welders, contractors and a lot of other people engaged in different sectors of the Nigerian economy.

1.5c. Family and Marriage Institutions

The family and marriage institutions are the major social institutions in Akokwa town. Every individual both males and females are expected to get married and form their familes. Except for catholic nuns and priests - which in itself, is a very new phenomenon in the community - nobody can adduce any acceptable reason for not getting married. A man who did not marry is regarded as an "efulefu", or "ofeke" (a nonentity).

He is almost a useless man who cannot perpetuate his family line. A woman who did not marry is regarded always with disdain if not outright ridicule.

Marriage is regarded as a permanent contract which involves not just the two married couples, but their families and friends. Divorce is not quite entertained except where a woman is so bad in character that the kinsmen of her husband come together and declare her a threat to their familial survival. Apart from such serious situations, divorce is not a common variable in the community. To this extent, marital stability is maintained among the people. Moreover, a woman divorcee is regarded with a lot of disrespect. Women therefore work hard to stay in matrimony than staying out of it.

In the olden days, polygyny is accepted as the norm, especially as the number of wives a man has as well as his children accounts for his social ranking in the status hierarchy. The old proverb that, "in the multitude of people is the kings honour", holds as a social norm in the community. However, christianity and education which had their inroads into the community as from 1904, with their attendant values,

have had a lot of influence on these values. Monogamy is now a prevalent marriage pattern in Akokwa. This modern trend has the blessing of the churches which now abound in the community. This is not to say that polygyny is no more in operation. Far from it. Polygamy is still in practice, especially among the very rich who are uneducated as well as those who still hold firm to the traditional values of the past. Again infertility and preference for male children are some of the suggested reasons why polygyny still persists. Marriage is more or less a societal arrangement for the perpetuation of a lineage, and this is achieved through the male children who live in their father's stead. Therefore in a situation where a woman is sterile or cannot produce male children, this aim is not being achieved. This has always led to such a man taking another wife, in most situations under the persuasion of his family.

1.5d Family Planning in Akokwa Community

There is no government family planning clinic in Akokwa community. However, Akokwa is one of the field

immunization centres of the Health Centre of the Ideato Local Government Area. Routine immunization of children against killer and communicable diseases dates back to 1985 in the Local Government. Consequently, there are three levels of immunization activities which comprises of the National Immunization, State Immunization and Local Immunization days. The local immunization days for this year lasts from April to June this year. During this period, Local Government health staff travel to different communities within their jurisdiction, giving teachings about immunization of children. These immunization programmes are relevant to family planning in Akokwa community because, the nursing sister in-charge of the Ideato Local Government Area health Centre, reliably informed the researcher, that they combine the immunization programmes with family planning enlightenment services. Health staff use this forum to inform the women who came to immunize their children about family planning practices and their availability and accessibility to all who are willing to accept them for fertility control. Those who wish to be family planning acceptors are advised to visit the Health Centre at the Local Government headquarters with their husbands.

According to the Nursing-sister, many women after such enlightenment campaigns, have visited the health centre for the acceptance of family planning methods they prefer. The fact that some women do come to the clinic to accept the family planning methods available, indicates that more vigorous enlightenment campaigns can enhance acceptance of family planning considerably.

The fact that family planning campaigns go hand-in-hand with immunization campaigns here, is relevant in some ways. In one way, both programmes are health enhancing programmes, and family planning and child immunization are all related to childbearing and child-rearing. Moreover, the fact that the same people who are immunizing their children against killer and communicable diseases are also talking about family planning measures, makes the whole issue more meaningful. It helps to remove any kind of suspicion that might arise and helps to make the women see the issue as a purely health matter. This creates a favourable environment for acceptance. It has to be noted however that the family planning services are not available at the immunization centres but at the Local Government health

centre. The influence of distance in accepting the methods is hoped to be determined by the conclusion of this study.

Apart from the free family planning services available at the Local Government Health Centre, private hospitals exist in Akokwa community which offer family planning services. Among these hospitals are the Njaka Medical Centre and the St. Anthony's hospital and maternity, where the Medical Director, Dr Samuel Ugwa, informed the researcher that the hospital do have all the family planning services, but they are given to patients for a fee. The family planning services available in the hospital are like every other medical service. Those who need advice on family planning or those who need some of the services available, do come to the hospital and pay hospital charges for recieving advice or service. All kinds of modern services are available to those who can pay for them. The response of patients to these services are presumably not very significant since not many people regard themselves as sick as to seek medical treatment. Asked whether they have enlightenment campaigns to keep the people informed about the availability of such family planning services, the Medical

Director, replied that they do not have such campaigns, but only those who come to them for advice or services, they deal with.

From the backdrop of the foregoing, it becomes clear, that the availability of these services in this local community is not well known to the people. Moreover, family planning is viewed here as only a medical problem which is sought by those who are sick and come to hospital for treatment. This kind of service can only be seen as part of a very private endeavour, which is not part of the 1988 Government Population Policy of making family planning services easily accessible at affordable cost to all couples and individuals. Nevertheless, it is also clear that family planning services are at least available at both the community and the local government Health Centre, under private and government auspices respectively. The factors that enhances, inhibits and will enhance their adoption is a major part of the problems of this study.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL ORIENTATION

2.1 REVIEW OF RELEVANT LITERATURE

The purpose of this review is to examine the empirical findings concerning the extent to which a variety of explanatory variables, including biological variables, infant and child mortality, women education and access to resources, have been shown by research to directly or indirectly explain observed fertility levels and knowledge, attitude and practice of family planning.

Explanations of fertility can be sought at many levels; the level of the biology of a single birth, or in terms of the general social and economic characteristics of an entire population. The current fertility of a family or society is assumed to be determined in part by its past fertility experience. Farooq and Simmons (1985), identified three levels of independent variables - Environment, Family characteristics and proximate variables - which act on the dependent variable - current fertility. The immediate explanation of fertility is in

terms of the proximate or intermediate variables. These variables are in turn explained by a set of variables measuring the characteristics of decision-making households and their immediate environment. Finally, there are a set of environmental variables which influence by all three sets of independent variables, but a strategy decision is required of the researcher as to which level, if any, should be given special emphasis.

In the same token, Bongaarts et al (1984) expressed the view that any detailed and comprehensive analysis of factors influencing fertility requires that a distinction be made between two classes of determinants: (i) proximate variables and (2) socio-economic and environmental "background" variables. The latter include the social, cultural economic, institutional, psychological, health and environmental variables, and the proximate determinants consists of all biological and behavioural factors through which the background variables must operate to affect fertility. The principal characteristics of a proximate determinant is its direct influence on fertility. In contrast, socio-economic variables can affect fertility only indirectly by modifying the proximate determinants.

Socioeconomic and environmental variables (e.g education, health)	→	Proximate determinants (e.g contraception, age at Marriage)	→	Fertility

The study of proximate variables improves understanding of the operation of the socioeconomic determinants. In general, a socioeconomic variable can have negative fertility effects through one set of proximate variables such as education's effect on use of contraception and positive effects through another set (such as education's effect on length of breastfeeding). The overall net effect of a socioeconomic variable on fertility can therefore be positive, negative, or insignificant depending on the relative contributions of the positive and negative effects of the proximate determinants. These off-setting effects of proximate determinants on fertility levels play an especially crucial role in sub-saharan Africa. (Bongaarts, Frank, Lesthaeghe, 1984;576).

A detailed discussion of these fertility variables will therefor be undertaken under the following headings:

PROXIMATE OR INTERMEDIATE VARIABLES INFLUENCING FERTILITY:

The proximate variables which have been discovered to influence fertility include marriage, contraception and Abortion, together with natural fertility. A complex set of these biological conditions and interactions must exist for a birth to take place: two sexually-mature and currently-fecund individuals must interact sexually, contact between sperm and ovum must occur in an appropriate biological environment favourable to te fetal development must exist. Certainly, the process is more complex than most market transactions. Many aspects of fertility are governed by factors such as age or health status, which are not to any significant degree under the control of the individual. For example, sterility associated with menopause or involuntary abortion (miscarriage) are seldom elements of choice in fertility. Consequently, while it may be fully appropriate to recognise choice as one element in a theory of fertility, the biological framework within which that choice is thought to operate should be well

specified (Simmons in Farooq and Simmons, 1985;70).

Thus, in any discussion of fertility, it becomes useful to begin with a recognition of the role of intermediate variables. Davis and Blake (1956), provide a taxonomy of mutually - exlusive intermediate variables which mediate between fertility and explanatory variable of a behavioural form. They suggest that there are three categories of variables that are necessary for successful reproduction.

i) Variables which define the probability of sexual intercourse, such as age at marriage;

ii) Variables which define the probability of a conception resulting from sexual intercourse such as the use of contraception or the pattern of primary or secondary sterility; and

iii) Variables which define the probability of a conception resulting in a live birth, such as spontaneous or induced abortion. Since a live birth cannot take place without sexual intercourse, conception and a successful pregnancy and parturition , these variables are therefore important determinants of fertility behaviour and fertility levels.

Bongaarts (1978, 1982), has presented a useful classification of the intermediate variables and their influence on fertility in high and low fertility situations. His classification has four major categories:

i) the proportion of the population married or in sexual unions;

ii) the proportion of the married population contracepting and the effectiveness of contraception;

iii) the extent to which a population uses induced abortion; and

iv) the average length of breastfeeding in the population.

Bongaarts referred to these variables as proximate determinants of fertility.

The following is a complete list and a brief description of the proximate determinants.

Proportion of Women Married or In Sexual Unions

This variable measures the degree to which women of reproductive age are exposed to the risk of concieving.

Frequency of Intercourse: This determinant directly affects the probability of concieving among ovulating women. Frequent or prolonged spousal separation has therefore a substantial fertility reducing effect.

Postpartum Abstinence: Prolonged abstinence from sexual relations while a newborn is, breastfeeding is common in a number of societies, many of them in Africa.

Lactational Amenorrhea: Following a pregnancy, a woman remains unable to concieve until the normal pattern of ovulation and menstruation is restored (postpoartum amenorrhea). When breastfeeding, takes place the duration of lactational amenorrhea is primarily determined by the duration, intensity and pattern of breastfeeding.

Contraception: Any practice undertaken deliberately to reduce the risk of conception is considered contraception if it aims to limit family size. Breastfeeding and postpartum abstinence, while they effect fertility by increasing child spacing, are not included as contraception because their aim is primarily the protection of maternal health and child development rather than regulation of the number of children born.

Induced Abortion: This includes any practice that deliberately interrupts the normal course of gestation.

Spontaneous Intrauterine Mortality: A proportion of all conceptions fail to end in live birth because some pregnancies spontaneously terminate prematurely in a miscarriage or stillbirth.

Natural Sterility: Only a small proportion of women are sterile at the beginning of the reproductive years, but this proportion increases with age and reaches 100 percent at age 50.

Pathological Sterility: A number of diseases, especially gonorrhea, can cause primary or secondary sterility primarily sterility, results in childlessness because a sterilizing disease is contracted before a first birth. Secondary sterility results in an inability to bear additional children, sometimes very early in the child-bearing years, and is due to the onset of disease among women who already have borne offspring.

Having shown a complete list and a brief description of the proximate determinants, it becomes necessary to review the relationships between these proximate determinants and reproductive behaviour under the following broadheadings:

MARITAL STATUS AND FERTILITY

In explaining historical patterns or the cross-sectional variation in fertility across countries, or among regions and groups within a country, Simmons (in Farooq and Simmons, 1985), was of the view that the proportion of the population ever married, the age of marriage, or the age at entry into sexual unions and the probability of widowhood and remarriage are often more powerful determinants of overall fertility than the level of marital fertility itself. Kumar (1971), emphasized that the relatively low level of fertility in Western Europe during the eighteenth or nineteenth century is better explained by the relatively high proportion of women who never married and by the relatively late age of marriage, than by the levels of marital fertility per se. The female mean age of marriage was in the mid-twenties for most Western European countries, compared to the middle or late teens as is the case in many of the present day developing countries. While the age at marriage is generally low in the third world, it varies from one country to another, and it has changed significantly during recent decades. The general rule is that the

higher the age at marriage, the lower will be fertility, but it should also be noted that there are some populations for example rural India, where women marry so young on average that the mean age of marriage would have to increase by several years to have a significant effect on fertility. Marital disruption may be a factor in reducing fertility in some places. The determinants of the age of marriage and marital stability are not well understood.

The decisions as to whether and when to marry are in many of their aspects, a form of economic behaviour (Population Information Programme 1979). In pre-modern European populations, for example, marriages were often supposed to take place only after the couple marrying could provide themselves and the children with an income at a prescribed level. This often had major demographic effects. Among the population of nineteenth century Ireland, it was reported, that economic difficulties associated with the potato famine led enough couples to delay marriage that fertility fell rapidly. More recently, it was also on record, that the government of China, has made a systematic attempt to raise the age of marriage in order to reduce fertility. Thus,

the age of marriage can be used to deliberately control fertility at either the individual or the societal level. Indirectly the age at marriage is likely to be associated with the level of education, female employment and other variables, but the causality may work in either direction and the strength of the relationship must vary from one situation to another.

Closely related to the intermediate variable of marital status is marriage patterns. Cultural factors like the practice of polygyny has been discovered to have effects on fertility. Polygyny is widely practised in the Nigerian society and interestingly, it is prevalent among all religious groups. The family, fertility and Family planning survey in Nigeria, between 1971 - 1975, reported that about two-fifth of eligible women in urban areas and three-fifths in rural areas were in polygynous marriages. Based on the results of the study by Farooq, Ekanem and Ojelade (1977), the relationship between polygyny and realised fertility (children ever born) is expected to be negative, partly due to polygynous wives being comparatively more subjected to

coitus interruptus, and thus fertility restriction of customs and practices than monogamous wives, and partly because they also tend to have a larger incidence of Sub-fecundity (Olusanya, 1971). The relationship between polygyny and family size preference is however expected to be positive as more children may be seen by polygynous wives as emotional and status security safe-guards.

According to Farooq (in Farooq and Simmons, 1985), it is pertinent to point out that a typical polygynous household set up is such that the fertility decision-making may be more a wife-specific phenomenon than a joint husband-wife one. In many instances, it is primarily the wife who bears the brunt of the child-cost - this factor is perhaps partly responsible for the high female labour force participation observed for this society. However, the husbands placed in the upper socio-economic echelon, having either single or multiple wives, are likely to be contributing to the household for child-bearing and childrearing.

CONTRACEPTION AND FERTILITY

Contraception is central to the whole question of fertility control. By definition, some form of contraception or abortion must be used if married couples wish to reduce their fertility. It is notable however, that contraception can take many forms, some of which are associated with sexual activity and may require high motivation to be used effectively (example coitus intrruptus or the condom), and some of which are independent of sexual activity and are generally more effective (e.g. hormonal contraceptives or Intra-uterine Devices (IUD). While there are many advantages to modern contraception (and some disadvantages as well), more traditional methods can also be effective in reducing the level of fertility. In the absence of modern contraceptives for example, European and North American populations were able to reduce their marital fertility to relatively low levels (Simmons in Farooq and Simmons, 1985).

From the theoretical point of view if for any given couple, the biological reproduction maximum is greater than the number of children it wants, based on socio-economic environmental factors, then some contraceptive practice has to be adopted by the couple in order to

control the supply of children. In practice, however, this option is determined by the knowledge of and attitude towards family planning methods. Several studies have been carried out on the influence of these variables in different societies. Adeokun and Ilori (1976) in a Nigerian survey, reported that more than one-half of the urban eligible women and more than one-third of the rural ones approved of family limitation practices to 'have just the number of children that they want and have them when they want them'. Most respondents had some knowledge of traditional methods such as abstinence, breastfeeding and rhythm, but only slightly more than one-tenth were aware of modern methods. More than one-half of their respondents had actually practised fertility control mainly abstinence - less than five percent had ever used a modern method.

The World Fertility Survey (WFS) findings (1984) discovered a similar trend in Nigeria, in terms of knowledge, attitude and practice of family planning. In terms of contraceptive awareness, Nigeria, was listed among countries where large proportions of women from 32 to 92 percent) had not heard of a single contraceptive

method. Among those who had heard of at least one contraceptive method, the overwhelming majority of all countries including Nigeria, mentioned at least one efficient or modern contraceptive method (i.e oral contraceptives, intra-uterine-Devices, Condom, injectables, female or male sterilisation or female barrier methods such as the diaphragm).

Among currently married women, the WFS discovered that contraceptive use is very low in African countries with a level as low as 2 - 8 percent. Contraceptive use in developing countries is comparatively 'low among women aged less than thirty, and rises substantially after that. There is infact a clear tendency for women in most developing countries to use contraception mainly for stopping childbrearing altogether, rather than for child spacing. This finding however is not a 'given' condition, because recent findings seem to suggest that infact the opposite is really being the case.

Despite widespread awareness of efficient modern contraceptive methods, thirty-one percent of the women using contraception at the time of the World Fertility Surveys in fourty-one developing countries were using

inefficient or traditional methods. The proportion of contraceptors using inefficient methods were reported to be highest in the African and Middle Eastern countries with 38 and 36 percent respectively. Nigeria was among the countries where the figures exceeded 40 per cent. The WFS report (1984) was of the view that the level of use of inefficient methods seems to indicate a high level of commitment to contraceptiveness. It states, "since inefficient methods are generally more difficult to use, their use seems to indicate a strong commitment to postpone or stop childbearing as well as either lack of access to efficient methods, or religious beliefs opposed to the use of such methods." This kind of assertion may be difficult to explain, but its validity within the context of the area under study is hoped to be ascertained at the conclusion of this project.

In a study of the Yoruba of Nigeria, Caldwell and Caldwell (1977), emphasized the use of marital sexual abstinence as a measure of birth control which is used to space births and ensure survival of children. This latently decreased fertility levels, since, "the average Yoruba woman experiences sexual relations far less than half her fecund married years". However, they concluded

that the average duration of the abstinence period will undoubtedly continue to shorten and the practice may well disappear within the next generation or two. The path of fertility will be determined by the extent to which modern contraception substitutes for abstinence and ultimately by the extent to which it is more efficient than periods of abstinence as a means of birth control. Abstinence is a well known practice in Sub-Saharan Africa, including rural areas in the Eastern States of Nigeria. However, the conclusion of Caldwell and Caldwell (1977) about its disappearance in Yorubalnd in the recent future, may not be far from what obtains in these communities.

Contraceptive availability has been very much linked with contraceptive use. Findings have shown that it is likely that couples who are highly motivated to limit their fertility will seek out family planning services wherever they are, while those who are less motivated will not make such an effort. Data obtained for rural areas in Bangladesh, Republic of Korea and Mexico show that contraceptive use was higher in communities with better availability of services. This finding is in line with the general conclusion drawn from women's responses as descfibed in the World Fertility Survey

report (1984,20), which had it that women who knew a family planning outlet were more likely to be using contraception. Data from nine countries show that in eight of them, at least half of the women who knew a family planning outlet lived within thirty minutes travel time of the outlet. Of course, travel time is only one of many factors involved in the decision making of a prospective family planning user. The mode and cost of child care and of contraceptive supplies, and the hours of services and adequacy of supplies at the family planning outlet may also be important considerations. However, the point was stressed that motivation to practice family planning is generally a stronger determinant of contraceptive use than availability of services.

However, a stronger association is said to emerge when accessibility is related to use of specific methods. Using data from Philipines, the WFS report (1984) shows that accessibility was particularly important in relation to methods needing a regular source of supply such as the pill and the condom, although it was unrelated to the use of sterilisation and the IUD - methods not needing a regular supply source. Rural women were even said to be more likely to use the pill and the condom than

urban women, if they lived near a source of supplies, and even IUD use was higher among rural women who knew a family planning outlet. The association between accessibility and visits to outlets and possession of contraceptives in the home was also notable in rural areas. The general conclusion to be drawn from all these findings is that contraceptive use would increase in developing countries especially in rural areas, if more convenient family planning services are available.

In terms of sources of contraceptive information, data provided by Yang et al (1965) concerning rural Korea, indicate that the mass communication media and primary group relationships were the major channels, the latter being by far the most frequent. It was noted that the frequency of communication through mass media is related inversely to age and directly to educational level. In private communication by the primary group relationship, there was no marked difference in the age groups of wives, but for the husbands, the role of primary communication was more important in the older groups. In view of these findings, it seems plausible to assume that new information such as knowledge of

family planning is first acquired through mass media by those in the younger age groups, with relatively higher education. These groups may well include most of the opinion leaders who influence and instruct the rest of the villagers through peronal contacts. As it concerns Nigeria, there may still be a need to adjust this assumption to accomodate the fact that medical personnel are the main Source of information, as researchershas pointed out.

As to the most desirable methods of contraception, Yang et al, shows that their respondents emphasized that they should be effective, cheap, harmless to health and sexual life. They wished also to have guidance from the health centre.

On a general note, contraceptive use is closely associated with fertility declines in developing countries; countries with higher levels of contraceptive use consistently have lower crude birth rates than those with lower levels. More exactly, the WFS report (1984) indicates that a three percent increase in contraceptive use is associated with a one point decline in the Crude Birth Rate (CBR). According to this analysis, to lower the birth rate by one point would take a 2.4 per cent increase

in contraceptive use if efficient methods are used, and a 3.3 per cent increase if inefficient methods are used (after allowing for the effects of breatsfeeding and marital status).

The conclusion to be drawn concerning the relationship between contraceptive knowledge, attitude and practice and fertility is varied if not complex. However, the major aspect of this work is to establish those relationships and to determine the level of effects of these variables on fertility level within the study area.

ABORTION AND FERTILITY

Abortion is another intermediate variable which has a large potential effect on fertility. There are populations where more pregnancies are aborted than result in live births. As in the case of contraception, government programmes and legislative activities play an important role in determining the extent to which abortion is used within any society. Abortion has become quite common in a number of industrial countries. However, it is more difficult to study abortion than to study contraception. Abortion statistics are often ineadequate

and in many cases, the fact that abortion is illegal and subject to public disapproval leads to resistance on the part of survey respondents to discuss it. Moreover, its illegality in many societies reduces its practice and therefore its influence on fertility.

Intermediate variables other than age at marriage, contraception or abortion, are grouped by Bongaarts (1978) under the general heading of natural fertility variables Although Bongaarts regards the natural fertility variables as less significant than the other proximate variables in particular situations, especially where there is universal early marriage and little deliberate control of fertility within marriage, they may be important determinants of the sometimes large variations in fertility. Every society has cultural practices which influence fertility. Examples are provided by Lesthaeghe (1980). Prolonged breastfeeding can considerably extend birth intervals as is illustrated in a Nigerian Survey Case - Study as published in Farooq and Simmons (1985). Health conditions may be associated with sterility. Variations in frequency of intercourse may lead to differences in fertility from one region to another, or from one couple to another, encouraging breastfeeding would have a mild

effect in reducing fertility, whereas encouraging good health practices may raise fertility; however, apart from these influences, Simmons (1985) was of the view that natural fertility variables have less policy significance than variables relating to exposure or to control of fertility within marriage.

FERTILITY AND VARIABLES CORRESPONDING TO THE CHARACTERISTICS OF FAMILIES AND THEIR IMMEDIATE ENVIRONMENT:

While there is consensus that all vaiations in fertility must be mediated by the particular set of intermediate variables described above, no such agreements exist about the variables considered under this subsection of the review. Researchers from different social science disciplines would list quite different variables for emphasis. Some of such variables emphasised are review below.

A G E:

Age is one of the most important of the variables which characterise individual participants in the fertility process. Similarly age structure is one of the major determinants of a society's fertility patterns. At both the individual and the societal level, age is closely related to intermediate variables. The age of the potential parents plays an important role in fertility outcomes because fertility is in most senses, a cumulative process closely related to the life cycle of each

parent and of the family unit. Thus age is closely associated with marriage, with divorce or widowhood, with menarche, with frequency of intercourse, with the probability of conception and with menopause. Age is also related to many of the economic variables. Income for example is likely to increase over much of the life cycle. Empirical research confirms the importance of age as a determinant of fertility. In the case study of Anker and Farooq in Kenya and Nigeria (1985) respectively, age is the dominant variable in regressions done for all women in reproductive ages. In fact age is so closely related to fertility that many authors suggest that researchers should analyse the determinants of fertility within age groups. Farooq (1980) and Macura (1982) (quoted in Farooq and Simmons (1985) in their different studies in Nigeria and Yugoslavia respectively, demonstrate that different factors determine fertility among younger and older women. Among the Yoruba wives, there is a high frequency of terminal sexual abstinence, in many cases before the onset of menopause, because the family system could not stand the stress of her having parallel maternal and grand maternal

responsibilities and obligations and for personal reasons such as being too old now for the worry of raising more children (Caldwell, 1977a, Caldwell and Caldwell, 1977).

MORTALITY

Mortality affects fertility levels through a number of mechanisms. Firstly, it affects the number of couples of reproductive age through its general influence on the age and sex structure of the population. Correspondingly, at the individual level the number of children a couple is likely to have will be influenced by the probability of the full reproductive life of the couple remaining unbroken by the death of one of the spouses. Secondly, infant and child mortality have been hypothesised to affect fertility through both biological and behavioural mechanisms. Finally, the level of mortality may influence the environment in which fertility decisions are taken at both the family and the society levels. For example, policy makers in countries with a recent experiences of high mortality may be reluctant to adopt a fertility control policy or the existence of high mortality may lead to the development of institutions that encourage early marriage.

While mortality as it affects the number of potential parents may have a large influence on fertility, the major focus in the literature has been on the way in which infant and child mortality influences the behaviour of parents within marriage. A central concept in the demographic transition literature is the idea that mortality decline precedes fertility decline. Many authors have extended this observation to the conclusion that a reduction in mortality is considered a necessary, although insufficient condition for a reduction in fertility (Frederiksen 1969; p 838; Zachariah, 1973). The conclusion has been further encouraged by the observation that among countries in the contemporary world those that have high mortality tend to have high fertility as well (World Health Organization, 1974).

As a result of these relationships at the level of the society, researches have been initiated for corroborating household level relationships. Hear and Smith (1968) have been able to demonstrate that in the face of high mortality, parents who want to assure that a targeted number of their children survive to adulthood will have to give birth to more children than they might

otherwise want. This study, however suggestive is not empirical. It was done by a non-empirical deductive methodology. The conclusions that are reached depend heavily on the exact assumptions that are made.

Empirical household studies however have increased considerably. Chowdhury et al (1967) recognised that there may be a purely biological effect of some importance: the death of the infant of a lactating mother frequently has the important effect of shortening the period of post-partum amenorrhea and thereby reducing the interval to the next conception. While there is nearly a universal agreement concerning the direction of this effect, there is some difference of opinion about its quantitative importance. More central to the theme of this variable is the importance of the other possible responses to the experience of infant and child mortality. These other responses, which collectively can be termed the 'behavoural response', include the conscious or unconscious efforts on the part of parents to alter their fertility behaviour so as to make up for the past death of an infant, attempts to raise fertility in anticipation of the experience of child mortality within a family, and efforts to maintain

high fertility within a family because of social norms that encourage fertility as a response of the community to the experience of mortality (Rustein 1974; Heer and Wu, 1975). The behavioural response to mortality should be larger and more influential than the biological response. These two effects together may create a situation in which high infant and child mortality lead to fertility in excess of that required to replace lost children (Hassan, 1973). Put differently, in most situations population growth could be expected to be greater with high mortality than with low mortality, other things being equal. Barnum Howard (1988) supports this viewpoint when he observed, "Higher levels of fertility are caused by higher levels of mortality. Mortality derives its affects on fertility through the physiological effects of the cessation of breastfeeding in shortening postpartum amenorrhea and through behavioural or replacement effects resulting from the desire to achieve a desired family size."

It has to be noted however, that this relationship is not a one way affair. There seem to be a great deal of variation in the nature of the relationship between one sample and another (T.P. Schultz, 1978a). A number

of studies have found some replacement effect, but it is consistently less than would be necessary to increase population growth. Taylor et al (1976) have concluded that 'although an association between infant and child mortality and fertility levels has been widely accepted, little direct evidence has been available either to support the assumptions or to define possible mediums of interaction'. The empirical findings provide little hope that the moderate reductions in infant mortality, by themselves, will lead to a rapid reduction in fertility. Preston (1978) suggests that while the replacement effect is the largest, there may be an additional insurance effect. Overall However, 'only a small fraction of mortality variation at the family level seems to translate into fertility variation.'

THE STATUS OF WOMEN AND FERTILITY

Many authors have cited the status of women as a key determinant of fertility, and have suggested that changes in women's status may be the central element in successful efforts to reduce fertility (Germain, 1975; United Nations, 1975; Sadik, 1989). The status of women can influence fertility through the age at marriage, fertility choices

within marriage or natural fertility. Level of educational attainment, participation within the workforce, decision making authority within the family unit and health status are all treated as measures of women's status which may influence fertility. While each has its own special contribution and limitations, the two indices of women status which dominate the literature are education and employment.

The relationship between education and fertility has been subjected to some debate in the literature both in the advanced and the developing countries. The general expectation is that as education rises, fertility falls. Fertility differentials in both developed and developing countries indicate a negative relationship between the level of education attained by women and their fertility (Goldstein, 1972, Husain, 1970; Jordan, 1976; Rodriquez and Cleland, 1980; Jain, 1981). Bogue (1967) has therefore observed that education exhibits a stronger and more consistent relationship to fertility than any other variable.

However, it has been suggested that there is a preponderance of intervening factors upon which the existence of a negative relationship depends. McGreery and

Birdsall (1974) Cochrane (1978) observed that in addition to these intervening factors, the extent to which education influences fertility depends both upon the level and type of education and upon whether or not education leads to economic activity. The inverse relationship between fertility and education is strongest for the highest level of educational attainment, suggesting that education may have little or no effect on fertility until a threshold level (eg. high school) has been attained (Encarnacion, 1974). Olusanya (1971) reported that the average number of children ever born is higher for the educated than for those without education. However, it must be noted that Olusanya used a limited classification of educational attainment (no education and primary and above). There are reasons why the fertility of women with only limited formal education might well be higher than that of women with none in Africa. For example, it has been suggested that the primary educated are better nourished, more hygienically aware, and generally healthier and therefore experience lower levels of foetal wastage and therefore high numbers of live births (Arowolo, 1976). Cochrane (1978) and Graff (1970) maintain that the evidence that education for women is a necessary or sufficient condition

for lowered fertility is weak. To the extent that an inverse relationship exists, it does not appear to be education per se which influencesa woman to have a smaller family, but rather the association of education with other social and environmental factors which ultimately result in decreased fertility (Piepneier and Adkins, 1973). Cochrane (1978) has assessed the implications of education on each of the intermediate variables. In general, the strongest negative effects are on the proportion marrying, and the age of marriage, and on the use of contraception. Also negative effects of education on fertility work largely through the influence of education on taste and aspirations for material wellbeing, and on the opportunity cost of children. Traditional cultural values and norms are also likely to change with increasing education. Increasing education could be expected to improve not only the employ ability of the wife by opening up various alternate avenues of employment, but also her income level in her sector of employment. Wife's education also may serve as a proxy for the parents' expectations concerning their children's education (women with higher education likely desire higher education for their children).

If it is true, more education for children means a larger price effect and a lower income utility since their entry into the labour market is inadvertently delayed.

Education may have positive effects on fecundity and it has mixed effects on the demand for children (Cochrane, 1978). Positive effects of education in fertility work through an income effect and in the case of Nigeria, also through the influence that education has in weakening the otherwise widely held practice of lactation taboos, and relaxation of which will help shorten the post-partum sexual abstinence period. Education, as in the case of the income variable also contributes to raising the natural fertility levels through its influences on nutrition, personal hygiene and health, which may help reduce incidences of sterility, pregnancy wastages and infant mortality. In situations where desired family-size exceeds the actual number of children, any increase in natural fertility will result in increasing actual fertility level. Farooq in Farooq and Simmons (1985) therefore advanced a hypotheses which states that up to a certain level x increases in the education attainment level would be related to an increase in fertility but after that level,

the negative effects of education begin to over-compensate for the positive ones.

From the backdrop of the foregoing, it becoms obvious to go with the conclusion that the overall effects of education will depend upon the full set of influences and within a given setting, women's education may have different effects on each of the intermediate variables. Further studies are obviously needed to put an end to these contradictory findings (Onokerhoraye, 1985;99). This study is therefore one of such responses in this direction.

Women participation in the labour force is another important factor that affects fertility. The contemporary economic literature on fertility lays great stress on the possible conflict that may exist between a woman's role as mother and her role in the market place. To the extent that a women has the opportunity to remain in the labour force and that participation conflicts with raising children, the couple may elect to have fewer children. Wife's labour force activity is a more direct measure of opportunity cost of children than is education per se.

Opportunity value of person's time expended in non-market activities is equal to the market wage that he would earn from his labour-market activities (Becker, 1965).

Opportunities to enter the labour force may depend on a great many factors, but the woman's education is often thought to be a reasonable proxy for the opportunity cost of entering the labour force (Standing, 1978). For national population samples, the World Fertility survey results confirm the existence of a negative relationship between fertility and female employment and a positive relationship between knowledge, attitude and practice (KAP) of family planning and female employment (Rodriquez and Cleland, 1980).

However, these relationships seem to be so only when female labourforce participation is matched with high level of education. This doubt was cast because of the fact that evidence has shown that in developing countries even in urban areas, women employment has not been found to be consistently associated with fertility (McGreery and Birdsall, 1974). Furthermore in rural areas, women's participation in the workforce often appears to be positively associated with fertility. The complexity of the relation-

ship is underscored by the observation that in some cases, working women in rural environments of the developing countries have higher fertility than non-working women in urban areas. Moreover the nature of employment in rural areas is always informal sector employment which is very compartible with childbirth and childrearing. In actual fact both employment and child bearing and child rearing go hand-in-hand. Research evidence from Nigeria, supports the above viewpoints. In a society like Nigeria, the opportunity cost of children may largely be conpromised on two accounts. Firstly, given the strong familial ties and importance of tribal links the joint or extended family system is a very common feature of the Nigerian society. According to Caldwell (1977), the concept of nuclear family may be more or less irrelevant. Under the extended - family system, there is available, a ready and relatively cheap provision of baby and child care, which allows for on easy substitute of the woman's role in home and market economic activity. Secondly, if a woman is engaged in farming or retail trading activity (as in the case of the majority of working wives, 55 per cent in urban areas and 77 per cent in rural), these activities are observed to be not very

incompartible with her reproductive and home activity. On balance, such labour activity, by contributing to the family financial resources may also have a positive effect on fertility which may over compensate for the substitution effect of work participation.

Caldwell however pointed out that such might not be the case if a woman is engaged in a formal economic activity and is reported to be in occupational categories such as professional, administrative and clerical workers, Other sales workers and craftsmen, production process, transport and service workers. He pointed out that there may be a high correlation between education level and reported occupation. Education as mentioned earlier may serve as a proxy for labour quality and especially in the urban setting, higher education means more of the labour market being accessible to a woman, particularly job opportunities in the formal sector.

It has to be noted that research to date does not provide direct and conclusive evidence to support any generalisation about the strength and direction of the influence on different settings. Thus as with education for women, one must assume that the relationship between

fertility and female employment will depend upon local circumstances. To this extent, by the conclusion of this study, the relationship in the study area would have been established.

THE ENVIRONMENT AND FERTILITY

The third category of variables which affects fertility levels relate to the environment within which family decision making is undertaken.

Families do not live in isolation from their environment. They will be influenced by the nature of the community in which they live and by the norms and expectations of their neighbours. Their economic circumstances -market prices, work opportunities, income etc - will depend upon the patterns of production and distribution associated with the economy as a whole. The political system will influence the relationships between the population and the local government, public administration and many of the other variables in the system. It is likely to have a particularly strong impact on the decisions of the government in the area of population policies and programmes.

The community can be defined at many levels. The village is the level at which the term may be most relevant for families living in rural parts of a country, but there may also be a sense in which community is defined by a larger region or by the nation as a whole or even by ethnic affiliation.

The general environment is likely to influence fertility through other variables in the system. Anker (1977) and Anker and Anker (1982) found that even after controlling for the influence of individual characteristics, there is a statistically significant effect of community on fertility. Farooq (1985) shows that the fertility behaviour of rural and urban residents in Nigeria differ considerably. Sarma in Farooq and Simmons (1985) shows the influence of community variables in the determination of variations in fertility in India.

The independent or facilitative role of government in effecting changes in fertility is perhaps the most controversial area in the study of fertility. Governments can and have enacted programmes designed to facilitate contraceptive use, to encourage or discourage the use of abortion or to change the age of marriage and all of

these activities will have some effects on fertility. They have also enacted many programmes (e.g. in the area of health or nutrition) that may have influenced the natural fertility variables. The controversy is not about the role of the intermediate variables themselves in affecting fertility. There is agreement that changes in the age of marriage or in contraceptive practice, will be central determinants of fertility. Difference of opinion is rather about the extent to which government programmes have an independent causal effect in these intermediate variables.

Among empirical studies, R. Freedman and Berelson (1976), Mauldin et al (1978) and Tsui and Bogue (1978) as quoted in Farooq and Simmons (1985) have found a strong relationship between government programmes and fertility. Recent sceptics include Demeny (1979a, 1979b) and Herandez (1981) all in Farooq and Simmons (1985). It should also be recognised that many government activities in addition to family planning influence fertility. Herrin (1979) has documented the influence of a rural electrification programme in rural fertility in one province of the Phillipines. Barlow (1982) has

assembled a set of case studies illustrating the impact of development projects on demographic variables.

From the backdrop of the fore going reviews, it becomes evident that the factors which affect fertility behaviour, as well as the knowledge attitude and practice of family planning are many and complex. There is evidence to show that the influence of factors have different effects and weights in different societies as well as different locations within a single society, for instance in rural and urban centres. Within the context of this study therefore an attempt will be made to discover the level of influence exerted by these fertility factors on the fertility behaviour of rural Nigerians, particularly those residing in Akokwa community in Ideato Local Government Area, Imo State.

2.2 THEORETICAL ORIENTATIONS

In a study of this nature, there is every need for a theoretical basis as a guide to the study. This need hinges on the fact that theory which indicates general principles guiding human behaviour, is an important part of the scientific, process and it provides a framework

within which policies and programmes are formulated. However, there is an essential controversy about theories in the area of fertility or other parts of the social sciences. There is no agreement as to a single theory explaning fertility decisions of the human population. Despite the disagreement, the basic questions which are to be answered are: How are we to understand and explain the child bearing customs of societies and the behaviour of individual and couples? How should we account for their change or for that matter, for their persistence? A major issue in fertility research turns upon the relative promise and importance of microanalytic versus macroanalytic levels of investigation and explanation. Both micro-analytic and macroanalytic theories of fertility bear upon the understanding of variations in the general form of the historical trend in fertility of any society.

Microanalytic theories of population growth are concerned with two major aspects of fertility. These are (a) individual survival or life span, variations in individual survival or life span, and the causes and correlates of both; and (b) the fertility of individuals or couples, variations in number and spacing of births, and causes and correlates of such variations. In contrast, the subject matter of macroanalytic theories of population

growth consists of: (a) a societal patterns of fertility and mortality, and (b) the structural and institutional features of societies which bear upon survival, mortality, and fertility. In particular, macroanalytic theories seek to account for societal variations in growth patterns in terms of structural attributes of entire societies or collectivities. Within the context of this study, a review of few important examples of microanalytic and macroanalytic explanations of fertility is to be undertaken before a theoretical framework is chosen.

MICROANALYTIC THEORIES

Three examples of microanalytic theories of fertility shall be presented. The first seeks to link individual fertility decisions and behaviour to declining mortality; the second seeks to link individual fertility to the preservation or enhancement of social status; and the third links individual patterns to utility - cost considerations in the economic sense.

THE DECLINING MORTALITY THEORY: The declining mortality explanation of declines in fertility has two key arguments. First, it holds that declining mortality implies a need

for fewer children to be born. In order to assure a desired family size, or that children will survive to look after their elderly parents, or that a given number of children will survive to "continue the family line", parents no longer have to raise large families. The second argument is that declines in mortality actually impose objective hardship upon families having to support and educate ever-large numbers of surviving offspring. There are simply more offspring surviving than used to be the case, and this means that today's families concieving the same number of children as earlier families end up with more mouths to feed. Therefore, those people who are alert enough to recognize the implications of declining mortality, and those who have access to knowledge, means and social support for controlling fertility, have taken steps to control their fertility.

Probably, the most systematic formulation and exploration of the declining mortality theory in contained in a series of papers by D.M. Heer, D.O. Smith and D.A. May (Heer, 1960; May and Hear, 1968, and Hear and Smith, 1969). Their argument goes as follows: suppose that most couples want to be quite certain that one male

child will survive to the couple's old age. A computer simulation technique establishes the following relationships:

1. Conditions of high mortality (summarized by an expectation of life at birth of no more than about 20 years) require a very large number of births and very high birth rates. Child bearing must continue throughout the reproductive age span, so that the average age at motherhood must be quite high, 28.7 years. Even so, under conditions of such high mortality a substantial fraction of the women (nearly 39 percent) will never bear the number of sons needed to assure that at least one will survive to his parents' old age. However, the rate of natural increase in such a population over a long period of time (the "intrinsic rate" of natural increase) is fairly high, 1.7 per cent annually (41 years doubling time).

2. Under conditions of moderate mortality, substantially lower birth rate are required. All but 2.5 per cent of the mothers are able to bear enough sons to assure that at least one will survive to his parents' old age. Childbearing may slow down or stop late in the reproductive age span, and the average age at motherhood is younger - 25.2 years. But under such conditions,

a population would experience natural increase at a much higher rate - 2.8 per cent annually (25 years doubling time).

3. Under conditions of rather low mortality, a single male birth is almost certain to promise a male survivor. Therefore, the achievement of the goal requires that childbearing be continued over only a short part of the reproductive span, and so the mean age at mother hood is 20.4 years. Fertility rates would probably assure no more than a replacement of the population and certainly no substantial increase.

In sum, there is no reason for fertility to remain high when mortality levels are low. But other micro-analytic theories still give other explanations for fertility declines.

THE SOCIAL STATUS THEORY

The social status explanation of fertility as originally formulated in 1890 by the French demographer Arsene Dumont, held that the ambition to rise to higher social positions is widespread, but that large families inhibit social mobility. Accordingly, people who seek to enhance their status will tend to control fertility and family size.

A modern formulation of the social status explanation by J.A. Banker (1954) attempts to account for the sharp decline in fertility in England between 1870 and 1900 by arguing that:

1. After a generation of prosperity, the British economy experienced a levelling off in the 1870s and 1880s.
2. To preserve their own newly acquired occupational and social status and to assure its transmittal to their children (the latter entailing substantial investment in the education of the offspring), couples of the British salaried middle class restricted their births drastically.
3. The restriction of births became simpler and more socially acceptable during the period in question because of technological improvements in the promotion of contraception.
4. As communication between the classes increased, and as primary and post-primary education among the lower classes expanded, the pattern of family limitation started gradually to be diffused.
5. The further expansion of interclass communication and lower-class education intensified personal contacts and the motivation to acquire new prestige to such an extent that the pattern of family limitation came to

permeate the entire social structure.

Variations of this analysis are sometimes formulated as explanations of fertility differentials between for example, urban and rural populations, Jewish and Christian ones, and foreign born and first generation native ones. Lower urban as compared to christian fertility; and lower first-generation native as compared to foreign - born fertility are thus all explained in terms of attempts of the respective former categories to improve or assure socio-economic status.

THE UTILITY-COST THEORY

The utility-cost explanation of fertility has recieved much attention and has been elaborated considerably in recent years. Its basic ideas were set forth by H. Leibenstein (1957). According to him "it is not going too far to say that the essential element to be explained is the incentive or rationale behind the desire to have larger or smaller families. We have to visualize various contraceptive techniques as merely facilitating factors, the utilization of which involves an economic or emotional cost of some sort. But the

major burden of any theory must be on the explanation of the force that create the necessary motivation for the creation of smaller rather than larger families.

A distinction has to be made between the knowledge of alternatives and the choice among known alternatives. It seems, reasonable to suppose that as incomes increase the knowledge of the alternative pertinent to family limitation also increases. But we still have to explain what determines the choice from among a range of human alternatives. The basic idea behind our theory is that motivations with respect to family size are to a considerable extent, rational; that, on the whole, parents will want an extra child if the satisfactions to be derived from that child are greater than the "costs" that are involved -where "costs" are to be interpreted rather broadly". (Leibenstein, 1957, p.157).

The utility-cost explanation of fertility assumes first, that people behave rationally with respect to their own fertility. That is, people behave as if they were applying rough calculations to the problem of determining the desirable number of births. The second assumption of the utility-cost theory is that these calculations are directed toward balancing the satisfaction

or utility to be derived from an additional child against the cost, both monetary and psychological, of having that child.

The theory distinguishes between three types of utility to be derived from an additional child. The first is the child's utility as a "consumption good", - as a source of personal pleasure to the parents. The second is the child utility as a productive agent, as a person who may be expected eventually to work and contribute to the family income. And the third is the child's utility as a potential source of security, for instance in the parents' old age.

The costs of having an additional child are both direct and indirect. Direct costs are the usual expenses of maintaining the child until he is self-supporting, and indirect costs are those incurred when opportunities (for example the wife's employment) are foregone because of the child's existence.

The utility cost explanation of class differentials in fertility holds, in the first place, that since income varies over the different socioeconomic groups, different groups can afford more or fewer children

(Becker, 1960). In the second place, the pattern of utilities and costs varies among the different socio-economic groups. For example, the utility of an additional child is different for the professor than for the unskilled labourer. Similarly, the indirect cost is different for the college - educated career woman than for the housewife (Duesenberry, 1960).

The utility-cost analysis also offers an explanation of changes in fertility over time. Economic development, it reasons, can alter the pattern of utility and cost. For example, both the direct and indirect costs of an additional child probably rise as income inreases, whereas the utility of the additional child as a source of security and as a contributor to family income probably diminishes. Families with higher incomes typically spend more directly on their children, for clothing, education, and medical services. And at the same time, the more highly educated mothers in such families forego relatively greater income opportunities, and so they incur higher indirect, costs. On the other hand, high income parents are less likely to need support from their children in their old age. Finally, in both high and low income families, the utility of the additional child as a consumption item is probably fixed (Leibenstein, 1969:162).

The net effect of all the assets and debits in the utility-cost analysis is that the direct and indirect costs of raising children are higher in the more modernized societies where high proportions of the population (and women in particular) are educated. And so, we have witnessed fertility declines in the more developed countries.

A major critique of this theory is its assumption that from the point of view of parents, children are durable goods, yielding satisfaction over a protracted period of time and in this sense comparable with other goods such as motor cars or television sets. Many are troubled by the notion of children as consumer durables. Berelson (1972, p.22) for example notes that children

> "come only in whole units, they are not rentable or returnable or exchangeable or available on trial, they cannot be evaluated quickly, they do not come in several competing brands or products, their quality cannot be pretested before delivery, they are usually not available for appraisal in large numbers in one's personal experience they themselves participate actively in the household decisions."

But for many economists, the problem in considering children to be consumer durables is that available

evidence shows that higher income groups generally "buy" fewer children than lower income groups and that average family size declines over the course of economic development. This leads to the conclusion that children must be "inferior goods" of which like potatoes, fewer are bought as income increases. To explain this paradox, Becker (1960) first noted that lower income countries and groups might lack access to contraceptive means and therefore "consume" more children than they intend to. More importantly he argues that the number of children would normally rise with income except that this income effect is offset by a countervailing price effect; namely that with rising income, children of higher "quality" are desired. The number of children parents have is not determined independently of the "quality" of children they choose to have.

MACROANALTIC THEORIES

Three macroanalytic theories are to be briefly discussed. The first is Malthus's classic analysis of the relationship between food production, per capita income, and preventive checks on population growth. The second, is the macroanalytic analysis of changing family structure as expressed in the emergence of the

conjugal family, and the rationalization of family formation. The third is the theory of population balance which explains changes in population size, distribution, and other characteristics in terms of the availability of environmental resources, technological development, and social organization.

MALTHUS'S THEORY

The central historical personality in the recognition and formulation of a theory of interrelationships between population and social and economic change was T.R. Malthus. He is immortalized in demographic history for his essay on the principle of population (1758), which appeared in no fewer than seven editions from 1798 to 1872, and for the controversy which raged and continues to rage around his ideas (Glass, 1953).

There are three central ideas in Malthus's analysis. First, since population tends to increase faster than food resources do, there is always tension between population and subsistence. Second, this tension is resolved by the positive checks of mortality. That is, the increase in population to a level close to the limits of subsistence produces poverty, misery, vice,

disease, and ultimately the mortality operating to restrain population growth. And finally, a measure of population balance can be obtained by other means besides mortality checks. The preventive checks of moral restraint - like delayed marriage or continence in marriage - could replace positive checks to limit population growth.

Malthus felt that several of the social reforms advocated in his day would, if adopted, result only in increased population and higher levels of poverty, misery and disease. At the same time, they would diminish industry and thrift. He advocated preventive checks and indeed, observed with approval the institutionalization of delayed marriage in increasingly broad sectors of the population (Malthus, 1829).

Diminished per capita income is, in Malthus's analysis, a structural attribute of a society which has experienced too rapid a population growth. The mortality and diminished fertility associated with the positive checks of vice, misery, wars, and famine affect all people in such societies, not just those who marry too early, or who bear too many children, or do not earn enough. Further the delayed marriage, solvency, and continence

associated with preventive checks are primarily institutionalized means of diminishing fertility rather than individual acts of wisdom and foresight (Spengles, 1971). In Malthus's analysis, the key societal variable is the survival or nonsurvival of populations at subsistence levels. Malthus only implicitly took into account the possibility of survival at alternative levels in living. However, the more modern renditions of his theory have it that societies institutionalize preventive checks, not only upon threats to actual survival, but upon threats to survival at some acceptable minimum level.

THE THEORY OF CHANGING FAMILY STRUCTURE

W.J. Goode et al (1963) formulated the theory of changing family structure which holds that urbanization and industrialization are associated with the subversion and breakdown of the extended family system. In the extended family system the childbearing couple is not generally the decision making unit. Arrangements and decisions, regarding matchmaking and marriage, residence, work and economic relations, and even the care and socialization of the young are not made by the couple affected but instead by the most senior members of

the extended family. Similarly, there is typically no discussion or decision about childbearing on the part of the couple. Children are conceived, born and accepted as part of an inevitable life process rather than by decision.

In the relatively independent nuclear family however, decisions are made by the couple both before and after marriage. Each partner may decide to marry or not to marry, each may choose his or her own spouse, and jointly the couple may make residential, occupational, and childbearing decisions. Such decisions may be determined entirely by tradition; they may be entirely rational; or they may comprise some combination of these properties depending on the couple's individual characteristics like literacy and socioeconomic status.

According to Goode's formulation, it is industrialization that causes and sustains the institutionalizationa of the conjugal, relatively small family. More precisely, industrialization undermines traditional family system by creating class-differential mobility within kin groupings; by organizing extra-kinship institutions for meeting needs and problems previously handled by kinship institutions; by creating a value structure recognizing

achievement; and by promoting specialization and differentiation, thereby diminishing the opportunities for kin to aid one another in occupational arrangements. It follows that industrialization promotes change in these specific aspects of family formation that concern the independence and mobility of newly formed families. For example, industrialization works to place marriage decisions and choice of spouse in the hands of the principal parties themselves, to diminish the rigidity and frequency of endogamous and exogamous practices and to increase the frequency of neolocal residence (where the home of the new couple is located fairly independently of the locations of either of their parents homes). Industrialization also works to make age at marriage, and variations of age, consistent with the increasing independence and mobility of the younger generation. And finally, industrialization promotes attempts to control fertility, primarily (but not exclusively) by making the couple the decision-making unit.

THE THEORY OF POPULATION BALANCE. Elements of the population balance theory as formulated by human ecologists

are found in modern sociology in the writings of Emile Durkheim, A. Halbwachs, W.F. Ogurn, and, particularly A.H. Hawley (1950) and O.O. Duncan (1959). All societies are confronted by pressures created by their own tendencies to increase in number. Taking it as axiomatic that males and females in any human population mate and produce offspring, it follows that in the absence of social, institutional, physical biological, or other inhibiting factors, populations, tend to increase in size.

The pressures of population increase spell opportunity for some societies and disaster for others. The pressures of population growth bring about changes in the social organization and in the economic and technological arrangements of a population; alternatively they may also bring on institutionalized constraints upon mating and procreation. Thus in any society, there is an ongoing interaction between the population, its social organization, its technology and its environment. A society characterized by fixed technology and social organization must, when confronted by substantial growth in its own numbers, seek to expand its environment by settlement, cultivation, or exploitation of new areas.

Otherwise, it must suffer a decline in its per capita level of subsistence. On the other hand, a society with a fixed area can increase its production and look after its growing numbers by effecting changes either in its social organization or in its technology or both. But the society which is unable to alter its social or technological patterns, and which is also unable to expand its physical or geographical environment must either institutionalize means to control population growth, suffer substantial decreases in its level of living, or historically the most common case of all -lose all of its potential growth through high mortality.

A critical review of the above micro analytic and macro analytic theories, indicates that each of them to some degree has relevant explanations of the fertility behaviour of human populations. This assertion is given credence by the variety and complexity of factors which have bearing to fertility levels and fertility control, as evidence has shown from the literature reviewed in the previous section of this chapter. The view being expressed here therefore is that no one of the theories can form an adequate basis of explanation

for this study. To this extent, the theoretical framework which will be an adequate explanatory basis for this study will adopt an amalgamation of the views expressed in micro analytic and macro analytic analyses. This is a move to take into account of the individual determinants of fertility behaviour as well as societal factors. On the basis of this viewpoint, it becomes necessary to review some attempts to reconcile the two theoretical frameworks.

INSTITUTIONALIZATION OF NEW FERTILITY BEHAVIOUR

R. Freedman (1968) argues that when large numbers of persons exhibit characteristic patterns of decision making and behaviour in response to changing typical exigencies (like changing mortality levels or changing modal utility and cost patterns), these behavioural patterns become institutionalized and normatively prescribed in the society. Thus not only do diminishing mortality and increasing education have the effect, predicted by microanalytic analysis, of lowering the fertility of individuals, but these individual responses of lower fertility may be institutionalized and normatively supported in societies experiencing substantial decreases in mortality and increasing literacy and education.

TASTE AS A SOCIOLOGICAL VARIABLE

R.A. Easterlin focuses upon the concept of tastes as a bridge between the microanalytic economic and macroanalytic analyses (Easterlin 1969). Working with the utility - cost model of fertility behavior, he suggests viewing the formation of tastes, which determine utility and cost under a given pattern of income and prices, as sociological as well as an economic variable.

> ---To turn to the formation of tastes, it is here that many of the fertility variables emphasized by the sociologists come to the fore. While it is attitudes --- which together with resource and price constraints immediately determine fertility decisions, a host of other variables lie behind these attitudes. In general, one preference system at any given time may be viewed as molded by heredity and past and current environment, The process starts with birth and continues through the life cycle. Religion, color, nativity, place of residence, and education enter into the shaping of tastes. So, too, does one's childhood and adolescent experience in one's own home with material

affluence and family size. One reaches family building age with preferences already molded by this heritage, but these preferences are subsequently modified by ongoing occupational, income and family-building experiences, among others. Exposure to various information media influences tastes throughout the life cycle.

Because of the important role of cummulative experience in the formation of tastes, it is probably correct that typically tastes change rather slowly overtime. For some analytical purposes, this may justify the economist's usual assumption of constant tastes. But in areas of behaviour such as fertility which involve a substantial time period or where cross-section differences among classes are of interest, such an assumption seems dubious.

Nor can the economist dismiss taste phenomena as a non-economic in nature, for it is clear that economic variables enter into the shaping of tastes and affect behaviour through this channel as well as via the resource and price constraints traditionally emphasized. Hence, an adequate framework for fertility analysis calls for explicit attention to preference phenomena and the factors entering into their formation (Easterlin, 1969;135).

In an important critical review of research on fertility, G. Hawthorn (1970) adopts the Easterlin scheme and begins a systematization and summary of those findings that bear on variations in resources, costs, and tastes. These variations, in interaction with one another are seen as determining fertility decisions and behaviour. Religion, education, female employment urbanization, race, and social mobility are all rexamined from the point of view of their influence on tastes in the utility cost analysis.

MULTIPHASIC RESPONSE TO DEMOGRAPHIC AND ECONOMIC CHANGE

The well-known attempt by K. Davis to analyze fertility trends in modern demographic transitions in terms of a theory of change and response (1963) may also be viewed as an attempt to reconcile microanalytic and macroanalytic analyses. Davis points out that in countries experiencing a demographic transition, there were typically more than a single means by which the birth rate was brought down following the lowered mortality and a period of sustained growth. These means generally included delayed marriage, international migration, sterilization, abortion and the increasing use of

contraception. Such multiphasic responses, according to Davis, represented reactions to the decline in mortality and to the sustained natural increase which ensued, but not to poverty or to crises of subsistence. They were prompted by personal, rather than by societal or national, goals and considerations.

The demographic transitions always took place under conditions of economic expansion and growth. Davis's theory seeks to explain personal strategies of marriage and family formation - concerns of the microanalytic analysis - in terms of the individual's location in the society's social and economic structure. Differential location, he argues, gives rise to differential opportunities for exploiting (or for avoiding the negative effects of) macroanalytic variable such as changes in the scope or structure of the society's economic activity. Davis presumes childbearing to be a normal activity, and he seeks to identify the circumstances under which childbearing is controlled or diminished.

According to this analysis, location in the social and economic structure makes for differences in the

advantages to be reaped from the control of fertility in any given economic circumstance. Those individuals who stand to gain the most from adopting practices which diminish fertility will practice birth control, while those who are located in the society and economy as to derive little or no reward from fertility control will not limit family size.

From the foregoing theoretical reviews, it becomes evident the existence of many theories about fertility variations and trends. Microanalytical theories stress the role of individual or household preferences and fertility decisions, and they inquire about the factors which influence individuals. Macroanalytical theories stress the role of social conditions in the very fact and acceptability of abstraction, evaluation and decision making about marriage, family formation and number of births. In conclusion as earlier stated, the synthesis of this two theoretical approaches as examplified in the works of Freedman (1968), Easterlin (1969) and Davis (1963) shall guide this study. This choice is predicated

on the understanding, as earlier mentioned, that both individual, as well as societal factors come into play in the determination of fertility behaviour of individual members of a society.

HYPOTHESES

In order to chart specific directions for this study, the following assumptions are stated, based on the review of literature and theories. An attempt to answer these questions by testing their validity will be the major focus of the study. The result to be obtained in this exercise, coupled with other findings to be made, it is hoped will help us to achieve the stated objectives of this study.

1. Fertility levels is highly influence by the level of a woman's educational attainment.
2. Ideal family size is highly influenced by the level of a woman's education.
3. Sex preference has a direct relationship with the desire for more children.
4. The preference for more sons is a significant product of low levels of education.
5. Infant and childhood mortality is a significant determinant of the desire for more children.
6. Age at marriage is influenced by the level of education of a woman.

7. Family planning methods in practice is significantly influenced by the level of education.

8. Accessibility and availability of family planning, services are significantly related to contraceptive use.

9. Sources of family planning information available to a woman is significantly associated with her level of education.

10. The present harsh economic enviroonment has a fertility, reducing effects.

11. Educated women supports family size limitation policies than less educated ones.

CHAPTER THREE

THE RESEARCH METHODOLOGY

3.1 SCOPE OF STUDY

The area under study is Akokwa community in Ideato Local Government Area, Imo State of Nigeria. In order to make for a complete case study, it became necessary to draw a sample from all parts of the six villages in the community. The villages are Akwu, Umuokwara, Umueżeaga, Umuopia, Umukegwu and Owerre.

Within these villages, the study focused on four hundred households. Inside the households, all married women aged 15 - 49 years are eligible for interview. Married women of this age group are chosen for this study, because of the obvious reason that they constitute the segment of the population who are more likely to be exposed to the risk of childbearing and fertility control practices. It was expected that each household should have a married woman representing it. In the cases of polygynous homes, the first woman met on the day the interview took place was chosen.

3.2 SAMPLE DESIGN AND TECHNIQUE

In this study, every attempt was made to draw up a probability, sample. This attempt was based on the understanding of the superiority of random sampling methods over non-probability techniques, especially as it concerns the drawing up of a representative sample of the population under study. However, the researcher did not adopt a typical sampling procedure because of various limitations. There was a need for an adequate sampling frame which is not available and an insistence on finding one would have made the study a well-nigh impossible task. In actual fact, the problem of sampling is so prominent in this kind of study, that some researchers have doubted whether accurate sampling frames can be created in most of the developing societies (Morgan and Kanisto 1973 in Orubuloye, 1981). At the time of this project, it is doubtful if any researcher has been able to develop an adequate sampling frame for the whole of Nigeria, or for any subpopulation of the country. The reason among others is that the basic demographic data needed for such an exercise are not available. Moreover, not even the size of the base population at any level is known with anything approximating reasonable certainty.

There are also other problems often associated with sample surveys in developing societies, moreso rural areas. Such problems include the demarcation of sample areas which if not carefully done, can lead to double enumeration or the complete omission of some populations. In the study area, information on the size of the population and a complete list of households does not exist, and as a result, difficulties arise about the representative nature of the chosen samples. In a society where the literacy rate is very low, it is usually hard to secure the full cooperation of the respondents in surveys strictly based on a drawn up sample. This is because respondents worry about why they are being interviewed, when their neighbours are left out. In such situations, evidence have shown that respondents refuse to be interviewed or when their agreements are procured, they may well decide to give incorrect information to divert the attention of the investigators away from their real selves. Orubuloye (1981) reported that the unreliability of such interviews can easily be measured by the proportion of "don't know", "no response", "no idea", or "refuses to answer" responses."

Recognizing the foregoing problems, this researcher deviced a sampling technique which proved appropriate for this work. The six villages that make up the study community have further subdivisions into kindreds. Akwu village has three kindreds namely Anukpa, Ogbo and Awoke; Umuokwara village has four kindreds namely Dimonyeka, Lololhedi, Ikpa and Uhuala, Umuezeaga has four kindreds namely Onyehuru, Okpo, Exiama and Nkwerre; Umuopia village has four kindreds namely Umunyaku, Oji, Oghuru and Emehuma; Umukegwu village has five kindreds comprising Ijemba, Ikpa, Ezeahunanya, Oji and Okuko. Finally, Owerre village has five kindreds comprising Oredomma, Okala, Achara, Oji and Amanasaa. To draw a representative sample of these kindreds, all the kindreds in each village were given equal weights, and within each village, the simple Random sampling method was used to select a kindred within which a sample of fifty respondents will be drawn. Using the Lucky dip procedure, the names of each kindred is written in a piece of paper and put inside a container, shaken and thrown on the ground. One of such papers is picked. This is repeated for all the villages. In all, the kindreds chosen are Umunyaku in Umuopia,

Awoke in Akwu, Okpo in Umuezeaga, Dimonyeka in Umuokwara, Amanasaa in Owerre and Oji in Umukegwu.

Within each kindred, the interviewers were instructed that from which ever road they entered a kindred, they should take the first house as the starting point and in that way, they go to the next house and the next, until they reach the end of the road. They are to take on another road and continue like that in sequence until a total sample of fifty married women are interviewed. If an interviewer enters a house and the married woman of the house is not at home, he is to skip that house and go on to the next. Through this procedure, it was assured that a total of three hundred women are to be part of the sample population. This procedure also helped in eliminating the worry being referred to above by Orubuloye (1981). In fact it encouraged women to respond to the questions as they were informed that even their neighbours have already given their responses. There were occasions where women who were suspicious of the end of the questions and therefore refused to respond to them, were persuaded by their neighbours who understood the research end,

and who have also responded to the questions. In all these cases, such women changed their decisions and granted us interview.

It was assumed and rightly I suppose, that most married women to be met at home, especially during the week days are likely to be non-professional women, who are either farmers, traders or housewives with low levels of education. Because education and its effects on the phenomena under study are central to this work, it became necessary to make a deliberate provision for the inclusion of educated women into the sample. Following this line of reasoning, all the married women teachers who are in the ten primary schools, four vocational schools and two secondary schools in the community were drawn into the sample. Other institutions whose working mothers were drawn into the sample in this wise are private hospitals, clinics, medicine stores and maternity homes, as well as commercial houses. By this purposive procedure, it was targeted that one hundred women will form part of the sample.

3.3 DATA COLLECTION METHODS

The data collection instrument used in this study was a structured questionnaire of fifty-five questions. The questionnaire instrument has two major sections. The first section is a brief introduction of the research topic and research purposes to the potential respondents. The second section has the questions on biographic data of respondents, as well as questions on live births, mortality of children ever born, knowledge attitude and practice of family planning and acceptability of Government's recommendation of "four children per woman". To encourage respondents to talk freely, the questions were arranged so that general backgrounds are covered first, followed, by questions on fertility behaviour and family planning.

Specific questions were asked on sources of family planning information, child mortality experiences and its effect on fertility behaviour. A checklist of contraceptive methods was provided to allow respondents to indicate those they have heard about, approved, ever used and are using. There were other questions which are deemed relevant to the study which formed part of the questionnaire.

For the administration of the questionnaires, the researcher recruited eight undergraduate students of Imo State University, Okigwe who are indigenes of Akokwa community. These students did agree to participate in this enterprise because of the primary social relationship between them and this researcher. The researcher among other reasons is one of them who is taking a higher degree programme and in the spirit of brotherliness, they felt obliged to help him in data collection. Their cooperation was total and their ability and qualification was not in doubt as their performance showed. Two school teachers were also recruited from a primary school and a secondary school in the community. They also helped in the administration of the questionnaires in their respective localities and schools. This researcher, apart from his supervisory role in the exercise, also did actual administration of questionnaires.

All the interviewers used as indicated above are indigenes of the community. This choice was informed by experience from previous researches of this nature, which has shown that the use of local assistants is an effective means of collecting reliable information from

rural communities (Olusanya, 1967b; Orubuloye, 1974; Omiata, 1975; Trevor, 1975). The researcher got an experience in the process of this study to substantiate this view. When interviewing a woman on the subjects raised in the questionnaire, she replied, "Believe me, I would not have answered these questions you are asking, if you are a stranger, never". In all, most of the women who responded to our questions did so on the strength that some of the researchers are known to them to be their sons and moreso University students. This helped to assure them that the purpose of the interview was not to "sell them out". This is one of the reasons which helped us to get the level of cooperation we got among the respondents.

The field assistants were given some practical guidiance by the researcher on how to go about the administration of the questionnaires. The purpose of the survey and the administration techniques was explained to them. The questionnaire was introduced and they went through every detail of the schedule with the researcher. They were also informed to go through the schedule on their own inorder to master the dynamics of the questions within it. This is to enable them be able to administer

the questionnaires smoothly in the field. They were advised to ask questions as they are written and not to paraphrase questions, since that creates a risk of misrepresenting the questions to the respondents. They were asked to try as much as possible to record the answers of the respondents in the respondents' own words and to play a very constructive role throughout the period of the interview, in order to minimize biases.

Finally, the field assistants were informed to note the importance of their assignment. Moreover, since this is the beginning of such a study in the community, the conception of the women of this study, will have a lot of effects on their future attitudes to social science interviews and researchers.

The result of the exercise and the relatively high response rate experienced at the conclusion of the data collection exercise, showed that these instructions were well recieved and applied by the field assistants.

3.4 DATA PREPARATION

At the end of the survey fieldwork which lasted for nine days, a total of three hundred and twenty completed questionnaires were collected and brought back to the University of Ibadan. Eight of the questionnaires were rejected because of incomplete and inconsistent responses. Three hundred and twelve of them were deemed fit for coding and analysis.

The coding manual was prepared on the basis of the information collected, since some of the questions in the schedule were not precoded. The information was transferred from the schedule to the coding sheets by the researcher after various internal checks on accuracy of the responses. The coding sheets and the coding manual were subsequently taken to a computer data processing centre for information to be transferred onto a computer tape. The SPSS package was used in the tabulations needed for the analyses.

3.5 ANALYTICAL TECHNIQUES

Frequency tables were constructed for all the variables and the percentage instrument was used to

determine the strength of each variable during the analyses. In order to determine the relationships between different variables, crosstabulation and break-down analyses were utilised. Whereas crosstabulations yielded us the relationships in percentages, the break-down analyses gave us the relationships in means. The chi-square test is used in the testing of hypotheses. Where this is done, the hypothesis was accepted or rejected at 0.05 probability level of significance. The Analysis of Variable (ANOVA) test was also computed for some variables and was accepted or rejected at 0.05 levels of significance.

3.6 PROBLEMS OF THE STUDY

The major problem of this study is that of financial constraint. A survey of this nature needs a lot of finance inorder to cover a larger sample. It is obvious that the larger the sample the smaller will be the sampling error. Thus the enhancement of reliability and validity of data is assured. With limited financial resources, it was not possible to print more questionnaires, and to recruit more hands to interview more respondents, hence the limited sample size of three hundred and

twelve women.

Another major problem of this study was that encountered with the respondents. This study reestablished the point that our present society, moreso, rural communities, lack the research culture. Our people seem not to understand why people should be asking questions on issues that "do not concern them". This lack of understanding of the meaning of research poses a lot of problems to research endeavours. The researcher and his assistants had to spend a lot of time explaining why the women who formed part of the sample must answer the questions. In most situations, these persuasions and pleas did fall on deaf ears, whereas some women responded half - heartedly. Nevertheless, an appreciable number of women responded to our questions satisfactorily. This became possible among other reasons because those involved in the study are indigenes who are known by some of the respondents as University students. Nonetheless, the respondents in this category comprise more of the educated women than the uneducated. This might stand as one explanation for the high level of education among the sample population.

Another major problem related to the second, is the assumed sensitivity of the questions in the questionnaire. Many of the women, especially the less-educated mothers, find it difficult to "expose" their private life history to a young person whom they felt knew "nothing". At this stage, we come to realize that some of the issues which are freely discussed in lecture rooms by students, are deemed sacred and no - go areas in the wider society especially in rural settings. Many of our potential respondents were really uncooperative and lost to the sample because of this conception. Questions that concern family planning were seen as touching on the "out of bounds" of life which no one should know.

There are other problems encountered in the study. But such problems seem to be the normal part of researches of this nature. Such problems include that of memory lapse, ignorance with respect to age, income, children ever born etc.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSES

4.1 DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

AGE:

The age of respondents ranges from 16 to 49 years. The mean age of the women drawn into the sample is 32.17 years. When grouped into five years age-groups, the age group 25 - 29 has the highest frequency comprising 28.8% of the respondents. The age data is represented in table 4.1 below.

TABLE 1: PERCENTAGE DISTRIBUTION OF RESPONDENTS BY AGE GROUP

AGE GROUP	NO. OF RESPONDENTS	RELATIVE FREQUENCY (%)
15-19	5	1.6
20-24	39	12.5
25-29	90	28.8
30-34	63	20.2
35-39	48	15.4
40-44	27	8.7
45-49	40	12.8
TOTAL	312	100

The above age distribution is relevant to this study because the higher percentage of the respondents fall within the critical age range for childbearing. There is therefore every assurance that the women under study will represent the reproduction behaviour of the rural community which it is meant to represent adequately.

MARITAL STATUS

The questionnaire was designed for all married women and was administered as planned. The distribution of respondents indicate that 275 of them, representing 88.1% of the total respondents are currently in marital unions; 25 women representing 8.0% are widowed. The rate of divorce and separation was shown to be low; 8 and 3 of the women representing 2.6% and 1.0% respectively are divoirced and separatedd. This picture goes on to confirm the high level of marital stability associated with the Igbo of Eastern Nigeria in which area the study community is situated. This again is relevant for this study because fertility levels and family planning are highly influenced by the number of

years spent in and out of marital unions (Davis and Blake, 1956; Bongaarts, 1978, 1982).

RELIGION AND MARRIAGE PATTERNS

Together, christians constitute about 96.5% of the sample population. Of this, 60.3% are Roman Catholics, while 36.2% are of the protestant denominations. Traditional religious adherents constitute 3.2% of the respondents whereas one respondent did not report any religion. Islamic religion has no adherent among the respondents. This is a true reflection of the situation in the whole community because Islam is non-existed in the area. This religions situation could be explained even on a wider foundation. The belief lines in Nigeria if drawn, shows that the south is predominantly christian with the east having the largest concentration of christians. This religious factor has important demographic implications, because the christian religion stipulates monogamy as the only acceptable form of marriage. "For this cause (marriage) shall a man leave his father and mother, and shall be joined unto his wife and they two shall be one flesh" (Ephesians, 5 verse 31).

The influence of religion seems to be well reflected in the marriage patterns of the community. A total of 83.7% of the respondents are in monogamous marital unions. Women in polygynous marriages constitute about 16.0%. Monogamy has been found to have a positive effect on fertility behaviour and family size (Dorjahn, 1958; Mashan, 1956). Again, the high level of mongamy and low level of polygyny shows the level of influence which religion can bring to bear on traditional practices like polygyny.

EDUCATIONAL STATUS OF RESPONDENTS

The result of the data collected showed that 48 of the respondents being 15.4% had no education, 83 of them representing 26.6% had primary education. Seventy seven representing 24.7% had secondary education and one hundred and four respondents representing 33.3% had post secondary education with various qualifications ranging from Teachers Training Certificate to Nursing, OND to HND and degree certificates. The summary of the education data is presented in table 4.2 which follows.

TABLE 4.2: PERCENTAGE DISTRIBUTION OF EDUCATIONAL STATUS OF RESPONDENTS

CATEGORY LABEL	NO. OF RESPONDENTS	RELATIVE FREQUENCY
No Schooling	48	15.4
Primary Education	83	26.6
Secondary "	77	24.7
T.T.C	58	18.6
Nursing	16	5.1
OND-HND-Degree	30	9.6
TOTAL	312	100

The education data shows a seemingly high literacy level among women within the community. This picture can be explained on two bases. First, education has a long tradition within the study area which began with the establishment of primary schools by different christian missions in the community as far back as 1918. While one may not argue that these early schools encouraged women education, it is plausible to argue that with its vital instruments of liberation of the mind

and freedom, it must have encouraged the early educated men to send their daughters to school.

Secondly, the sample was designed to purposely draw into the sample, a substantial number of educated women within the community. Since education is a vital variable that influences fertility and family planning behaviour, this approach was justified. However, this turned out to seemingly over-represent the educated women due to the high non-response rate which the interviewers experienced with our uneducated respondents. Added to this, is the difficulty encountered in interviewing them. Almost all the rejected returned questionnaires was that of women in this category, due to their incomplete and inconsistent responses.

Nevertheless, it is needful to note that the data show that few of the women attained post secondary educational level. The explanation for this phenomenon can be seen in the data for age at first marriage and first pregnancy. This data indicate that 75.3% of the respondents are married by age 24 and 66.7% of them had their first pregnancy by age 24. With early marriage,

and early pregnancy, educational pursiuts at higher levels, is most likely to be jeopardized following the economics' principle of opportunity cost, except probably for those who managed to make it up to the Teachers Training Colleges before marriage.

OCCUPATION OF RESPONDENTS

The distribution of occupation of our sample population is represented in table 4.3 which follows.

TABLE 4.3: PERCENTAGE DISTRIBUTION OF OCCUPATION OF RESPONDENTS

CATEGORY LABEL	NO. OF RESPONDENTS	RELATIVE FREQUENCY
Trading	130	41.7
Farming	39	12.5
Teaching	71	22.8
Housewives	45	14.4
Civil Servants	24	7.7
Others	3	1.0
Total	312	100

The occupation data reflect the occupation of low educated women. With limited education, about 68.6% of the respondents are traders, farmers and housewives, leaving 30.5% as teachers and civil servants. These situations, as literature have made us to understand have positive effects on fertility because certain occupations like farming, trading and housewivry are compartible with childbearing. However, the actual situation as it concerns the study community is to be determined shortly. The data points, yet to one significant factor concerning the occupation of the inhabitant of the community . Trading has been rooted in the community over the years. The picture presented by the table confirms this and it is an important indication of the representativeness of the sample.

TABLE 4.4 . REPORTED ANNUAL INCOME OF RESPONDENTS (%)

CATEGORY LABEL	NO OF RESPONDENTS	RELATIVE FREQUENCY
Below ₦1000	149	47.8
₦1000 - ₦3000	71	22.8
₦3100 - ₦6000	61	19.6
₦6100 - ₦9000	23	7.4
₦10,000 and above	7	2.2
Not Reported	1	0.3
Total	312	100

The income data is in line with the occupation and educational attainment data. With low level of education, and majority of the women being traders, farmers and housewives, it becomes consistent therefore that the low level of earning capacity of the women can be justified. The extent of the effects of these variables on fertility levels and family planning is to be determined in the course of this analyses.

4.2 FURTHER ANALYSES OF DATA AND TEST OF HYPOTHESES

4.2.1 Family Size Norm in the Study Area

To assess the family size norm within the study community, some questions were asked the respondents on the subject. The questions are on children ever born, their ideal family size and their reasons for such an ideal family size. The frequency distribution of responses to these questions are summarized in the tables that follow:

TABLE 4.5. PERCENTAGE DISTRIBUTION OF WOMEN BY CHILDREN EVER BORN

CHILDREN EVER BORN	NO. OF WOMEN	% OF WOMEN	CUM % OF WOMEN
None1	5	1.6	1.6
1	44	14.1	15.7
2	41	13.1	28.8
3	42	13.5	42.3
4	45	14.4	56.7
5	30	9.6	66.3
6	29	9.3	75.6
7	27	8.7	84.3
8-10	35	11.2	95.5
11 & above	14	4.5	100
TOTAL	312	100	100

The mean number of children ever born to all the women drawn into the sample is 4.3 children. The data presented show that 56.76 of the respondents have had not more than four children per woman, and those who had not more than six children constitute 75.6% of the sample. The women who had seven children

or more constitute 24.4% of the respondents. This picture potrays a population with a moderate family size norm.

However, when this fertility level is compared with the data on the present age of the mothers, a different picture seem to emerge. The majority of the women are still within the critical age of childbearing. In fact, 63.1% of them are below 35 years of age. This implies that the sample population is a young one, whose potential childbearing capability is still at very high levels. With an average of 4.3 children under this circumstance, there is every likelihood of a far higher average when the women have completed their child bearing circle. The consistency of this standpoint is tested by data on the ideal family size for the women which is presented in table 4.6.

TABLE 4.6 PERCENTAGE DISTRIBUTION OF WOMEN BY THEIR IDEAL FAMILY SIZE

Ideal No. of Children	No. of Women	Percentage
1 - 4	51	16.83
5 - 6	173	55.4
7 - 8	48	15.4
9 & above	24	7.7
Up to God	16	5.1
Total	312	100

The mean ideal family size of the sample population is 5.955 children per woman. This is approximately six children per woman. A breakdown of this as represented in the table 4.6, show that 16.3% of the women want an ideal family of not more than four children. A total of 173 women representing 55.4% of the sample want an ideal family of between 5 and 6 children. Only 23.1% of them has an ideal family size of seven children, or more, whereas, 5.1% are looking up to God concerning their family size. These data represent a population which has not a small family size norm, but a moderate family size ideal.

In order to establish whether the ideal family size is predicated on concrete bases, the women were asked to give their reasons for the given ideal family size. Their responses is summarized in table 4.7

TABLE 4.7: REASONS FOR IDEAL FAMILY SIZE

REASONS	NO. OF WOMEN	%
Children for power and prestige	27	8.7
No. of children I can train	198	63.5
In order to check Mortality	26	8.3
For my social security	58	18.6
Up to God	3	10
TOTAL	312	100

The reasons given above for ideal family size show that only 8.7% of the respondents opted for their given ideal family size because children are a source of power and prestige. An overwhelming 63.5% prefer their given ideal family size because that is the number that they can train. Those who want such children to check mortality and act as social security at their old-age comprise 8.3% and 1.0% respectively. In all, ability to offer training is the major reason for the stated ideal family size in the study population.

Again, the women were asked what will be the ideal number of children for every woman in the community if they were asked to suggest. Their suggestions revealed that 191 of them constituting 61.2% felt that between 5 - 6 children should be the ideal for every woman. Sixty-six of them or 21.2% suggested 1 - 4 children. Only 12.8% suggested seven children and above.

A cross examination of the above data show that they are consistent with each other. On that basis therefore, one is to conclude that the desire for a large family size is no longer the general norm within the study area. In fact, over 60% of our respondents

desire not more than six children, with those desiring not more than four, forming an appreciable number. However, since this ideal size is still above four, which is the family size ceiling suggested by Government, the ideal size is still of concern because its realization will still enlarge the population of the country at a rate that is not yet compartible to rapid economic development. Thus, while the family size norm is not large enough to cause alarm, it is still high enough to cause concern for population control as well as among economic development planners.

An extension of the validity of this position can be obtained by considering responses to other questions in the questionnaire schedule. The women were asked whether they have heard about the Federal Government directive that each woman should have not more than four children. In response, 247 of them representing 79.2% of the total answered that they have heard about it. Asked whether they are in support of the directive, only 164 of them, representing 52.6% of the total, were in support. As a follow-up, they were asked whether they will abide by the directive. The figure went down

further to 138 or 44.2% of the total respondents. This is a clear indication that there is a direct conflict between ideal family size and the four children per-woman - directive of the federal Government.

Again, a closer examination of the characteristics of those who replied that they will abide by the four children directive, revealed an ironic situation. Many of the women in this catogery have already overshot the four children maximum with as many as five, six and seven children. The rest comprises of younger women of 23 years or below, who have gotten between one and two children or none at all, and who have not experienced infant or childhood mortality. This pattern is again consistent with the data examined above and infact proves their validity.

TEST OF HYPOTHESES

In order to determine the influence of some social factors on the observed fertility levels and ideal family size already discussed, two of the hypotheses formulated, are tested in this section using the Analysis of Variance (ANOVA) and the chi-square test.

Hypothesis 1: Fertility levels is highly influenced by level of a woman's educational attainment.

Ho: Fertility levels is not highly influenced by the level of a woman's educational attainment.

The Analysis of Variance, based on F-test was used to determine the significant effect of education on children ever born to the women. The computation gives the sum of square as 294.2, 5 degrees of freedom, mean square of 58.830, F value of 10.892 and the significance level of F at .0000. The computed significance (.0000) is less than the acceptable probability level of significance (0.05). We therefore reject the null hypothesis (Ho) and accept the substantive hypothesis (H_1) Thus we conclude that fertility levels is highly influenced by the level of a woman's educational attainment.

The result of the above test led us to concretely examine the mean number of children ever born by the women in relation to their levels of education. This is represented in table 4.8.

TABLE 4.8: MEAN CHILDREN EVER BORN BY THE WOMEN BY THEIR LEVELS OF EDUCATION

VALUE LABEL	NO	MEAN NO. OF CHILDREN
Entire population	312	4.3
No Schooling	48	6.0
Primary Education	83	4.9
Secondary "	77	3.6
Nursing "	16	4.7
TTC	58	3.4
OND-HND-Degree	30	3.1

The table shows a remarkable difference between the women who have no education or little education and those with higher levels of education. Whereas women with no education, recorded mean children ever born of six, those with primary and secondary education recorded a mean of 4.9 and 3.6 respectively. The mean decreased further to 3.4 and 3.1 for women with Teachers education and OND-HND-Degrees respectively. This picture confirms our ANOVA test and the validity of our hypothesis.

The same kind of test was run to determine the influences of religion, occupation and income on achieved

fertility levels.

For religion, the ANOVA test gives the sum of squares as 25.595, 3 degrees of freedom, mean square of 8.532, F value of 1.368 at a significant level of 0.2527. This indicates that religion has no significant influence on the children ever born by the women in our sample. One important observation however, is that traditional religionists appear to have higher mean number of children ever born than Roman Catholics and protestants. They have a mean number of 5.8 children against 4.2 and 4.4 for Roman Catholics and protestants respectively.

For occupation, the ANOVA result gives the sum of squares of 114.026, 5 degrees of freedom, a mean squares of 22.805, an F value of 3.807 and a significance level of .0023. This indicates that occupation is of significant influence on the children ever born by our sample population. This result can be explained when we have regard for the influence of education. It has been proved that occupation is directly related with the level of educational attainment. It becomes understandable why the occupation test is significant when education test was significant. The mean number

of children born to women of different occupations show that farmers and traders have the highest number of children with 5.6 and 4.5 respectively, whereas Teachers and Civil Servants have 3.9 and 4.1 respectively. Farming and trading definitely require less education than teaching and being a civil servant. Moreover, the former are more copartible with childbearing and rearing than the latter.

Income appears to have the least level of a significant influence on children ever born. The ANOVA analysis gives the sum of squares as 14.791, 5 degrees of freedom, a mean square of 2.968, an F value of 0.468 at a significance level of 0.7997. This result indicate that income has no significant influence on children Ever born. However, this result need to be observed with great caution. This is because of the unreliability of income data in this part of the world moreso in rural areas. In most cases, income data are only wild estimates. Most people do not know what they earn and have no basis to arrive at some near valid estimates. Whenever they are provided with precoded income questions, they go ahead to tick any of them.

Hypothesis 2: Ideal family size is highly determined by the level of education of a woman.

Ho: Ideal family size is not highly determined by the level of education of a woman.

To test this hypothesis, the chi-square test instrument is used. A cross tabulation of ideal number of children by level of education is done. The resulting table is represented below.

TABLE 4.9: IDEAL NO. OF CHILDREN BY LEVEL OF EDUCATION

Ideal No. of Children	No. Schooling	Education Primary	Sec. Edu.	Post Sec. Edu.	Total
1-4	1	8	17	25	51
5-6	21	41	45	66	173
7 & above	19	26	14	13	72
TOTAL	41	75	76	104	296

The data crosstabulated in this table was used to manually calculate the chi-square value of the variables. The calculated chi-square value gave 30.62 at 6 degrees of freedom. The table value of chi-square is 12.59 at 0.05 level of significance. Since the calculated chi-square value is greater than the table value at 0.05

level of significance, we reject the null hypothesis (Ho) and accept the substantive hypothesis (H_2) that ideal family size is highly determined by the level of education of a woman. (The process of chi-square calculation used for this test is shown in Appendix 1).

4.2.2 SEX PREFERENCE AND FERTILITY

The third research hypothesis of this study is aimed at determining the impact of sex preference on fertility levels within the study community. To this end, the hypothesis states that sex preference has a direct relationship with the desire for more children. This assumption has two parts to it. The first part deals with establishing whether there is sex preference for either males or females within the study population. The second part is to assess the impact of the observed phenomenon, if any, on fertility levels or family size.

To determine the existence of sex preference, respondents were asked to indicate the sex distribution of the children they desire to have. Their responses to this question provided us with the number of boys and girls preferred. This was crosstabulated and presented in table 4.10 below.

TABLE 4.10: PERCENTAGE DISTRIBUTION OF RESPONDENTS BY SEX PREFERENCE

ACTUAL NO OF BOYS PREFERRED BY WOMEN	ACTUAL NO OF GIRLS PREFERRED BY WOMEN										
	Up to God	1	2	3	4	5	6	7	8	Total	%
Up to God	6	-	-	1	2	2	1	-	-	12	3.8
1	-	2	-	1	-	-	-	-	-	3	1.0
2	1	7	25	15	1	-	-	-	-	49	15.7
3	1	6	48	63	2	2	-	1	-	123	39.4
4	7	2	29	18	21	1	-	-	-	78	25
5	2	1	1	5	4	7	-	-	-	20	6.4
6	6	-	1	3	3	-	1	-	-	14	4.5
7	1	-	-	1	-	-	-	-	-	2	0.6
8	3	-	2	1	2	1	2	-	-	11	3.5
Total	27	18	106	108	35	13	4	1	-	312	100
%	8.7	5.8	34.0	34.6	11.2	4.2	1.3	0.3	-	100	

A careful examination of the table indicate that there is sex preference within the population. This preference is skewed in favour of boys. At the level of those who preferred only one boy or girl, only three women assented to prefer one boy, whereas 18 assented to prefer one girl. When the number was increased to two boys or two girls, the number who preferred two boys merely rose to 49, whereas those who preferred two girls rose to as high as 106 wichis 34.6% of the total respondents. When the figure was increased further to three boys and three girls, the number who preferred three boys witnessed an astronomical rise to as high as 123, whereas those who preferred three girls merely moved to 108 from 106. When the figure increased to preference for four boys and girls, 78 women preferred four boys and only 35 preferred to have four girls. Again, women who preferred between five and seven boys are 36, whereas those who prefer that equivalent of girls are 18. No woman wanted as many as eight girls, whereas eleven of them would prefer to have eight boys. This comparison indicate a preference for boys. Whereas between two and three girls will excite the largest number of women, only three and four boys will excite

the largest number of them. Again, when the figure continued to increase, preference for girls thinned out at seven, whereas as much as eleven women held on in preference to as much as eight male children. When this analysis is compared with the mean ideal number of children which is six per woman, it becomes quite clear that preference for boys is underlying.

In order to determine the percieved sex preference in figures, we undertook to ascertain the mean number of boys as well as the mean number of girls preferred. This led us to do a breakdown analysis of this sex preference. This analysis gave us the mean number of girls preferred to be 2.5 girls per woman, and the mean number of boys preferred per woman to be 3.4. These figures confirm that there is preference for boys within the study population.

To offer explanations for the above sex preference situation, the women were asked in Question 18 of the questionnaire schedule to give their reasons for the sex distribution of the children they wanted. Their responses is summarized and presented in table 4.11.

TABLE 4.11: REASONS FOR SEX PREFERENCE

Category Label	No. of Women	%
Boys perpetuate the lineage	43	13.8
Boys act as Social Security at oldage	32	10.3
Both boys and girls are helpful	197	63.2
Up to God	16	5.1
Not reported	24	7.7
TOTAL	312	100

The table shows that as many as 75 respondents prefer more boys over girls because boys perpetuate the lineage and take care of them at old age. However 197 of the respondents indicated that they prefer a mixture of boys and girls because both are equally helpful. These responses confirm an underlying preference of males over females for obvious cultural and social reasons. At the same time, the data do not indicate an outright rejection of females. Rather it shows that substantially, girls are needed as part of the necessary sex combination in the family.

In conclusion therefore, males are preferred to females. However, this preference is not in the nature of mutually exclusive probability events. In most of the situations, an "appropriate" mix of the sexes is preferred by respondents. Males and females are wanted for their perculiar characteristics and functions in the family. Males maintain the family lineage and take care of their parents at old age, whereas females get married and extend their families to other areas, bringing in inlaws who form part of the social security network in traditional societies.

To determine the impact of the above level of sex preference on fertility levels, responses to questions 19 and 20 on the questionnaire schedule are used. Question 19 goes thus: "If you give birth to the total number of children you want and did not get the appropriate number of boys or girls you wanted, will you continue in childbearing until you get a particular sex?" Question 20 asked them whether their response in Question 19 will hold when looking for a boy or a girl or both. Their responses to these questions were crosstabulated and presented in table 4.12 which follows.

TABLE 4.12: EFFECTS OF SEX PREFERENCE ON FERTILITY

CONTINUE IN CHILDBEARING	WHEN LOOKING FOR			No. Response	Row Total	%
	Boy	Girl	Both			
Yes	49	6	39	-	94	30.1
No	10	7	197	2	216	69.2
No Response	-	-	-	2	2	0.6
Column Total	59	13	236	4	312	
%	18.9	4.2	75.6	1.3		100

The table show that 94 women representing 30.1% of the sample will continue in childbearing until they get a particular sex they are looking for. However, 69.2% of the sample will not continue in childbearing after obtaining their ideal family size, even if they did not get the sex combination of children they wanted. This data suggests that sex preference has some significant effect on fertility behaviour as it concern the desire for more children.

An examination of the column totals indicate that 59 women will abide by their decision when they are looking for a boy. Of this figure, 49 representing 83.1% of them will continue in childbearing to obtain

a boy, only 10 women will not continue in childbearing when looking for a boy. Also, 13 women in column 2 will abide by their decisions when looking for a girl. Six of them will continue in childbearing when looking for a girl, whereas 7 will not. Of the 236 women who will abide by their decision in column 3, 39 of them will continue in childbearing to get both boys and girls, whereas 197 of them will not continue whether they are looking for a boy or a girl. Again, of the 94 women who will continue in childbearing to get a particular sex, 49 of them will do that when looking for a boy, only 6 will do that when looking for a girl, and 39 will act that way whether they are looking for a boy or a girl. This indicate still a preference for boys than girls and underlines the impact of sex preference especially for males on desired number of children. In order to test for the validity of the foregoing analysis, it is necessary at this stage to test the hypothesis connected with this section.

Test of Hypothesis:

H_1: Sex preference has a direct relationship with the desire for more children.

H_0: Sex preference has not a direct relationship with the desire for more children.

In order to test this hypothesis, the responses in table 4.12 were recoded to eliminate the no response cells. This is shown in Appendix 2. The calculated chi-square value is 99.996 with 2 degrees of freedom and a significance level of 0.05. The equivalent table value of chi-square at 2 degrees of freedom and 0.05 level of significance is 0.103. Under this circumstance, we reject the null hypothesis and accept the substantive hypothesis. The result indicates that the substantive hypothesis has a very high level of significance. We therefore conclude that sex preference has a direct relationship with the desire for more children within Akokwa community.

If we are to chart a policy direction in the area of sex preference, there is the need for more insight into the socio-economic factors that influence the preference for a particular sex.

To this end, hypothesis number 4 was proposed which states:

H_1 The preference for more boys is a significant product of low level of Education.

Ho: The preference for more sons is not a significant product of low levels of education.

This hypothesis was informed by the thinking that uneducated parents are more likely to hold strongly to the need for as many boys as possible. Moreover, they are prone to hold strongly also to those traditional values which attach much importance to having male children for various cultural reasons. On the other hand, educated women are believed to have been liberated from these kind of norms and values. To test for the validity of the assumption, the ANOVA was done. The sum off squares is given as 40.703, 5 degrees of freedom, mean square of 8.141, an F value of 3.755 at 0.026, level of significance. This level of significance is lower than the acceptable level of significance (0.05). On this basis, we reject the null hypothesis and accept the alternative hypothesis and conclude therefore that the preference for more boys is a significant product of low level of education. This conclusion becomes even more assured when we see the mean number of boys desired by women with different levels of education as presented in table 4.13 which follows.

Table 4.13: Mean number of boys desired by women of different educational attainment.

Value Lable	Mean number of Boys wanted
No schooling	4.166
Primary education	3.434
Secondary education	3.389
TTC	3.241
Nursing	3.000
OND-HND-Degree	2.8667

This table shows that in fact more boys are desired by women with lesser education and that ideal number of boys, like ideal family size, decreases as education increases. This by extension implies that fertility levels will also decline in that order.

In order to determine the effects of factors like religion, occupation and income on the preference for boys, we undertook to breakdown the number of boys wanted by these variables and computed their analysis of variance.

For religion, the ANOVA gives the sum of squares to be 16.264, 3 degrees of freedom, a mean square of 5.421, F value of 2.427 at 0.655 level of significance.

The significance level is higher than the acceptable level of significance (0.05). Thus we conclude that religion has no significant effect on the preference for males.

For occupation, the ANOVA gives the sum of squares as 7.290, 5 degrees of freedom, a mean square of 1.458 and an F value of 0.640 at 0.6677 level of significance. This level of significance is again high enough that we conclude that occupation has not a significant effect in the preference for boys.

On income ANOVA gives the sum of square as 8.888, 5 degrees of freedom, a mean square of 1.778 and an F value of 0.782 at 0.563 level of significance. This level of significance again leads us to conclude that income has no significant influence on the preference for boys among the study population.

From the foregoing analysis, it is plausible to conclude that education is the only significant factor among all the tests conducted, which affects the preference for more boys within the study community. This points to the fact that education of women cannot be over emphasized in any drive at family size and sex preference engineering.

4.23 INFANT AND CHILDHOOD MORTALITY AND FERTILITY

In order to assess the pressure of infant and child mortality within the study population, we first of all examined the reasons given by the respondents for their ideal family size. The reasons are presented already in table 4.7. From the table, we can see that twenty-six (8.3%) women identified mortality as the reason for their ideal family size. This means that their ideal family size is informed by the consideration of the probable death of their children. The inference to be made on this basis is that mortality pressure as a factor in determining fertility levels is really minimal. The major reason which appears to determine fertility levels, is primarily the ability to provide training for the children. However, this opinion may appear simplistic if it is only based on the data provided. To test its internal validity and reliability, we moved on to examine other responses.

Question 21 in the questionnaire schedule was direct on this issue. It asked the women whether the expectation

of any of their children dying informed their achieved or ideal family size. Their responses show a population in which the effect of mortality on achieved and ideal family size is not very substantial. Only 80 women representing 25.6% of the total sample indicated that child mortality informed their family size (achieved or ideal), whereas 73.1% of them responded that consideration for infant and child mortality did not inform their ideal or achieved family size. These responses are consistent with the one presented in table 4.7 above. The fact that when mortality was made the issue as a determinant of fertility, only 25.6% of the women responded in its favour indicates a low level of influence of mortality within the community.

A further analysis to test the validity and consistency of the above responses, led us to examine responses provided by our respondents to question 22 in the schedule. The question was aimed to measure the ideal family size of the women if they are sure that their children will survive. The responses to that question is summarized and presented in table 4.14 below.

TABLE 4.14: IDEAL FAMILY SIZE PER WOMAN, IF SHE IS SURE OF THEIR SURVIVAL.

No. of Children	No. of Women	Percentages of Women
1 - 4	61	19.6
5 - 6	180	57.7
7 - 8	35	11.2
9+	20	6.4
up to God	15	4.8
Not reported	1	0.3
TOTAL	312	100

The table revealed a remarkable difference. When this table is compared with the ideal family size data in table 4.6 we found that if the mothers are certain of the survival of their children, the number of them who would prefer to have not more than four children, will increase from 51 to 61; those who would want to have between 5 and 6 children, will increase from 173 to 180. This is 19% and 4% increase respectively. On the other hand, the number of women who will want an

ideal family size of between 7 and 8 children fell from 48 to 35; whereas those who will want 9 children and above fell from 24 to 20. This again is a decrease in favour of smaller family sizes of 27% and 16.6% respectively. This analysis appears to have elevated the effect of mortality on ideal family size to a significant level. This appears to be the case when the mean ideal number of children is compared with the mean ideal number of children if the women are sure of the survival of their children. The mean ideal number of children reported by the women is 5.955 children. On the other hand, the mean ideal number of children reported when mortality is controlled is 5.45 children. This again is an indication of the observable effect of mortality on fertility behaviour.

It is pertinent at this point to test our hypothesis in order to ascertain the validity of the above analysis.

H1: Infant and childhood mortality is a significant determinant of the desire for more children.

Ho: Infant and childhood mortality is not a significant determinant of the desire for more children.

In order to test this hypothesis, we crosstabulated our data on the experience of mortality within the population by their responses on whether they will continue in childbearing in order to prevent mortality. A recoding of the data was done to eliminate no-response cells. By this process, five cells were eliminated and 305 women were used for the chi-square test. The result show that the calculated chi-square value is 3.32 at 1 degree of freedom and 0.05 level of significance. On the other hand, the chi-square table value is 0.0039 at 0.05 level of significance. Thus the calculated value is far greater than the table value of chi-square at 0.05 level of significance. We therefore reject the null hypothesis (Ho) and accept the substantive hypothesis (H_1) which states that infant and childhood mortality is a significant determinant of the desire for more children. The process of this calculation is represented in Appendix 3.

To further give insight into the influence of infant and child mortality on fertility levels, we undertook to examine the individual responses of our

respondents. In this exercise, we come to discover that the women's responses are influenced very highly by their personal experiences. Those who have not experienced mortality of their children are inclined not to consider mortality important in determining desired number of children. On the other hand, women who have experienced the death of their children indicate that mortality is one of the factors that informed their desired family size. We discovered that majority of the women who desire an ideal number of four children are young women of not more than 29 years, who have gotten between one and two children and who have not experienced any child mortality. Again, some of those who supported the four children per woman directive of the Federal Government, did so on the condition that those four children will survive. A crosstabulation analysis of ideal number of children by the age now of the respondents, gave a chi-square value of 56.35%, 24 degrees of freedom and a significance level of 0.0002. On this basis, it becomes clearer that age now as mentioned above has a high level of influence on ideal family size. Again, of the 51 women whose ideal family size is between 1 - 4

children, 60.7% of them are below 29 years of age. Also, 45.7% of the women who supported the four children per woman directive of government are below 29 years of age. Among old women who do not consider mortality as a factor in childbearing, it was discovered that they have not had infant or child mortality experience. This group of women is exemplified by a respondent who is fourty-five years of age and had eight children with all of them alive.

From the foregoing analysis, it becomes safer to conclude that infant and childhood mortality experiences of the study population, has a significant effect on their fertility behaviour.

It has to be noted however that the mean ideal number of children even when mortality was controlled, is still 5.4 children which is more than 4 children as government directed. This is an indication that even if the effects ofmortality is entirely removed within the population, the ideal family size may still not fall to acceptable low levels.

4.2.4 AGE AT MARRIAGE AND FERTILITY

Age is one of the variables which characterize individual participants in the fertility process. Empirical researches have confirmed the importance of age as a determinant of fertility. Closely associated with the age structure of reproductive women is their age at marriage. Marriage exposes women of reproductive age to the risk of concieving. Bongaarts (1978, 1982) classified the proportion of the population married or in sexual unions as one of the proximate determinants of fertility. Farooq and Simmons (1985), identified the age at marriage or age at entry into sexual unions, as one of the more powerful determinants of overall fertility, than the level of marital fertility. Kumar (1971) emphasized that the relatively low level of fertility in western Europe during the 18th and 19th Centuries is better explained by the relatively late age at marriage. The general rule he wrote is that the higher the age at marriage, the lower will be fertility. The explanation of this rule, lies in the fact that women who marry early have a longer reproductive span than those who marry late. With this in view, the Government of China

has in recent times made a systematic attempt to raise the age at marriage in order to reduce fertility. This informs us that the age at marriage can be used to deliberately control fertility at either the individual or the societal level. Indirectly, the age at marriage is said to be likely associated with the level of education, female employment and other social variables.

It is with the above information in view, that we set out to examine the age at marriage of the study community as well as the factors associated with it. We proposed a hypothesis which states that age at marriage is influenced by the level of education of a woman. This will be tested for significance using the chi-square test instrument later in this section.

Our analysis, show that the mean age at marriage of our sample is 21.7 years. This shows a prevalence of early marriage within the population. Infact 75.3% of the sample population are married by age 24. With this, we set out to identify factors associated with age at marriage in this community. To this end, we did a breakdown analysis of age at marriage by religion, income, education and occupation. Analysis of variance

shows that age at marriage within the community is not significantly associated with religions. However, we identified the fact that whereas Catholics and Protestants, have similar mean ages at marriage, traditional religionists have lower mean age at marriage.

ANOVA tests of age at marriage by education, and occupation, show a very high level of significance between education and occupation and age at marriage. We however identified that women who have teacher education and those with OND/HND and Degrees have higher mean ages at marriage than women with lower levels of education. Also, Teachers have higher mean age at marriage than Traders, farmers, and housewives.

Again, the same ANOVA test run for age at marriage and income, shows that income is not significantly associated with age at marriage.

The above results has confirmed the fact that education is significantly associated with age at marriage. The obvious explanation, is that educated women spend some time in school, to the extent that they tend to marry late. A crosstabulation of age at marriage and

level of education indicates that 51.7% of our respondents with teachers education married above 25 years, with some as late as 30 years. In the same token 33.4% of those with OND-HND-Degree qualifications married above 25 years with some as late as 30 years.

As education is closely associated with occupation, it becomes obvious that the occupation result has root in the education result. The level of education of the women invariably influenced their occupation, hence the two variables have significant association with age at marriage.

Again, occupation and education should be closely related to income. It is therefore puzzling that the income test shows an insignificant relationship with age at marriage. The explanation for this seems to lie in the unreliability of income data as mentioned earlier. Most women, even educated ones, do not keep account of their annual income. Those who do still do not find it convenient to disclose their incomes to researchers. What is normally given is a kind of cooked-up figure which have no reflection with reality. The result obtained here is a clear testimony of this fact.

We would have concluded this section here, but to examine further the validity of the associations established, we decided to test our hypothesis using a different test altogether - the chi-square test.

H_1: Age at marriage is influenced by the level of education of a woman.

Ho: Age at marriage is not influenced by the level of education of a woman.

The calculated chi-square value of the crosstabulation of Age at Marriage by education, is 44.73, with 15 degrees of freedom at 0.05 level of significance. The table value of chi-square at the equivalent degrees of freedom and level of significance is 24.996. On this basis, we reject the null hypothesis and accept the substantive hypothesis that age at marriage is influenced by the level of education of a woman. (The process of calculating this chi-square value is shown in appendix 4).

The result obtained here is consistent with the one obtained using the Analysis of variance. Again, these are underlining the central role of education in influencing fertility and fertility related variables.

4.2.5 KNOWLEDGE, ATTITUDE AND PRACTICE OF FAMILY PLANNING

To assess the level of knowledge of, attitude towards and practice of family planning within the study area, a total of six hypotheses will be tested. This assessment however, is to be done in several sections to make for clarity.

KNOWLEDGE OF FAMILY PLANNING METHODS

To assess the level of knowledge of family planning methods, the women were asked whether they know or have heard of any of the methods used by men or women to prevent pregnancy. Their response to this question, presented the picture of a population with a very high level of knowledge about family planning methods. As high as 92 percent of the sample know about or have heard about family planning methods. Only a negligible 7.7 percent have not heard or known about family planning methods.

In order to ascertain the level of this knowledge as it concerns specific family planning methods, a checklist was provided to respondents to identify the

method they know or have heard. Their responses is summarized in table 4.15.

The table shows various levels of awareness for different family planning methods. Natural methods, abstinence and rhythm/safe period, are the methods with the highest level of awareness among the women. As high as 69.6% and 68.3% of the women respectively, have heard or are aware of these two methods. It has to be noted that the two methods can be classified among the traditional methods. Condom attracted an awareness level of 53.5% of the respondents, whereas abortion is known by 53.2%. Pills and Injection are known to 47.8% and 49.4% of the total respondents respectively. Withdrawal is known to 41%, whereas foam tablet and IUD has awareness level of 26.6% and 28.8% of the women respectively. Sterilization is known to only 23.1% of the respondents and Duche/washing recorded the lowest knowledge level of 15.7%. Few women representing 7.7% of the sample population have not heard or known about any of these methods.

TABLE: 4.15: RESPONDENTS' KNOWLEDGE OF SPECIFIC FAMILY PLANNING METHODS.

Method	No. Heard	Percentage	No. Not Heard	Percentage
Abstinence	217	69.6	93	29.8
Pills	149	47.8	161	51.6
Condom	167	53.5	143	45.8
Injection	154	49.4	156	50.0
IUD	90	28.8	220	70.5
Withdrawal	128	41.0	182	58.3
Foam Tablets	83	26.6	227	72.8
Duche/Washing	49	15.7	262	84.0
Abortion	166	53.2	145	46.5
Rhythm/Safeperiod	213	68.3	98	31.4
Sterilization	72	23.1	239	76.6
Herbs/charms/ Rings/Bands	72	23.1	237	76.0

The table indicates that awareness level for particular family planning methods is not very high. This applies moreso to knowledge of modern methods than traditional methods. Of interest however, is that the

traditional methods which involve charms, rings, herbs, waist bands, arm and neck bands are not widely known within the community. Infact all of them put together recorded an awareness level of 23.1%.

Before accepting this low level of knowledge of family planning methods, two observations need to be made.

First, a closer look at the responses given by the respondents concerning family planning generally, as well as the researcher's cum interviewers' interactions with them, during and after the administration of the questionnaires; tends to suggest that women's responses just analyzed, reflect not just the methods they have heard. They seem to have heard about many of the methods. Their responses appear to reflect more, the methods which they actually know about their operations and which they probably may have practiced.

Secondly, there is evidence to believe that the women did not indicate that they know about methods which they did not approve, especially those which they believe are against the sacredness of the human being. This

tendency was noticed by the researcher, particularly as it concerns abortion. It is only 166 women, representing 53.2% of the sample population that indicated that they are aware of abortion or have heard of it as a family planning method. This figure did not tell all the story. Their responses does not seem to mean that they have not heard about abortion per se. They do know. However, they do not know abortion as a genuine family planning method and they do not approve of it. Many of the women see abortion and probably other modern methods in the light of terminating illegal or out-of-wedlock pregnancies as is practiced by single ladies. They also see abortion as a means of helping a woman who has a pregnancy related sickness to the extent that she cannot carry her pregnancy any longer. In both cases, abortion is not seen as a normal process of family planning. The first is a perversion and part of a morally decadent society, and the second is part of advanced medical practice. This observation is given credence by the responses of two respondents among others, identified as respondents 087 and 124. Respondent 087, did not tick abortion as

one of the methods she know or have heard. Eventually, she answered in question 42 that religion is against family planning, and went on in question 55 to approve the spread of family planning information to every body in the community, emphasizing, "but not abortion, just give a birth interval of at least 3 years". This confirms that she knows about abortion but does not approve its use probably for religious reasons. Again, respondent 124 expressed her knowledge of all the methods except abortion. This claim was made against the background that she is aged 40 years, a nurse by professional training and a civil servant by occupation.

From the backdrop of the foregoing therefore, while it is to be accepted that knowledge of family planning methods has not reached a large segment of the women population in Akokwa, there is the need to take note that the data did not tell all the story as the two observations made have led us to understand.

ATTITUDES TOWARDS FAMILY PLANNING

The study aimed at measuring the attitudes of the respondents towards family planning by asking four questions in that area.

First, they were asked their opinion about the family planning methods listed to them. They were asked if they approved of their use. Their responses show that their attitudes are overwhelmingly in favour of the use of family planning methods. This is represented in table 4.16.

TABLE 4.16: APPROVAL OF USE OF FAMILY PLANNING?

Response	No. of Women	Percentage
Yes	245	78.5
No	63	20.2
No response	4	1.3
	312	100

In order to further verify their pattern of approval, they were asked to identify the methods of family planning which they approved. A checklist was provided to them for this purpose. Their responses are presented in table 4.17.

TABLE 4.17: METHODS OF FAMILY PLANNING APPROVED BY RESPONDENTS

Method	No. of Women	Percentage to total Respondents
Abstinence/Safe Period	210	67.3
Pills/Condom	71	22.8
Abortion	3	1.0
Withdrawal	54	17.3
Injection/IUD	44	14.1
Sterilisation	6	1.9
Foam tablet/Duche	5	1.6
Rings/charms/bands/herbs	18	5.8
All Methods	1	0.3
None	41	13.1

The above data show that the attitude of the women is positive towards some methods than others. Traditional methods of abstinence and safe period have very high support from as many as 67.3% of the sample population. The level of support for modern methods is really very low. This is for such modern methods as pills, condom

and injection. Again the traditional method of withdrawal has considerable support. However, the attitude of respondents towards some modern methods is almost entirely negative. The methods in this category are sterilization, Duche/washing, foam tablets and abortion.

To ascertain that the above attitudes are based not on mere emotions, but on concrete reasons, the respondents were asked to justify their approval or disapproval of family planning methods. Their responses reveal that the concern for their health informed the attitudes of an absolute majority of the women. Fifty-one percent of them indicated that their attitudes are predicated on the health considerations. Other reasons given for the expressed attitudes are effectiveness of the methods - 15.7%, cost - 5.4%, Availability 7.4% and other reasons 11.3%. This data show that the only significant reason given for the observed attitude towards family planning methods is health considerations.

A crosstabulation of the preferred family planning methods and the reasons for such preference, show that 67% of those who preferred abstinence and safe period did so on the condition that they are healthy or harmless.

By the same token, we arrived at the conclusion that modern methods did not receive favourable attitudes because they are percieved as harmful to health. This conclusion is supported by the same crosstabulation referred above. Of all the women who gave harmless to health as the reason which informed their approval of a family planning method, 72% of them did that for safe period and abstinence, only 68% said that for pills and condom, whereas nobody said that of abortion. Again, 5.6% of them said that of withdrawal, 0.6% said that of sterilization, 9.3% said that of injection and IUD, nobody said that of foam tablet and duche, 4.3% said that of herbs/charms/bands and rings and 0.6% said that of no method. The above figures confirm the fact that modern methods are percieved largely as harmful.

We conclude therefore that apart from abstinence and safe period, other family planning methods are percieved to be harmful to health. Abstinence and safe period are seen as natural, whereas other methods are seen as harmful, painful and with adverse side effects. Using the particular reasoning of some respondents, modern methods are artificial mechanisms which pervasively

interfere with natural biological processes. This again is a confirmation of the low level of adequate knowledge about modern contraceptive methods.

PRACTICE OR USE OF FAMILY PLANNING METHODS.

In order to set the stage in ascertaining the level of use of family planning within the study area, the respondents were first of all asked if they will use any of the methods of family planning to stop childbearing, if they have the total number of children they desire. Their responses are summarized and presented in table 4.18.

TABLE 4.18: WILL RESPONDENTS USE FAMILY PLANNING TO STOP CHILD BEARING AFTER IDEAL FAMILY SIZE IS REACHED?

Response Label	No. of Women	Percentages
Yes	253	81.1
No	58	18.6
Not Reported	1	0.3
TOTAL	312	100

The above table indicates a positive attitude towards the use of family planning methods at least when the ideal family size has been achieved. However, as we have seen earlier, this attitude is skewed in favour of traditional than modern methods. To obtain the picture of actual use, the women were asked if they have ever used any family planning method to prevent pregnancy. Their responses is presented in table 4.19.

TABLE 4.19: EVER USED ANY FAMILY PLANNING METHOD?

Response Label	No. of women	Percentages
Yes	186	59.6
No	124	39.7
Not reported	2	0.6
TOTAL	312	100

By the responses in this table, one may come to the conclusion that there is a very high level of use of family planning among the respondents. In another question, respondents were asked to identify the methods

they have ever used. Their responses show that 50% of them have ever used abstinence and safe period, 24% have used pills and condom. Withdrawal has ever been used by 16.7% of the respondents. Injection and IUD recorded ever used among only 5.1%, whereas sterilization and abortion recorded ever used by 0.3% of the women respectively. Foam tablet and duche recorded ever used by 3.0% whereas rings, charms, bands and herbs recorded ever used by 5.4% of the sample. Of note is the fact that 33.9% of the respondents did not identify any method which they has ever used. The picture presented is a renactment of that which we saw in knowledge and attitudes data above. Traditional methods attracted some considerable high level of use whereas modern methods attracted very low levels of use.

In order to measure, the consistency of the above responses, the respondents were asked to indicate the family planning methods they are using now. Their responses indicate even a lower level of current usage of both traditional and modern methods. It confirms the fact that previous and current use of family planning methods among the study population is quite very low,

especially as it concerns modern methods. Their responses are summarized and presented in table 4.20.

TABLE 4.20: CURRENT USE OF FAMILY PLANNING METHODS

Methods	No. of Women using them.	Percentages
Abstinence/Rhythm	98	31.4
Pills/condom	25	8.0
Abortion	1	0.3
Withdrawal	18	5.8
Sterilization	3	1.0
Injection/UID	18	5.8
Foam tablet/Duche	2	0.6
Rings/herbs/charms/brands	10	3.2
None	137	43.9
TOTAL	312	100

On the basis of the foregoing analysis, we summarize this section by concluding that knowledge of family planning methods within the study area is low.

This however, applies more to modern than traditional methods. The attitudes towards the adoption of family planning methods is partially favourable. Partially favourable in the sense that traditional methods received favourable attitudes whereas modern methods are viewed with suspicion and fear. Traditional methods are seen as morally and physically healthy, but modern methods are seen as immoral and harmful to health. Of particular significance is the perception of abortion in this light. In terms of use, traditional method is the norm, even though the usage is quite low. Only 31.4% are currently using abstinence and Rhythm, whereas 5.8% are using withdrawal. Modern methods are yet to receive significant acceptance and use within the community. The conclusion to be reached therefore is in these words:

(a) Knowledge of family planning practices has not reached a large segment of the women population in the study area.

(b) Contraceptive practice is very low as to have any significant impact on fertility decline. The last point is informed,

moreso by the fact that the methods currently in use are mostly traditional methods, which are far less effective in achieving the family planning goals of fertility decline (WFS, 1984:19).

4.2.6 FACTORS THAT INFLUENCE KNOWLEDGE, ATTITUDES AND PRACTICE OF FAMILY PLANNING.

Various factors, ranging from individual to societal characteristics have been identified in the literature to influence the knowledge, attitudes and practice of family planning. Within this section, we are going to analyze some of those factors and test relevant hypotheses.

1. EDUCATION AND FAMILY PLANNING

Education has been one of the major factors identified by research to have considerable influence on fertility and family planning. Our review of the literature suggests that education is directly associated with KAP of family planning and inversely associated with fertility levels. However this relationship has been subjected to considerable debate in both advanced and developing countries. It has been suggested that there is a preponderance of intervening factors upon which the

existence of a negative relationship depends. The conclusion to be reached after examining the literature on education is that its overall effect will depend upon the full set of influences and within a given setting. It is with this conclusion in view that we set out to identify the influence of education on family planning practice within the Akokwa rural context.

Our examination of our data reveals that educational attainment of the women, influenced their knowledge of a source of family planning method. A crosstabulation of knowledge of a supply source by level education, shows that 70.8% of those who do not know a supply source are women with primary education or no education at all. Only 27.2% of them know about a supply source. On the other hand, only 29.2% of the women who do not know a supply source are those who have secondary education and above. This comparison becomes more meaningful when we see that 15.3% of this figure are those with secondary education, 8.3% are those with TTC, 2.8% are those with nursing education and 2.8% are those with OND-HND degree certificates. This again is very clearer when we identified that women with primary education or non at all constitute 42% of the sample population.

In order to test our observations for validity, we used the chi-square test analysis. This was used to test whether knowledge of a supply source is significantly related to level of education. The result shows that the chi-square value is 63.1 with 15 degrees of freedom and a significance level of 0.0000. This confirms our observation that level of education significantly influences ability to know a source of family planning methods.

We also set out to determine the effects of education on current contraceptive practice. To this end we formulated the hypothesis (H_1) that:

> Family planning methods in practice is significantly influenced by level of education.

Ho: Family planning methods in practice is not significantly influenced by level of education.

A crosstabulation of the family planning method currently in use by level of education, shows that 40% of those who have no education, use traditional methods of family planning comprising of abstinence, rhythm,

withdrawal, herbs, charms, bands and rings. Only 8.4% of them use modern methods and 52.1% of them are not using any method at all. Again, 70% of women using herbs, charms, rings and bands are women with no education at all. Also, 54.0% of the women who are using no family planning method, are those who have between no education and primary education. On the other hand, 24.1% of those who are using no method have secondary education, and only 21.9% of women who have post-secondary education are not using any method. This indicates that current usage of family planning is directly associated with level of education. The use of modern method is seen to be among women with secondary and post secondary education. 20% of the women who are using pills and condom are those with secondary education, whereas 38% of them have post-secondary education. In the same token, 38.9% of the women who are using injection and IUD have secondary education, and 44.5% of them have post-secondary education. The only woman who has used abortion has a nursing education. The data so presented indicate very strongly that modern methods of family planning is used by more educated women. In

order to test the validity of our conclusion, we computed the chi-square test. The result, gave us a chi-square value of 89.29 with 40 degrees of freedom at 0.0000 level of significance. Since the significance level is less than the 0.05 level on which we can accept the null hypothesis, we therefore accept the substantive hypothesis (H_1) and conclude that family planning method in use is significantly influenced by the level of education. This implies that the use of modern methods will be highly increased within the study area if more women acquire higher levels of education.

2. THE RELATIONSHIP BETWEEN ACCESSIBILITY AND AVAILABILITY OF FAMILY PLANNING SERVICES AND CONTRACEPTIVE USE

In order to assess the impact of accessibility and availability of family planning services on contraceptive use, the respondents were asked if they know of any source of family planning services. Their responses revealed that 232 of them representing 74.4% of the total respondents knew of a source of family planning services. A follow-up question was asked to find out if they consider this source of services far from their homes. They were asked also how the distance of such a source of services influences their use of contraceptives. A crosstabulation of their responses is summarized and presented in table 4.21.

TABLE 4.21: DISTANCE OF HOME OF RESPONDENT TO A FAMILY PLANNING SERVICE SOURCE BY EFFECT ON USE OF METHODS

EFFECTS OF DISTANCE ON USE OF FAMILY PLANNING SERVICES

DISTANCE	ENCOURAGES USE	DISCOURAGES USE	HAS NO EFFECT ON USE	TOTAL	PERCENTAGE
FAR	26	43	52	121	38.8
NOT FAR	61	8	74	143	45.8
NOT REPORTED	3	4	41	48	15.3
TOTAL	90	55	167	312	
PERCENTAGE	28.8	17.6	53.5		100

The distribution of responses in the table above was used to test the hypothesis which follows. The calculation process is represented in Appendix 5.

H_1: Accessibility and Availability of family planning services are significantly related to contraceptive use.

Ho: Accessibility and Availability of family planning services are not significantly related to contraceptive use.

The calculated chi-square value from the observation is 68.07 with 4 degrees of freedom at a significant level of 0.05. The table value of chi-square at the same level of significance and degrees of freedom is 9.488. Since the calculated chi-square value is very much greater than the table value, we therefore reject the null hypothesis and accept the alternative hypothesis which states that contraceptive use is significantly related to accessibility and availability of services.

In order to establish the direction of this association, we went back to re-examine the responses in the table. It can be seen that 145 respondents representing 46.4% of the sample indicated that their use of contraception is affected by the distance of their homes. This leaves us with 53.5% who indicated that distance has not affected their use of contraception. Again of the 121 respondents who considered their homes far to a source of service, 35.5% said they are discouraged, whereas 43.0% of them said it does not affect them. Also, of the 143 who considered their home not far from a source of service, 61 of them representing 42.7%

indicated that it encourages their use, whereas 5.6% of them indicate that it does not encourage them and 51.7% indicate that it does not affect them either way. A consideration of all these responses, seem to show that the association between assistance to a source of service and contraceptive use is not a one-way affair. In the most, it appears quite ambivalent. While it encourage some respondents, it discourages some respondents and does not affect very many in any way.

The conclusion to be derived from the whole analysis is that, whereas distance is to be recognized to have a significant association with contraceptive use, as our test has shown, this association is not a one-way experience. As we have seen as much as 53.3% of the respond indicate that distance does not affect them. This conclusion is almost in line with previous researches in this field. The World Fertility Survey (1984) reported that "once confounding variables such as urban - rural residence, education and desire to limit fertility are controlled among those aware of a source, the overall relationship between proximity to source and actual use is only weakly positive." The report

stated convincingly that "it is likely that couples who are highly motivated to limit their fertility will seek out family planning services wherever they are, while those who are less motivated will not make such effort". It need to be noted therefore that distance is only one of many factors involved in the decision to use and continue using family planning services Available data supports the argument that motivation is generally a stronger determinant of contraceptive use than availability and accessibility of services.

Under the above premise, it became difficult to identify a policy direction for family planning as it concerns availability and accessibility of services. In order to clear this hazy atmosphere and chart a policy direction in this area, the respondent were asked in question 41 of the questionnaire schedule, whether they will be encouraged to use family planning services if a family planning clinic which is now lacking in the community, is located there. Their responses to this question indicate that 252 of them representing 80.8% of the sample, replied that they will be encouraged. It was only 55 respondents (17.6%)

that indicated that they will not be encouraged to use family planning even if a clinic is located in the area. This response show us that a stronger association does exist between accessibility and use of family planning. The data indicate that rural women will be better encouraged to use family planning, if the services are located within their communities. This again suggests that the ambivalence observed earlier, may have its root in the absence of family planning clinic in Akokwa Community.

On the basis of the foregoing analysis, we conclude that accessibility and availability of family planning methods within a community will improve contraceptive use. This conclusion again, is in line with an earlier conclusion by the WFS (1984) when it reported that rural women were even more likely to use the pill or the condom than urban women if they live near a source of supplies.

3. INFORMATION SOURCES AND FAMILY PLANNING

Information dissemination has been identified as vital in the promotion of family planning programmes. In fact, awareness of family planning methods, which is the primary factor in the acceptance and use of family planning services is directly related to sources of information available to a population of potential users. This realism informed our seeking to find out the sources of information on the subject available to our study population. The data gathered, revealed that different sources are available to different women of different social statuses. Age and education appear as prominent variables which have influences on sources of information available to a respondent.

The illitrate women do not appear to know of other sources of family planning information except friends and relatives and herbalists in some few cases. A crosstabulation of these variables indicate that 40% of the women who did not know a single source of supply of family planning services are women with no education. In the same token, 32% of women in this category has primary education. Again, 54% of women who are using

no method has no education, and the remaining 40% of them use traditional methods. A point of interest here however, is that this group of women approved in large numbers the use of family planning and indicated that they will be encouraged to use family planning services if its clinic is located in their area. Also of interest is that this group of women approved the spread of family planning information to all women within the area. This approval however, discriminates against making such information available to unmarried ladies and school girls for reasons that they do not need such information now. The above disposition indicates a willingness to know more about family planning methods and probably a disposition towards an increasing use.

On the other hand, educated and young women, identified a combination of different sources of information. Doctors, nurses, midwives, family planning workers, friends and relatives, as well as institutions of mass communication like radio and television including books and magazines are the retinue of sources of information identified by this groups. As many as 7 women who are well educated indicated that they obtain

information through all the above mentioned means.

In order to test the validity of the above observations and to determine the significance of the association, we tested our hypothesis which has relevance to the variable here.

H_1: Sources of family planning information available to a particular woman is significantly associated with her level of educational attainment.

Ho: Sources of family planning information available to a particular woman is not significantly associated with her level of educational qualification, but can be located in other social processes.

The chi-square computation of sources of information by level of education, gave us a chi-square value of 106.99 with 45 degrees of freedom at 0.0000 level of significance. On this basis, we reject the null hypothesis and accept the substantive hypothesis.

An examination of the pattern of knowledge, attitude and practice of family planning which were discussed earlier, and the result of this test of hypothesis

suggests that sources of information available to women of different levels of education must have highly influenced the observed trend. The point being made here is that sources of information does influence the kinds of methods known to a woman, thereby influencing the kind of method she approves and eventually uses. The sources of information available to older and uneducated women, predisposes them to knowledge and use of traditional methods of birth control, whereas, sources of information available to young and educated women, predisposes them to knowledge and use of modern effective methods. This circumstance, underlines the need to devise information systems that will serve the whole spectrum of the population and which will make modern sources of information available and accessible to all category of potential users, educated and uneducated alike.

Our examination of sources of information available to all our respondents provides the data presented in table 4.22.

TABLE 4.22: PERCENTAGE DISTRIBUTION OF RESPONDENTS BY SOURCES OF INFORMATION ON FAMILY PLANNING AVAILABLE TO THEM

SOURCES	NO. OF WOMEN	%
Relatives and friends	111	35.6
Doctors/Nurses/Midwives	117	37.5
Radio/TV/Family Planning Workers	58	18.6
Books and Magazines	7	2.2
Chemist/Drug store	2	0.6
All the above sources	7	2.2
No.method reported	10	3.2
Total	312	100

An examination of the above table show us that three set of sources of information are prominent in the community. These are friends and relatives, Doctors/nurses/midwives and Radio/TV/family planning workers. It has to be noted that friends and relatives Doctors/nurses and midwives are outside the government arms of information dissemination. We discovered that the medical personnel - Doctors, Nurses and Midwives

being referred to here are those working in private hospitals, clinics and maternites which are dotted around the community. Moreover, there is no government hospital or medical outfit in the study area. This implies that as high as 80% of the respondents, recieve their family planning information outside the government channels. The major information instruments of government which are radio, television and family planning workers serves only about 20% of the sample population. This is an indication of lack of seriousness on the part of government and its agencies on the business of spreading family planning information. As we have seen earlier, these channels are only available mostly to the educated revealing again their limitations. Thus, the government which ought to be at the forefront of campaigns for family planning, seems to be at the rear. This leaves primary group relationships and private initiatives of meeting medical personnels, at the forefront of being sources of information on family planning. This situation has two implications for the family planning campaigns.

First, a limited number of people will be informed by these private sources of information. Those to be involved, are most likely to be people who are highly

motivated to seek information from friends, relatives, doctors, nurses and midwives in private practice. Those who are not as motivated, may not have need to take such personal initiatives. With the low level of knowledge and use of methods as we have found, it is obvious that this group of unmotivated people are in the majority.

Secondly, primary sources of information, creates a fertile ground for misinformation of the uninformed, about family planning methods, their uses and effects. This point appears to be one of the major findings of this study. There is a very high level of misunderstanding exhibited by the study population about family planning methods. There is a general belief among respondents, that apart from abstinence and safe period, other family planning methods cause ill-health and have dangerous side-effects. This is substantiated by data we obtained from the crosstabulation of methods preferred by the reasons for such preference. Of the 176 women who preferred abstinence and Rhythm, 67.0% of them did so for health reasons; 35% of those who prefer condom and pills gave did so for the same reason. Also, 47.4% of those who

prefer withdrawal, did so on health grounds. In the same way, 40.5% of those who prefer injection and IUD, and 53.8% of those who prefer herbs bands, charms and rings were all informed by consideration for health reasons. Consideration for health seems therefore to be the major reason in approval, preference and use of family planning methods within the study area. Individual respondents identified abstinence safe period and withdrawal as not harmful, whereas, pills, injections, sterilization, IUD and abortion as mainly dangerous, capable of killing the mother, destroying her body system and preventing further pregnancy when a woman wants to have another baby. Even respondent who did not approve the use of any method of family planning, did so because of health reasons, on the misconception that family planning is a harzardous enterprise.

While some of the above expressed fears may be substantiated, the intensity of their presence among the respondents confirm a very high level of misinformation and misunderstanding. This underscores even more, the importance of government increased presence as the dominant channel of information on these issues.

This will aim at giving accurate information on the subject as well as to elicit the support of the people.

4. GOVERNMENT POLICY, ECONOMIC ENVIRONMENT AND FERTILITY LEVELS

What is intended in this section is to assess the level of acceptability of government population policy espcially as it concerns the four children per woman directives as well as to explore the effects of the present economic situation in the country on fertility levels and family planning.

To start with, the women were asked if they have heard, support and will abide by the four children per woman policy of government. The summary of their responses is presented in table 4.23.

TABLE 4:23: PERCENTAGE DISTRIBUTION OF RESPONDENTS BY WHETHER OR NOT THEY HAVE HEARD, SUPPORT AND WILL ABIDE BY 4 CHILDREN POLICY

RESPONSE LABEL	HAVE HEARD	SUPPORT	WILL ABIDE
Yes	(247) 79.2	(164) 52.6	(138) 44.2
No	(64) 20.5	(148) 47.4	(173) 55.4
Total	(312)100	(312) 100	(312) 100

The table shows us that whereas 79.2% of the respondents have heard about the four children per woman policy, only 52.6% of them support it. A follow-up question on whether they will abide by the policy reveals that even smaller numbers, only 44.2% will abide by it. These data imply that the four children policy is not a popular one among a majority of the rural women under study and is therefore not widely accepted. This leads us to conclude that the policy is not very likely to encourage a wide adoption of family planning practices and therefore will not have any significant fertility reducing effect under its present form.

We sought for explanation of the observed attitude towards the four children policy. Since education has been identified to have a wide range of effects on fertility behaviour, we proposed the hypothesis (H1) that educated women are more likely to support family size limitation policies than less educated ones.

To this end, we crosstabulated the women who support the policy and those who will abide by it by their levels of education and conducted a chi-square test.

In support the policy by education, the table that emerged is table 4.24 which follows.

TABLE 4.24: SUPPORT THE 4 CHILDREN POLICY BY EDUCATION

RESPONSE LABEL	NO EDU. SCHOOLING	PRIMARY EDUCATION	SECONDARY EDUCATION	TTC EDU.	NURSING EDU.	OND/HND DEGREE	ROW TOTAL	%
Yes	28	30	42	31	13	20	164	52.6
No	20	53	35	27	3	10	148	47.4
COLUMN TOTAL	48	83	77	58	16	30	312	
COLUMN %	15.4	26.6	24.7	18.6	5.1	9.6		100

The chi-square value obtained from the observed responses is 17.4277 with 5 degrees of freedom at a significance level of 0.0038. On the basis of the fact that the level of significance is 0.0038 which is far less than the acceptable level of significance of 0.05, we accept the substantive hypothesis (h_1).

By the same token, we crosstabulated the respondents' who will and will not abide by the policy by their levels of education. The resulting table is table 4.25.

TABLE 4. 25: WILL ABIDE OR NOT BY LEVEL OF EDUCATION

RESPONSE LABEL	NO SCHOOLING	PRIMARY EDUCATION	SECONDARY EDUCATION	TTC EDU.	NURSING EDU.	OND/HND DEGREE	ROW TOTAL	ROW % PERCENT
Yes	25	24	33	26	12	18	138	44.2
No	23	59	44	32	4	12	174	55.7
COLUMN TOTAL	48	83	77	58	16	30	312	
COLUMN %	15.4	76.6	24.7	18.6	5.1	9.6		100

The chi-square obtained from the observed data is 24.186 with 5 degrees of freedom and a significance level of 0.0071. Again, this level of significance is far less than 0.05 which is the acceptable level of significance. On this basis, this test confirms the earlier test and we conclude therefore that level of education of a woman influences her attitude towards fertility reduction policies. The tables themselves attest to the fact that a higher percentage of educated women support and will abide by the four children policy, whereas a higher percentage of less educated women did not support the policy and will not abide by it.

We went further to see if the age of the respondents influenced their responses. A crosstabulation was done for support and will abide or not by the age of the respondents as done in the case of education. The chi-square test was conducted. The results indicate that age is not a significant factor which influences the support of the women for the four children policy, nor is it a significant factor which influenced their resolution to abide or not to abide with the policy. The chi-square value obtained for the support factor by age is 5.21 with 6 degrees of freedom and a significance level of 0.5177. The value obtained for will abide or not by age is 12.2 with 6 degrees of freedom and a significance level of 0.4296. On both situations, the significance level is

above the 0.05 level of significance, on which basis the null hypothesis is accepted. Thus we conclude that age has no significant influence on the attitude of the women towards the 4 children policy.

In order to ascertain the influence of the present difficult economic situation in the country on fertility levels and family planning, the respondents were asked whether the present economic situation in the country under SAP, has any influence on their desired family size. To identify the direction of this influence, the respondents were asked whether they are influenced to reduce or increase the number of children desired. Their responses to the two questions are crosstabulated and presented in table 4.26.

Their responses, show that 172 respondents representing 55.1% of the sample population have been influenced to reduce their desired number of children. However, 18 respondent (5.8%), reported that they have been influenced to increase their desired number of children. Remarkably, 122 respondents, representing 39.1% of the sample have not been influenced in any way to alter their desired number of children.

TABLE 4.26 ECONOMIC INFLUENCE ON DESIRED No. OF CHILDREN BY THE DIRECTION OF THE INFLUENCE

	RESPONSES	INFLUENCED TO REDUCE	INFLUENCED TO INCREASE	NOT INFLUENCED TO ALTER FAMILY SIZE	TOTAL	%
ECONOMIC INFLUENCE?	YES	169	17	21	207	66.3
	NO	3	1	101	105	33.7
COLUMN	TOTAL	172	18	122	312	
	PERCENTAGE	55.1	5.8	39.1		100

With the data presented, we tested our hypothesis (H1) which states: the present harsh economic environment in the country has a fertility reducing effect in rural areas, and the null hypothesis (H_o) which states:

the present harsh economic environment in the country has no fertility reducing effect in rural areas.

The chi-square value obtained is 216.741 with 2 degrees of freedom. At a significance level of 0.05 and 2 degrees of freedom, the table value of chi-square is 5.991. This figure is significantly smaller than the calculated chi-square value. On this basis, we reject the null hypothesis (H_o) and accept the proposition that the present harsh

economic situation in Nigeria has a fertility reducing effect in the rural areas. (The process of calculation of the chi-square value used in this test is represented in Appendix 6).

Our conclusion in this section is quite remarkable when compared with the low level of support given to the four children policy of government. The present harsh economic situation has influenced 55.1% of our sample population to reduce their desired number of children, whereas only 44.2% of the same sample reported that they will abide by the four children policy. This is an indication that economic circumstances has stronger fertility reduction effects than government policy on fertility reduction.

The influence of the present economic environment is even more significant, when we discovered that a very significant number of respondents who reported that they will abide by the government policy also reported that the economic condition in the country has influenced them to reduce their desired number of children. They all are emphasising on small family sizes which they will be able to care for under the present economic dispensation.

These are pointers that the present economic hardship is a family planning technique. It also suggests that an intensive government campaign under the present circumstances will recieve a ready audience. This is to state in other

words, that a depressed economy is a fertile environment for population control campaigns and the adoption of family planning. This is because, under this kind of situation, survival is a very serious and difficult issue.

5. BREASTFEEDING, FERTILITY AND FAMILY PLANNING

Rapid childbearing has been discovered over the years to be harmful both to the mother and the children. To this extent, fertility studies have always placed as important, the practice of child spacing within a population of childbearing mothers. Breastfeeding has been identified as an integral part of childspacing. In fact, in the absence of significant use of contraception, breast feeding has been identified as an important determinant of fertility (WFS, 1984). Its effects inhibits ovulation, increases the birth interval and results in lower completed fertility (Caldwell and Caldwell, 1977). Post-partum sexual abstinence may further lengthen the period between births in some cultures. However, researches have also shown that the effect of breastfeeding on fertility, depend on how long, frequently, intensely and exclusively, infants are breastfed.

On the basis of the above review, we set out to determine the breastfeeding practices of the study population, as well as its relationship with family planning and fertility. Our data confirm that breastfeeding is virtually a dominant practice of women in the study area. As many as 95.2% of

the respondents reported that they breastfeed their children for varied number of months. Only 4.8% of the sample, did not respond to the question. Their non-response may not imply that they do not breastfeed their babies. They probably represent women who find it difficult to disscuss with researchers issues like this which they consider are sacred and private.

On duration of breastfeeding, the mean duration computed from the data is 13.2 months. The breastfeeding duration ranges from six months to 24 months. Thirteen respondents representing 4.2% of the sample breastfeed for six months, 216 women or 69.2% of the 312 sample population breastfeed for 12 months; 63 or 20.2% breastfeed for 18 months and 5 women or 1.6% breastfeed for 24 months. As reported earlier, 4.8% of the women, did not report their length of breastfeeding The data under consideration indicate a lowering duration of breastfeeding when it is compared with the WFS (1984) figure of a mean duration in Africa of between 14 and 26 months, with the higher durations mostly in subsaharan Africa.

With the low level of modern contraceptive use and lessened length of breastfeeding within the community, the conclusion to be derived therefrom, is that birth-spacing will be reducing considerably thereby increasing the potential total fertility of women. Before drawing such a conclusion, we went on to ascertain the relationship between

breastfeeding and family planning within the community. Our data show that 50.6% of the 312 respondents are aware of breastfeeding as a family planning method. However, almost an equivalent figure of 49.9% are not aware of the fact. This implies a significant level of awareness, but the low duration of breastfeeding discussed above, suggests that the use of breastfeeding as a family planning method, appears to be very low.

Probing further into this phenomenon, the respondents were asked whether they do have sexual relationships with their husbands before their children are weaned. Their responses saw 126 of them representing 40.4% answering in the affirmative. On the other hands, 57.7% or 180 of them, reported that they do not have relationships with their husbands during the breastfeeding of their children. This seem to suggest a high level of abstinence during breastfeeding and logically a high level of use of the breastfeeding method of family planning. To throw more light, the respondents who abstained were asked their reasons for abstenance during breastfeeding. Their responses are summarised and presented in table 4.27.

TABLE 4.27: REASONS FOR ABSTINENCE DURING BREASTFEEDING

REASONS REASONS	No. OF WOMEN	%
Harmful to child's health	141	75.8
Against custom/tradition	14	7.53
To prevent pregnancy	28	15.0
Other reasons	3	1.6
TOTAL	186	100

As many as 75.8% of women who abstain from relationships during breastfeeding of their children, are doing so in order to preserve the health of their children. This reason must have root in the age-long belief among our people that intercours and resulting pregnancy, spoils the breastmilk and endangers the life of a baby sucking such a milk. In fact it is generally believed to cause child death. One may not be able at this point to provide the scientific proof of this belief, but the point being made, is that this belief has a general currency in explaining the reason for abstinence during breastfeeding. Also, 7.5% of women in this category reported that abstinence during breastfeeding is in their respect of custom and tradition. This reason appears to have the same root with the first. The traditional custom being referred to was not mentioned, but we are inclined to think, that it is the custom of

preserving the health of their new born babies, by exhibiting maturity in sexual behaviour during breastfeeding. It is only 15% of them that abstain in order to prevent pregnancy. This figure confirms a low level of use of breastfeeding as a contraceptive method.

The foregoing analysis, offer explanations why the length of breastfeeding is considerably short within the study area. It seems therefore that when a considerable length of abstinence of up to a year is observed, during which the health of the child is not impaired, nor in jeopardy, and during which tradition and customs must have been satisfied, that sexual activity continues which invariably leads to the next process of pregnancy. This observation is confirmed by the birth interval which the respondents felt is healthy for every woman. 55.8% of the total respondents felt that a birth interval of two years is most healthy, whereas 30.8% of them feel that even shorter birth intervals of 18 months is healthy. A logical sequence seem to emerge from these responses, it runs thus: Twelve months of breastfeeding is the general practice, after which sexual activities begins. This results in pregnancy between one and two months, which is delivered in the next nine months, giving a total of 24 months birth interval.

On the whole, we conclude that the duration of breastfeeding is declining. This implies that its childspacing effect, as well as its effect on total fertility is almost insignificant.

Also its use as a family planning technique even within the present short duration is not quite recognised. It is pertinent to make one observation as part of this conclusion. Our data show that 40 per cent of our sample do have relationships during breastfeeding. These women were asked to justify such a practice in view of childspacing and the fact that they can easily become pregnant immediately after a birth. Many of these women who replied to our probe questions, were of the view that the practice is not against any norms known to them. They were also of the view that it does not just result into another pregnancy, because they are aware of other family planning methods. This viewpoint, suggests that abstinence during breastfeeding may not be all that imperative if other family planning methods are known and practiced. It is safe therefore to state that the observed shorter periods of breastbeeding among women in general and confirmed by this study, is not an indication that fertility will increase as a result, provided this is simultaneously followed by an increased adoption and use of other effective contraceptive methods.

4.3 OTHER FINDINGS OF THE STUDY

Under this section, we are presenting other major findings relevant to this work, which are not part of the stated hypotheses. To be discussed here particularly are

the communal norms against family planning and the relationship between culture and demography.

43.1 COMMUNITY NORMS AND FAMILY PLANNING

It has been a generally held view that rural communities are strongly tied to traditional norms and values which favour high fertility behaviour and which are against the adoption of family planning. In order to ascertain how the rural community under study is characterized by such norms the respondents were asked to identify those rules and norms within the community which are against family planning. The factors identified are summarired in table 4.28,

TABLE 4.28: COMMUNITY RULES OR NORMS AGAINST FAMILY PLANNING

NORM LABEL	NUMBER OF WOMEN	PERCENTAGE OF WOMEN
RELIGION	81	26.0
TRADITION	40	12.8
OTHERS	10	3.2
NONE	181	58.1
TOTAL	312	100

The responses show that 81 women or 26.0% of the sample population identified religion as a norm against family planning. Tradition was identified by 40. respondents (12.8%); and 3.2% of the respondents identified other

values like that of having a male child to perpetuate the lineage as against family planning. On the other hand, 181 respondents representing 58.1% of the sample indicated that there is no community norm or value known to them which is against family planning.

Religion is identified by 26% of the respondents. A closer look at their backgrounds and further enquiries, reveal that their religion is not against family planning perse but against some family planning methods. The majority of the women in this group are Roman Catholics and the method they are particularly against is abortion. They were of the view that abortion is killing and they used religious sanctions to support their stand.

Tradition is mentioned by 12.8% of the respondents. This is not a very significant figure to reckon with. The conclusion to be drawn here is that if there is such a tradition, then it is not widely knwon and those adhering to it are quite minimal. Such a tradition lacks any considerable force or it may have lost appeal in the face of modernization. This is supported by the fact that as many as 58% of the respondents are not aware that religion, tradition and any other norms are against family planning. This implies that religious and traditional sanctions are loosing their holds over the population on fertility control issues.

When the number of respondents who reckoned with a norm against family planning is compared with our data on levels of education of the same respondents, a remarkable picture did emerge. The sum of women who have primary education and those with no education at all, is 131, representing 42% of the total sample population. On the other hand, the same number of respondents reckoned with a norm against family planning. While we are not suggesting that the equality of the two figures imply a total congruency, it suggests within an acceptable level of significance that if any communal or religious norm against family planning does exist within any community, the uneducated and the less educated are more likely to recognise and abide by such norms than the educated.

To measure the strength of these norms in the community, the respondents were asked if they approve of the spreading of family planning information to everybody within the community. Their responses reflects a high level of support of the spread of family planning information. A total of 258 women or 82.7% of the sample population supported the spread, with only 17% dissenting.

It has to be noted however, that the approval above is not an unqualified one. Many of the respondents who approved the spread, pointed out that such information should be restricted to only married women. Emphasis is placed on not

making family planning information available to school girls and single ladies. This is predicated on the belief that it will spoil their moral senses. A respondent summarised this caution in her response when she said, "it will corrupt young ones and spoil our children, unless it is for married women, not everybody". Even those who disapproved of the spread of information to everybody, particularly do not want such a spread among young girls and boys in secondary schools. They are of the belief that sex matters and pregnancy are held sacred and should remain so, for obvious social control functions. The spread of information about family planning is seen also as a move to secularise sexual behaviour thereby hightening the already moral decadence among the youths.

In all therefore, we conclude this section by stating that this community holds a potential fertile ground for promotion and adoption of family planning, if adequate and careful campaign operations are carried out by appropriate institutions.

4.3.2 CULTURE AND DEMOGRAPHIC TRENDS

Culture is the general life ways of a group of people. It is the root of their world view and behaviour. In the process of our study, data collection and analyses, we identified a particular cultural pattern which has a significant influence on demographic trends within the study community.

First, we identified that infant and childhood mortality is not a prominent feature within the community and this appears to have a long history. Our data reveal that as many as 73.4% of our respondents have not experienced any child's death throughout their reproductive experiences. Among the 312 women drawn into the sample, only 128 deaths of children was reported in a total birth of 1351 children. The level of childhood and infant mortality appears to be so low that the respondents do not very much consider it as a factor which influences their levels of fertility. It was only 8.3% of the total respondents who reported initially that their ideal family size is influenced by the fear of death of their children. When probed further with more direct questions, only 25.6% of them reckoned with

infant and childhood mortality as having influence on their fertility behaviour. As mentioned above the experience of low child mortality seem to be deep-rooted in the history of the people. This is exemplified by a woman among others who is 45 years of age, with 8 children. She had her first pregnancy in 1974 and yet has not had any child's death. This cherished situation, we believe, is a positive factor in the demographic development of the study community and similar communities in rural Nigeria. We therefore set out for explanations for this phenomenon. The explanation being sought, appears to be located in the reasons given by the women for their ideal family size.

The major reason given for ideal family size which is 6 children, is their ability to train such number of children. As many as 63.5% of the respondents, gave this reason. Training of children we discovered incorporates not only giving them education but also taking adequate care of the children's general well-being. The emphasis on child training can be seen quite clearly from the statement of respondent number

208 who desire three boys and two girls. Her reason she reported is "in order to feed them very well and also to train them to any level of education and life". This same point was made even by women who have large family sizes. This was exemplified by respondent 075 who has eight children already. She maintained that that is the number she can train well and supported her view by reporting that she has not lost any of them to death, due to adequate care.

The above line of thought is further supported by the responses we recorded for question 44 in the questionnaire schedule. The women were asked whether their husbands support family planning. Of the 217 of them that have discussed the issue with their husbands, 82.0% of them reported that their husbands are in support of the practice. Among those who gave reasons for their husband's support for family planning is informed by their desire for the number of children they can train well. A particular respondents view on this, sums up the views of her peers. According to her, her husband supports family planning so that, "we can

have the number of children we can train well and be able to have enough resources left to fulfil other of his responsibilities."

The foregoing analyses suggests that the training culture is deeply embedded within the community. This is further validated when we closely considered the culture of the people under study, as it concerns training of children. This practice we discovered is an integral part of the life of the people. This is exemplified by the adage among the people which states, "a foolish child is as good as a dead one." This adage acts as a warning and a check against indiscriminate birth of children without planning for their training and their future. A man whose children are not going to school and are not well fed is seen as an absolute disgrace. If a child does not resemble his father, then he/she resembles his/her mother, is the saying among the people which goes to strongly link the child with his/her parents in everything. These can therefore be linked with the emphases on training of children which criscrossed the entire data collected in this study. This traditional practice therefore, stands as a plausible

explanation for the observed low level of infant and child mortality within the study community. This is because considerations for training of children, implies a family size which available income and resources can adequately taken care of.

On the premise of the foregoing therefore, we wish to state that social norms and values which emphasize training of children acts as checks on fertility levels among the people of Akokwa Community. This in turn checks levels of infant and childhood mortality. In the same vein, we wish to state a theoretical standpoint that a community or a population that has adequate training of children as a basic social norm, tends to have a family size which their income and resources can support, and this behaviour is a check or infant and childhood mortality as well as the well-being of the community.

CHAPTER 5

CONCLUSION AND RECOMMENDATION

In this chapter, a Summary of the study and its major findings as well as conclusions are presented. Some recommendations are also made.

5.1 SUMMARY OF STUDY AND CONCLUSIONS

This study has attempted to assess fertility levels and the knowledge, attitude and practice of family planning in Akokwa Community in Imo State. A review of related literature informed us that the factors which affect fertility levels as well as the knowledge, Attitude and practice of family planning are many and complex. Individual as well as societal factors do come into play in the fertility behaviour of individual members of society. On the basis of this, the study adopted a synthesis of the microanalytical and macroanalytical theories of fertility as exemplified in the works of Freedman (1968), Easterlin (1969) and Davis (1963), as its theoritical framework. On the basis of literature and theory reviews, eleven hypotheses were formulated. A total of three hundred and twelve women formed the sample population, and data was collected through the use of a structured questionnaire.

In the analyses of data, percentages, the chi-square and the Analysis of variance were the statistical

tools used in testing hypotheses. All hypotheses were accepted or rejected at 0.05 level of significance.

On the family size norm, it was found that the ideal family size is 5.9 children which is approximately 6 children a woman. This figure is clearly above the four children per woman policy of the Federal Government. Eventhough, the women maintained that, they can train this number of children adequately, there is still need for concern on how to bring the average down to lower levels. We also discovered that level of education significantly influences indirectly the ideal family size.

Infant and child mortality was found to be quite low in the community. An average of 9.5 children was reported to have died per 100 births reported. We however found out that infant and childhood mortality is a significant determinant of the desire for more children. We found that the individual experiences of women with child mortality informed their consideration of the factor as influencing their fertility behaviour. Women who have lost their children to death tend to consider mortality as a factor influencing their fertility, whereas those who have not experienced childhood mortality do not. We also found out that when the effects of infant and childhood mortality is controlled, the ideal family size is 5.4 children lower

than 5.9 earlier. We concluded therefore that other variables needed to be controlled together with mortality in order to achieve lower levels of fertility.

Sex preference was seen to be a significant factor which influences the ideal number of children. The underlying preference for boys influences the desire for more children. We also found that the preference for more males is a significant product of low levels of education. Women with little or no education desire more sons than those with higher levels of education.

Knowledge of family planning methods was found to be very high among the study population. As many as 92% of them know of at least a method. It was however found out that as it concerns specific methods, knowledge is skewed in favour of traditional than modern methods. Thus we concluded that knowledge of family planning methods, especially modern methods has not reached a large segment of the women population in the study area.

Attitude towards family planning is seen to be favourable for traditional methods, but negative for modern methods. Abstinence, safe period or rhythm and withdrawal are seen as natural and healthy, but pills, IUD, foam tablets, condom, recieved low levels of approval. Abortion and sterilization are seen in purely negative lights. Modern methods are

generally seen as unhealthy and harmful. Abortion is seen, not only harmful to health, but also part of a morally decadent society and in some cases as part of advanced medical practice.

Actual use of family planning methods is very low. Less than 60% of the respondents have ever used a method. Out of this figure, 80% of them used the traditional methods of abstinence and safe period. Modern methods recorded very low levels of use, with abortion and sterilization recording usages of 0.3% each among 312 respondents. Pills and condom recorded ever used of 24.0% which is the highest usage level recorded by any modern method. Data on current use shows even lower figures. It was therefore concluded that contraceptive practice is too low as to have any significant impact on fertility decline within the study population under present conditions.

On the relationship between access to and availability of family planning services and contraceptive use, it was recognised that distance is a factor that influences access to and use of services. However, we noted that accessibility is only one of the complex factors involved in the decision to use and continuous using of family planning services. In all, we concluded on the basis of our data, that availability and accessibility improve the use of contraception.

The study found out that the present harsh economic

situation in the country has a fertility reducing effect, more than the government four children per woman policy. It was therefore concluded that a harsh economic environment is a fertile ground for population control campaigns and the acceptance and use of family planning.

The duration of breastfeeding was found to be declining rapidly. In the study area, the mean duration of breastfeeding is 13 months. It was found out that not a substantial number of women know and use breastfeeding for contraceptive purposes. The women who abstain from relationships during breastfeeding do so mainly to safeguard the health of their children. It was also found that some of the women who breastfeed shortly and resume relationships almost immediately, do not become pregnant immediately due to their knowledge and use of other family planning methods. On this premise, we concluded that shorter periods of breastfeeding among women is not an indication that fertility increases will occur, provided this is simultaneously followed by an increase in adoption and use of other effective contraceptive methods.

Education was found to be positively associated with knowledge, attitude and practice of family planning especially as it concerns modern methods. Education directly influences age at marriage and indirectly is associated with total fertility. Data show that educated women marry late, desire fewer children and infact do not have the biological capacity

for large families, On the other hand, women with little or no education, believe that children are God's gift, sources of prestige and security. They marry very early, desire large family sizes, have little knowledge of family planning, particularly modern methods, have negative attitudes towards family planning, especially modern methods and have very low records of contraceptive use.

On sources of family planning information, we found that government agencies constitute a source for very few women, particularly the educated. The majority of the women are not directly connected to the formal communication systems. This leaves informal communication networks as primary sources of information. This has created a vast room for misinformation, and misunderstanding of family planning methods. In fact, the negative light under which modern methods of family planning are seen, especially as it concern their health effects, may be plausibly attributed to this condition. Again, we concluded that potential acceptors and users are left out of family planning, due to the laxity of government campaigns, which is selective, limited and ineffective, if not inexistent at the grassroots.

We found that many respondents do not know of any community norm against family planning. The number that identified religion and tradition are so few that we came to the conclusion that the force of such norms must have

waned in the face of modernization. This creates yet a fertile community for promotion of family planning.

Of a very remarkable interest is the link which we saw existing between culture, fertility and infant and childhood mortality. Our data show that there is a cultural pattern within the study community which emphasises the training of children as a cherished value. Parents who did not do so are regarded with dishonour. This value has tended to act as a check on indiscriminate childbearing. Thus parents tend to have the number of children which they can train well, based on their income and other resources available to them. This has invariably resulted in high levels of care for children and low levels of infant and childhood mortality. On the basis of this link, we assumed a theoretical position that a community or a population that has adequate training of children as a basic social norm, tends to have a family size which their income and resources can support adequately. This behaviour is a check on infant and childhood mortality as well as the well being of the community.

5.2 RECOMMENDATIONS:

In view of the findings summarised above and the conclusions arrived therefrom, the following recommendations are made:

First, the study has made us to understand that fertility

levels in the study area is higher than the four children policy of government. This underlines the need for government efforts at steering the ideal family size to lower levels. The study shows that the community under study, is a fertile ground for family planning campaigns. This is created by the present economic environment, the absence of strong social norms against family planning and the respondents' personal favourable dispositions. It however highlighted the weakness of government information system to take advantage of this environment, leaving a high level of misinformation and misunderstanding in its trail. All these, call for a serious-minded reappraisal of government information system on these issues. There is need for a concerted effort at intensifying campaigns. There is also the need for creating an information network which will take into consideration the uneducated and the aged. The information network being suggested here, is one that has a local language component which will be directed to the rural population at the grassroots. Again, it has been discovered that adequate contacts is made with the rural populations through the extended programme on Immunization and Oral Rehydration therapy programmes. These contacts need to be officially utilised for not only immunization but also family planning campaigns. If both campaigns

cannot go together, an independent programme of that nature, need to be created for family planning. If this is done, it is very likely that the success story associated with EPI/ORT programmes will soon be the portion of family planning campaigns. This is hoped to come true, moreso for rural communities like the one under study where all the environments are favourable for such campaigns.

Secondly, there is need for population and family life education among the youths. This need to be made part of the secondary education curriculum. Care should however be taken to remove sections that deal with sexuality and aspects of population science which will have negative moral effects on youths. Emphasis on this population curriculum should be placed on such major themes as the relationship between population issues like family size, and national development, population and education, population and employment, population and crime. Such themes as women education, employment and occupation should be emphasised as well as the impact of high levels of fertility on child and maternal health, the dangers of early marriage, early pregnancy, and consecutive births without adequate spacing. When population education, hinged on these major themes are taught our youths before leaving secondary schools, population issues will then become part of the primary knowledge which they have. This in turn will have a snowball effect on the

society, particularly these youths in the future. They will better be disposed to accept population control campaigns in future especially when they are married.

Thirdly, women education cannot be over-emphasized. The finding that knowledge, attitude and practice of family planning is positive as education increases, has positive implications for the future. It means that if women education is intensified, the coming generation of mothers will contain much higher proportion of educated women than was found among their mothers' generation. It seems likely that the use of family planning will extend to a point where it does have a demonstrable effect in lowering the birth rate. This underscores the need for not only a call to stop child marriage and early pregnancy of young girls, as the Health Ministers have been doing, but a legislation against these practices and others like withdrawal of girls from school. Such a policy option should incorporate such specifications as marriage for girls at ages not less than eighteen years and not until secondary education is completed. This again calls for government effort at providing educational sponsorship for females as a deliberate discriminatory policy especially for rural girls. These efforts will increase the status of women when they marry, as well as their future occupational capabilities and make provisions for different sources of

social security apart from children.

Fourthly, there should be a renewed campaign for breastfeeding among nursing mothers. With low level of adoption of modern contraceptives, it will not be in the interest of fertility control to allow the traditional method of child-spacing through breastfeeding to decrease to an insignificant level as the present trend indicates. The implication of our breastfeeding data is that the traditional fertility restraint which comes from long periods of breastfeeding, combined in some cases with abstinence, which usually leads to an infertile cum non-susceptible period after each birth, is increasingly decreasing. Thus the little gains of acceptance of modern contraception on marital fertility may be offset by declining breastfeeding. This is true, moreso in the situation of very low and slow acceptance levels. The major thrust of the campaign here is enlightenment. Efforts should be made to reach, not only the 30 million Nigerians who are Nigeria Television Authority's audience, but also the other 70 million rural dwellers. They should be encouraged on longer breastfeeding practices, not only for its health advantages, but also for its fertility control values.

Fifthly, increased family planning campaigns should be complemented with increase in other activities on the

subject. Prominent here, is the establishment of family planning clinics with adequate staffing, in as many rural areas as possible. As our data show, as many as 80.8% of the respondents, will be encouraged to use family planning services, if its clinic is located in the community. This underscores the effect that nearness of services will have and the need for government action in this direction.

Finally, it is hoped that if these recommendations are seriously considered and acted upon, the levels of fertility, knowledge, attitude and practice of family planning in rural Nigeria, will be highly influenced, towards the direction, favourable for achieving national development goals and aspirations.

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APPENDIX I: COMPUTATION OF CHI-SQUARE

IDEAL NUMBER OF CHILDREN BY EDUCATIONAL LEVEL.

Ideal No. of Children	No. Schooling	Primary	Secondary	Post Secondary	Total
1-4	1(7.06)	8(12.9)	17(13.09)	25(17.92)	51
5-6	21(23.96)	41(43.84)	45(44.42)	66(60.78)	173
7+	19(9.97)	26(18.24)	14(18.49)	13(25.30)	72
Total	41	75	76	104	296

fo	fe	fo-fe	$(Fo-fe)^2$	$(Fo-Fe)^2/Fe$
1	7.1	-6.1	37.21	5.2468
8	12.9	-4.9	24.01	1.18612403
17	13.1	3.9	15.21	1.1610687
25	17.9	7.1	50.41	2.8162
21	23.96	-3.0	9	0.375626
41	43.8	-2.8	7.84	0.17899
45	44.4	0.6	0.36	0.00108108
66	60.8	5.2	27.04	0.4447368
19	9.97	9.0	81	8.1243731
26	18.2	7.8	60.84	3.3428571
14	18.5	-4.5	20.25	1.0945946
13	25.3	-12.3	151.29	5.9198419
INTERPETATION:				$\Sigma(Fo-Fe)^2/e = 30.628$

$X^2 = 30.63$

Degree of freedom = (R - 1)(C-1) = (4-1)(3-1) = 6

Significance level = 0.05

Table value = 12.59

Decision: The substantive hypothesis (h_i) is accepted.

APPENDIX II: COMPUTATION OF CHI-SQUARE

SEX PREFERENCE BY DESIRE FOR MORE CHILDREN WHEN LOOKING FOR?

CONTINUE IN CHILDBEARING?

	BOY	GIRL	BOTH	TOTAL
Yes	49(18.0)	6(3.97)	39(72.0)	94
No	10(40.9)	7(9.0)	197(163.97)	214
Total	59	13	236	308

fo	fe	fo-fe	$(fofe)^2$	$(fo-fe)^2/fe$
49	18	31	961	53.39
6	3.97	2.03	4.13	1.042
39	72.0	-33	1089	15.125
10	40.9	-30.9	954.81	23.345
7	90	2	4	0.444
197	163.97	33.02	1090.7	6.6518

INTERPRETATION $\sum (fo-fe)^2/e = 99.996$

$X^2 = 99.996$

Degree of freedom = (R-1)(C-1) = (3-1)(2-1) = 2

Level of significance = 0.05

Table value of chi-square = 0.103

Decision: Hypothesis (H_1) accepted and Hyothesis (Ho) is rejected.

APPENDIX III: COMPUTATION OF CHI-SQUARE

INFANT AND CHILDHOOD MORTALITY BY DESIRE FOR MORE CHILDREN

Infant/ Children Motality Experience?	Continue in Childbrearing to Prevent it?		
	Yes	No	Total
Yes	28(21.77)	55(61.23)	83
No	52(58.23)	170(163.77)	222
Total	80	225	305

Fo	fe	fo-fe	$(fo-fe)^2$	$(fo-fe)^2/fe$
28	21.77	6.23	38.81	1.783
55	61.23	-6.23	38.81	0.6339
52	58.23	-6.23	38.81	0.6665
170	163.77	6.23	38.81	0.2369

INTERPRETATION: $\sum (fo-fe)^2/fe = 3.32$

$X^2 = 3.32$

degree of freedom = 1

level of significance = 0.05

Table value of chi-square = 0.00393

Decision: Infant and childhood mortality is significant determinant of the desire for more children.

APPENDIX IV: CHI-SQUARE TEST OF AGE AT MARRIAGE BY EDUCATION

Age at Marriage	No Schooling	Primary	Secondary	TTC	Nursing	OND-HND-DEGREE	Total
15-19	13(16)	136 (27.67)	36 (25.67)	7 (19.33)	5 (5.33)	7(10)	104
20-24	27 (20.15)	32 (34.85)	34 (32.33)	18 (24.75)	7 (6.72	13(12.64)	131
25-29	8 (10.15)	14 (17.29)	6 (16.04)	24 (12.08)	4 (3.33)	8(6.25)	64
30+	0(2.0)	1(3.46)	1(3.21)	9(2.43)	0(0.67)	2(1.25)	13
Total	48	83	77	58	16	30	312

fo	fe	fo - fe	$(fo-fe)^2$	$(fo-fe)^2/fe$
13	16	-3	9	0.56
36	27.67	8.33	69.39	2.51
36	25.67	10.33	106.71	4.16
7	19.33	-12.33	152.03	7.86
5	5.33	-0.33	0.1089	0.0204
7	10	-3	9	0.9
27	20.15	6.85	46.92	2.33
32	34.85	-2.85	8.123	0.233
34	32.33	1.67	2.789	0.086
18	24.35	-6.35	40.32	1.6559
7	6.72	0.28	0.0784	0.0116
13	12.60	0.4	0.16	0.013
8	10.15	-2.15	4.6225	0.455
14	17.29	-3.29	10.82	0.626
6	16.04	-10.04	100.8	6.28
24	12.08	11.92	142.09	11.76
4	3.33	0.67	0.449	0.135
8	6.25	1.75	3.0625	0.49
0	2.0	-2.0	4	2.0
1	3.46	-2.46	6.0516	1.75
1	3.2	-2.2	4.84	1.5125
9	2.49	6.58	43.30	17.89
0	0.67	-0.67	0.449	0.67
2	1.25	0.75	0.5625	0.45

$\sum (fofe)^2/fe = 44.73$

INTERPRETATION

$X^2 = 44.73$

Degrees of freedom = (6+1)(4-1) = 15

Level of significance = 0.05.

Table value of chi-square = 24.996

Decision: null hypothesis (ho) rejected

Alternative hypothesis (h1) accepted.

APPENDIX V: CHI-SQUARE TEST ON EFFECTS OF DISTANCE ON CONTRACEPTIVE USE

DISTANCE	ENCOURAGES	DISCOURAGES	NO EFFECT	TOTAL
Far	26(39.88)	43(23.37)	52(57.76)	121
Not far	61(47.13)	8(27.63)	74(68.25)	143
Total	87	51	126	264

fo	fe	fo-fe	$(fo-fe)^2$	$(fo-fe)^2/fe$
26	39.88	-13.88	192.65	4.83
43	23.37	19.63	385.34	16.49
52	57.75	-5.75	33.06	0.573
61	47.13	13.87	192.38	4.08
8	27.63	-19.63	385.34	13.95
74	68.25	5.75	33.06	0.48

$\sum (fo-fe)^2/fe = 40.40$

INTERPRETATION

$X^2 = 40.40$

Degrees of freedom = (R-1)(C-1) = (3-1)(2-1) = 2

levels of signifiance = 0.05.

Table value of chi-square = 5.991.

Decision: Since the table value of chi-square at 0.05 level of significance and 2 degrees of freedom is lesser than the calculated value, we reject the null hypothesis (ho) and accept the substantive hypothesis (h1).

APPENDIX VI: COMPUTATION OF CHI-SQUARE TEST ON ECONOMIC ENVIRONMENT AND INFLUENCE ON DESIRED FAMILY SIZE

Economic Influence	Responses	Influenced to Reduce	To increase	Not influenced to other family size	Total
	Yes	169(114.1)	17(11.94)	21(50.94)	207
	No	3(57.88)	1(6.06)	101(41.05)	105
	Total	172	18	122	312

fo	fe	fo-fe	$(fo-fe)^2$	$(fo-fe)^2/fe$
169	114.1	54.9	3014.01	26.4155
17	11.94	5.06	25.6036	2.1444
21	80.94	-59.94	3592.8	44.3885
3	57.88	-54.88	3011.814	52.035
1	6.06	-5.06	25.6036	4.225
101	41.05	59.94	3593.08	87.520

$\Sigma (fo-fe)^2/fe$
$= 216.74.$

INTERPRETATION:

$X^2 = 216.74$

Degrees of freedom = 2

Level of significance = 0.05.

Table value of Chi-square = 5.991

Decision: Null hypothesis rejected and substantive hypothesis accepted.

APPENDIX VII

Department of Sociology
University of Ibadan
Ibadan.

18 June, 1990.

Dear Respondent

RESEARCH QUESTIONNAIRE ON FERTILITY LEVELS AND FAMILY PLANNING IN RURAL NIGERIA: AN ASSESSMENT OF AKOKWA COMMUNITY, IMO STATE

This questionnaire is designed to describe the level of childbearing in Akokowa community, as well as to explain the factors responsible for such level of fertility, and to ascertain the attitude of the people, their knowledge about, and practice of family planning as a means of controlling childbearing. This study is being done as part of the ways to understand what is happening in our own society. It is also part of the requirements for the award of a Master of Science degree in Sociology at the University of Ibadan, Ibadan. It has nothing to do with government or any organization.

I will therefore be very grateful if you can help to inform us about what obtains in this community by answering the following questions truthfully. All information shall be treated confidentially, and so your name is not required for the study.

Thank you for your cooperation.

Yours sincerely,

MBERU, BLESSING UCHENNA

INTRUCTION

Answer all questions with an 'x' mark in the right box.

QUESTION FOR ALL MARRIED WOMEN AGED 15-49.

1. How old are you now? (Specify) ----------

2. What is your religious affiliation?

a) Roman Catholic ☐ (b) Protestant ☐
b) Traditional Religion ☐ (d) Islam ☐

3. Marital Status

a) Married ☐ (b) Separated ☐ (c) Divorced ☐
d) Widowed ☐

4. How many wives, including yourself, does/did your husband marry? (Specify) ----------

5. What is your level of education?

a) No schooling ☐ (b) Primary education ☐
c) Secondary education ☐ (d) TTC ☐
e) Nursing ☐ (f) OND/HND/Degree ☐

6. What is your occupation?

a) Trading ☐ (b) Farming ☐
c) Teaching ☐ (d) Housewife ☐
e) Civil servant ☐ (f) Others (specify) ------

7. What is your exact/estimated income per annum?

a) Below ₦1,000.00 ☐ (b) Between ₦1000-₦3000 ☐
c) Between ₦3,100.00-₦6,000 ☐
d) Between ₦6,100 - ₦9,000 ☐
e) ₦10,000 and above ☐

8. What was your age at marriage (specify)? --------

9. At what age did you first become pregnant and which year was that (specify)? ----------

10. How many children have you ever born since your marriage (specify)? ----------

11. Some children are born alive but die within a few hours or days. Others die at older ages. Have you given birth to any children who have died?

a) Yes ☐ (b) No ☐

12. How many of your children are alive now? --------

Males ☐ Females ☐

13. How many of your children have died? ----------

Males ☐ Females ☐

14. What was his/her/their age/ages at death (specify)?

---

15. If you could choose exactly, the number of children to have in your whole life, how many children would that be? (Specify number) ----------

16. What is your reason(s) for wanting this number of children?

a) Children are a source of prestige and ☐

b) because this is the number that we can train very well ☐

c) because some of them may die and so the remaining can live to replace them ☐

d) children are God's gift so if that number comes, I will thank God ☐

e) Other reasons (specify) ----------

17. What is the sex distribution of the children you will like to have?

Boys ☐ Girls ☐

18. What is your reason(s) for wanting this number of boys and girls? (specify in details) ----------

19. If you give birth to the total number of children you want, and did not get the appropriate number of boys or girls, you had wanted, will you continue in childbearing until you get a particular sex?

a) Yes ☐ No ☐

20. Will you do this when you are looking for a boy or a girl or both

a) a boy ☐ (b) a girl ☐ (c) both ☐

21. It is said that women give births to as many children as possible, so that when some die, the remaining children will replace them. In your own case, does the expectation of any of your children dying inform the number of children you have or wish to have?

a) Yes ☐ (b) No ☐

If 'yes' in 21, ask 22.

22. If you are certain that your children will survive to adulthood, how many children will you have?

(specify) ----------

23. What is the ideal number of children you consider appropriate for a woman in this community?
(Specify actual number) ----------

24. There are various methods that women or men can use to delay or avoid becoming pregnant. These methods are family planning methods. Do you know or have you heard of any of these methods?
a) Yes ☐ (b) No ☐

25. If 'yes', name those methods you know or have heard. ----------
PROBE: Do you know of any others including traditional methods? (Specify) ----------

26. There are some other methods which you have not mentioned, and I would like to find out if you have heard of them. Which of these methods have you heard?

a) sex abstinence ☐ (g) foam tablets ☐
b) pills ☐ (h) duche (washing) ☐
c) condom ☐ (i) abortion ☐
d) injection ☐ (j) rhythm or safe period ☐
e) intra-uterine devices (IUD) ☐ (k) seteretilisation ☐
f) withdrawal ☐ (l) herbs,charms ☐
n) Rings on fingers ☐
m) Armbands, waist or neck bands ☐

27. How did you hear about these methods of family planning the first time?

a) relatives ☐ (b) friends ☐
c) radio/TV ☐ (d) family planning workers ☐
e) doctors ☐ (f) nurses/midwives ☐
g) chemists/drug store ☐
h) others (specify) ----------

28. What is your opinion about these methods of limiting pregnancy; do you approve their use?

a) Yes ☐ (b) No ☐

29. Which of the methods do you approve? (Specify) -----

30. Why do you approve of these ones and disapprove of others? (Give reasons in detail) ----------

31. If you have the total number of children you want, will you like to stop childbearing by using any of the above methods?

a) Yes ☐ (b) No ☐

32. Have you used any of the above methods to prevent pregnancy?

a) Yes ☐ (n) No ☐

33. Which of the methods have you used before?

(name them) ----------

34. Which of the methods are you using now?

(specify) ----------

35. Which of the methods do you prefer most?

(specify) ----------

36. Why do you prefer this method?

a) It is cheap
b) It is effective
c) It is easily available
d) It is harmless to health
e) It does not disturb sex life
f) Other reasons (specify) ----------

37. If you yourself wanted to use any of these methods, do you know any place or person where you could get them?

a) Yes ☐ (b) No ☐

38. Where is your source of supply of family planning advice and services?

a) private hospitals
b) government hospitals
c) chemist/drug store
d) family planning clinic
e) Other sources (specify) ----------

39. Is this your source of supply of family planning services far from your home?

a) Yes ☐ (b) No ☐

40. Does the location affect your obtaining and using family planning services?

a) encourage you ☐ (b) discourage you ☐

c) has no effect at all ☐

41. Will you be encouraged to use family planning services if a family planning clinic is located in this community?

a) Yes ☐ (b) No ☐

42. Is there any rule or norm in this community which is against family planning?

a) Religion ☐ (b) Tradition ☐ (c) None ☐
(d) Others (specify) ----------

43. Does your husband support family planning practice?

a) Yes ☐ (b) No ☐ (c) Have not discussed it ☐

44. If (b), what are his reasons? (specify) ----------

45. The Federal Government of Nigeria has advised that each woman should have not more than four children. Have you heard about it?

a) Yes ☐ (b) No ☐

46. Do you support the view?

a) Yes ☐ (b) No ☐

47. Will you abide by it?

a) Yes ☐ (b) No ☐

48. Does the present economic condition in the country influence the number of children you want to have?

a) Yes ☐ (b) No ☐

49. If yes, in what way(s) does it affect it?

a) It caused me to reduce the number ☐

b) It caused me to increase the number ☐

c) It did not affect my decision on the number of children I want to have ☐

50. Do you know that breast-feeding is a method of preventing pregnancy? (a) Yes ☐ (b) No ☐

51. How long do you breast-feed your babies?

(Specify in months) ----------

52. Do you have sexual relations with your husband during the period of breast-feeding your children, before the child is weaned?

a) Yes ☐ (b) No ☐

53. If no, what are the reasons?

a) It is harmful to the health of the child ☐

b) It is against our customs ☐

c) It is to prevent pregnancy occurring ☐

d) Other reasons (specify) ----------

54. What birth interval between successive deliveries do you think is most healthy? (Specify) ---------

55. Do you approve of spreading effective family planning information and practice for everybody in this country?

a) approved ☐ (b) disapproved ☐

APPENDIX VIII: FERTILITY LEVELS AND FAMILY PLANNING IN RURAL NIGERIA: AN ASSESSMENT OF AKOKWA COMMUNITY, IMO STATE

CODING FORMAT

NO.	SUBJECT	VAR. NO.	CATEGORY LABEL	CODE	CARD COLUMN
ALL	Respondent number	-	As on schedule	001-313	1-3
1	Age now	01	Actual age	15-49	4-5
2	Religion	02	Roman Catholic	1	6
			Protestant	2	
			Traditional rel.	3	
			Islam	4	
3	Marital Status	03	Married	1	7
			Separated	2	
			Divorced	3	
			Widowed	4	
			Not reported	9	
4	No. of husbands		1	1	8
	wives	04	2	2	
			3	3	
			4	4	
			5 and above	5	
			Not reported	9	
5	Level of education	05	No schooling	1	9
			Primary Education	2	
			Secondary "	3	
			TTC	4	
			Nursing	5	
			OND/HND/Degree	6	
			Not reported	9	

No	SUBJECT	VAR	CATEGORY LABEL	CODE	COLUMN
6	Occupation	06	Trading	1	10
			Farming	2	
			Teaching	3	
			House wife	4	
			Civil Servant	5	
			Others	6	
			Not reported	9	
7	Income per annum	07	Below ₦1000	1	11
			B/N ₦1000-₦3000	2	
			B/N ₦3100-₦6000	3	
			B/N ₦6100-₦9000	4	
			₦10000 and above	5	
			Not reported	9	
8	Age at Marriage	08	Actual age	12-39	12-13
			Not reported	99	
9	Age at first pregnancy	09	Actual age	12-39	14-15
			Not reported	99	
9b	Years of first pregnancy	10	Actual year	50-65 etc.	16-17
			Nor reported	99	
10	Children ever born	11	Non	0	18
			1	1	

			2	2	
			3	3	
			4	4	
			5	5	
			6	6	
			7	7	
			8-10	8	
			11 and above	9	
11	Any child ever dead	12	Yes	1	19
			No	2	
			Not reported	9	
12	Children Alive				
	(a) male	13	Actual number	0-8	20
			not reported	9	
	(b) female	14	Actual number	0-8	21
			not reported	9	
13	Children Dead				
	(a) male	15	Actual number	0-8	22
			not reported	9	
	(b) female	16	Actual number	0-8	23
			not reported	9	
14	Age of child at death	17	Below 1	1	24
			1-5	2	
			6-10	3	
			11 and above	4	
			none	9	

15	Ideal number of children	18	1-4	1	25
			5-6	2	
			7-8	3	
			9 and above	4	
			Up to God	5	
16	Reasons for the ideal number of children	19	Children for power and prestige	1	26
			No. able to train	2	
			To check Mortality	3	
			Up to God	4	
			Social Security at oldage	5	
			Other reasons	6	
			not reported	9	
17	Sex distribution of children wanted				
	(a) boys	20	Actual number	1-8	27
			Up to God	0	
			Not reported	9	
	(b) girls	21	Actual number	1-8	28
			Up to God	0	
			Not repoted	9	
18	Reasons for such sex distribution	22	Boys perpetrate the clinagee	1	29
			Boys take care of us at oldage	2	
			A girl is as helpful as a boy	3	
			Up to God's decision	4	
			The combination I can train	5	

			Children for power and prestige	6	
			not reported	9	
19	If the required sex distribution is not got, will you continue in child-bearing to get that?	23	Yes	1	30
			No	2	
			not reported	9	
20	Will you do this when looking for who?	24	boys	1	31
			girls	2	
			both	3	
			not reported	9	
21	Do you continue in childbearing to forestall the effects of child mortality?	25	Yes	1	32
			No	2	
			not reported	9	
22	If you are certain of yourchildren's survival what is your ideal number of children	26	1-4	1	33
			5-6	2	
			7-8	3	
			9 and above	4	
			upto God	5	
			not reported	9	
23	Ideal no. of children for every women in the community	27	1-4	1	34
			5-6	2	
			7-8	3	
			9 and above	4	
			Up to God	5	
			Not reported	9	
24	Do you know/have you heard about family planning?	28	Yes	1	35
			No	2	
			not reported	3	
5 & 6	Name/identify family planning methods you have heard				
a.	Sex abstinence	29	Yes	1	36
			No	2	

			No answer	9	
b	Pills	30	Yes No No answer	1 2 9	37
c.	Condom	31	Yes No No answer	1 2 9	38
d.	Injection	32	Yes No No answer	1 2 9	
e.	Intra-uterine Device	33	Yes No No answer	1 2 9	40
f.	Withdrawal	34	Yes No No answer	1 2 9	
g.	Foam tablets	35	Yes No No answer	1 2 9	42
h.	douche/washing	36	Yes No No answer	1 2 9	43
i.	abortion	37	As above	"	44
k.	Sterilisation	39	As above	"	46
j.	herbs/charms/rings/ armbands/waistband/ neckbands.	40	As aboe	"	47
27	How did you hear of these methods?	41	All relatives/friends radio/TV/family planning workers nurses/doctors/ midwives chemist/drugstore 1 and 2 2 and 3 Books and magazines Not reported	90 1 2 3 4 5 6 7 9	48

28	Do you approve of these methods?	42	Yes No No response	1 2 9	49
29	Which methods do you approve?	43	Sex abstinence/safe period pills/comdom abortion withdrawal sterilization Injection/LUD foam tablet/duche rings/charms/bands/ herbs All None	1 2 3 4 5 6 7 8 0 9	50-52
30	What are your reasons for 29?	44	Religion Tradition health/effective Availability Cost Easy/uncomplicated Not reported	1 2 3 4 5 6 9	53
31	If total number of children wanted is gotten, will you use family planning?	45	Yes No not reported	1 2 9	54
32	Have you us ed any method to prevent pregnancy?	46	Yes No not reported	1 2 9	55
33	Which methods have you used before?	47	As in variable 43	-	56-58
34	Which method are you using now?	48	As in variable 43	-	59
35	Which method do you prefer most?	49	As in variable 43	-	60

36.	Why do you prefer it?	50	Cheap	1	61
			effective	2	
			availability	3	
			harmless to health	4	
			Don't disturb lsex life	5	
			Other reasons	6	
			Not reported	9	
37.	Do you know of source of supply methods:	51	Yes	1	62
			No	2	
			Not reported	9	
38	Source of supply of family planning methods	52	Private hospitals	1	63
			Govt. hospitals	2	
			Chemist/drug store	3	
			family planning clinic	4	
			Other sources (books/friends/ herbalists)	5	
			All the sources	6	
			none	7	
			not reported	9	
39.	Is source of supply of services far from home?	53	Yes	1	64
			No	2	
			No reported	9	
40.	Does the distance effect your use of family planning services	54	encourages	1	65
			discourages	2	
			has no effect at all	3	
			not reported	9	
41	Will you be encouraged to use family planning if its clinic is located in this community?	55	Yes	1	66
			No	2	
			Not reported	9	

42	Any community rule or norm against family planning	56	Religion Tradition Others None Not reported	1 2 3 4 9	67
43	Does your husband support family planning?	57	Yes No have not discussed it not reported	1 2 3 9	68
44	If no, his reasons	58	Religion Tradition Children are God's gift Have not discussed it No applicable Harmful to health Does not know about it Not reported	1 2 3 4 5 6 7 9	69
45	Have you heard the FG's directive of 4 children per woman	59	Yes No not reported	1 2 9	70
46	Do you support the view?	60	Yes No not reported	1 2 9	71
47	Will you abide by it?	61	Yes No not reported	1 2 9	72
48	Does the economic situation in the country influence the number of children you want?	62	Yes No not reported	1 2 9	73

49	If yes, in what way?	63	To reduce	1	74
			To increase	2	
			No effect either way	3	
			Not reported	9	
50	Do you know that breast feeding is a family planning method?	64	Yes	1	75
			No	2	
			not reported	9	
51	How long do you breast feed?	65	Below six months	1	76
			6-12 months	2	
			13-18 months	3	
			19-24 months	4	
			25-30 months	5	
			31-36 months	6	
			above 3 years	7	
			not reported	9	
52	Do you have sexual relations with your husband before your child is weaned?	66	Yes	1	77
			No	2	
			not reported	9	
53	If no what are the reasons	67	harmful to child's health	1	78
			Against custom	2	
			To prevent pregnancy	3	
			Other reasons	4	
			not reported	9	
54	Birth interval most healthy	68	12 months	1	79
			18 months	2	
			24 months	3	
			30-36 months	4	
			4 years and above	5	
			not reported	9	

55.	Doyyou approve of spreading family planning information and practice to everybody in this community?	69	Yes	1	80
			No	2	
			not reported	9	