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FERTILITY INTENTION AND CONTRACEPTIVE USE AMONG MALES IN NIGERIA

BY

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A RESEARCH PROJECT SUBMITTED TO THE SCHOOL OF SOCIAL SCIENCES, UNIVERSITY OF WITWATERSRAND, JOHANNESBURG, IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN THE FIELD OF DEMOGRAPHY AND POPULATION STUDIES

JUNE 2013

SUPERVISOR: DR. LATIFAT IBISOMI

DECLARATION

I **Adeyoju Temitope Oluwaseyi;** declare that this research report is my own work. It is submitted for the degree of Master of Arts in Demography and Population Studies at the University of the Witwatersrand, Johannesburg. To the best of my knowledge, it has not been submitted before for any other degree or examination in any other university.

…….... [Signature of candidate]

.....day of ..... 20.....

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DEDICATION

This work is dedicated to my parents Engr Olu Adeyoju and Mrs Sola Adeyoju

LIST OF ABBREVIATIONS

CSO - Central Statistics Office

NDHS – Nigeria Demographic and Health Survey

MDG - Millennium Development Goals

OR - Odds Ratios

UN - United Nations

NDHS - Nigeria Demographic and Health Survey

CPR- Contraceptive Prevalence Rate

WHO- World Health Organization

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ABSTRACT

Background: Many African countries are still characterized by high fertility rates and low use of modern contraceptives despite numerous reproductive and health programs which aims to increase level of use in these countries. In recent times, there is an increasing body of literature on the role of men in family planning. These studies came about as a result of the inconsistencies observed with women's inability to match fertility intention to their contraceptive behaviour despite the fact that most family planning programmes have concentrated on women. A potential explanation for this ambivalence is the great influence that male partners exert on women's contraceptive use and fertility outcome in households. Could fertility intention of males therefore predict their modern contraceptive use in households? This study examined if and how fertility intention of males in Nigeria influences their modern contraceptive use.

Methods: This is a cross-sectional study which used data from the Nigerian Demographic and Health Survey 2008. The population of interest in this study are sexually active males (had sex in the last one month before survey) of ages 15-59 interviewed during the survey. The dependent variable is current contraceptive use while the independent variables include demographic, socio-economic and reproductive characteristics of the males. The analysis of data was done at univariate, bivariate and multivariate levels to examine the association between male fertility intention and contraceptive use.

Results: Results showed that only 9.0% of the 6,486 males in the study sample were using modern contraceptive methods, 13.1% want no more children and 33.4% want to delay having a/next child after two years while 33.4% want to have a/next child within 2 years.

Fertility intention was found to be associated with use of modern contraceptive methods at both bivariate and multivariate levels. Result showed that men who do not want a/another child were significantly more likely (OR= 2.89) to use modern contraceptive method compared to men who wanted a/another child within two years. Men who wanted to space childbirth (want after two years) were also more likely to use modern contraceptive (OR= 1.61) when compared to men who wanted a child within two years.

Conclusions: Men who were limiting or spacing child birth have higher propensity to use modern contraceptive method compared to men that wanted another child within two years. This suggests that fertility intention of men in Nigeria has an influence on their contraceptive behaviour and could be a good prediction for fertility outcomes in the country at large

CHAPTER 1

INTRODUCTION

1.1 Background

In the last quarter of a century, the world has witnessed an increase in contraceptive use and revolution from traditional to modern method of contraceptives (Donaldson and Tsui, 1990). Modern contraceptives offer men and women the ability to plan their family and attain optimal birth as intended (IOM, 2011). Globally, Total Fertility Rate (TFR) has reduced drastically from 5 children per woman in the 50s to 2.6, and this decline is in part due to economic growth, social and cultural forces such as increased access to education by women (UNFPA, 2011). Improved reproductive health care which includes the use of modern contraceptive methods to prevent unwanted birth also attributed to this decline especially in the developing world (Bongaarts, 1997; UNFPA, 2011). However, despite the observed decline, most countries in sub-Saharan Africa and some part of Asia still have very high fertility rates. Furthermore, Contraceptive Prevalence Rate (CPR) is low with corresponding high unmet need and unintended pregnancies among women of reproductive ages in these regions (UNFPA, 2011).

The importance of contraceptive use lies in its close association with fertility (Mauldin and Segal, 1998). The fertility level in a country is generally regarded as high when fertility level is above five children per woman (United Nations, 2009). Nigeria, a country with average fertility rate of 5.7 children per woman can therefore be regarded as having high fertility (NDHS, 2008). This high fertility, although declining at a slow pace can partly be attributed to low contraceptive prevalence (Feyisetan & Casterline, 2000). Contraceptive use is one of the four major factors that determine fertility. The others being in sexual unions, postpartum nonsusceptibility, and induced abortion (Bongaarts, 1978). Contraceptive use has increased in many parts of the world even in perpetually highly populated regions like the Latin America

and Asia, but the prevalence continues to stagnate in sub-Saharan Africa. Modern contraceptive prevalence in Africa increased from 23% to 24%, Latin America- 64% to 67% while Asia stagnates at 62% (WHO, 2012).

The national contraceptive prevalence rate which is the percentage of women who were practicing or whose sexual partners were practicing any form of contraception in Nigeria was reported at 14.6% in 2008 (NPC, 2009). Such statistics showed that Nigeria is still one of the countries with the lowest contraceptive prevalence rates although; efforts by the government and NGOs to improve awareness on the use of modern contraceptive methods especially among males have yielded some progress.

The Planned Parenthood Federation of Nigeria (PPFN) carried out awareness programs to motivate males on the benefits and use of contraceptives. These programmes comprise reaching out to traditional and religious leaders, family planning orientation for young people. Government workers like teachers, social and agric workers, were among those targeted, as were news reporters. PPFN also advanced the program to the various Nigerian military and paramilitary services. PPFN observed tangible improvement in the development of the programs and constituting partnerships with other relevant organizations (IPPF, 1984).
Statistics have shown that knowledge of modern family planning is as high as 70% in Nigeria but this does not translate into uptake (Adebayo et al, 2012). Overall in Nigeria, less than 10% of women of reproductive age use any modern contraceptive method (FMOH, 2009; NPC & ICF Macro, 2009).
Over a period of time, the very little improvement in contraceptive use rose from 3% in 1990 to 10% in 2008 (NPC & ICF Macro, 2009). Also, between 1990 and 2008, contraceptive prevalence for all methods increased from 6% to about 15%. However, use of modern contraceptive methods increased from 4% to 10% between the same periods (FOS, 1992;

NPC, 2000; FMOH, 2004, 2006; NPC & ICF Macro, 2009). It is imperative to analyse the determinants of modern contraceptive uptake in Nigeria as this would enable effective designing of intervention that can lead to increased usage of modern contraceptives.

In an attempt to test for the determinants, several factors have been observed to be predictors of contraceptive usage including fertility intention or preference. An analysis of 22 Latin American, Asian, and African countries between the periods of 1970 to 1990s made use of the World Fertility Survey (WFS) and Demographic and Health Survey (DHS) data. The authors found that increase change in contraceptive use is partly influenced by fertility intention. Another study by Bankole and Singh in 1998, using Demographic and Health Survey data also buttressed the Feyisetan and Casterline study by concluding that reproductive intention is an important predictor of contraceptive behaviour (Feyisetan & Casterline, 2000; Bankole & Singh, 1998). Studies around fertility preference are used to estimate the number of children that a person want to have. These studies have viewed respondents' preferences using different definitions and terminologies (Bankole and Westoff, 1998) and one of the terminologies is fertility intention.

In this study, the key independent variable which is fertility intention was derived from a set of questions in the NDHS 2008 survey. Men who were not sterilized were asked if their wives or partners were pregnant. Those who answered "yes" were further asked if they would they like to have another child or would prefer not to have anymore child. The men who responded that their wives or partners were not pregnant were further asked whether they would prefer to have a child or would they prefer not to have another child. For men whose wives or partners were not pregnant, they were also questioned on how long (duration) they were willing to wait for the birth of a/another child. The question was asked from men whose wives or partners were pregnant. The Nigerian Demographic Health Survey of 2008 reports that about 46% of males want another child within two years, 33% prefer after two years,

about 8% are undecided and 13% want no more children (NDHS, 2008) after recoding has been done.

The concept of fertility intention as a determinant of contraceptive use has had its share of criticism. The critics argue that respondents may not have taken into account the effects of social pressure especially from family members as it relates to their stated fertility intention. For instance, males may exert considerable influence on females' reproductive decision (Castle et al, 1999). Fertility intention may not correspond with future fertility outcomes at the individual and aggregate levels; however, they do provide information regarding the future course of fertility (Bongaarts, 1992). Analysis of the National Survey of Families and Households using two sets of data, Schoen et al (1999) found that a strong association exist between intention of the interviewees and their real childbearing (Schoen et al, 1999).

Other empirical evidence gathered across the world and over several decades also indicates that this assumption is reasonable (Bankole and Westoff 1995; Bongaarts 1992). There are other evidences on importance of intentions other than those from demographic researches; literatures on social psychology support a strong relationship between individual's plan for future fertility and their responsive reproductive behaviours. Miller hypothesized that reproductive decisions, especially those that are made through a sequence of psychological and behavioural flow begins with a base unconscious motivations which is converted into intentions and ultimately which then become behaviour especially when conditions are right (Miller, 1995).

The importance of fertility intention as it may influence behaviour was also supported by the Theory of Reasoned Action (TRA) by Martin Fishbein and Icek Ajzen in 1975 and Theory of Planned Behaviour (TBP) by Ajzen in 1980, which is an extension of the TRA. These theories postulate that a person's behaviour is influenced by his/her intention, which is

determined by three main predictors: attitudes, subjective norms and perceived behaviour control (Ajzen & Fishbein, 1975; Ajzen 1980 as cited in Miller 1995).

1.2 Brief background of study area: Nigeria

Figure 1: Map of Nigeria (Courtesy: National Population Commission)



Nigeria is situated in the West African sub-region and is bordered by Niger, Chad, Cameroon and Benin Republic in the West (Nigeria Demographic and Health Survey, 2008). The crude oil and petroleum industry provides about 95% of foreign national income and about 80% of national budget capital. However, for two-thirds of the population who live in poverty, agriculture is the main source of their revenue (World Bank, 2010). Nigeria is among the

fastest growing countries with about 170 million people (NPC, 2010) and the most populated on the African Continent which means it is a reference point of the population crisis in Africa (United Nations, 2010). An average Nigerian woman has a 5.7 number of children. Nigeria is plagued by slow development and some have argued that population outburst and poor reproductive and health programme is responsible. Others argue that population alone should not be seen as the problem of the Nigerian state. In whichever way this discus is looked at, it is generally accepted that if a population is not checked, it could lead to economic problems. The understanding of the socio-economic implication of rapid population growth has led some of the developing countries to formulate and implement programmes and policies with the aim of influencing undesirable population outcomes (Mba, 2002).

Nigeria then was characterized mainly by military system of government and issues of population were not in much interest of the government. With time, the recognition of the possible bad effect of rapid population growth gave rise to the first population policy document of Nigeria (Federal Republic of Nigeria, 1988). A major component of the policy document is to "reduce the number of children a woman is likely to have in her lifetime, now over six to four per woman..."and "make family planning services easily affordable, safe, and culturally acceptable" (Federal Republic of Nigeria, 1988: 13-15). The 1988 population policy can be said to have failed. This is so because instead of the population to decline to about 2.0% by year 2000 as aimed by the policy, the growth rate rose to about 3% in 2006 (NPC, 2007). Various reasons have been attributed the inability of the policy to achieve its aims. Some of the factors were that traditionally, Africans are proponents of high fertility (Caldwell, 1982; Casterline, 2001). Emerging evidence attributes the failure of the 1988 policy to the fact that the policy based its tenets on the assumption that the Nigerian population is homogenous in nature thereby ignoring the cultural diversity. Another reason is the failure to factor in male reproductive motivation into the policy design because the design

focused on women (Okono, 2003). The importance of involving men in reproductive and health issues in Nigeria is also buttressed by the evidences that male in Nigeria are the domineering forces in fertility decisions in households (Abanihe, 1994). Nigeria has since adopted a revised population policy in 2004 with the aim of involving men in its programmes to achieving significant decline in population by 2015.

1.3 Problem Statement

The Total Fertility Rate (TFR) is 5.7 children per woman in Nigeria (NDHS, 2008). This is considered high and is attributed in part to low use of contraceptives in Nigeria (United Nations, 2009). In the last three decades, most of the family planning interventions have focused on unmet needs of women. As such, a response to such assumption is the great investment by stakeholders on developing various modern contraceptive methods for females (Westoff and Bankole, 1995).

In recent times, there is an increasing body of literature about the role of men in contraceptive use (Bankole et al, 2009; Oye-Adeniran et al, 2005, Odu OO et al, 2006). These studies came about as a result of the inconsistency observed with women's inability to match their reproductive intention with reproductive goals despite all the focus on them (Dodoo, 1998). These studies acknowledged that men in developing regions such as in the Sub- Saharan Africa make most of the decisions that shape family formations and as such, the assumption that the use of contraceptives and pregnancy prevention are domains for women alone is only painting the picture from one perspective. The evident mismatch in the fertility intention and fertility outcome of women is because of the great influence that men have on family decision. Since the males are influential when it comes to decision making in households, there is a need to focus studies on males especially with regards to their contraceptive use. The reason for this is because ambivalence in women's fertility intention is evident and fertility levels continue to be high. Therefore, if male reproductive intention often dominates

females, the understanding of how men's fertility intention influences their contraceptive use is vital to fertility outcome in households.

1.4 Research Questions

Is there an association between fertility intention of Nigerian males and their modern contraceptive behaviour?

1.5 Research Objectives

1.5.1 General Objective:

To examine the effect of male's fertility intention on modern contraceptive use among males in Nigeria

1.5.2 Specific Objectives:

1. To describe the modern contraceptive use of the study population by fertility intention and other selected characteristics.
2. To examine the levels and patterns of male modern contraceptive use in Nigeria by selected characteristics of study population.
3. To examine the association between male fertility intention and male contraceptive use controlling for other socio economic factors.

1.6 Justification

Most of the studies on contraceptive use are centered on women and there is evidence of ambivalence in the fertility intention and subsequent contraceptive behaviour of women (Monnier, 1989; Cho, 1978; Withers et al, 2011). A reason for the mismatch in women's fertility intention and contraceptive behaviour of women may be due to the influence of the fertility intention of their male partners. Studies have also shown that males are main decision makers on fertility issues and as such have great impact on the fertility intention and

contraceptive use of their female partners (Agadjanian, 2006; Isiugo-Abanihe 1994, Ezeh 1996, Dodoo 1998). Furthermore, some studies have shown that men's preferences are better predictors of women's contraceptive use than women's (Dodoo 1998; Dodoo and van Landewijk 1996; Bankole and Singh 1998). Given that fertility intention of men often dominate in their female partner's contraceptive use and fertility intention in households (Ibisomi & Odimegwu, 2011; Govinda et al, 2008; Dodoo et al, 1997), could the fertility intention of males therefore predict their contraceptive use in households? This study seeks to examine the association between fertility intention and contraceptive use among males in Nigeria. It will also contribute to the existing body of knowledge on reproductive health issues in Nigeria because if the fertility intention of males has an effect or corresponds to their modern contraceptive use, the implication is that since the males are dominant forces in decision making, programmes will be needed to educate men to embrace small family sizes.

CHAPTER 2

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.0 Introduction

Fertility model in Sub Saharan Africa has continued to perplex demographers by defiling theories on issues of population dynamics. With evident fertility decline in several Asian and Latin American countries, these regions are known for high fertility, fertility has remained high in Sub Saharan Africa. Although some countries like Zimbabwe, Ghana and Kenya initially has shown substantial decline in fertility, the trend stalled as high fertility level is now evident in this countries (Bongaarts, 2006). As fertility remain high and lack of progress in the pace of fertility transition in Sub Saharan Africa, some studies have shown that the quest for smaller family sizes is increasing in the region. Despite the increase in demand for small family sizes, effective contraceptive use is low and the level of unmet need is still high. So, due to low use of contraception among other reasons in many of these countries, the number of children partners are having is greater than what they want to have (Sedgh G et al, 2007). What could then be the reason for this failure to respond to actual fertility despite the emergent evidence that quest family size is been embraced in the region?

Different reasons have been suggested and one of them is the impact of HIV/AIDS on child mortality. This implies that some partners desire to have lesser number of children but the presence of HIV is making them to have higher number of children than desired with the mind-set that they may lose some of their children to this disease. Another school of thought argued that the shortage of modern contraceptive methods in most of the Sub Saharan African countries is the reason why partners are not able to regulate their fertility as desired (Gregson, et al, 2002). Increased use of contraceptives has an effect of fertility by reducing the number of unwanted fertility.

There are different types of contraceptives which can be broadly categorized as modern (effective) and non-modern (ineffective) methods. Modern methods of contraception include sterilization for male and female, pills, Intra-Uterine Devices (IUDs), male and female condoms. Others are injectables, implants (including Norplant), and vaginal barrier methods. Non-modern techniques of contraception include periodic abstinence, withdrawal method, lactation amenorrhea method (LAM) and folkloric methods. All of these contraceptives methods are used mainly as preventive measures of except male and female condoms. Condoms have a two way function of pregnancy and sexually transmitted infections prevention (WHO, 2009).

2.0.1 Contraceptive Use

The use of contraceptive is inevitable for those who are in their reproductive ages whose intention is to postpone a birth or who do not want any more children, and those who are not ready for a birth at all. However, those who are faced with a contraceptive need may choose from a variety of contraceptive method and may as well decide not to use a method (Rindfuss et al, 1989). Proximate determinants of fertility includes contraceptive use and these determinants of fertility are behavioural variables through which socio-economic and other biological variables work to influence fertility rate in a population (Bongaarts 1987, 1978). In countries in which fertility reduction is prominent, evidences have shown that various fertility reducing variables are thought to be responsible for this population decline (Cohen, 1998), and among these fertility reducing variables, modern contraceptive use is the main factor affecting inter country variation when these countries are compared (Kirk and Pillet, 1998).

Family planning acceptance in Africa region has for long been low and the low contraceptive prevalence can be said to have influenced the resulting high fertility rates in Sub Saharan Africa compared to other parts of the globe. World Bank in 2009, reports that the average number of births for woman in Sub-Saharan Africa was (5.1). This statistics shows that

average number of births per woman in Africa is more than doubled as much in South Asia with (2.8) or Latin America and the Caribbean with (2.2). The contraceptive prevalence (22%) for Caribbean, is almost half that of South Asia with (53%) and less than one- third of what is observed in East Asia with 77% (World Bank Report, 2009); Due to these patterns, Africa's population is growing at a fast rate (2.3%) compared to other regions in the developing world, which includes both some part of Asia and Latin America (1.1% each) (UN DESA 2008). Low contraceptive prevalence in Sub-Saharan Africa has been attributed to high cultural and religious influence which promotes resistance to family planning practice (Caldwell and Caldwell 1987). Although contraceptive usage increased in some African countries, the increase that is observed is very modest.

The Contraceptive Prevalence Rate (CPR) which is the proportion of women of reproductive ages who uses modern contraceptive methods differs across Sub-Saharan African countries (UNDP, 2009). It ranges from the lowest 1.2% in Somalia to the highest 60.3% in South Africa. Southern African countries like South Africa and Zimbabwe have the highest uptake of modern contraceptive, followed by countries from East Africa with Kenya at 31.5% leading the sub-region. Western and Central African countries reported very low rates of family planning uptake. Low contraceptive prevalence rates in the world can be observed in this sub-region with Chad with at 1.7%, Niger 5%, Nigeria 9.1% and Central African Republic with 8.6% (UNDP, 2009). It is imperative to study factors that predict modern contraceptive use in one of these countries with low contraceptive prevalence; in this case - Nigeria. Emphasis will be laid on whether the fertility intention of males especially influences their use of modern contraceptives.

This literature review comprises four parts. The first part is fertility intention factor. The second part is socio-economic factors; the third part is socio-demographic factors while cultural factor is in the fourth part.

2.0.2 Fertility Intention

Researchers have attempted to look into fertility preference of different populations and in the course of doing this; several measures have been used to derive their hypotheses. The form and the interpretation of the questions being asked respondents brought about different labelling of the questions. Measures like desired family size, ideal number of children, fertility preference, desire for additional children and fertility intention have been used in surveys. Some of these questions require the respondents to answer retrospectively while others are to be answered prospectively. Some of these measures have their perceived flaws as regards fertility measurement indicators. For example, desired family size refers to the number of children that the respondent would have had irrespective of the number he/she already has. This is more of a retrospective question and this may lead to some bias due to the fact that most respondents may state desired family size that is close to their number of living children (Bongaarts, 1990).

Questions about desire for another child which is often referred to as fertility intention are generally thought to have less error since it is a prospective response. According to Bongaarts, questions on if an individual wants another child which he referred to as fertility or reproductive intention and dubbed fertility preference in the Demographic Health Survey questionnaire are relatively unbiased, though not completely free of error. The explanation for some of the expected error in response is because respondents may misinterpret the question and also chances are high that respondent who want to have child spacing for five years may behave like those respondents who want to stop child bearing (Bongaarts, 1990). However, the use of fertility intention in studies regarding contraceptive to see its influence on contraceptives use can be held as valid since contraceptive use has been noted to be more prevalent especially couples want to limit childbearing or want to space their children (Bongaarts, 1992). Furthermore, studies have shown that there is an association between

fertility intention and contraceptive use (Feyisetan & Casterline, 2000; Bankole & Singh, 1998).

One of such studies was done by Feyisetan and Casterline in 2000. They examined 22 Latin American, Asian and African countries in the period between 1970 and 1990 by applying regression decomposition techniques, and using the World Fertility Survey and the Demographic and Health Survey data. They found that increase change in contraceptive prevalence is due to changes in fertility intention. Changes in preference accounted for more of the increase in contraceptive prevalence in Africa more than in other regions (Feyisetan & Casterline, 2000).

Another study by Bankole and Singh in 1998, using Demographic and Health Survey data also buttressed the Feyisetan and Casterline study by concluding that reproductive intention is an important predictor of contraceptive behaviour (Bankole & Singh, 1998). Despite the findings in the aforementioned studies which were carried out on women, an alternative study on couples fertility intention and contraceptive use was carried out in Ghana. The study use data from the 1988 Ghana Demographic and Health Survey (GDHS) to investigate the similarity of Ghanaian marital partners' attitudes and preferences about family size, family limitation and adoption of contraceptives. Couples in which the wife did not want any more children tend to be practicing modern contraception than couples in which the wife wanted more children or was uncertain. The study then found out that the male partner’s intention not to have any more children is not associated with his contraceptive use (Salway, 1994). Fertility intention is therefore, an important measure that may influence the use of modern contraceptives.

2.0.3 Socio economic factors

In Sub-Saharan Africa, males have a higher chance to be literate and have better access to education (USAID, 2008). This translates that men are in a better position than women to inform themselves about what is best for the family reproductive health. We therefore ask whether there is evidence that the educational attainment level of males and their modern contraceptive usage are linked in any way. Understanding how education of males influences their behaviour and reproductive decisions in the household is important since education accounts for trends in various demographic dynamics. Some studies have shown a significant relationship between education and contraceptive use (Ezeh 1993; Cochrane 1997). The result of a study by Ezeh in 1993, which made use of data from 1,010 matched husband-wife pairs in the Ghana Demographic and Health Survey 1998 (GDHS), suggested that husbands on the average have more education than their wives, and that a man's contraceptive behaviour depends on his level of education. The finding explained that an educated male is more likely to use and approve family planning than an uneducated male (Ezeh, 1993).

In a different study carried out by Cochrane in 1997, it was noted that education was positively associated with birth regulation, increased awareness and use of modern contraceptive methods. The study argues that educated men prefer to have small families because they are more likely to have views and lifestyles that are consistent with lower fertility and higher quality of children (Cochrane, 1997). Amin in 1994 conducted a study on men in Bangladesh and found that education increases contraceptive use and reduced fertility and the pattern of these effects is much higher among educated respondents beyond the primary level as compared with those educated only at primary level and below (Amin, 1994). Occupation is another likely predictor of contraceptive behaviour. A Nigerian study which reveals that desired fertility is lower for women married to husbands employed outside agriculture, when compared to those in the agricultural sector and this in turn affect

contraceptive use by the male (Bankole et al., 1995). The suggested interplay of variables is that the higher the educational level of men, the higher their likelihood to be in high paying jobs which in turn influence their family size and choice of contraceptive method. In other words, occupation is associated with the economic status of men and thus the affordability to purchase contraceptives (Ghosh, 1999). For example, Caldwell, reports that there are different quality of condoms, so the satisfaction that a user will derive from the use of condoms is determined by his or her ability to purchase a better quality of a condom brand (Caldwell, 1987). In Kenya, a study found that male's occupation is positively associated with contraceptive use in which the author concluded that males with higher status occupation have a high propensity to use modern contraceptives (Odhiambo, 1997). The link between education and occupation as important predictors of a man's contraceptive behaviour can be extended to the living standard of a man. Men who have improved living standards are likely to be educated, literate and thus have better knowledge of modern contraceptive methods. Therefore they are more likely to use contraceptives since that they can also afford it. A cross sectional study of men's attitude and participation in family planning were explored statistically using 150 married male respondents currently working in The Islamia University of Bahawalpur in Pakistan. One significant factor that influenced male contraceptive use was income level. The size of the study population may not be convincing to infer on conclusively, this study however has provided some perspectives on the role and responsibility of males in family planning (Abdul et al, 2010).

According to the authors, evidence of distribution of income in the setting shows that the average annual household (6.1 average number of members that are dependent on respondent) was PKR 9893 (9893 Pakistani rupees) which approximates to US$ 10 (Ten US Dollars per month). The study found that the use of contraceptives among the male employees whose income is more than PKR 10,000 is 3.52 times more as compared to other

low income employees (Abdul et al, 2010). To corroborate this finding, other studies have shown that contraceptive use is positively associated with wealth status (Jejeebhoy, 1995). Some studies on women have also found that rich women were more likely to use effective contraceptive methods when compared to poor women (Creanga et al, 2011) and in line with this, Kanazawa suggests that although higher status groups have a higher sexual frequency but more contraceptive use prevents this frequent coition from being translated into higher fertility (Kanazawa, 2003).

2.0.4 Socio demographic factors

Number of living children a person has can have an influence on modern contraceptive use because there is a tendency that the desire for additional children may decrease as number of living children increases. This assumption is based on the fact that economically, world economy is not improving and the cost of raising children in recent times is higher than before although, it is a general belief that men in Sub-Saharan Africa are lovers of children based on different reasons which is mostly cultural. It may be unsafe to say therefore, that because African males are supporters of high fertility that they are less likely to want to limit or stop fertility at some point especially as their parity increases. In reacting to this view, the need to attest to whatever kind of association that exist between the number of living children and contraceptive use, and on what population is imperative to studies around the subject as number of living children is a more direct influence on male contraceptive use (Ringheim, 1993). A study carried out on women in Orissa found that one –third of the women with one child used a method of contraception. That suggests that the use of contraceptives at lower parities is low and therefore concludes that there is an association between the number of living children and contraceptive use. Furthermore, the modern contraceptive uptake increases with number of living children (Sahoo, 2007).

A landmark study was done in 1977; American University in Cairo conducted interviews with 22,799 women aged 15 to 44 living in 38 rural villages who were married in Egypt. Contraceptives were made available through by distribution to households. These women were offered oral contraceptives free of charge and nine months later, they were again interviewed and a definite pattern emerged. Overall contraceptive use increased with number of living children. However, sex composition of the number of children also has an influence on the uptake of contraceptives. Among women who were not using contraceptives before the program, those with more sons were more likely to start using contraceptive and were more likely to continue use for a period of nine months after the distribution (Gadalla et al, 1985). Although this study was done on women, it is still a pointer to the fact that there is an association between the number of living children and use of contraceptive. This study although was carried out on women, in a different study in Nepal on 1041 married males using the Nepal DHS 2001. Couple dataset was used and multinomial logistic regression analysis. These males were of ages 20 or more who had at least one living child and did not want another child. The main objective of the study was to examine if the sex and number of living children could influence modern contraceptive use. The result shows that the chances of using permanent or modern contraceptive methods was highest among men who had at least two living sons and lowest among the men who had daughters only. The result further showed that the likelihood of using no method was highest among those who had only daughters irrespective of the parity. Men who report a desire to have no more children are likely to choose permanent methods only after they have two living sons (Dahal et al, 2008). Place of residence is often used to explain variation in factors about demographic and population studies. The fact that infrastructures are not evenly distributed across a space may affect the accessibility to opportunities which in turn may influence the way of life of the people. For example, Singh and Casterline in 1985 explained that urban dwellers have better

access to education opportunities (Singh and Casterline, 1985) and several studies have established that with increase education, economic status may change and in turn affect reproductive behaviours and contraceptive practice. Islam et al in 1995 found that place of residence has a substantial effect on fertility and contraceptive use by women in Bangladesh. They explained that the differences may be partly attributed to educational attainment and possession of modern objects (e.g. Radio) by urban dwellers which provide exposure to modern ideas and enlightenment on family planning (Islam et al, 1995). Regional variation also exists in regard to contraceptive use because of different socio-cultural pattern and practices (Knodel, et al, 1996). In Nigeria, regional variation in fertility is pronounced and these differences in fertility pattern across the regions may be due to the religiosity and cultural variation (Feyisetan and Ainsworth, 1996).

A Nigerian study interviewed 1,540 respondents from the three main regions namely Northern, Western, and Eastern on their contraceptive use. The analysis shows that different factors significantly affect the choice of contraceptive use in the different regions. Result showed that there were regional variations on factors that influence contraceptive use. Contraceptive use is less practiced in the North compared to other regions. According to the authors, the reason for this disparity is low level of education and awareness in the north and secondly is the regions religious background (Odimegwu et al, 1997). The examination of the association between male contraceptive use and age is important in the studies on contraceptive use. It is expected that younger and older men are likely to have different reproductive objectives. One of the reasons for people in different age bracket to have varying reproductive objectives is that older men probably are holding on to the traditional big family size which may discourage the use of contraceptives especially in developing countries. In contrast, younger males may just be getting into reproductive stage and as such

their contraceptive use may be low because they are likely to still be at lower parities (Dahal et al 2008).

It is important to know that age also influences the method of contraceptive they use. Younger men often opt for the spacing methods if at all they have to use modern contraceptives while the older men go for methods like sterilization as they are more likely to have attained their desired fertility (Ringheim, 1993). A study carried out on Yoruba men on the relationship between age and contraceptive use also found that men of lower age 15 – 24 have high uninterrupted use of contraceptive compared to men in age 34 and above. A reason for this is that men of younger ages are probably still in school and cannot afford the burden of childbearing and as such stick to contraceptive use to prevent unwanted pregnancy (Adewuyi & Ogunjuyigbe, 2003).

There have been mixed findings on the association between marital status and contraceptive use. A cross sectional study among women in a community in Nigeria showed a positive association between marital status of women and contraceptive use (Oye-Adeniran et al, 2006). Marital status was also a significant predictor of contraceptive use in a study carried out by Ankomah et al in 2011 in Nigeria (Ankomah et al, 2011). Ringheim in 1993 also found that most men believe that men should share fertility regulation responsibilities with their partners, but only a small proportion do so. He explained that limited contraceptive choices for men may also explain this inconsistency (Ringheim, 1993). It is important to explore how this predictor influences the contraceptive use of Nigerian males.

2.0.5 Socio Cultural factors

A body evidences exist which demonstrates that use of contraceptives is associated with religious and belief of individuals (Warwick, 1986; Coale, 1986; Lesthaeghe, 1980).

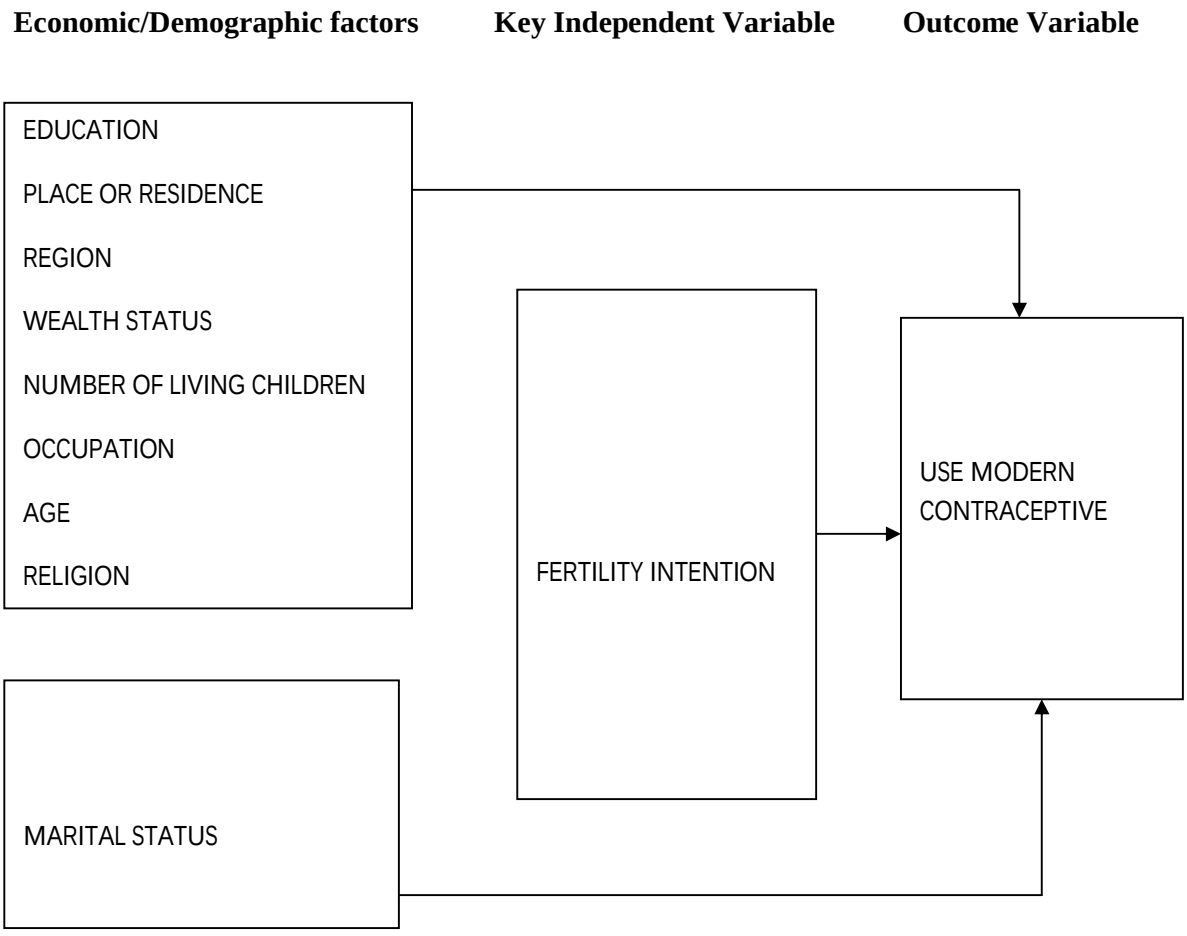
Religious affiliations affect customs and practices of individuals regarding general norms which include modern contraceptive use. The belief system that is propagated by a specific religion influences even the contraceptive method to be used. For instance, sterilization is not an acceptable contraceptive method among Muslims and Catholics (Ringheim, 1993). According to Warwick, most times religious values create an important barrier for family planning practices (Warwick, 1986) and a study by Jones and Dreweke found that some individuals view the use of contraceptives as unacceptable due to their religious belief. For example contraceptive use is strongly opposed to by the doctrines of the Catholic Church and some other socially conservative religious organizations including Islamic fundamentalist (Jones and Dreweke, 2011). There have been mixed reports on how religion affects contraceptive use in a population depending on the religious composition of that particular population.

A study in Ghana by Tawiah in 1997, the study surprisingly found that socio cultural variables such as religion and ethnicity do not have any significant effect on current use of contraceptives. A possible explanation is that, once a person attains a higher educational status, his ethnicity and religious affiliation does not significantly influence his current contraceptive use (Tawiah 1997). Contrary to this evidence, a study done on Nigerian males from the Yoruba ethnic group found that men who are Catholics had a significant lesser odds of using modern contraceptives when compared to men that were Muslims (Adewuyi & Ogunjuyigbe, 2003).

2.1 CONCEPTUAL FRAMEWORK

This study aims to examine the association between fertility intention among men in Nigeria and their contraceptive use. The review of several literatures revealed some of the important factors that influence contraceptive behaviour. This includes socio-demographic and socio-cultural.

Figure 2: Conceptual framework showing the model selecting factors affecting contraceptive use.



Built by Author

2.2 Hypotheses Testing

The hypothesis for this research is:

Men in Nigeria who do not want a/another child are more likely to use modern contraceptives methods. This is based on the premise that, in Nigeria, males are the main decision maker in issues relating to family planning in households. The intention of a male often dominates that of his partner. As such, if a man does not want another child, the chance of him using modern contraceptive is high (Ibisomi & Odimegwu, 2011).

CHAPTER 3

METHODOLOGY

3.0 Introduction

This chapter discusses the methodology used for this study. The study population and the source of data were looked at. Sample design and questionnaire design was also discussed. Data management was also highlighted. The chapter concludes with data analysis plan and limitation of study.

3.1 Data Source

This is a secondary data analysis using the 2008 Nigerian Demographic and Health Survey male data. The data was collected by the National Population Commission from June to October 2008 with a representative sample of more than 36,000 households. Women aged 15-49 in these households and men age 15-59 in a household were interviewed. The 2008 NDHS is a survey after previous three surveys in 1990, 1999, and 2003. These surveys provide current information on demographic and health indicators of a population. In addition, the 2008 NDHS also collected information on domestic violence.

The male dataset was used for this study. The reason for using the male dataset is because studies have showed that men were the people behind upholding most of these cultural norms that has placed women as second fiddle in the determination of fertility outcome in household. Furthermore, some studies have shown that men's preferences are better predictors of women's contraceptive use than women's (Dodoo 1998; Dodoo and van Landewijk 1996; Bankole and Singh 1998).

3.2 Study Population

Men interviewed for the 2008 Nigerian Demographic and Health Survey on family planning and a total of 15,486 males were interviewed.

3.3 Study Sample

The study used were all males aged 15-59 who are sexually active (who had intercourse in the last four weeks or a month). This is because conception can take place within a month after having an intercourse. To arrive at this sample, 3391 males who had never had sex were excluded. 9 males who did not give response were excluded while 4260 males who didn't have recent sexual activity as at the time of survey were also excluded. Therefore, 6486 males formed the analysis sample for this study.

3.4 Sample Design

Nigeria is a country with 30 states and a federal capital territory (FCT). Each state is subdivided into local government areas (LGAs), and each LGA is further divided into localities. 774 recognized local government areas (LGAs) are in the country. During the 2006 Nigerian Population Census, each locality was categorized into what was called census enumeration areas (EAs). These EAs then became the primary sampling unit (PSU), which was referred to as cluster for the 2008 NDHS. The 2008 NDHS sample was selected using a stratified two-stage cluster design comprising of 888 clusters with 286 and 602 in urban and rural areas respectively.

36,800 households were chosen to participate in the 2008 NDHS survey, with about 950 completed interviews each state.. All women age 15-49 and men age 15-59 who were either permanent resident of the households as at the time of the survey or visitors present in the households on the night before the survey were qualified to be interviewed. Global

Positioning System (GPS) receivers were used to take the coordinates of the 2008 NDHS sample clusters (NPC & ICF Macro, 2008).

3.5 Questionnaire design

Three questionnaires used for this survey are Household, Women's, and Men's Questionnaire. These questionnaires were framed to reflect the demographics and health matters that are relevant to Nigeria. In addition to English language, the questionnaires were translated into three major local Nigerian languages namely Hausa, Igbo, and Yoruba.

The Women's Questionnaire was used to collect information on all women age 15-49 on various reproductive health issues. The Men's Questionnaire collected similar information as in the Women's Questionnaire, but was brief because it did not require questions on maternal, child health and nutrition (NDHS 2008;NPC & ICF Macro, 2008).

3.6 Data Management

The dependent variable which is current contraceptive use was re-coded by combining the no method, folkloric and traditional method of current contraceptive variable into the "not using modern contraceptive" (0) while the modern method remains "using modern contraceptive" (1). The reason for this categorization is because contraceptive methods other than the modern methods are regarded as ineffective. This justifies why the men that were not using any method were added to men who used folkloric and traditional methods to form the not using modern method group. This study then used binary logistic regression as a technique that suits the model since the outcome variable is two categories.

For the key independent variable (fertility intention) Out of 6,486 sexually males who responded to questions on fertility intentions, 74 Males who are sterilized, 20 who were declared Infecund and were left out of the sample. The men who want another child but unsure of timing were added to the males who want a child within two years. This resulted into the following categories namely want another child within 2 years (1), want another

child after 2 years (2), undecided (3) and the last category is those men who do not want another child (4).

With regards to the marital status variable, there were three categories namely never married, currently married and formerly married.

For education variable, there were three categories namely no education, those with primary education, and the third category was re-coded by adding secondary education to higher education. Religion variable was re-coded by making traditionalist and other religion as "Others". The other categories are Catholics, other Christians and Muslims.

The age variable was re-coded into 4 groups while place of residence remained as urban and rural. Also, the region variable remained as it was with six regions. South West was made the reference category because this region has the highest percentage of males using modern contraceptives (NDHS, 2008).

The wealth status was re coded by combining the poorest and the poorer into the poor category, the rich and the richer was also summed up to form the rich and the middle class remain as middle class. The number of living children was a continuous variable and it was re coded into four categories which are no children, 1-2 children, 3-4 children and the last group are those with 5 or more children.

The occupation variable was re-coded into four categories namely: not working which remained as it was in the original data. The next category comprises professional which also remained unchanged. The categories for services, clerical and skilled manual were put in a group to form the third group while the fourth group has manual unskilled, sales and agric employee.

Table 1: Variables Definition of 2008 NDHS used in this study

Variable Name/Code	Original variable Categories	Recoded Variable Categories
Dependent Variable: Contraceptive use Mv313	No method Folkloric method Traditional method Modern method	Not using Modern contraceptive method Using Modern contraceptive method
Independent Variables: Key Independent variable: Fertility Intention Mv605	Wants within 2 years Want after 2 years plus Wants, unsure timing Undecided Wants no more Sterilized Declared Infecund Never had sex	Have another child within 2 years Have another after 2 years Undecided Want no more child
Marital Status Mv502	Never married Currently married Formerly married	Never married Currently married Formerly married
Education Mv106	No education Primary education Secondary education Higher education	No education Primary education Secondary and Higher
Religion Mv130	Catholic Other Christian Islam Traditionalist Others	Catholic Other Christian Islam Others
Age Mv013	15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59	15-24 25-34 35-44 45+
Place of residence Mv025	Urban Rural	Urban Rural
Region Mv024	north central north east north west south east south south south west	south west north central north east north west south east south south
Wealth status Mv190	Poorest Poorer Middle Richer Richest	Poor Medium Rich
Number of living children Mv218	Continuous Variable 0 – 37 children	0 1-2 children 3-4 children

		5 +
Occupation Mv717	Not working Prof; tech, manag Clerical Sales Agric-employee Services Skilled manual Unskilled manual	Not working Professional Clerical/ service/skilled manual Others

3.7 Data Analysis

This study conducted analysis at three levels. The first level is bivariate descriptive, followed by bivariate analysis and multivariate analysis. These three levels of analysis are:

1. Bivariate descriptive analysis was done to show frequency distribution of selected characteristics of the study population by modern contraceptive use.
2. Binomial logistic analysis was done to examine the unadjusted relationship between fertility intention and each of the other independent variable with modern contraceptive use.
3. Binomial logistic regression was done to examine the adjusted relationship between fertility intention and contraceptive use.

The model used,

$$\ln (p / 1-p)= \beta o + \beta_1 X_1 + \beta_2 X_2 ..... \beta_k X_k + e$$

ln (p/1-p)= Dependent/Outcome variable

Bo= Intercept

B1= Regression Coefficient

X1= Independent Variable

E=Error

The analysis of the data was done using stata statistical software Version 12. All tests were done at 5% significance level and at a confidence interval of 95%.

3.8 Limitations of the Study

This study is not without some limitations. Firstly, this is a cross sectional study and so since predictors and outcomes are measured simultaneously; it is not possible to know whether the factors preceded the occurrence of the outcome. Logistic regression cannot therefore determine the causal relationship between fertility intention and contraceptive use, but rather will allow for the describing of the variables associated with contraceptive use. This limitation is a general limitation of cross sectional study design. Secondly, the study did not exhaust all the factors that can influence modern contraceptive use; that is there are some other socio economic and demographic variables can could affect contraceptive behaviour of males in Nigeria.

Third, the study sample is men who are sexually active and participated in the family planning module of the male questionnaire. These respondents have to recall information which leaves room for error in reporting the sexual activity and contraceptive use.

CHAPTER 4

RESULTS

4.0 Introduction

This chapter presents the results of the analysis that was carried out in this study. It begins with percentage distribution of current contraceptive use of men by selected characteristics. This is followed by unadjusted and adjusted analysis to examine the association between fertility intention and other selected characteristics of men and contraceptive use among males.

4.1 Univariate Analysis

Results from the univariate analysis describe the demographic and socio-economic characteristics of the study population by contraceptive use as shown in table 2. These include the characteristics of the 583 sexually active males who used modern contraceptives.

Table 2: Percentage distribution of current contraceptive use of men by selected characteristics, Nigeria 2008

Independent Variables	Not Using Modern Contraceptives (%) N=5903	Using Modern Contraceptives (%) N=583
Fertility Intention:		
Want children within 2 years	47.83	25.63
Want children after 2 years	33.11	36.31
Undecided	7.49	6.99
Want no more children	11.57	31.07
Education:		
No education	38.69	8.40
Primary education	24.17	22.30
Secondary/Higher education	37.13	69.30
Age:		
15 – 24	5.23	4.80
25 – 34	49.16	52.49
35 – 44	28.32	28.82
45+	17.28	13.89
Region:		
South West	11.06	35.33
North Central	15.65	23.50
North East	24.63	8.06
North West	31.20	6.00
South East	6.12	8.06
South South	11.33	19.04

Place or residence:		
Urban	25.89	49.23
Rural	74.11	50.77
Religion:		
Catholic	7.01	11.00
Other Christian	29.64	60.31
Muslims	61.43	26.46
Others	1.92	2.23
Wealth Status:		
Poor	51.36	19.90
Middle	17.86	17.50
Rich	30.78	62.61
Occupation:		
Not working	0.96	2.42
Professional	8.39	20.38
Clerical/services/skilled manual	24.44	37.48
Others	66.21	39.72
Number of living children:		
0	10.49	6.86
1-2 children	26.83	30.36
3-4 children	25.06	31.05
5+ children	37.62	31.73
Marital Status:		
Never married	0.00	1.89
Currently married	100.00	97.94
Formerly married	0.00	0.17

Table is a summary of the bivariate descriptive analysis which shows the characteristic of men by contraceptive use in Nigeria.

Table 2 indicated that there were a total of 6486 males in Nigeria who were sexually active in the last one month. The distribution of the men using modern method of contraception shows that 9% of these males use modern methods. Of the men who used modern contraceptive, 31.07% wanted no more children, 6.99% were undecided, 36.31% wanted children after two years and 25.63% wanted another child within two years. It can be seen that men who want to space child birth are most in this study sample. The socio economic variable education indicated that about 70% of the sexually active males who use modern contraceptive had higher level of education.

In terms of age distribution, the result indicated that over half of the males who use modern contraceptives are between the ages 25-34 years. Males who use modern contraceptive, 49.23% resided in urban areas while 50.77% resided in rural area. Men that were using

modern contraceptives in terms of religion, 11.00% were Catholics, 26.46% were Muslims while 2.23% were from other religion. Results further showed that over 60% of men who use modern contraception are from other Christian bodies. Amongst the males who were using modern contraceptive methods, 19.90% were poor, 17.50% were in the middle class and 62.61% were in the rich category.

Amongst sexually active men who used modern contraceptives, 23.50% were in North Central region, 8.06% in North East, 6.00% in North West, 8.06% in South East and 19.04% from South South while 35.33% in South West. This result shows that males in the South West region have the highest intake of modern contraceptives.

Table 2 further showed that sexually active males who responded on their occupation, about 9% of these men used modern contraceptives. 2.42% were not working, 20.38% were professionals, and 37.48% do clerical, services and skilled manual while 39.72% were agric employees, unskilled manual workers. Distribution is fairly the same among men that have living children. Meanwhile, men who were using modern contraceptive, 1.89% were never married, 97.94% were currently married and 0.17% were formerly married.

Table 3: Unadjusted and adjusted odds ratios of association between fertility intention and other selected characteristics of men and contraceptive use among males in Nigeria.

Dependent Variable	Unadjusted		Adjusted	
	Odds Ratio (OR)	[95% CI]	Odds Ratio (OR)	[95% CI]
Fertility Intention: (Key Independent variable)	^			
Want child within 2 years (RC)	1.00		1.00	
Want child after 2 years	2.046 *	1.625 - 2.576	1.6159 *	1.262 - 2.068
Undecided	1.743 *	1.189 - 2.552	1.6971 *	1.115 – 2.582
Want no more child	5.010 *	3.921 -6.431	2.8998 *	2.146 - 3.917
Education:	^			
No education (RC)	1.00		1.00	
Primary education	4.246 *	3.0372 -5.9369	1.5821 *	1.042 – 2.400
Secondary/higher education	8.590 *	6.3502 -11.6222	1.8998 *	1.259 – 2.864
Age:	^			
15 – 24 (RC)	1.00		1.00	
25 – 34	1.1636	0.7766 - 1.7435	0.7576	0.449 - 1.277
35– 44	1.1088	0.7299 - 1.6843	0.4516 *	0.254 - 1.801
45+	0.8763	0.5598 - 0.3718	0.3738 *	0.200 - 0.698
Region:	^			
South West (RC)	1.00		1.00	
North Central	0.4699 *	0.3703 - 0.5963	0.6330 *	0.483 - 0.829
North East	0.1024 *	0.0736 - 0.1425	0.1914 *	0.125 - 0.299
North West	0.0602 *	0.0416 - 0.0871	0.1398 *	0.087 - 0.223
South East	0.4127 *	0.2931 - 0.5809	0.4167 *	0.283 - 0.612
South South	0.5259 *	0.4076 - 0.6785	0.3979 *	0.294 - 0.537
Place of residence:	^			
Urban (RC)	1.00		1.00	
Rural	03602 *	0.3031 - 0.4280	0.7577 *	0.598 - 0.959
Religion:	^			
Catholic (RC)	1.00		1.00	
Other Christian	1.2971	0.9732 - 1.7286	1.2795	0.912 - 1.793
Muslim	0.2745 *	0.2016 - 0.3738	0.6969	0 .468 - 0.037
Others	0.7405	0.3938 - 1.3926	1.0562	0.501 - 2.223
Wealth Status:	^			
Poor (RC)	1.00		1.00	
Middle	2.5294 *	1.9210 - 3.3305	1.3675	0.983 - 1.902
Rich	5.2506 *	4.0034 – 6.5220	1.3997 *	1.002 – 1.955
Occupation:	^			
Not working (RC)	1.00		1.00	
Professional	0.9593	0.5161 - 1.7818	2.1307	0.843 - 5.384
Clerical/service/skilled man	0.6057	0.3314 - 1.1067	1.8416	0.741 - 4.572
Others	0.2369 *	0.1299 - 0.4320	1.4065	0.563 - 3.512
Number of living children:	^			
0 (RC)	1.00		1.00	
1-2 children	1.7292	1.2118 – 2.4673	2.4056 *	1.520 – 3.807
3-4 children	1.8938	1.3278 – 2.7010	2.4942 *	1.547 - 4.021
5+ children	1.2890	0.9054 – 1.8350	2.3444 *	1.406 - 3.907

1.00 = Reference Category, *p<0.05 denotes significance as the test were run using 95% significant level. ^ is overall significance of variable.

4.2 Bivariate Analysis

This section presents bivariate analysis between fertility intention and other selected characteristics of the males and modern contraceptive use.

Table 3 presents the results from unadjusted logistic regression of factors associated with modern contraceptive use. Finding indicates that men that want a child after two years have significantly increased odds of using modern contraceptives (2.04) when compared to men who want another child within two years. Men who do not want another child are five times more likely with the odds of (5.01) to use a modern contraceptive compared to men who want another child within two years and it is significant.

With education it is apparent that in comparison to men who have no education, men with primary education are four times likely to use modern contraceptives with the odds of (4.24). Men who have reached secondary and higher education are eight times more likely to use modern contraceptives with a significant odd of (8.59) in Nigeria.

Table 3 further shows that men of ages 45+ have lesser odds of (0.87) of using modern contraceptives in comparison with men of ages 15-24 years. The result further shows that men in the North Central have lower odds (0.46) of using modern contraceptives compared to men in the South West. Men who are in North East have lower odds (0.10) of using modern contraceptives compared to men who are in South West. Also, men who are in North West and have lower odds (0.06) of using modern contraceptives compared to men who are in South West. Men in the South East and South South also have lesser odds (0.41) and (0.52) respectively of using modern contraceptives compared to men who are in South West. All the odds are significant. Results also indicate that men who reside in rural areas are less likely to use modern contraceptive with the odds of (0.36) compared to men who live in urban areas.

The religion variable in Table 3 indicates that men in Nigeria who are Muslims experience 73% decreased chances of using modern contraceptive in comparison to men who are Catholics. In continuation, men who are from other Christian religion are more likely to use modern contraceptives with odds of (1.29) compared to their Catholic counterparts.

Men in the middle wealth index are two times more likely to use modern contraceptives with a significant odd of (2.52) compared to men who are poor. Also, rich men are five times more likely to use modern contraceptives in comparison to poor men with the odds of (5.25). Other results show that men who work as clerical, skilled manual and service providers have lesser odds (0.60) of using a modern contraceptive compared to men who are not working. Professionals also have lesser odds (0.95) of using modern contraceptive methods compared to males who are not working. The men that have other kind of jobs also have a lesser chance with odds of (0.23) of using modern contraceptive and these results are significant. At bivariate level, number of living children shows some association but it was not significant.

4.3 Multivariate Logistic Analysis

Table 3 shows results of the adjusted odds ratio, 95% confidence interval and associated p-values for the factors that predict modern contraceptive use among males in Nigeria. The Pseudo R^2 is 19.4 which mean that about 19% of the variability was explained. That is, there are other factors that could influence modern contraceptive use in Nigerian males. Based on the results from the logistic regression shown, after controlling for other factors, result indicates that there is a positive association between fertility intention and modern contraceptive use. Men that want a child after two years have significantly increased odds of using modern contraceptives (OR=1.6159, 95% CI=1.262,2068; $p<0.001$) when compared to men who want another child within two years. Men who do not want another child are two times more likely with the odds of (OR=2.8998, 95% CI=2.146,3.917; $p<0.05$) to use a modern contraceptive compared to men who want another child within two years and it is

significant. Men who are undecided have (OR=1.6971, CI=1.115, 2.582; p<0.001) higher odds of using modern contraceptive compared to men who want another child within two years.

Education also emerged as an important factor that influenced modern contraceptive use. There is a positive association between education and modern contraceptive use, result show that in comparison to men who have no education, men with primary education have a higher chance of using modern contraceptives with the odds of (OR=1.5821, CI=1.042,2.400; p<0.05). Men who have reached secondary and higher education are two times more likely to use modern contraceptives with a significant odd of (OR=1.8998, CI=1.259,2.864; p<0.05) in Nigeria.

Table 3 also shows a negative association between ages of the men and modern contraceptive use. Men of ages 25-34 have significant lesser odds of (OR=0.7576, CI=0.449, 1.227; p>0.05) of using modern contraceptives in comparison with men of ages 15-24 years although it is not significant. Men of ages 35-44 also have lesser odds (OR=0.4516, CI=0.254, 1.801; p<0.05) of using modern contraceptives compared to men of ages 15-24 and it is significant. Men of 45 years and above also have a lesser odd (OR=0.3738, CI=0.200, 0.698; p<0.05) of using modern contraceptive compared to men of ages 15-24. It is also significant.

The result further shows that men in the North Central have lower odds (OR=0.6330, CI=0.483, 0.829; p<0.05) of using modern contraceptives compared to men in the South West. Men who are in North East have lower odds (OR=0.1914, CI=0.125, 0.299; p<0.05) of using modern contraceptives compared to men who are in South West. Also, men who are in North West and have lower odds (OR=0.1398, CI=0.087, 0.223; p<0.05) of using modern contraceptives compared to men who are in South West. Men in the South East and South

South also have lesser odds (OR=0.4167, CI=0.283, 0.612; p<0.05) and (OR=0.3979, CI=0.294, 0.537; p<0.05) respectively of using modern contraceptives compared to men who are in South West. All the odds are significant. Results also indicate that men who reside in rural areas are less likely to use modern contraceptive with the odds of (OR=0.7577, CI=0.598, 0.959) compared to men who live in urban areas and it was significant.

Table 3 indicates that men in Nigeria who are from the Muslims experience have a lesser odds (OR=O.6969, CI=0.468, 0.037; p>0.05) of using modern contraceptive in comparison to men who are Catholics. In continuation, men who are from other Christian religion are more likely to use modern contraceptives with odds of (OR=1.2795, CI=0.912, 1.793; p>0.05) compared to their Catholic counterparts while there was no difference between men from the traditional religion and catholic men although this results were not significant (OR= 1.0562, CI=0.501, 2.223; p>0.05). There is a positive association between wealth status and modern contraceptive use. Men in the middle wealth index are more likely to use modern contraceptives with a non significant odd of (OR=1.3675, CI=0.983, 1.902; p>0.05) compared to men who are poor. Also, rich men are also more likely to use modern contraceptives in comparison to poor men with the odds of (OR=1.3997, CI=1.002, 1.955; p<0.05).

Other results show that men who work as clerical, skilled manual and services providers have higher odds (OR=1.8416, CI=0.741, 4.572; p>0.05) of using a modern contraceptive compared to men who are not working. The men that are in other forms of jobs also have a higher chance with odds of using modern contraceptive and these results are significant (OR=.1.4065, CI=0.563, 3.512; p>0.05). Same for men who are professionals, they have higher odds of using modern contraceptives compared to men who are not working (OR=2.1307, CI=0.843, 5.384; p>0.05). All of these results on occupation were not significant.

With regards to number of living children, results show that men with 1-2 children have higher odds (OR=2.4056, CI=1.520, 3.807; p<0.001) of using modern contraceptives compared to men who have no child. Further results show that men with 3-4 children have higher odds of (OR=2.4942, CI=1.547, 4.021, p<0.001) of using modern contraceptives compared to men who have no child while men with 5 and above number of children also have a higher odds of (OR=2.344, CI=1.406, 3.907; p<0.001) of using modern contraceptives compared to men who had no child. These results on number of living children are significant.

CHAPTER 5

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter presented the result of the analysis done in line with the objectives of the study. It was integrated within the context of other literatures about the discus. This gave a more comprehensive view about the factors that was examined and how they tried to explain modern contraceptive use. The chapter concluded with a concise conclusion drawn from the findings as well as some policy and research recommendations.

5.1 Discussion

This study was done with the objective of examining the association between male fertility intention and modern contraceptive use in Nigeria. In this study, male fertility intention was examined in unadjusted and adjusted models in relation to other demographic, socio-economic and socio-cultural variables in order to determine if and how it affects modern contraceptive use. This study used sexually active men (men who had sex in the last one month) who want a child within the next two years as the reference group, since men who want a child within two years are not expected to use contraceptive. The Theory of Planned Behaviour (TBP) was used to guide this study.

Fertility intention is a concept which was derived from a set of questions in the NDHS 2008 survey. Men who were not sterilized were asked if their wives or partners were pregnant. The men who answered yes were then asked if they would they like to have another child or would prefer not to have anymore child. The men who responded that their wives or partners were not pregnant were also asked whether they would prefer to have a/another child or would they prefer not to have any more children. For men whose wives or partners were not

pregnant, they were also asked how long (duration) they were willing to wait before the next birth of a/another child. The question was asked from men whose wives or partners were pregnant. The Nigerian Demographic Health Survey of 2008 reports that about 46% of males want another child within two years, 33% prefer after two years, about 8% are undecided and 13% want no more children (NDHS, 2008) after recoding has been done.

Most of the sexually active males in Nigeria use non modern contraceptive methods. The results showed that 9% of the males use modern contraceptives. This result points to the fact that uptake of modern contraceptives is very low amongst males in Nigeria. Although modern contraceptive methods that are available for males are limited commonly to condoms and sterilization (vasectomy). However, most males do not go for vasectomy especially in Africa and as such, condom use is most probable modern contraceptive for males (WHO, 2012).

The implication of this is that most males engage in unprotected sex since results have shown that male modern contraceptive uptake is low. Therefore the chance of sexually transmitted diseases is high. Also, unwanted fertility will continue to be experienced in Nigeria because of the low modern contraceptive uptake by males. The modern contraceptive use distribution showed that about 31% of men who do not want a child used modern contraceptives. This point to the fact that, males tend to follow their intention and try to match it with corresponding behaviour.

The study confirmed that fertility intention is associated with modern contraceptive use among sexually active males in Nigeria. In concrete terms, this means that one of the main reasons for the use of modern contraceptive by males in Nigeria is if and how it suits their fertility intention. The results of this study underscore the importance of the male perspective on family planning. Their preferences are clearly important predictors of modern contraceptive use in Nigeria. At the bivariate level, the odds were significant and higher.

Sexually active males in Nigeria who do not want any more children were five times more likely to use a modern contraceptive. After controlling for other factors, there was a slight drop in the odds with the men who do not want another child twice likely to use a modern contraceptive and the association was positive.

What this result showed is supported by a wide range of literature including a study by Bankole and Singh, 1998. They used the Ghana Demographic and Health Survey data for women and concluded that reproductive intention is an important predictor of contraceptive behaviour. Although this study was carried out on women, it gives us a base to compare our finding. These findings have some policy implication. It is suggested that the educational system, particularly in countries like Nigeria needs to be broadened to promote messages of benefit of small family sizes to males. Knowing that Nigeria is one the societies where men exercise great control over fertility outcomes in households, reducing male fertility preferences seems to be a realistic option. Whether the men will imbibe the culture of small family sizes constitute some future challenges though.

Education is another significant predictor of contraceptive use. The odds in the adjusted model show that use of modern contraceptives is directly proportional to increased education level. That is the higher the educational level, the higher the likelihood of the males in Nigeria to use modern contraceptives. This finding agrees with Amin study in 1994 who conducted a study on men in Bangladesh and found that education increases contraceptive use and reduced fertility and the pattern of these effects is much higher among educated respondents beyond the primary level compared with those educated only at primary level and below (Amin, 1994). Older males also have a significant different behavioural pattern in comparison to younger males. Older males are less likely to use modern contraceptives may be because older men probably are holding on to the traditional big family size which may

discourage the use of contraceptives while the younger males may just be getting into reproductive stage and as such their contraceptive use may be higher because they are likely to still in school and for spacers because they are at lower parities (Dahal et al 2008).

Men with children are more likely to use modern contraceptives compared to men who have no child/children. This study indicates that number of living children is significantly and positively associated with modern contraceptive use. This agrees with a study carried out by Dahal in 2008 shows that the probability of relying on permanent methods was highest among men who have the number of children that they have although, sex composition of the children could influence the intention to have another child or not which in turn affect the uptake of modern contraceptives.

Place of residence is often used to explain variation in factors in demographic studies. This study result found that men who reside in rural area have a lesser chance of using modern contraceptive. The fact that infrastructures are not evenly distributed across a space may affect the accessibility to opportunities which in turn may influence the way of life style of the people. Finding is similar to the result in a study carried out by Singh and Casterline in 1985 explained that urban dwellers have better access to education opportunities (Singh and Casterline, 1985) and several studies have established that with increase education, economic status may change and in turn affect reproductive behaviours and contraceptive practice. Result further show that men of higher wealth status also show to have a higher chance of using modern contraceptives. This may be because they tend to be educated and live in urban areas.

This study shows that there is regional variation in the use of contraceptives in Nigeria with the Southern region experiencing more use of modern contraceptives while the North of Nigeria use less modern contraceptive. This conforms to a study conducted by Odimegwu et

al in 1997. The study interviewed 1,540 respondents from the three main regions namely Northern, Western, and Eastern Nigeria on their contraceptive use. The analysis shows that different factors significantly affect the choice of contraceptive use in the different regions. Result showed that there were regional variations on factors that influence contraceptive use. Contraceptive use in less practiced in the North compared to other regions. According to the authors, the reason for this disparity is low level of education and awareness in the north and secondly is the regions religious background (Odimegwu et al, 1997). Marital status was highly correlated with number of living children in bivariate and multivariate analysis. This study is different is different because it looked at sexually active males who have had sex in the last one month before the survey.

It can be concluded therefore that fertility intention of sexually active males plays a significant role in modern contraceptive use behaviour in Nigeria. Other significant factors in this study are age, education, number of living children, place of residence and wealth status.

5.2 Conclusion

This study therefore examined the relationship between male fertility intention and contraceptive use in Nigeria in line with the research question. It was found that there is a significant association between male fertility intention and contraceptive use in Nigeria. The findings indicate that male who do not want to have another child are two times more likely to use modern contraceptive compared to men who want a/another child within two years in Nigeria. Men who are undecided are about one and half times more likely to use modern contraceptive when compared to men who want a/another child within two years while men who want to space the next birth have are one and half more likely to use modern contraceptive compared to men who want a/another child within the next two years. This study shows that modern contraceptive use is low among males 9% in Nigeria although the

extent of the low level of contraceptive uptake is accessed from the respondents; it is a representation of the population during the survey in 2008.

With regards to the socio economic and demographic variables, education, age, region, place of residence and number of living children all have significant association on contraceptive use. Occupation, wealth status and religion are found to be less influential on male contraceptive use in Nigeria.

These findings give hope that there is need for men to be targeted in issues relating to family planning.

5.3 Recommendations

Having found that there is an association between male fertility intention and contraceptive use in Nigeria, there are a number of issues that could aid future study around this discuss. It is therefore recommended that:

1. Greater effort and funding should be put into researches to give males more modern contraceptives options. Within the context of modern contraceptives for males, there are limited methods. The most choice for men is the condom. Other methods like vasectomy are expensive and the acceptance of that method by men is scanty especially in sub-Saharan Africa.
2. The content of awareness programs should start focusing on males as they are confirmed as decision makers. It will be important to educate men about the importance and benefit of small family size as a tool to health and socio-economic independence.
3. The determinants of fertility intention as an outcome variable was not the focus of this research, therefore more studies are needed to probe into the factors that inform the male fertility intention. African men are known to be Pronatalist for various reasons,

so a study into what influences their fertility intention will be useful information as it will help in designing content of awareness programme and information dissemination about advantages of small family system in households.

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